

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY**

Defense Distributed,
Second Amendment Foundation, Inc.,
Firearms Policy Coalition, Inc.,
Firearms Policy Foundation,
The Calguns Foundation,
California Association of Federal
Firearms Licensees, Inc., and
Brandon Combs,

Plaintiffs,

v.

Gurbir Grewal, Attorney General of the
State of New Jersey,

Defendant.

No. 3:19-cv-04753-AET-TJB

**Plaintiffs' Notice of Motion for a
Preliminary Injunction**

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**Pro hac vice* motion to be filed

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PLEASE TAKE NOTICE that:

1. On March 20, 2019, Plaintiffs will move for the entry of a preliminary injunction against Gurbir Grewal, New Jersey Attorney General. *See* Fed. R. Civ. P. 65.
2. Plaintiffs will support the motion with their amended complaint and the brief, declarations, and other evidence submitted herewith.
3. Plaintiffs request oral argument.
4. Plaintiffs submit a proposed form of order herewith
5. Plaintiffs request expedited consideration because of the action's extraordinary constitutional concerns, because irreparable injury is occurring now, and because further irreparable injury is imminently threatened.

Date: February 20, 2019

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Oral Argument Requested

Plaintiffs' Amended Brief in Support of a Preliminary Injunction

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SUMMARY OF THE ARGUMENT

In November 2018, the State of New Jersey enacted Senate Bill 2465, a new criminal law. Section 3(*l*)(2) of the law criminalizes constitutionally protected speech that the Plaintiffs would be engaging in right now were it not for the imminent threat of enforcement posed by Attorney General Gurbir Grewal. The Plaintiffs have been censored—their exercise of constitutional rights has been chilled—because of Attorney General Gurbir Grewal’s promise to jail them and anyone else that speaks in violation of the Section 3(*l*)(2) speech crime.

Section 3(*l*)(2) does not criminalize conduct. It criminalizes speech: “digital instructions” that “may be used” to “produce a firearm” with a “three-dimensional printer.” Section 3(*l*)(2) makes it a crime to “distribute” that speech “to a person in New Jersey” (except for manufacturers and wholesalers). The law provides a nearly limitless definition of “distribute”: “to sell, or to manufacture, give, provide, lend, trade, mail, deliver, publish, circulate, disseminate, present, exhibit, display, share, advertise, offer, or make available via the Internet or by any other means, whether for pecuniary gain or not, and includes an agreement or attempt to distribute.”

No medium escapes this new crime. Section 3(*l*)(2) outlaws speech delivered “by any means,” including the sharing of information “via the Internet” and via standard postal “mail.” The crime also extends to rudimentary in-person interactions such as “display[ing],” “present[ing],” and “giv[ing]” information.

All kinds of digital firearms information are censored by this new speech crime. The ban covers both “computer-aided design files” *and* “other code or instructions stored and displayed in electronic format as a digital model.” Moreover, information’s actual use is irrelevant. The crime occurs if information “*may be used*” by a third party in certain activities, regardless of the speaker’s intent.

This law is unconstitutional. It is an extreme act of content-based censorship that has no hope of satisfying strict scrutiny because it is overbroad, underinclusive, ineffective, and lacking a scienter element. It punishes speakers worldwide not because their speech itself does any harm, but because of speculation that their speech may sometimes bear a contingent and indirect relationship to bad acts.

Attorney General Gurbir Grewal is expressly targeting Defense Distributed. He said that this law must be enacted because of “a Texan named Cody Wilson” (Defense Distributed’s founder) and “his supporters.” Section 3(1)(2) was made “to stop them” and to “stop the next Cody Wilson.” With his new speech crime “tool” in hand, the Attorney General threatened Defense Distributed and everyone that they share information with: “we will come after you.” The harm extends to the Second Amendment Foundation’s members, who would both benefit from and republish Defense Distributed’s files but for Grewal’s unceasing threats; and the harm extends to the CodeIsFreeSpeech.com publishers, who republished Defense Distributed’s files while the new speech crime was in effect and would do so again but for Grewal’s unceasing threats.

Irreparable harm of the highest constitutional order will occur if the Attorney General is allowed to enforce Section 3(l)(2) against Defense Distributed, against SAF's members, or against CodeIsFreeSpeech.com. The harm is not just prospective. It is current.

With every passing day, Section 3(l)(2) causes irreparable harm by chilling protected speech and triggering self-censorship. Defense Distributed, SAF's members, and the CodeIsFreeSpeech.com publishers are not the only victims. Anyone who dares speak to another citizen about computer-aided firearm designs is being injured. When Grewal says that "we will come after you," he means everyone.

In this action, Plaintiffs are likely to succeed in having Section 3(l)(2) held unconstitutional and its enforcement permanently enjoined. This is true both as to the First Amendment actions and as to those brought under the Due Process Clause, Commerce Clause, and Supremacy Clause. Until then, the Court should preserve the status quo and prevent irreparable harm by preliminarily enjoining Grewal's enforcement of Section 3(l)(2) against the Plaintiffs.

In addition to its new *criminal* law, Attorney General Gurbir Grewal has for months been acting to censor the Plaintiffs under the color of state *civil* laws. He issued a cease-and-desist letter to Defense Distributed, sued Defense Distributed in state and federal court, and threatened service providers of Defense Distributed in an effort to shut down the speech.

Through these civil legal actions, Grewal has attempted to impose a prior restraint that is just as violative of the First Amendment as is Section 3(l)(2)'s new speech crime. His civil enforcement actions are also bound to be held unconstitutional in this case. They too should be enjoined until the Court issues a final judgment stopping this censorship for good.

“The right to think is the beginning of freedom, and speech must be protected from the government because speech is the beginning of thought.” *Ashcroft v. Free Speech Coal.*, 535 U.S. 234, 253 (2002). Hence, a “law imposing criminal penalties on protected speech is a stark example of speech suppression.” *Id.* at 244. The Constitution is no less offended by suppressive actions that take the form of “informal sanctions.” *Bantam Books, Inc. v. Sullivan*, 372 U.S. 58, 67 (1963). Both kinds of suppression are at issue here and both need to be halted immediately.

The Court should preliminarily enjoin Defendant Gurbir Grewal, in his official capacity as New Jersey Attorney General, from the following:

- (1) enforcing New Jersey Statute § 2C:39-9(l)(2) (New Jersey Senate Bill 2465 § 3(l)(2)) against Plaintiffs,
- (2) directing the Plaintiffs to cease and desist publishing computer files with digital firearms information, and
- (3) directing the Plaintiffs' communication service providers to cease and desist publishing Plaintiffs' computer files with digital firearms information.

STATEMENT OF THE CASE

Plaintiffs' Complaint states the facts. Doc. 1 (hereinafter "Compl."). Plaintiffs adopt that pleading here by reference. *See* Fed. R. Civ. P. 10(c).¹

I. The Plaintiffs publish digital firearms information.

This action has roots in a prior federal action, *Defense Distributed v. United States Department of State*, No. 1:15-CV-372-RP (W.D. Tex.) (hereinafter *Defense Distributed I*). That case concerned the issue of whether federal law lets the State Department halt the online publication of certain digital firearms information.

Defense Distributed, SAF, and the State Department settled *Defense Distributed I* by entering into a Settlement Agreement, Ex. 14, which, among other things, obligates the State Department to alter certain regulations and grant the *Defense Distributed I* Plaintiffs—including Defense Distributed and SAF—a federal license to freely publish digital firearms information. *See* Ex. 26 ¶ 16-17. The State Department did so in July by modifying the regulations, Ex. 16, and issuing the license, Ex. 15.²

¹ The Court should also employ Federal Rule of Evidence 201 to take judicial notice of facts such as other courts' dockets, *see* Exs. 4, 13, 17, 19, 20; *Orabi v. Att'y Gen. of the U.S.*, 738 F.3d 535, 537 & n.1 (3d Cir. 2014), and the contents of pertinent internet websites, *see* Exs. 6, 27, 29, 30-41, 49; *see United States v. Flores*, 730 F. App'x 216, 221 n.1 (5th Cir. 2018) (unpublished) (Haynes, J., concurring); *Kitty Hawk Aircargo, Inc. v. Chao*, 418 F.3d 453, 457 (5th Cir. 2005); *Helen of Troy, L.P. v. Zotos Corp.*, 235 F.R.D. 634, 640 (W.D. Tex. 2006).

² The Department of Justice had long taken the position that such a censorship regime would be unconstitutional. *See* U.S. Dep't of Justice Office of Legal Counsel ("OLC"), Mem. to Dr. Frank Press, Science Advisor to the President, on the

The regulatory changes and license that resulted from *Defense Distributed I* may be *sufficient* to establish the Plaintiffs’ right to share the digital firearms information at issue here. But as a matter of law, they are *not necessary*. The Constitution guarantees the Plaintiffs’ right to engage in the speech at issue. The Plaintiffs can legally do so now *regardless* of whether the State Department acknowledges that right with a regulatory modification and/or license.³

Constitutionality Under the First Amendment of ITAR Restrictions on Public Cryptography (May 11, 1978) (Ex. 42); OLC, Mem. for the Office of Munitions Control, Department of State on the Constitutionality of the Proposed Revision of the International Traffic in Arms Regulations (July 1, 1981) (Ex. 43); OLC, Mem. for the Director, Capital Goods Production Materials Division, Dep’t of Commerce on the Constitutionality of the Proposed Revision of the International Traffic in Arms Regulations (July 28, 1981) (Ex. 44); OLC, Mem. for Davis R. Robinson, Legal Advisor, Dep’t of State, on Revised Proposed International Traffic in Arms Regulations (ITAR) (July 5, 1984) (Ex. 45); U.S. Dep’t of Justice, Report on the Availability of Bombmaking Information (1997) (Ex. 46).

³ In *State of Washington v. United States Department of State*, No. 2:18-cv-1115-RSL (W.D. Wash.), New Jersey and other states are suing the State Department to invalidate the regulatory modification and license issuance that occurred in July 2018. The case concerns whether the State Department complied with the Administrative Procedure Act in performing those actions. The case’s preliminary injunction applies only to the State Department; it does not order Defense Distributed to do or not do anything. Ex. 20 at 25. Even if the states in that case ultimately prevail, the State Department will *not* be barred from complying with the Settlement Agreement. Success for the states in the Washington action means only that the State Department can simply re-perform the regulatory modification and license issuance in accordance with the APA. Indeed, the Settlement Agreement requires the government to perform its obligations thereunder in a manner “authorized by law (including the Administrative Procedure Act).” Ex. 14 ¶ 1(a).

A. All of the Plaintiffs publish digital firearms information via the internet.

Defense Distributed has published digital firearms information to the internet’s public domain for lengthy periods of time on multiple occasions. Indeed, doing so is Defense Distributed’s core mission. *See* Ex. 26 ¶ 4; Ex. 23 ¶ 2. The nature of the digital firearms information that Defense Distributed has published is well-documented. *See* Ex. 26 ¶¶ 4-11, 19-20, 26-27; Ex. 23 ¶¶ 3, 8; Ex. 12; Ex. 6 at 1-2; Ex. 13 ¶¶ 25, 36, 44-45; Ex. 53-57⁴; *see also* *Def. Distributed v. United States Dep’t of State*, 838 F.3d 451, 461 (5th Cir. 2016) (Jones, J., dissenting).

First, Defense Distributed published digital firearms information to the internet’s public domain via its websites (known as “DEFCAD”) in 2012, before *Defense Distributed I* began. *See* Ex. 26 ¶¶ 8-15; Ex. 23 ¶ 3; Ex. 4 at 15-16, ¶¶ 13-16. This publication period lasted from December 2012 to May 2013. *See id.*

Second, Defense Distributed published digital firearms information to the internet via DEFCAD in 2018, after settling *Defense Distributed I*. *See* Ex. 26 ¶¶ 16-25. This publication period lasted from July 27 to July 31, 2018. *See id.*

The digital firearms information that Defense Distributed published on the internet—before and after *Defense Distributed I*—continues to be independently

⁴ Plaintiffs will be submitting Exhibits 56 and 57 to the Court under seal via an appropriate motion. Exhibit 56 is intended to be the document filed under seal in *Defense Distributed I* as docket entry number 37-5, which Defendants’ counsel has received a copy of already. Exhibit 57 is intended to be the book referred to in Exhibit 53.

republished on the internet. Most can be located by a simple Google search. *See* Ex. 24 at 1-2; Ex. 8 at 1; Ex. 28 at 1; Ex. 27 at 10.

Without question, Defense Distributed intends to continue publishing digital firearms information via the internet by making its computer files available for download on DEFCAD. *See* Ex. 26 ¶¶ 3-7, 20, 21, 23, 32; Ex. 27 at 3-5. But Defense Distributed refrains from doing so now for fear of being punished by New Jersey's Attorney General. *See* Ex. 26 ¶¶ 28-32.

The recipients of Defense Distributed's online publications include SAF's members, who refrain from receiving and republishing Defense Distributed's online digital firearms information for fear of being prosecuted by New Jersey's Attorney General. *See* Ex. 21 ¶¶ 7-9; Ex. 22 ¶¶ 6-9. Once the Court issues the relief this motion requests, SAF's members will resume receiving information from Defense Distributed and republishing it. *See* Ex. 21 ¶¶ 7-9; Ex. 22 ¶¶ 6-8.

Similarly, CodeIsFreeSpeech.com has published digital firearms information to the internet's public domain for lengthy periods of time. *See* Declaration of Brandon Combs. From July 31, 2018, to February 2, 2019, CodeIsFreeSpeech.com⁵ republished a variety of Defense Distributed's most prominent CAD file sets. *Id.*

⁵ The CodeIsFreeSpeech project, located online at CodeIsFreeSpeech.com, is a project of Plaintiffs Firearms Policy Coalition, Inc., Firearms Policy Foundation, The Calguns Foundation, California Association of Federal Firearms Licensees, Inc., and individuals, including Plaintiff Brandon Combs.

B. Defense Distributed publishes digital firearms information via the U.S. mail.

Apart from online publications, Defense Distributed has spent the last several months distributing digital firearms information by U.S. mail. In *State of Washington v. United States Department of State*, No. 2:18-cv-1115-RSL (W.D. Wash.), the State Department and the State of New Jersey expressly conceded that Defense Distributed has a right to do just that—to mail digital firearms information without violating any law.⁶

During the Washington action’s preliminary injunction hearing, counsel for the State Department stated that “even if the Court were to grant [New Jersey and the other plaintiff states] every ounce of relief that they seek in this case, Defense Distributed could still mail every American citizen in the country the files that are at issue here.” Ex. 19 at 27:12-15. At that same hearing, counsel for New Jersey’s Attorney General agreed that, apart from internet publication, Defense Distributed had a right to distribute digital firearms information via the mail or otherwise “hand them around domestically” without violating any law. Ex. 19 at 23:5-9.

Thus, ever since both the State Department and New Jersey acknowledged Defense Distributed’s right to do so legally, Defense Distributed has been

⁶ Cf. *Def. Distributed v. U.S. Dept. of State*, 121 F. Supp. 3d 680, 695 (W.D. Tex. 2015) (“As [the State Department] point[s] out, Plaintiffs are free to disseminate the computer files at issue domestically in public or private forums, including via the mail or any other medium that does not provide the ability to disseminate the information internationally.”).

distributing digital firearms information files by mailing them via the U.S. Postal Service. *See* Ex. 26 ¶¶ 5-7, 26-27. Specifically, “Defense Distributed sold digital firearms information by using an ecommerce platform on DEFCAD to facilitate the transaction and using the U.S. Postal Service as its means of delivering the information.” *Id.* ¶ 26. After “customers entered an order using DEFCAD’s online ecommerce platform,” Defense Distributed put the “information on a USB drive or SD card and mailed the drive or card to . . . customers via the U.S. Postal Service.” *Id.* ¶ 27.

For Defense Distributed, SAF, and anyone else interested in digital firearms information, the postal mail alternative to internet publication is not an “adequate substitute[.]” *City of Ladue v. Gilleo*, 512 U.S. 43, 56 (1994). Internet distribution is essential for many reasons. Most importantly, it is essential because it enables the collaborative development of digital firearms information in the public forum now known as the “Open Source Community.”⁷

⁷ The “open-source community” is a “loosely organized, ad-hoc community of contributors from all over the world who share an interest in meeting a common need, ranging from minor projects to huge developments, which they carry out using a high-performance collaborative development environment, allowing the organizational scheme and processes to emerge over time.” Javier Soriano, Genovea López & Rafael Fernández, *Collaborative Development Environments*, in Goran D. Putnik & Maria M. Cunha, I *Encyclopedia of Networked and Virtual Organizations* at 231 (2008) (Ex. 50). “The concept represents one of the most successful examples of high-performance collaboration and community-building on the Internet.” *Id.*; *see also* Georg von Krogh, *Open-Source Software Development*, 44 MIT-Sloan Mgmt.

At present, Defense Distributed refrains from distributing digital firearms information via the mail for fear of being punished by New Jersey's Attorney General. Once that threat ceases, Defense Distributed will resume the distribution of its digital firearms information via the mail by making its computer files available for shipment on physical storage devices, *see* Ex. 26 ¶¶ 4-7, 20, 23, 28-32, and SAF's members will go on to receive and republish it, Ex. 21 at ¶¶ 7-9; Ex. 22 ¶¶ 6-9.

C. Defense Distributed offers and advertises digital firearms information.

In addition to its actual publications via the internet and mail, Defense Distributed also offers and advertises the distribution of digital firearms information to potential recipients. *See* Ex. 26 ¶¶ 6, 26-27. These efforts include advertisements and offers on DEFCAD itself, participation in trade shows, e-mail advertisements, and media advertising efforts. Ex. 26 ¶¶ 6, 26, 32; Ex. 9 at 2.

Out of fear of prosecution by New Jersey, Defense Distributed refrains from continuing to offer and advertise its digital firearms information to persons in New Jersey. Ex. 26 ¶ 32. Once that threat ceases, Defense Distributed will resume making offers and advertisements about the speech that New Jersey's Attorney General seeks to ban. *See* Ex. 26 ¶¶ 4-7, 29-32.

Rev. 3, 14 (2003) (Ex. 47); Eric S. Raymond, *The Cathedral and the Bazaar*, 3 First Monday 3 (1998), <https://firstmonday.org/article/view/578/499> (Ex. 48).

II. Attorney General Gurbir Grewal is censoring the Plaintiffs.

A. Grewal's civil actions erect an informal system of prior restraints.

Apart from and before the enactment of New Jersey's new criminal statute, the New Jersey Attorney General had spent months censoring Defense Distributed and SAF's members with a campaign of civil legal actions that amount to a prior restraint. He is inflicting this system of informal censorship upon Defense Distributed itself, and is also inflicting this system of informal censorship upon the third party website service providers utilized by the Plaintiffs.

This campaign began on July 26, 2018, when the New Jersey Attorney General sent Defense Distributed a cease-and-desist letter. Ex. 3. That cease-and-desist letter claimed that publishing and republishing files on the internet violated New Jersey's "public nuisance and negligence laws." *Id.* at 1. Then it commanded Defense Distributed to stop publishing digital firearms information or else: "If you do not halt your efforts to proceed with publication, I will bring legal action against your company. . . ." Ex. 3 at 1.

Four days later, the Attorney General sued Defense Distributed in a New Jersey state court and sought an *ex parte* temporary restraining order to prevent Defense Distributed's publication of digital firearms information. *See* Ex. 4; *see also* Exs. 9-10. This action, a quintessential prior restraint, was removed to federal court and administratively terminated. Ex. 51.

Additionally, New Jersey’s Attorney General is waging an external campaign to silence the Plaintiffs’ speech by sending coercive legal letters to interactive computer service providers. First, the Attorney General urged Dreamhost, an internet hosting provider, to terminate its service contract with Defense Distributed by deploying threats, coercion, and intimidation—all under the banner of “public nuisance law.” Ex. 5 at 1. Second, the New Jersey Attorney General delivered a similarly threatening, coercive, and intimidating “Legal Request” to Cloudflare, an internet security provider. Ex. 5 at 3.

The New Jersey Attorney General’s own press releases promote these activities as part of a unified and intentional campaign. The cease-and-desist letters, the intimidation of service providers, and the commencement of civil actions are all part of the New Jersey Attorney General’s plan to stop Defense Distributed “from publicly releasing computer files.” Ex. 6 at 1.

B. Grewal is targeting the Plaintiffs with the new speech crime.

Senate Bill 2465 amplified New Jersey’s existing regime of unconstitutional civil actions by creating a new speech crime. The Governor signed Senate Bill 2465 at a public ceremony, flanked by the Attorney General and the bill’s leading legislative sponsor. The statements delivered at this event prove that New Jersey’s

new speech crime was enacted for the purpose of censoring—and eventually, selectively prosecuting—Defense Distributed.⁸

First, the Governor called Senate Bill 2465 part of the very same “fight” and very same “efforts” as the cease-and-desist letter that the Attorney General sent to Defense Distributed:

The Attorney General has been a national leader in this fight. Last June he issued *a cease and desist letter to the companies that deal in ghost guns, saying explicitly that New Jersey is off limits to them*. He joined likeminded attorneys general in successfully stopping in federal court the release of blueprints that would have allowed anyone with a computer and access to a 3D printer the ability to build their own, untraceable firearm. *This law that we’re going to sign today further backs up his efforts*, and I thank him for all that he has done. Thank you, Gurbir.

Ex. 2 at 7:15-8:1 (emphasis added). The Governor also praised the Attorney General’s campaign of “naming and shaming” Defense Distributed and other companies that engage in constitutionally protected activity. *Id.* at 9:7.

Next, Attorney General Grewal called out Defense Distributed founder Cody Wilson by name. He said that he needed “stronger tools to stop them” because “a Texan named Cody Wilson,” Defense Distributed, and its supporters—i.e., the Second Amendment Foundation—were “not relenting” and “still trying to release these codes online.” *Id.* at 12:6-12:24.

⁸ In addition to the event’s transcript, Ex. 2, the government’s version of the video is at <https://www.youtube.com/watch?v=lJiQ6iFH5x4>.

Later in the ceremony, the Attorney General called out Defense Distributed founder by name *again*. After tacitly admitting that prior law did not make Defense Distributed's expression illegal, he said that the new criminal law was being enacted "to stop the next Cody Wilson - to fight the ghost gun industry":

[B]ad actors were trying to take advantage of loopholes because no law squarely addressed printable guns or ghost guns. So we had to rely on other laws, like our public nuisance law or our assault weapons law, to fight back. Now don't get me wrong: Those laws are important and they're great tools, and they helped us stop the spread of these dangerous, untraceable weapons. But a law right on point strengthens law enforcement's hand even more.

And so today, there is no question that printable guns and ghost guns are deadly, and selling them in New Jersey is illegal. And that's why I'm so proud to support Governor Murphy's efforts and the legislature's efforts to close those loopholes, **to stop the next Cody Wilson, to fight the ghost gun industry**, and to regulate the next dangerous gun models before they spread into our communities.

Id. at 14:8-25 (emphasis added).

Finally, Attorney General Grewal promised that New Jersey intends to "come after" "anyone who is contemplating making a printable gun" and "the next ghost gun company." *Id.* at 15:1-11. A press release further touted the enforcement threats. Ex. 52.

The Governor signed Senate Bill 2465 into law at the end of that ceremony. Ex. 1, S. 2465, 218th Leg., Reg. Sess., 2018 NJ Sess. Law Serv. Ch. 138 (N.J. 2018) (hereinafter "SB 2465") (Ex. 1). The law took effect immediately. SB 2465 § 4.

Section 3(*l*)(2) of SB 2465 criminalizes speech about firearms. Unlike neighboring provisions about conduct, Section 3(*l*)(2) imposes a freestanding prohibition on speech; its operation does not depend on the previous criminal acts. Speech and speech alone is the event that triggers Section 3(*l*)(2) criminal liability:

l. Manufacturing or facilitating the manufacture of a firearm using a three-dimensional printer. In addition to any other criminal penalties provided under law it is a third degree crime for:

...

(2) a person to distribute by any means, including the Internet, to a person in New Jersey who is not registered or licensed as a manufacturer as provided in chapter 58 of Title 2C of the New Jersey Statutes, digital instructions in the form of computer-aided design files or other code or instructions stored and displayed in electronic format as a digital model that may be used to program a three-dimensional printer to manufacture or produce a firearm, firearm receiver, magazine, or firearm component.

As used in this subsection: “three-dimensional printer” means a computer or computer-driven machine or device capable of producing a three-dimensional object from a digital model; and “distribute” means to sell, or to manufacture, give, provide, lend, trade, mail, deliver, publish, circulate, disseminate, present, exhibit, display, share, advertise, offer, or make available via the Internet or by any other means, whether for pecuniary gain or not, and includes an agreement or attempt to distribute.

SB 2465 § 3(*l*)(2). A conviction entails at least three to five years of imprisonment, *see* N.J. Stat. 2C:43-6(a)(3); N.J. Stat. 2C:43-7(a)(4) (sometimes five to ten), and a fine of up to \$15,000, *see* N.J. Stat. 2C:43-3(b)(1).

C. Grewal refuses to cease threatening the Plaintiffs.

CodeIsFreeSpeech.com is a publicly-available website⁹ that, from July 31, 2018 to February 2, 2019, republished sets of digital firearms information that had originally been published by Defense Distributed. *See* Declaration of Brandon Combs. The republished digital firearms information included, among other things, Defense Distributed’s files concerning the “Liberator” firearm. *See id.* Because CodeIsFreeSpeech.com did not have or require any login or other account creation that would personally identify visitors, after November 8, 2018, persons in New Jersey who are not registered or licensed as a manufacturer as provided in Title 2C of the New Jersey Statutes may have acquired the files it republished. *See id.*

On February 2, 2019, a takedown demand that was purportedly sent by the New Jersey Office of the Attorney General to Cloudflare was reported to Brandon Combs through an email originating from "Cloudflare Abuse." *See id.* Because of the takedown demand that Cloudflare reported, at approximately 1:12 p.m. Pacific Time on February 2, 2019, CodeIsFreeSpeech.com made the digital firearms information that it had previously published inaccessible to anyone who browsed to or otherwise attempted to access those files. *See id.*

⁹ The CodeIsFreeSpeech (“CIFS”) project, located online at CodeIsFreeSpeech.com, is a project of Plaintiffs Firearms Policy Coalition, Inc., Firearms Policy Foundation, The Calguns Foundation, California Association of Federal Firearms Licensees, Inc., and individuals—including Brandon Combs—who are passionate about the Constitution and individual liberties. *See* Declaration of Brandon Combs at 1-2.

On February 12, 2012, Grewal filed a letter with this Court. Doc. 09. It took the position that the February 2, 2019 takedown notice Cloudflare had reported as having been issued by Grewal was not, in fact, issued by Grewal. Critically, though, the letter did *not* mention any of Grewal’s prior civil or criminal threats—let alone effectively disclaim them in a way that would cease the ongoing censorship.

To determine whether such a disclaimer might be forthcoming, Plaintiffs’ counsel sent Grewal’s counsel a responsive letter on February 14, 2019. Ex. 54. The letter noted that Grewal had *never* disclaimed any of his civil enforcement threats and never disclaimed the criminal enforcement threats posed at the SB 2465 signing ceremony. So it posed a direct inquiry: “If Defense Distributed, the Second Amendment Foundation, or CodeIsFreeSpeech.com publish the computer files at issue, will Attorney General Gurbir Grewal bring civil or criminal enforcement actions against them for it?” Ex. 54 at 2-3.

In this way, the Plaintiffs tried to avoid the need for extraordinary judicial relief by giving Grewal a clear opportunity to relent. But he refused to do so.

On February 19, 2019, Grewal’s counsel responded by e-mailing Plaintiffs’ counsel. Ex. 55. As to the civil enforcement threats, the February 19 response said nothing at all. As to the criminal enforcement threats, the February 19 response said this: “We cannot, of course, provide any generalized assurances one way or the other regarding the enforcement of Section 3(1)(2) if your clients intend to violate the plain terms of the statute.” Ex. 55 at 2.

To this day, the threat posed to the Plaintiffs by Grewal’s civil and criminal enforcement efforts remains in full force. The cease-and-desist letter he issued to Defense Distributed on July 26, 2018 has never been disclaimed. The coercive actions he took against Defense Distributed’s service providers have never been disclaimed. The civil lawsuits he filed against Defense Distributed, its founder Cody Wilson, SAF, and others engaged in this speech have never been disclaimed. And the unequivocal threats he issued at the SB 2465 signing ceremony—to “stop” Defense Distributed founder “Cody Wilson” and “his supporters” from “release[ing] these codes online” and to “come after you”—have never been disclaimed.

ARGUMENT

Plaintiffs move for a preliminary injunction against Defendant Gurbir Grewal in his official capacity as New Jersey Attorney General. The Court should preliminarily enjoin Grewal from (1) enforcing Section 3(*I*)(2) against Plaintiffs, (2) directing the Plaintiffs to cease and desist publishing computer files with digital firearms information, and (3) directing the Plaintiffs' communication service providers to cease and desist publishing Plaintiffs' computer files with digital firearms information. *See* 42 U.S.C. § 1983; *Ex parte Young*, 209 U.S. 123 (1908).

Well-established law governs requests for a preliminary injunction. Four issues should be analyzed: “(1) whether the movant has a reasonable probability of success on the merits; (2) whether the movant will be irreparably harmed by denying the injunction; (3) whether there will be greater harm to the nonmoving party if the injunction is granted; and (4) whether granting the injunction is in the public interest.” *B.H. ex rel. Hawk v. Easton Area Sch. Dist.*, 725 F.3d 293, 302 (3d Cir. 2013) (en banc). With respect to both the criminal and civil censorship actions at issue here, and with respect to all of the Plaintiffs—Defense Distributed, the Second Amendment Foundation, and CodeIsFreeSpeech.com's sponsors—all four considerations weigh heavily in favor of relief.

I. The Court should enjoin enforcement of the speech crime.

A. Plaintiffs will likely succeed on the First Amendment claim.

The complaint pleads that New Jersey’s Attorney General has violated and is threatening to violate 42 U.S.C. § 1983 by acting, under color of state law, to abridge the Plaintiffs’ First Amendment freedoms. With respect to the enforcement of Section 3(l)(2), Plaintiffs are likely to succeed on the merits of the First Amendment claim for at least three independent reasons.

Before addressing those arguments, the Court should hold that the Plaintiffs’ distribution of the digital firearms information at issue qualifies as First Amendment speech. In accordance with the complaint, proof shows that the digital firearms information at issue here qualifies as First Amendment speech under all of the applicable modern precedents. *Compare* Compl. ¶¶ 27-30, Ex. 26 ¶¶ 5-10, 19-20, 26-27 (Defense Distributed’s Director explaining the nature of exemplary digital firearms information), Exs. 53, 56-57 (similar), *and* Ex. 25 (industry expert explaining 3D printing processes), *with Sorrell v. IMS Health Inc.*, 564 U.S. 552, 570 (2011) (“[T]he creation and dissemination of information are speech within the meaning of the First Amendment.”), *Bartnicki v. Vopper*, 532 U.S. 514, 526-27 (2001) (similar), *Junger v. Daley*, 209 F.3d 481, 482 (6th Cir. 2000) (“Because computer source code is an expressive means for the exchange of information and ideas about computer programming, we hold that it is protected by the First Amendment.”), *Universal City Studios, Inc. v. Corley*, 273 F.3d 429, 449 (2d Cir.

2001) (“[C]omputer code, and computer programs constructed from code can merit First Amendment protection.”), *Bernstein v. U.S. Dep’t of State*, 922 F. Supp. 1426, 1436 (N.D. Cal. 1996) (“For the purposes of First Amendment analysis, this court finds that source code is speech.”), Brief of Amicus Curiae Electronic Frontier Foundation in Support of Plaintiffs-Appellants, *Def. Distributed v. U.S. Dep’t of State*, 2015 WL 9267338, at * 11, 838 F.3d 451 (5th Cir. 2016) (“The functional consequences of speech are considered not as a bar to protection, but to whether a regulation burdening the speech is appropriately tailored.”), and *Def. Distributed v. U.S. Dep’t of State*, 121 F. Supp. 3d 680, 692 (W.D. Tex. 2015) (“Plaintiffs made clear at the hearing that Defense Distributed is interested in distributing the files as ‘open source.’ That is, the files are intended to be used by others as a baseline to be built upon, altered and otherwise utilized. Thus, at least for the purpose of the preliminary injunction analysis, the Court will consider the files as subject to the protection of the First Amendment.”).

1. Content-based censorship makes Section 3(l)(2) unconstitutional.

Section 3(l)(2) is a content-based speech restriction. Facially, the law is content-based because it criminalizes “digital instructions” that “may be used to program a three-dimensional printer to manufacture or produce a firearm, firearm receiver, magazine, or firearm component.” SB 2465 § 3(l)(2); see *Reed v. Town of Gilbert, Ariz.*, 135 S. Ct. 2218, 2227 (2015); *Nat’l Inst. of Family & Life Advocates v. Becerra* (“NIFLA”), 138 S. Ct. 2361, 2371 (2018). The law’s justification also

makes it content-based because its enactors created the crime to punish the *idea* being conveyed—digital firearm information. *See* Ex. 2; *Ward v. Rock Against Racism*, 491 U.S. 781, 791 (1989); *Boos v. Barry*, 485 U.S. 312, 320-21 (1988).

As a content-based speech restriction, the Constitution renders Section 3(*l*)(2) presumptively invalid; it is valid only if New Jersey “prove[s] that the restriction furthers a compelling interest and is narrowly tailored to achieve that interest.” *Reed*, 135 S. Ct. at 2231. That burden cannot be met for at least four reasons.

First, Section 3(*l*)(2) does not survive strict scrutiny because it does not advance a compelling state interest. The holding of *Ashcroft v. Free Speech Coalition*, 535 U.S. 234 (2002), applies directly to this case: “The mere tendency of speech to encourage unlawful acts is not a sufficient reason for banning it.” *Id.* at 253. The government lacks a compelling state interest and “may not prohibit speech” if the speech merely “increases the chance an unlawful act will be committed ‘at some indefinite future time.’” *Id.* A mere “remote connection” between speech and a third party’s criminal conduct is not enough. *Id.* “Without a significantly stronger, more direct connection, the Government may not prohibit speech on the ground that it may encourage [third-parties] to engage in illegal conduct.” *Id.* Under *Ashcroft*, New Jersey lacks a compelling state interest in banning Plaintiffs’ expression of digital firearms information.

Second, Section 3(*l*)(2) does not meet the narrow tailing requirement because of plausible, less restrictive alternatives. New Jersey could achieve its ends by

banning only the harmful *conduct* at issue—not speech that is merely and only sometimes remotely associated with that conduct. *See Bartnicki v. Vopper*, 532 U.S. 514, 529 (2001) (“The normal method of deterring unlawful conduct is to impose an appropriate punishment on the person who engages in it.”). Indeed, other provisions of SB 2465 do just that by criminalizing the *possession* of certain firearms.

Third, Section 3(l)(2) does not survive strict scrutiny because it is substantially underinclusive. While it criminalizes the “distribution” of digital firearms information, Section 3(l)(2) does nothing about the *possession* of that same information. While it criminalizes speech regarding “firearms,” Section 3(l)(2) does nothing about speech regarding other dangerous instrumentalities such as poison and bombs. And while it criminalizes speech by normal people, Section 3(l)(2) does nothing about the speech of firearms manufacturers or wholesalers. The statute ignores these other appreciable sources of the problem it supposedly targets. Therefore, Section 3(l)(2) is *not* narrowly tailored. *See Reed*, 135 S. Ct. at 2231-32.

Fourth, Section 3(l)(2) does not survive strict scrutiny because New Jersey cannot prove that the law actually advances the state’s aims. In the First Amendment context, justifications backed by mere “anecdote and supposition” do not suffice, *United States v. Playboy Entm’t Grp., Inc.*, 529 U.S. 803, 822 (2000), and neither does “ambiguous proof,” *Brown v. Entm’t Merchs. Ass’n.*, 564 U.S. 786, 800 (2011). Compelling “empirical support” of efficacy must be given. *Globe Newspaper Co. v. Sup. Ct. for Norfolk Cty.*, 457 U.S. 596, 609 (1982). None exists here. *Cf. Whole*

Woman's Health v. Hellerstedt, 136 S. Ct. 2292, 2313-14 (2016) (“Determined wrongdoers, already ignoring existing statutes and safety measures, are unlikely to be convinced to adopt safe practices by a new overlay of regulations.”).

In particular, the Attorney General’s effort to prove efficacy is bound to fail because the information he seeks to censor is already available across the internet. The digital firearms information that Defense Distributed already published was thereby committed to the internet’s public domain, where independent republishers beyond New Jersey’s control will make those files readily accessible on one website or another forever—regardless of whether New Jersey’s Attorney General decides to exact vengeance on the publisher he most dislikes.

New Jersey has repeatedly admitted as much in its own court filings, which take the position that “posting these codes is a bell that can never be un-rung.” Ex. 4 at 99; *see also* Ex. 6 at 1 (“Once [Defense Distributed] opens that Pandora’s box, it can never be closed.”). Proof of this reality is, indeed, overwhelming.¹⁰ Because of this fact, New Jersey cannot possibly establish that post-hoc prosecution of Defense Distributed will effectuate its supposed interest in erasing already-released information from the public domain.

¹⁰ *See* Ex. 8 at 1; Ex. 12 at 3; Ex. 23 ¶ 4; Ex. 24; Ex. 27 at 10; Ex. 28 at 1; Ex. 29; Ex. 30; Ex. 32 at 1, 3; Ex. 33; Ex. 37; Ex. 38; Ex. 39; Ex. 40; Ex. 41; Ex. 49; *see also* Ex. 30; Ex. 31.

2. Overbreadth makes Section 3(l)(2) unconstitutional.

Plaintiffs are also likely to succeed on the merits of their First Amendment claim because Section 3(l)(2) is unconstitutionally overbroad. The overbreadth doctrine “prohibits the Government from banning unprotected speech” where, as is the case with Section 3(l)(2), “a substantial amount of protected speech is prohibited or chilled in the process.” *Ashcroft*, 535 U.S. at 255. Section 3(l)(2) violates this doctrine in a litany of ways.

First, Section 3(l)(2) is overbroad because it criminalizes speech regardless of its relationship to illegal conduct. Constitutionally, the “government may not prohibit speech because it increases the chance an unlawful act will be committed ‘at some indefinite future time’”; it may “suppress speech for advocating the use of force or a violation of law only if ‘such advocacy is directed to inciting or producing imminent lawless action and is likely to incite or produce such action.’” *Id.* at 253-54 (quoting *Hess v. Indiana*, 414 U.S. 105, 108 (1973) (per curiam), and *Brandenburg v. Ohio*, 395 U.S. 444, 447 (1969) (per curiam)).

In this context, states can only prohibit speech to prevent illegal conduct when the speech is “*integral* to criminal conduct,” *United States v. Stevens*, 559 U.S. 460, 468 (2010) (emphasis added). But speech cannot be “integral to criminal conduct” if it has only a “contingent and indirect” relationship to that conduct. *Ashcroft*, 535 U.S. at 250. It is not enough for the state to allege, as New Jersey does here, that there is “some unquantified potential for subsequent criminal acts.” *Id.* Indeed, the

Supreme Court has recognized that “it would be quite remarkable to hold that speech by a law-abiding possessor of information can be suppressed in order to deter conduct by a non-law abiding third party.” *Bartnicki*, 532 U.S. at 529-30.

Virtually all of the speech covered by Section 3(l)(2) falls squarely on the protected side of *Brandenburg* and *Ashcroft’s* line, either because the expression’s recipient commits no illegal act at all or because, if they did, the causal link is merely contingent and indirect. *Cf. Staples v. United States*, 511 U.S. 600, 610 (1994) (“[T]here is a long tradition of widespread lawful gun ownership by private individuals in this country.”). Yet Section 3(l)(2) still criminalizes every instance of “distribut[ion]” no matter what.

Second, Section 3(l)(2) is overbroad because it also criminalizes sharing information about any “firearm component.” This covers a wide array of generic items—such as fasteners, nuts, bolts, and screws—that have unlimited potential uses and are not unique to firearms. Even if New Jersey could criminalize certain speech concerning a completed “firearm,” it could not possibly criminalize speech about mundane parts available in any hardware store.

Third, Section 3(l)(2) is overbroad because it fails to distinguish between information that has, and has not, been committed to the public domain. Digital firearms information is already freely circulating in the public domain because of publications that took place before this law was enacted. *See supra* at pp. 16-17 nn. 5-6. “[T]he Government may not . . . restrict individuals from disclosing information

that lawfully comes into their hands in the absence of a ‘state interest of the highest order.’” *United States v. Aguilar*, 515 U.S. 593, 605 (1995). However, this statute draws no distinction between truly novel “instructions” and those that anyone has been able to obtain with simple Google searches for months. Therefore, the statute’s coverage of these readily-available files renders it overbroad.

Fourth, Section 3(l)(2) is overbroad because it makes it a crime to merely “offer” or “advertise” instructions—squarely protected speech—even if no actual distribution of the information occurs. In the case of an unconsummated offer or advertisement, the state lacks a sufficiently compelling interest in applying its content-based speech ban.

Fifth, Section 3(l)(2) is overbroad because it criminalizes an “agreement or attempt to distribute.” New Jersey lacks a compelling interest to criminalize an “agreement or attempt to distribute” instructions if the distribution never comes to fruition. The same overbreadth logic applies to the statute’s criminalization of instructions that “may be used” toward a prohibited purpose but are not in fact.

3. A missing scienter element makes Section 3(l)(2) unconstitutional.

The Plaintiffs’ First Amendment claim is also likely to succeed because Section 3(l)(2) lacks a necessary scienter element. States cannot create speech crimes without including a stringent requirement of scienter—that is, knowledge of the fact that truly distinguishes innocent acts from guilty ones. *See, e.g., Holder v. Humanitarian Law Project*, 561 U.S. 1, 16-17 (2010); *New York v. Ferber*, 458 U.S.

747, 765 (1982); *Smith v. California*, 361 U.S. 147, 153-54 (1960). Section 3(D)(2) lacks the needed scienter element because it does not even require the speaker to know that instructions will “be used to program a three-dimensional printer to manufacture or produce a firearm, firearm receiver, magazine, or firearm component”—let alone know that the recipient would use the information to engage in *illegal* production of a firearm.¹¹ Hence, the requisite scienter requirement is missing. *See Rice v. Paladin Enters., Inc.*, 128 F.3d 233, 247-48 (4th Cir. 1997); *see also Boos*, 485 U.S. at 320-21.

B. Plaintiffs will likely succeed on the Due Process Clause claim.

Plaintiffs are also likely to succeed on the merits of their claim that Section 3(D)(2) is void for vagueness under the Due Process Clause.¹² “A law may be vague

¹¹ Federal laws permit the manufacture of a firearm for personal use. *See Does an Individual Need a License to Make a Firearm for Personal Use?*, Bureau of Alcohol, Tobacco, Firearms and Explosives (Nov. 6, 2017), <https://www.atf.gov/firearms/qa/does-individual-need-license-makefirearm-personal-use> (“[A] license is not required to make a firearm solely for personal use.”); William J. Krouse, *Gun Control: 3D-Printed AR-15 Lower Receivers*, Cong. Res. Serv. Insight, 2 (Aug. 22, 2018), <https://fas.org/sgp/crs/misc/IN10957.pdf> (“In short, unfinished receivers and the components needed to build fully functional AR-15s and other firearms are legally available on the U.S. civilian gun market and can be purchased without a background check under federal law.”); *see also, e.g.*, 18 U.S.C. § 922(a)(1)(a).

¹² Pre-enforcement facial vagueness challenges are allowed to address the Due Process Clause’s concern for “arbitrary and discriminatory enforcement,” *Act Now to Stop War & End Racism Coal. & Muslim Am. Soc’y Freedom Found. v. D.C.*, 846 F.3d 391, 410 (D.C. Cir. 2017), and also to the extent that they seek to halt the chilling of protected speech, *Dana’s R.R. Supply v. Attorney Gen., Florida*, 807 F.3d 1235, 1241 (11th Cir. 2015). Plaintiffs’ claim implicates both concerns.

in violation of the Due Process Clause for either of two reasons: ‘First, it may fail to provide the kind of notice that will enable ordinary people to understand what conduct it prohibits; second, it may authorize and even encourage arbitrary and discriminatory enforcement.’” *Act Now*, 846 F.3d at 409 (quoting *City of Chicago v. Morales*, 527 U.S. 41, 56 (1999)). Section 3(l)(2) is unconstitutionally vague in both respects.

Specifically, Section 3(l)(2) is unconstitutionally vague because it criminalizes code or instructions “*that may be* used to program a three-dimensional printer to manufacture or produce a firearm, firearm receiver, magazine, or firearm component.” But it is impossible for a speaker to know what counts as “code . . . *that may be* used to” engage in the proscribed programming. In the same way that “(w)hat is contemptuous to one man may be a work of art to another,” *Smith v. Goguen*, 415 U.S. 566, 575 (1974), what “may be used” by one programmer can be totally useless to another. Speakers like Defense Distributed and SAF’s members cannot tell in advance which side of the line their speech will fall. Indeed, like the residual clause at issue in *Johnson v. United States*, 135 S. Ct. 2551 (2015), Section 3(l)(2) ties the crime’s meaning not to “real-world facts or statutory elements,” but to a “judicially imagined” notion of what information “may be used” by hypothetical persons. *Id.* at 2557.

Because of indeterminacies like this, the statute both chills speech nationwide and encourages arbitrary and discriminatory enforcement. *See Smith*, 415 U.S. at

575 (“Statutory language of such a standardless sweep allows policemen, prosecutors, and juries to pursue their personal predilections.”). Indeed, this case proves the latter point especially: the statements made during Section 3(1)(2)’s signing ceremony show that New Jersey’s Attorney General wishes to prosecute Defense Distributed not because it poses some sort of unique threat, but because Defense Distributed and its founder espouse views that New Jersey’s politicians dislike. *See* Ex. 2.

C. Plaintiffs will likely succeed on the Commerce Clause claim.

Plaintiffs are also likely to succeed on the claim that the Attorney General has subjected and is subjecting the Plaintiffs to an unconstitutional deprivation of the right to be free of commercial restraints that violate the dormant Commerce Clause. Two modes of judicial review occur in dormant Commerce Clause cases. Apart from the default balancing test of *Pike v. Bruce Church, Inc.*, 397 U.S. 137 (1970), strict scrutiny applies to any law that discriminates against out-of-state economic interests on its face, in its purpose, or in its practical effect. *E.g.*, *Rocky Mtn. Farmers Union v. Corey*, 730 F.3d 1070, 1087 (9th Cir. 2013).

Section 3(1)(2) triggers strict scrutiny because it discriminates against out-of-state economic interests by “regulat[ing] conduct that takes place exclusively outside the state.” *Backpage.com, LLC v. Hoffman*, No. 13-CV-03952 DMC JAD, 2013 WL 4502097, at *11 (D.N.J. Aug. 20, 2013). Specifically, discrimination occurs with respect to website publication: even though speakers like Defense Distributed and

Brandon Combs operate their websites in a passive fashion from outside of New Jersey, Section 3(l)(2) expressly projects New Jersey’s law about what can and cannot be said on the internet throughout the entire Union. *See Am. Libraries Ass’n v. Pataki*, 969 F. Supp. 160, 182 (S.D.N.Y. 1997).

Discrimination also occurs with respect to the statute’s “offer” and “advertisement” bans. That conduct will often occur entirely outside of New Jersey—such as at the trade shows that Defense Distributed attends—and still qualify as a crime under Section 3(l)(2).

Because these applications are direct and substantial parts of the statute, Section 3(l)(2) is unconstitutional per se, “regardless of whether the statute’s extraterritorial reach was intended by the legislature.” *Healy v. Beer Inst.*, 491 U.S. 324, 336 (1989); *see Am. Booksellers Found. v. Dean*, 342 F.3d 96, 104 (2d Cir. 2003); *Pataki*, 969 F. Supp. at 182. The Court should so hold.

D. Plaintiffs will likely succeed on the Supremacy Clause claim.

Plaintiffs’ complaint pleads that New Jersey is violating 42 U.S.C. § 1983 by censoring speech with state laws that Congress chose to preempt and immunize the citizenry from. Plaintiffs are likely to succeed on the merits of this claim.

1. CDA Section 230 preempts Section 3(l)(2).

First, Congress immunized the Plaintiffs from prosecution under Section 3(l)(2) with the Communications Decency Act of 1996 (“CDA”), “Congress’s grant of ‘broad immunity’ to internet service providers ‘for all claims stemming from their

publication of information created by third parties.” *Google, Inc. v. Hood*, 822 F.3d 212, 220 (5th Cir. 2016). CDA Section 230(c)(1) provides that, for interactive computer services such as a website, “[n]o provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider.” 47 U.S.C. § 230(c)(1).¹³ Section 230(e)(3), in turn, preempts state laws that are “inconsistent with” subsection (c)(1). 47 U.S.C. § 230(e)(3).

The Plaintiffs’ case directly implicates CDA Section 230. Much of the digital firearms information that Defense Distributed published in the past, and desires to publish in the future, is “information provided by another information content provider.” 47 U.S.C. § 230(c)(1).

The digital firearms information that Defense Distributed published in July 2018 is a perfect example. “With the exception of the Liberator CAD files, which were previously posted by Defense Distributed before receiving the State Department’s letter, the other CAD files posted at this time were created by persons other than Defense Distributed and had been posted on the internet by persons other than Defense Distributed before Defense Distributed republished them on

¹³ “The term ‘information content provider’ means any person or entity that is responsible, in whole or in part, for the creation or development of information provided through the Internet or any other interactive computer service.” § 230(f)(3).

DEFCAD.” Ex. 26 ¶ 19. Thus, while this action certainly concerns the Plaintiffs’ right to publish *new* digital firearms information, for purposes of the CDA, this case also implicates Plaintiffs’ right to *republish* digital firearms information that was provided by other people engaged in the open source development process.¹⁴

CodeIsFreeSpeech.com fits within the CDA’s protections even more squarely. From July 31, 2018 to February 2, 2019, CodeIsFreeSpeech.com republished a prominent set of CAD files that had originally been published by Defense Distributed. The republished CAD files included, among other things, Defense Distributed’s files concerning the “Liberator” firearm, and those are precisely the kind of files that Grewal’s threat of prosecution applies to.

Section 3(l)(2) criminalizes the distribution of information regardless of whether information was *republished*—i.e., “provided by another information content provider.” As such, Section 3(l)(2) is facially “inconsistent with” Section 230(c)(1) and preempted. This fault makes Section 3(l)(2) facially invalid, for “there can be no constitutional application of a statute that, on its face, conflicts with Congressional intent and therefore is preempted by the Supremacy Clause.” *United States v. Arizona*, 641 F.3d 339, 346 (9th Cir. 2011).

¹⁴ A judgment based solely on the CDA would not provide *complete* relief to Plaintiffs, as Defendants could rely on other provisions of state law—such as “public nuisance and negligence laws”—to prohibit the distribution of *new* digital firearm information. *See infra* Part II.

This conclusion is not novel. Courts have consistently invalidated similar state criminal laws because they were preempted by CDA Section 230. *See Backpage.com, LLC v. Hoffman*, No. 13-CV-03952 DMC JAD, 2013 WL 4502097, at *1 (D.N.J. Aug. 20, 2013); *Backpage.com, LLC v. Cooper*, 939 F. Supp. 2d 805, 823 (M.D. Tenn. 2013); *Backpage.com, LLC v. McKenna*, 881 F. Supp. 2d 1262, 1271 (W.D. Wash. 2012). The Court should follow those decisions here.

2. The State Department’s authority preempts Section 3(D)(2).

Additionally, New Jersey’s use of Section 3(D)(2) to stop Defense Distributed’s publication of digital firearms information is preempted by the federal government’s exclusive authority over foreign affairs. Specifically, Congress charged the executive branch with administering and enforcing pertinent provisions of the Arms Export Control Act of 1976 (“AECA”), 22 U.S.C. ch. 39, and the International Traffic in Arms Regulations (“ITAR”), 22 C.F.R. Parts 120-130. *See* 28 U.S.C. §§ 516, 519; *see also* 22 U.S.C. § 2778(a)(1); 22 U.S.C. § 2778(g)(6); 22 U.S.C. § (e)(2)(A); 22 C.F.R. § 126.7(a).

By seeking to criminalize Plaintiffs’ publication of matters that the State Department has expressly authorized for publication, New Jersey seeks to have its legislature take over the President’s job of “control[ing] the import and the export of defense articles.” § 2778(a)(1). Indeed, Attorney General Grewal declared, “[t]he federal government is no longer willing to stop Defense Distributed from publishing this dangerous code, and so New Jersey must step up.” Ex. 6 at 1. States cannot

regulate this aspect of foreign policy. *See Armstrong v. Exceptional Child Ctr., Inc.*, 135 S. Ct. 1378, 1384 (2015); *Crosby v. Nat’l Foreign Trade Council*, 530 U.S. 363, 375 (2000); *Nat’l Foreign Trade Council, Inc. v. Giannoulis*, 523 F. Supp. 2d 731, 738-742 (N.D. Ill. 2007).

E. Plaintiffs will suffer irreparable harm in the absence of immediate relief.

Attorney General Gurbir Grewal’s enforcement of Section 3(l)(2) causes irreparable harm currently, and unless enjoined, will do so to an even greater extent in the near future. Plaintiffs have engaged—and would engage in the future—in at least three distinct courses of conduct that the Attorney General’s unconstitutional enforcement actions outlaws. For fear of being prosecuted under New Jersey’s new speech crime, Plaintiffs have stopped engaging in these constitutionally protected courses of conduct. In each respect, Plaintiffs’ speech lies squarely within Section 3(l)(2)’s proscriptions. And because the law is unconstitutional, the looming threat of its enforcement against Plaintiffs causes irreparable harm.

First, the enforcement of Section 3(l)(2) causes irreparable harm because Defense Distributed, SAF’s members, and CodeIsFreeSpeech.com have published digital firearms information on the internet and would do so in the future if not for the Attorney General’s threats. Section 3(l)(2) clearly covers this conduct by making it a crime to distribute the banned “digital instructions” “by any means, including the Internet.”

Second, the enforcement of Section 3(*l*)(2) causes irreparable harm because Defense Distributed has published digital firearms information via the mail and would do so in the future if not for the Attorney General’s threats. Section 3(*l*)(2) clearly covers this conduct by making it a crime to “distribute” the banned “digital instructions” and defining “distribute” to mean “mail.”

Third, the enforcement of Section 3(*l*)(2) causes irreparable harm because Defense Distributed, SAF’s members, and CodeIsFreeSpeech.com have offered and advertised digital firearms information and intend to do so in the future. Section 3(*l*)(2) clearly covers this conduct by making it a crime to “distribute” the banned “digital instructions” and defining “distribute” to mean “offer” and “advertise.”

In each of these respects, New Jersey’s enforcement of Section 3(*l*)(2) would cause irreparable harm by subjecting the Plaintiffs to unconstitutional punishment. Moreover, the looming threat of such unconstitutional enforcement causes a nationwide chilling effect that stops Plaintiffs and other law-abiding people from engaging in speech that the Constitution entitles them to express freely. *See supra* at pp. 5-9; *Dana’s*, 807 F.3d at 1241 (“Litigants who are being ‘chilled from engaging in constitutional activity,’ . . . suffer a discrete harm independent of enforcement.”). Both of these harms—the actual enforcement of New Jersey’s unconstitutional criminal law and the chilling effect caused by the specter of its enforcement—are irreparable. *See, e.g., Elrod v. Burns*, 427 U.S. 347, 373 (1976) (plurality op.) (“The loss of First Amendment freedoms, for even minimal periods

of time, unquestionably constitutes irreparable injury.”); *Stilp v. Contino*, 613 F.3d 405, 409 (3d Cir. 2010).

F. The balance of equities favors the Plaintiffs and a preliminary injunction will serve the public interest.

The balance of equities favors an injunction. The risk of erroneously denying the injunction entails the “potential for extraordinary harm and a serious chill upon protected speech.” *Ashcroft v. Am. Civil Liberties Union*, 542 U.S. 656, 671 (2004). “The harm done from letting [an] injunction stand pending a trial on the merits, in contrast, will not be extensive,” especially where, as here, “[n]o prosecutions have yet been undertaken under the law, so none will be disrupted if the injunction stands.” *Id.* The state’s interest in enforcing under their new law will be just as feasible a few weeks from now as it is at present.

Finally, it is always in the public interest to prevent the violation of a party’s constitutional rights. *See, e.g., O’Donnell v. Goodhart*, 900 F.3d 220, 232 (5th Cir. 2018); *Sypniewski v. Warren Hills Reg’l Bd. of Educ.*, 307 F.3d 243, 258 (3d Cir. 2002) (“[T]he public interest demands respect for both constitutional rights.”); *Tenafly Eruv Ass’n, Inc. v. Borough of Tenafly*, 309 F.3d 144, 178 (3d Cir. 2002) (“[T]he public interest clearly favors the protection of constitutional rights.”). And with respect to preemption, in particular, the “[f]rustration of federal statutes and prerogatives are not in the public interest.” *United States v. Alabama*, 691 F.3d 1269, 1301 (11th Cir. 2012).

II. The Court should enjoin New Jersey’s civil enforcement efforts.

The Court should also issue a preliminary injunction against the New Jersey Attorney General’s use of civil legal actions to censor the Plaintiffs. In every key respect, the same constitutional analysis that applies to the new speech crime applies to the Attorney General’s use of civil legal methods to achieve the same censorship ends. Indeed, the application of “public nuisance and negligence laws” to speech on the internet is orders-of-magnitude more overbroad, underinclusive, and vague than Section 3(l)(2). Additionally, the Plaintiffs are likely to succeed on the merits of their Section 1983 action’s First Amendment claim because New Jersey’s conduct violates the doctrine regarding unconstitutional prior restraints.

New Jersey’s delivery of a cease-and-desist letter to Defense Distributed constitutes a prior restraint because it demands—in advance, and upon pain of legal punishment—that Defense Distributed *never* publish “printable-gun computer files for use by New Jersey residents.” Ex. 3 at 1. So do civil actions like the New Jersey Attorney General’s effort to obtain an *ex parte* temporary restraining order against Defense Distributed. *See* Ex. 4.

As prior restraints, the state’s civil censorship efforts bear a heavy presumption of unconstitutionality. *See Bantam Books, Inc. v. Sullivan*, 372 U.S. 58, 71-72 (1963); *Test Masters Educ. Servs., Inc. v. Singh*, 428 F.3d 559, 579 (5th Cir. 2005). But Grewal cannot overcome this burden. The same reasoning that prevents Section 3(l)(2) from surviving strict scrutiny also spells defeat for the civil

ensorship effort as a prior restraint. *See Bernard v. Gulf Oil Co.*, 619 F.2d 459, 473 (5th Cir. 1980) (en banc), *aff'd*, 452 U.S. 89 (1981).

Importantly, this constitutional violation encompasses both the action taken directly against the Plaintiffs and the efforts to threaten, coerce, and intimidate internet service providers. *See Backpage.com, LLC v. Dart*, 807 F.3d 229 (7th Cir. 2015); *Okwedy v. Molinari*, 333 F.3d 339 (2d Cir. 2003); *Rattner v. Netburn*, 930 F.2d 204 (2d Cir. 1991). *Backpage.com, LLC* is on all fours, and supports every major element of the Plaintiffs' request for this additional category of injunctive relief.

CONCLUSION

The motion for a preliminary injunction should be granted. The Court should preliminarily enjoin Defendant Gurbir Grewal, in his official capacity as New Jersey Attorney General, from the following:

- (1) enforcing New Jersey Statute § 2C:39-9(l)(2) (New Jersey Senate Bill 2465 § 3(l)(2)) against Plaintiffs,
- (2) directing the Plaintiffs to cease and desist publishing computer files with digital firearms information, and
- (3) directing the Plaintiffs' communication service providers to cease and desist publishing Plaintiffs' computer files with digital firearms information.

Date: February 20, 2019

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Respectfully submitted,

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**Pro hac vice motion to be filed*

Counsel for Plaintiffs

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY**

Defense Distributed,
Second Amendment Foundation, Inc.,
Firearms Policy Coalition, Inc.,
Firearms Policy Foundation,
Calguns Foundation,
California Association of Federal
Firearms Licensees, and
Brandon Combs,

Plaintiffs,

v.

Gurbir Grewal, Attorney General of the
State of New Jersey,

Defendant.

No. 3:19-cv-04753-AET-TJB

**PLAINTIFFS' PROPOSED ORDER
GRANTING PRELIMINARY INJUNCTION**

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**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY**

Defense Distributed,
Second Amendment Foundation, Inc.,
Firearms Policy Coalition, Inc.,
Firearms Policy Foundation,
Calguns Foundation,
California Association of Federal
Firearms Licensees, and
Brandon Combs,

Plaintiffs,

v.

Gurbir Grewal, Attorney General of the
State of New Jersey,

Defendant.

No. 3:19-cv-04753-AET-TJB

ORDER GRANTING PRELIMINARY INJUNCTION

This matter having been presented to the Court upon the application of Plaintiffs, by and through their counsel, Hartman & Winnicki, P.C., and Beck Redden LLP for a preliminary injunction pursuant to Federal Rule Civil Procedure 65; and the Court having considered the verified complaint, the affidavits and other evidence, the brief in support of Plaintiff's motion, and the arguments of counsel; the Court has determined that Plaintiffs are very likely to succeed on the merits of their claims, that Plaintiffs will suffer irreparable harm without immediate injunctive relief, that the balance of harms weighs heavily in Plaintiffs' favor, that granting this relief is in the public interest, and that Plaintiffs application for a preliminary injunction should be granted.

Therefore, on this ___ day of _____ 2019, the Court GRANTS the motion and ORDERS as follows:

1. New Jersey Attorney General Gurbir Grewal is enjoined from enforcing New Jersey Statute 2C:39-9(l)(2) against Plaintiffs.
2. New Jersey Attorney General Gurbir Grewal is enjoined from directing the Plaintiffs to cease and desist publishing computer files with digital firearms information.
3. New Jersey Attorney General Gurbir Grewal is enjoined from directing Plaintiffs' communication service providers to cease and desist publishing Plaintiffs' computer files with digital firearms information.
4. This order applies against anyone that both receives actual notice of it by personal service or otherwise and is either (1) an officer, agent, servant, employee, or attorney of New Jersey Attorney General Gurbir Grewal, or (2) in active concert or participation with Attorney General Gurbir Grewal. No security is required.
5. This order takes effect immediately and shall remain in effect for the pendency of this litigation or until further action from this Court.

Dated: _____

United States District Judge

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY**

Defense Distributed,
Second Amendment Foundation, Inc.,
Firearms Policy Coalition, Inc.,
Firearms Policy Foundation,
The Calguns Foundation,
California Association of Federal
Firearms Licensees, Inc., and
Brandon Combs,

Plaintiffs,

v.

Gurbir Grewal, Attorney General of the
State of New Jersey,

Defendant.

No. 3:19-CV-04753-aet-tjb

Amended Declaration of Brandon Combs

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**Pro hac vice* motion to be filed

Counsel for Plaintiffs

AMENDED DECLARATION OF BRANDON COMBS

I, Brandon Combs, declare as follows:

1. I am the founder and president of institutional plaintiff Firearms Policy Coalition, Inc. (FPC), founder and president of institutional plaintiff Firearms Policy Foundation (FPF), the secretary and executive director of institutional plaintiff The Calguns Foundation (CGF), the founder and executive vice president of institutional plaintiff California Association of Federal Firearms Licensees, Inc. (CAL-FFL), and the creator and developer of CodeIsFreeSpeech.com. I am a Life member in good standing of Second Amendment Foundation and a current member in good standing of Defense Distributed “LEGIO,” Defense Distributed’s “political and technical fraternity.” I reside outside of the State of New Jersey.
2. The CodeIsFreeSpeech (CIFS) project, located online at CodeIsFreeSpeech.com, is a project of Firearms Policy Coalition, Inc., Firearms Policy Foundation, The Calguns Foundation, California Association of Federal Firearms Licensees, Inc., and individuals, including me, who are passionate about the Constitution and individual liberties, including the freedom of speech.
3. CodeIsFreeSpeech.com is a publicly-available Web site for the publication and re-publication of truthful, non-misleading, non-commercial political speech and information that is protected under the United States Constitution. The purpose of the CIFS project is to allow people to share knowledge and empower them to exercise their fundamental, individual rights. CIFS contains, among other things, links to digital instructions in the form of computer-aided design files or other code or instructions stored and displayed in electronic format as a digital model that may be used to program a three-dimensional printer to manufacture or produce a firearm, firearm receiver, magazine, or firearm component.
4. Firearms Policy Coalition, Inc. (FPC) is a 501(c)4 non-profit membership organization incorporated under the laws of Delaware with its principal place of business in Sacramento, California, with members and supporters throughout the country. FPC's primary mission is to protect and defend the Constitution of the United States and the People's rights, privileges, and immunities deeply rooted in this Nation's history and tradition through all lawful activities and programs, with a focus on the fundamental, individual right to keep and bear arms and freedom of speech. FPC has participated in and funded First Amendment direct advocacy (lobbying), grassroots advocacy, education, litigation, and other activities to defend and advance the freedom of speech. FPC is a partner (with FPF) in K12speech.com, a website

and initiative to help students and parents understand and lawfully exercise their rights, among other things.

5. Firearms Policy Foundation (FPF) is a 501(c)3 non-profit membership organization incorporated under the laws of Delaware with its principal place of business in Sacramento, California, with members and supporters throughout the country. FPF's primary mission is to protect and defend the Constitution of the United States and the People's rights, privileges, and immunities deeply rooted in this Nation's history and tradition through all lawful charitable activities and programs, with a focus on the fundamental, individual right to keep and bear arms and freedom of speech. FPF has participated in and funded First Amendment advocacy, education, litigation, and other activities to defend and advance the freedom of speech. FPF is a partner (with FPC) in K12speech.com, a website and initiative to help students and parents understand and lawfully exercise their rights, among other things.
6. The Calguns Foundation (CGF) is a 501(c)3 non-profit membership organization incorporated under the laws of California with its principal place of business in Sacramento, California. CGF is dedicated to promoting education about California and federal firearm laws and protecting the civil rights of California gun owners. CGF has participated in and funded First Amendment education, litigation, and other charitable activities to defend and advance the freedom of speech.
7. California Association of Federal Firearms Licensees, Inc. (CAL-FFL) is a 501(c)6 non-profit membership organization incorporated under the laws of California with its principal place of business in Sacramento, California. CAL-FFL members include firearm dealers, training professionals, shooting ranges, collectors, gun owners, and others who participate in the firearms ecosystem. CAL-FFL's mission is to defend and advance the interests of its members and the firearms ecosystem without compromising individual or economic rights. CAL-FFL has supported Second Amendment and First Amendment direct advocacy, grassroots advocacy, education, litigation, and other activities to defend and advance constitutional rights and a free market.
8. I began creating and developing CIFS during the week of July 22, 2018. CIFS was launched and made public on the Internet on July 31, 2018. At the time of its launch, CIFS used the Internet technology services of Professional Edge LLC (PELLC). The owner of PELLC represented to me that their Web hosting services utilized a software management layer that directed the use of Amazon AWS products, including Web servers.

9. On or about 4:04 p.m. August 1, 2018, CIFS was subject to a “takedown” from Amazon AWS under Abuse Case Number 17329175247-1. PELLC forwarded to me a copy of the takedown demand sent by Amazon AWS from Amazon EC2 Abuse (ec2-abuse@amazon.com). Referring to the URL http://codeisfreespeech.com/code_files/liberator_complete.zip, the takedown stated:

* Comments:

<<<

“Liberator (Download)- The Liberator is a physibile [sic], 3D-printable single shot handgun, the first such printable firearm design made widely available online, designed by Defense Distributed”

In order to comply with the temporary restraining order, the reported content must be taken down immediately.

Exhibit A is a true and correct copy of this message.

10. The temporary restraining order referred to in the Amazon AWS takedown demand did not restrain or otherwise enjoin or apply to CIFS, FPC, FPF, CGF, CAL-FFL, or me.
11. In response to the takedown demand and the fact that Amazon AWS could not be trusted to defend its customers and their important content against baseless attacks, CIFS ceased using Amazon AWS services and was migrated to other Web service providers that day.
12. PELLC represented to me that, through their conversations with Amazon AWS in response to the takedown demand, they were led to believe that a government actor may have sent Amazon AWS the takedown demand. According to PELLC, Amazon AWS would not disclose to them any information about the takedown demand sender.
13. After the migration was complete, on or about August 2, 2018, CodeIsFreeSpeech.com began to utilize Cloudflare services.
14. On or about August 4, 2018, Facebook banned the CodeIsFreeSpeech.com URL and “de-platformed” content about CIFS that contained the domain name. Facebook and Instagram began to actively block comments, posts, or even private messages containing the CodeIsFreeSpeech.com URL.
15. At approximately 12:50 p.m. Pacific Time on February 2, 2019, a takedown demand that was apparently sent by the New Jersey Office of the Attorney

General to Cloudflare was forwarded to me through an email originating from "Cloudflare Abuse". The takedown demand stated:

This is a notice to Cloudflare that you are serving files consisting of 3D printable firearms in violation of NJ Stat. Ann. § 2C:39-9 3(l)(2). These files are accessible via Cloudflare's New Jersey datacenter. You shall delete all files described within 24 hours or we will be forced to press charges in order to preserve the safety of the citizens of New Jersey.

Exhibit B is a true and correct copy of this message.

16. The "Reported URLs" in the takedown demand were as follows:
 - https://codeisfreespeech.com/code_files/liberator_complete.zip
 - https://codeisfreespeech.com/code_files/ar15_lower_machining/instructions.pdf
 - https://codeisfreespeech.com/code_files/ar15_80_percent_lower.zip
 - https://codeisfreespeech.com/code_files/ar15_complete.zip
 - https://codeisfreespeech.com/code_files/ar10_complete.zip
 - https://codeisfreespeech.com/code_files/ruger_10-22_complete.zip
 - https://codeisfreespeech.com/code_files/1911_complete.zip
 - https://codeisfreespeech.com/code_files/vz58_complete.zip
 - https://codeisfreespeech.com/code_files/beretta_92fs_complete.zip
 - <https://codeisfreespeech.com/checksum.txt>
 - <https://codeisfreespeech.com/gun.png>
 - <https://codeisfreespeech.com/>
17. In an effort to comply with the takedown demand, I engaged the services of a network engineer at my expense. Exhibit C is a true and correct copy of an invoice received for these services.
18. At approximately 1:12 p.m. Pacific Time that same day, access to files at CodeIsFreeSpeech.com were restricted, thus making them inaccessible to anyone who browsed to or otherwise attempted to access them. The Web site itself continued to be accessible. Exhibit D is a true and correct copy of what the website now shows visitors.
19. I have reviewed the letter sent by counsel for the Plaintiffs in this case to counsel for the Defendant, Attorney General Gurbir Grewal, on February 14, 2019, as well as the response that Jeremy Feigenbaum e-mailed to counsel for the Plaintiffs on February 19, 2019.

20. I believe that the content of CodeIsFreeSpeech.com – including the suppressed digital instructions in the form of computer-aided design files or other code or instructions stored and displayed in electronic format as a digital model that may be used to program a three-dimensional printer to manufacture or produce a firearm, firearm receiver, magazine, or firearm component – is protected by the United States Constitution.
21. But for the challenged statutes and Attorney General Gurbir Grewal’s policies, practices, laws, customs, and threats of both civil and criminal prosecution, CIFS and all of its contents and files would be republished online and accessible to people as they were from July 31, 2018 to February 2, 2019, including to persons in the State of New Jersey.

I declare under penalty of perjury that the foregoing is true and correct.

Date: February 20, 2019.

A handwritten signature in black ink, appearing to read 'Brandon Combs', written over a horizontal line.

Brandon Combs

Exhibit A

Fwd: Re: Your Amazon EC2 Abuse Report [17329175247] [AWS ID 759167349927]

Michael @ Professional Edge LLC <m3@professionaledgellc.com>
Reply-To: m3@professionaledgellc.com
To: Brandon Combs

Wed, Aug 1, 2018 at 4:19 PM

----- Forwarded Message -----

Subject:Re: Your Amazon EC2 Abuse Report [17329175247] [AWS ID 759167349927]
Date:Wed, 1 Aug 2018 16:14:35 -0700
From:Michael @ Professional Edge LLC <m3@professionaledgellc.com>
Reply-To:m3@professionaledgellc.com
To:Amazon EC2 Abuse <ec2-abuse@amazon.com>
CC:Michael @ Professional Edge LLC <m3@professionaledgellc.com>

Please provide a copy of the legal restraining order, or call me at my contact info below.

--
Michael Miyabara-McCaskey
Professional Edge / GeoVario Hosting
www.professionaledgellc.com
p.800-208-5510 ext 646
f.408-520-3293

Amazon EC2 Abuse wrote on 8/1/2018 4:04 PM:



[URGENT! IMMEDIATE ACTION REQUIRED OR AWS WILL TAKE ACTION AGAINST YOUR INSTANCES TO PREVENT ACCESS TO THE REPORTED CONTENT IN ORDER TO COMPLY WITH THE RECEIVED TEMPORARY RESTRAINING ORDER (TRO)]

Hello,

We've received a notice regarding unwanted content hosted on your AWS resources. A copy of the complaint identifying the content in question is included below.

Please review the attached notice and take appropriate action.

Regards,
AWS Abuse

Abuse Case Number: 17329175247-1

---Beginning of forwarded report---

* Log Extract:

<<<

http://codeisfreespeech.com/code_files/liberator_complete.zip

>>>

* Comments:

<<<

"Liberator (Download)- The Liberator is a physibile [sic], 3D-printable single shot handgun, the first such printable firearm design made widely available online, designed by Defense Distributed"

In order to comply with the temporary restraining order, the reported content must be taken down immediately.

>>>

How can I contact a member of the Amazon EC2 abuse team or abuse reporter?

Reply this email with the original subject line.

Amazon Web Services

Amazon Web Services LLC is a subsidiary of Amazon.com, Inc. Amazon.com is a registered trademark of Amazon.com, Inc. This message produced and distributed by Amazon Web Services, LLC, 410 Terry Avenue North, Seattle, WA 98109-5210.

Exhibit B

On 2019-02-02 12:25:03-08:00 Cloudflare wrote:

Cloudflare received an abuse report regarding:

codeisfreespeech.com

Please be aware Cloudflare is a network provider offering a reverse proxy, pass-through security service. We are not a hosting provider. Cloudflare does not control the content of our customers.

The actual host for codeisfreespeech.com are the following IP addresses. 208.82.143.90. Using the following command, you can confirm the site in question is hosted at that IP address: curl -v -H "Host: codeisfreespeech.com" 208.82.143.90/

Below is the report we received:

Reporter's Name: New Jersey Office of the Attorney General

Reporter's Email Address: dcjtipline@njdcj.org

Reporter's Telephone Number: 609-984-6500

Reported URLs:

https://codeisfreespeech.com/code_files/liberator_complete.zip
https://codeisfreespeech.com/code_files/ar15_lower_machining/instructions.pdf
https://codeisfreespeech.com/code_files/ar15_80_percent_lower.zip
https://codeisfreespeech.com/code_files/ar15_complete.zip
https://codeisfreespeech.com/code_files/ar10_complete.zip
https://codeisfreespeech.com/code_files/ruger_10-22_complete.zip
https://codeisfreespeech.com/code_files/1911_complete.zip
https://codeisfreespeech.com/code_files/vz58_complete.zip
https://codeisfreespeech.com/code_files/beretta_92fs_complete.zip
<https://codeisfreespeech.com/checksum.txt>
<https://codeisfreespeech.com/gun.png>
<https://codeisfreespeech.com/>

Reported Destination IPs:

{104.27.176.6,104.27.177.6,2606:4700:30::681b:b106,2606:4700:30::681b:b006}

Reported Destination Ports: {443/TCP}

Logs or Evidence of Abuse: This is a notice to Cloudflare that you are serving files consisting of 3D printable firearms in violation of NJ Stat. Ann. § 2C:39-9 3(1)(2). These files are accessible via Cloudflare's New Jersey datacenter. You shall delete all files described within 24 hours or we will be forced to press charges in order to preserve the safety of the citizens of New Jersey.

Please address this issue with your customer.

Regards,

Cloudflare Abuse

Exhibit C

INVOICE

Paid

Gryman Solutions

[Redacted]
[Redacted]
[Redacted]@ [Redacted].com

Invoice #: 0002
Invoice Date: Feb 2, 2019
Due date: Mar 4, 2019

Amount due:
\$0.00

Bill To:

[Redacted]@ [Redacted].com

Description	Hours	Rate	Amount
Website Migration Migrate web data, DNS, SSL certificates to new host.	1	\$100.00	\$100.00
		Subtotal	\$100.00
		Total	\$100.00

Exhibit D

CodeIsFreeSpeech.com

Firearm-Related Speech, Machining Instructions, Codes Published by Civil Rights Organizations, Activists at New CodeIsFreeSpeech.com Website

[Back to CodeIsFreeSpeech.com](http://CodeIsFreeSpeech.com)

SACRAMENTO, CA (July 31, 2018) — Tonight, the organizations and individuals behind CodeIsFreeSpeech.com, a new Web site for the publication and sharing of firearm-related speech, including machine code, have issued the following statement:

Our Constitution's First Amendment secures the right of all people to engage in truthful speech, including by sharing information contained in books, paintings, and files. Indeed, freedom of speech is a bedrock principle of our United States and a cornerstone of our democratic Republic. Through CodeIsFreeSpeech.com, we intend to encourage people to consider new and different aspects of our nation's marketplace of ideas – even if some

government officials disagree with our views or dislike our content – because information is code, code is free speech, and free speech is freedom.

Should any tyrants wish to chill or infringe the rights of the People, we would welcome the opportunity to defend freedom whenever, wherever, and however necessary. Hand-waving and hyperbole are not compelling government interests and censorship is not proper tailoring under the law.

There is no doubt that Cody Wilson and Defense Distributed have inspired countless Americans to exercise their fundamental, individual rights, including through home gunsmithing. Through CodeIsFreeSpeech.com, we hope to promote the collection and dissemination of truthful, non-misleading speech, new and evolving ideas, and the advancement of the Second Amendment right to keep and bear arms.

CodeIsFreeSpeech.com is a publicly-available Web site for truthful, non-misleading speech and information that is protected under the United States Constitution. The purpose of this project is to allow people to share knowledge and empower them to exercise their fundamental, individual rights. CodeIsFreeSpeech.com is a project of Firearms Policy Coalition, Firearms Policy

Association of Federal Firearms Licensees, and a number of individuals who are passionate about the Constitution and individual liberties.

Firearms Policy Coalition (www.firearmspolicy.org) is a 501(c)4 grassroots nonprofit organization. FPC's mission is to defend the Constitution of the United States, especially the fundamental, individual Second Amendment right to keep and bear arms, through advocacy, legal action, education, and outreach.

Firearms Policy

Foundation (www.firearmsfoundation.org) is a 501(c)3 grassroots nonprofit organization. FPF's mission is to defend the Constitution of the United States and the People's rights, privileges and immunities deeply rooted in this Nation's history and tradition, especially the inalienable, fundamental, and individual right to keep and bear arms.

The Calguns Foundation (www.calgunsfoundation.org) is a 501(c)3 non-profit organization that serves its members, supporters, and the public through educational, cultural, and judicial efforts to advance Second Amendment and related civil rights.

California Association of Federal Firearms Licensees (www.calffl.org) is a 501(c)6 nonprofit organization serving its members and the public through direct and grassroots issue advocacy, regulatory input, legal efforts, and education. CAL-FFL's membership includes firearm dealers, training professionals, shooting ranges, licensed collectors, others who participate in the firearms ecosystem.

###

MEDIA CONTACT: [Craig DeLuz](#) / P: [\(916\) 378-5785](tel:(916)378-5785)

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY**

Defense Distributed,
Second Amendment Foundation, Inc.,
Firearms Policy Coalition, Inc.,
Firearms Policy Foundation,
Calguns Foundation,
California Association of Federal
Firearms Licensees, and
Brandon Combs,

Plaintiffs,

v.

Gurbir Grewal, Attorney General of the
State of New Jersey,

Defendant.

No. 3:19-cv-04753-AET-TJB

AMENDED DECLARATION OF DANIEL HAMMOND

1. I am an attorney at Beck Redden LLP in Houston, Texas and counsel for Plaintiffs in this action. I have personal knowledge of the facts set forth herein and could and would testify competently thereto.
2. Exhibit 3 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a letter and enclosures sent by Gurbir Grewal to Defense Distributed on July 26, 2018.
3. Exhibit 4 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a letter sent by Gurbir Grewal to the Deputy Clerk of the Court of the Superior Court of New Jersey

on July 30, 2018.

4. Exhibit 5 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a letter sent by Gurbir Grewal to DreamHost on July 30, 2018 and a letter sent to Cloudflare on November 22, 2018.
5. Exhibit 6 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a press release issued by Gurbir Grewal on July 30, 2018.
6. Exhibit 7 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a letter sent by Gurbir Grewal and others to Mike Pompeo and Jeff Sessions on July 30, 2018.
7. Exhibit 8 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a letter sent by Gurbir Grewal and others to Mike Pompeo and Jeff Sessions on August 10, 2018.
8. Exhibit 9 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a letter Gurbir Grewal sent to Defense Distributed on August 30, 2018.
9. Exhibit 10 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a letter Dan Schmitter sent to Janine Matton on September 4, 2018.
10. Exhibit 11 in support of Plaintiffs' motion for a temporary restraining order

and preliminary injunction is a true and correct copy of a letter the United States Department of State sent to Defense Distributed on May 8, 2013.

11. Exhibit 12 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a letter Jahan Harwig sent to Sarah Heidema on June 21, 2013.
12. Exhibit 14 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a Settlement Agreement between Defense Distributed, the Second Amendment Foundation, Inc., Conn Williamson, and officials of the United States Department of State.
13. Exhibit 15 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a letter sent by the United States Department of State to Cody Wilson, Defense Distributed, and the Second Amendment Foundation, Inc. on July 27, 2018.
14. Exhibit 16 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of the Temporary Modification of Category I of the United States Munitions List that occurred on July 27, 2018
15. Exhibit 18 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a letter sent by the United States Department of Justice to Jeff Sprung on August 2, 2018.

16. Exhibit 27 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a July 10, 2018 Wired Magazine article.
17. Exhibit 28 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of an email from Todd Bowers to Aaron Goldstein and others sent on August 2, 2018.
18. Exhibit 29 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a press release issued by New York Attorney General Barbara Underwood.
19. Exhibit 30 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of an Amazon.com product listing for a book entitled "The Liberator Code Book: An Exercise in the Freedom of Speech.
20. Exhibit 31 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a Forbes Magazine online article published on August 23, 2018.
21. Exhibit 32 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a RedState Magazine article published on August 1, 2018.
22. Exhibit 33 are true and correct copies of screenshots from the websites of defcad.com, GrabCAD.com, CNCGuns.com, and FOSSCAD.org as of July

- 26, 2018.
23. Exhibit 34 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of the 3D Insider's publication "How to 3D Print: Beginner's Guide to 3D Printing" from November 25, 2018
 24. Exhibit 35 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of All3DP's article "3D Slicer Settings for Beginners – 8 Things You Need to Know" from November 25, 2018.
 25. Exhibit 36 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of 3Dhubs' online article "Introduction" as of November 25, 2018.
 26. Exhibit 37 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a GrabCAD.com website as of November 27, 2018.
 27. Exhibit 38 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of an optimusdefense.com website as of November 27, 2018.
 28. Exhibit 39 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a cncguns.com website as of November 27, 2018.

29. Exhibit 40 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a biggerhammer.net website as of November 27, 2018.
30. Exhibit 41 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a 3dcadbrowser.com website as of November 27, 2018.
31. Exhibit 48 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of Eric S. Raymond's "The Cathedral and the Bazaar" publication as of November 27, 2018.
32. Exhibit 49 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a pinshape.com website as of November 27, 2018.
33. Exhibit 52 in support of Plaintiffs' motion for a temporary restraining order and preliminary injunction is a true and correct copy of a press release issued by New Jersey Governor Phil Murphy.
34. Exhibit 53 is a true and correct copy of a screenshot of a barnesandnoble.com website as of February 5, 2019.
35. Exhibit 54 is a true and correct of an e-mail and its attachment sent from Chad Flores to Jeremy Feigenbaum, Katherine Gregory, Melissa Medoway, and Gless Moramarco on February 14, 2019.
36. Exhibit 55 is a true and correct copy of an e-mail sent from Jeremy

Feigenbaum to Chad Flores, Katherine Gregory, Melissa Medoway, and Glenn Moramarco sent on February 19, 2019.

37. I declare under penalty of perjury that the foregoing is true and correct.

s/ Daniel Hammond

February 20, 2019

EXHIBIT

1

P.L. 2018, CHAPTER 138, *approved November 8, 2018*
Senate, No. 2465 (*Third Reprint*)

1 AN ACT concerning ¹**[untraceable]**¹ firearms and amending
2 ²**[N.J.S.2C:39-9]** various parts of the statutory law².
3

4 **BE IT ENACTED** by the Senate and General Assembly of the State
5 of New Jersey:
6

7 ²1. N.J.S.2C:39-1 is amended to read as follows:

8 2C:39-1. Definitions. The following definitions apply to this
9 chapter and to chapter 58:

10 a. "Antique firearm" means any rifle or shotgun and "antique
11 cannon" means a destructive device defined in paragraph (3) of
12 subsection c. of this section, if the rifle, shotgun or destructive device,
13 as the case may be, is incapable of being fired or discharged, or which
14 does not fire fixed ammunition, regardless of date of manufacture, or
15 was manufactured before 1898 for which cartridge ammunition is not
16 commercially available, and is possessed as a curiosity or ornament or
17 for its historical significance or value.

18 b. "Deface" means to remove, deface, cover, alter or destroy the
19 name of the maker, model designation, manufacturer's serial number
20 or any other distinguishing identification mark or number on any
21 firearm.

22 c. "Destructive device" means any device, instrument or object
23 designed to explode or produce uncontrolled combustion, including (1)
24 any explosive or incendiary bomb, mine or grenade; (2) any rocket
25 having a propellant charge of more than four ounces or any missile
26 having an explosive or incendiary charge of more than one-quarter of
27 an ounce; (3) any weapon capable of firing a projectile of a caliber
28 greater than 60 caliber, except a shotgun or shotgun ammunition
29 generally recognized as suitable for sporting purposes; (4) any
30 Molotov cocktail or other device consisting of a breakable container
31 containing flammable liquid and having a wick or similar device
32 capable of being ignited. The term does not include any device
33 manufactured for the purpose of illumination, distress signaling, line-
34 throwing, safety or similar purposes.

35 d. "Dispose of" means to give, give away, lease, loan, keep for
36 sale, offer, offer for sale, sell, transfer, or otherwise transfer
37 possession.

38 e. "Explosive" means any chemical compound or mixture that is
39 commonly used or is possessed for the purpose of producing an
40 explosion and which contains any oxidizing and combustible materials

EXPLANATION – Matter enclosed in bold-faced brackets **[thus]** in the above bill is
not enacted and is intended to be omitted in the law.

Matter underlined thus is new matter.

Matter enclosed in superscript numerals has been adopted as follows:

¹Senate SLP committee amendments adopted April 16, 2018.

²Assembly AJU committee amendments adopted September 17, 2018.

³Assembly floor amendments adopted September 27, 2018.

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2

1 or other ingredients in such proportions, quantities or packing that an
2 ignition by fire, by friction, by concussion or by detonation of any part
3 of the compound or mixture may cause such a sudden generation of
4 highly heated gases that the resultant gaseous pressures are capable of
5 producing destructive effects on contiguous objects. The term shall not
6 include small arms ammunition, or explosives in the form prescribed
7 by the official United States Pharmacopoeia.

8 f. "Firearm" means any handgun, rifle, shotgun, machine gun,
9 automatic or semi-automatic rifle, or any gun, device or instrument in
10 the nature of a weapon from which may be fired or ejected any solid
11 projectable ball, slug, pellet, missile or bullet, or any gas, vapor or
12 other noxious thing, by means of a cartridge or shell or by the action of
13 an explosive or the igniting of flammable or explosive substances. It
14 shall also include, without limitation, any firearm which is in the
15 nature of an air gun, spring gun or pistol or other weapon of a similar
16 nature in which the propelling force is a spring, elastic band, carbon
17 dioxide, compressed or other gas or vapor, air or compressed air, or is
18 ignited by compressed air, and ejecting a bullet or missile smaller than
19 three-eighths of an inch in diameter, with sufficient force to injure a
20 person.

21 g. "Firearm silencer" means any instrument, attachment, weapon
22 or appliance for causing the firing of any gun, revolver, pistol or other
23 firearm to be silent, or intended to lessen or muffle the noise of the
24 firing of any gun, revolver, pistol or other firearm.

25 h. "Gravity knife" means any knife which has a blade which is
26 released from the handle or sheath thereof by the force of gravity or
27 the application of centrifugal force.

28 i. "Machine gun" means any firearm, mechanism or instrument
29 not requiring that the trigger be pressed for each shot and having a
30 reservoir, belt or other means of storing and carrying ammunition
31 which can be loaded into the firearm, mechanism or instrument and
32 fired therefrom. A machine gun also shall include, without limitation,
33 any firearm with a trigger crank attached.

34 j. "Manufacturer" means any person who receives or obtains raw
35 materials or parts and processes them into firearms or finished parts of
36 firearms, except a person who exclusively processes grips, stocks and
37 other nonmetal parts of firearms. The term does not include a person
38 who repairs existing firearms or receives new and used raw materials
39 or parts solely for the repair of existing firearms.

40 k. "Handgun" means any pistol, revolver or other firearm
41 originally designed or manufactured to be fired by the use of a single
42 hand.

43 l. "Retail dealer" means any person including a gunsmith, except
44 a manufacturer or a wholesale dealer, who sells, transfers or assigns
45 for a fee or profit any firearm or parts of firearms or ammunition
46 which he has purchased or obtained with the intention, or for the
47 purpose, of reselling or reassigning to persons who are reasonably
48 understood to be the ultimate consumers, and includes any person who

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- 1 is engaged in the business of repairing firearms or who sells any
2 firearm to satisfy a debt secured by the pledge of a firearm.
- 3 m. "Rifle" means any firearm designed to be fired from the
4 shoulder and using the energy of the explosive in a fixed metallic
5 cartridge to fire a single projectile through a rifled bore for each single
6 pull of the trigger.
- 7 n. "Shotgun" means any firearm designed to be fired from the
8 shoulder and using the energy of the explosive in a fixed shotgun shell
9 to fire through a smooth bore either a number of ball shots or a single
10 projectile for each pull of the trigger, or any firearm designed to be
11 fired from the shoulder which does not fire fixed ammunition.
- 12 o. "Sawed-off shotgun" means any shotgun having a barrel or
13 barrels of less than 18 inches in length measured from the breech to
14 the muzzle, or a rifle having a barrel or barrels of less than 16 inches in
15 length measured from the breech to the muzzle, or any firearm made
16 from a rifle or a shotgun, whether by alteration, or otherwise, if such
17 firearm as modified has an overall length of less than 26 inches.
- 18 p. "Switchblade knife" means any knife or similar device which
19 has a blade which opens automatically by hand pressure applied to a
20 button, spring or other device in the handle of the knife.
- 21 q. "Superintendent" means the Superintendent of the State Police.
- 22 r. "Weapon" means anything readily capable of lethal use or of
23 inflicting serious bodily injury. The term includes, but is not limited
24 to, all (1) firearms, even though not loaded or lacking a clip or other
25 component to render them immediately operable; (2) components
26 which can be readily assembled into a weapon; (3) gravity knives,
27 switchblade knives, daggers, dirks, stilettos, or other dangerous knives,
28 billies, blackjacks, bludgeons, metal knuckles, sandclubs, slingshots,
29 cesti or similar leather bands studded with metal filings or razor blades
30 imbedded in wood; and (4) stun guns; and any weapon or other device
31 which projects, releases, or emits tear gas or any other substance
32 intended to produce temporary physical discomfort or permanent
33 injury through being vaporized or otherwise dispensed in the air.
- 34 s. "Wholesale dealer" means any person, except a manufacturer,
35 who sells, transfers, or assigns firearms, or parts of firearms, to
36 persons who are reasonably understood not to be the ultimate
37 consumers, and includes persons who receive finished parts of
38 firearms and assemble them into completed or partially completed
39 firearms, in furtherance of such purpose, except that it shall not
40 include those persons dealing exclusively in grips, stocks and other
41 nonmetal parts of firearms.
- 42 t. "Stun gun" means any weapon or other device which emits an
43 electrical charge or current intended to temporarily or permanently
44 disable a person.
- 45 u. "Ballistic knife" means any weapon or other device capable of
46 lethal use and which can propel a knife blade.
- 47 v. "Imitation firearm" means an object or device reasonably
48 capable of being mistaken for a firearm.
- 49 w. "Assault firearm" means:

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4

- 1 (1) The following firearms:
- 2 Algimec AGM1 type
- 3 Any shotgun with a revolving cylinder such as the "Street
- 4 Sweeper" or "Striker 12"
- 5 Armalite AR-180 type
- 6 Australian Automatic Arms SAR
- 7 Avtomat Kalashnikov type semi-automatic firearms
- 8 Beretta AR-70 and BM59 semi-automatic firearms
- 9 Bushmaster Assault Rifle
- 10 Calico M-900 Assault carbine and M-900
- 11 CETME G3
- 12 Chartered Industries of Singapore SR-88 type
- 13 Colt AR-15 and CAR-15 series
- 14 Daewoo K-1, K-2, Max 1 and Max 2, AR 100 types
- 15 Demro TAC-1 carbine type
- 16 Encom MP-9 and MP-45 carbine types
- 17 FAMAS MAS223 types
- 18 FN-FAL, FN-LAR, or FN-FNC type semi-automatic firearms
- 19 Franchi SPAS 12 and LAW 12 shotguns
- 20 G3SA type
- 21 Galil type Heckler and Koch HK91, HK93, HK94, MP5, PSG-1
- 22 Intratec TEC 9 and 22 semi-automatic firearms
- 23 M1 carbine type
- 24 M14S type
- 25 MAC 10, MAC 11, MAC 11-9mm carbine type firearms
- 26 PJK M-68 carbine type
- 27 Plainfield Machine Company Carbine
- 28 Ruger K-Mini-14/5F and Mini-14/5RF
- 29 SIG AMT, SIG 550SP, SIG 551SP, SIG PE-57 types
- 30 SKS with detachable magazine type
- 31 Spectre Auto carbine type
- 32 Springfield Armory BM59 and SAR-48 type
- 33 Sterling MK-6, MK-7 and SAR types
- 34 Steyr A.U.G. semi-automatic firearms
- 35 USAS 12 semi-automatic type shotgun
- 36 Uzi type semi-automatic firearms
- 37 Valmet M62, M71S, M76, or M78 type semi-automatic firearms
- 38 Weaver Arm Nighthawk.
- 39 (2) Any firearm manufactured under any designation which is
- 40 substantially identical to any of the firearms listed above.
- 41 (3) A semi-automatic shotgun with either a magazine capacity
- 42 exceeding six rounds, a pistol grip, or a folding stock.
- 43 (4) A semi-automatic rifle with a fixed magazine capacity
- 44 exceeding 10 rounds. "Assault firearm" shall not include a semi-
- 45 automatic rifle which has an attached tubular device and which is
- 46 capable of operating only with .22 caliber rimfire ammunition.
- 47 (5) A part or combination of parts designed or intended to convert
- 48 a firearm into an assault firearm, or any combination of parts from

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1 which an assault firearm may be readily assembled if those parts are in
2 the possession or under the control of the same person.

3 (6) A firearm with a bump stock attached.

4 x. "Semi-automatic" means a firearm which fires a single
5 projectile for each single pull of the trigger and is self-reloading or
6 automatically chambers a round, cartridge, or bullet.

7 y. "Large capacity ammunition magazine" means a box, drum,
8 tube or other container which is capable of holding more than 10
9 rounds of ammunition to be fed continuously and directly therefrom
10 into a semi-automatic firearm. The term shall not include an attached
11 tubular device which is capable of holding only .22 caliber rimfire
12 ammunition.

13 z. "Pistol grip" means a well-defined handle, similar to that found
14 on a handgun, that protrudes conspicuously beneath the action of the
15 weapon, and which permits the shotgun to be held and fired with one
16 hand.

17 aa. "Antique handgun" means a handgun manufactured before
18 1898, or a replica thereof, which is recognized as being historical in
19 nature or of historical significance and either (1) utilizes a match,
20 friction, flint, or percussion ignition, or which utilizes a pin-fire
21 cartridge in which the pin is part of the cartridge or (2) does not fire
22 fixed ammunition or for which cartridge ammunition is not
23 commercially available.

24 bb. "Trigger lock" means a commercially available device
25 approved by the Superintendent of State Police which is operated with
26 a key or combination lock that prevents a firearm from being
27 discharged while the device is attached to the firearm. It may include,
28 but need not be limited to, devices that obstruct the barrel or cylinder
29 of the firearm, as well as devices that immobilize the trigger.

30 cc. "Trigger locking device" means a device that, if installed on a
31 firearm and secured by means of a key or mechanically, electronically
32 or electromechanically operated combination lock, prevents the
33 firearm from being discharged without first deactivating or removing
34 the device by means of a key or mechanically, electronically or
35 electromechanically operated combination lock.

36 dd. "Personalized handgun" means a handgun which incorporates
37 within its design, and as part of its original manufacture, technology
38 which automatically limits its operational use and which cannot be
39 readily deactivated, so that it may only be fired by an authorized or
40 recognized user. The technology limiting the handgun's operational
41 use may include, but not be limited to: radio frequency tagging, touch
42 memory, remote control, fingerprint, magnetic encoding and other
43 automatic user identification systems utilizing biometric, mechanical
44 or electronic systems. No make or model of a handgun shall be
45 deemed to be a "personalized handgun" unless the Attorney General
46 has determined, through testing or other reasonable means, that the
47 handgun meets any reliability standards that the manufacturer may
48 require for its commercially available handguns that are not
49 personalized or, if the manufacturer has no such reliability standards,

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6

1 the handgun meets the reliability standards generally used in the
2 industry for commercially available handguns.

3 ee. "Bump stock" means any device or instrument for a firearm
4 that increases the rate of fire achievable with the firearm by using
5 energy from the recoil of the firearm to generate a reciprocating action
6 that facilitates repeated activation of the trigger.

7 ff. "Trigger crank" means any device or instrument to be attached
8 to a firearm that repeatedly activates the trigger of the firearm through
9 the use of a lever or other part that is turned in a circular motion;
10 provided, however, the term shall not include any weapon initially
11 designed and manufactured to fire through the use of a crank or lever.

12 gg. "Armor piercing ammunition" means: (1) a projectile or
13 projectile core which may be used in a handgun and is constructed
14 entirely, excluding the presence of traces of other substances, from one
15 or a combination of tungsten alloys, steel, iron, brass, bronze,
16 beryllium copper, or depleted uranium; or (2) a full jacketed projectile
17 larger than .22 caliber designed and intended for use in a handgun and
18 whose jacket has a weight of more than 25 percent of the total weight
19 of the projectile. "Armor piercing ammunition" shall not include
20 shotgun shot required by federal or State environmental or game
21 regulations for hunting purposes, a frangible projectile designed for
22 target shooting, a projectile which the United States Attorney General
23 finds is primarily intended to be used for sporting purposes, or any
24 other projectile or projectile core which the United States Attorney
25 General finds is intended to be used for industrial purposes, including
26 a charge used in an oil gas well perforating device.

27 hh. "Covert firearm" means any firearm that is constructed in a
28 shape or configuration such that it does not resemble a handgun, rifle,
29 shotgun, or machine gun including, but not limited to, a firearm that
30 resembles a key-chain, pen, cigarette lighter, cigarette package,
31 cellphone, smart phone, wallet, or cane.

32 ii. "Undetectable firearm" means a firearm³ [constructed entirely
33 of non-metal substances, or a firearm that does not include at least one
34 major component, such as the barrel, slide, cylinder, frame or receiver
35 of the firearm, that is made entirely of metal such that,] that: (1) after
36 removal of all parts other than major components, is not as detectable
37 as the Security Exemplar, by walk-through metal detectors calibrated
38 and operated to detect the Security Exemplar; or (2) includes a major
39 component which,³ if the firearm were subjected to inspection by the
40 types of detection devices commonly used at airports for security
41 screening, ³[it]³ would not generate an image that accurately depicts
42 the shape of the component.² ³"Undetectable firearm" shall not be
43 construed to include a firearm subject to the provisions of paragraphs
44 (3) through (6) of subsection (p) of 18 U.S.C. s.922.

45 jj. "Major component" means the slide or cylinder or the frame or
46 receiver of a firearm and, in the case of a rifle or shotgun, also includes
47 the barrel.

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7

1 kk. "Security Exemplar" means the Security Exemplar fabricated
2 in accordance with subparagraph (C) of paragraph (2) of subsection (p)
3 of 18 U.S.C. s.922.³
4 (cf: P.L.2018, c.39, s.1)

5
6 ²2. N.J.S.2C:39-3 is amended to read as follows:

7 2C:39-3. Prohibited Weapons and Devices.

8 a. Destructive devices. Any person who knowingly has in his
9 possession any destructive device is guilty of a crime of the third
10 degree.

11 b. Sawed-off shotguns. Any person who knowingly has in his
12 possession any sawed-off shotgun is guilty of a crime of the third
13 degree.

14 c. Silencers. Any person who knowingly has in his possession
15 any firearm silencer is guilty of a crime of the fourth degree.

16 d. Defaced firearms. Any person who knowingly has in his
17 possession any firearm which has been defaced, except an antique
18 firearm or an antique handgun, is guilty of a crime of the fourth
19 degree.

20 e. Certain weapons. Any person who knowingly has in his
21 possession any gravity knife, switchblade knife, dagger, dirk,
22 stiletto, billy, blackjack, metal knuckle, sandclub, slingshot, cestus
23 or similar leather band studded with metal filings or razor blades
24 imbedded in wood, ballistic knife, without any explainable lawful
25 purpose, is guilty of a crime of the fourth degree.

26 f. Dum-dum or armor piercing ammunition. (1) Any person,
27 other than a law enforcement officer or persons engaged in
28 activities pursuant to subsection f. of N.J.S.2C:39-6, who
29 knowingly has in his possession any hollow nose or dum-dum
30 bullet, or (2) any person, other than a collector of firearms or
31 ammunition as curios or relics as defined in Title 18, United States
32 Code, section 921 (a) (13) and has in his possession a valid
33 Collector of Curios and Relics License issued by the Bureau of
34 Alcohol, Tobacco, Firearms, and Explosives, who knowingly has in
35 his possession any armor piercing ammunition as defined in
36 subsection gg. of N.J.S.2C:39-1 is guilty of a crime of the fourth
37 degree. For purposes of this section, a collector may possess not
38 more than three examples of each distinctive variation of the
39 ammunition described above. A distinctive variation includes a
40 different head stamp, composition, design, or color.

41 g. Exceptions. (1) Nothing in subsection a., b., c., d., e., f., j.
42 or k. of this section shall apply to any member of the Armed Forces
43 of the United States or the National Guard, or except as otherwise
44 provided, to any law enforcement officer while actually on duty or
45 traveling to or from an authorized place of duty, provided that his
46 possession of the prohibited weapon or device has been duly
47 authorized under the applicable laws, regulations or military or law
48 enforcement orders.

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8

1 Nothing in subsection h. of this section shall apply to any law
2 enforcement officer who is exempted from the provisions of that
3 subsection by the Attorney General. Nothing in this section shall
4 apply to the possession of any weapon or device by a law
5 enforcement officer who has confiscated, seized or otherwise taken
6 possession of said weapon or device as evidence of the commission
7 of a crime or because he believed it to be possessed illegally by the
8 person from whom it was taken, provided that said law enforcement
9 officer promptly notifies his superiors of his possession of such
10 prohibited weapon or device.

11 (2) a. Nothing in subsection f. (1) shall be construed to prevent a
12 pers from keeping such ammunition at his dwelling, premises or
13 other land owned or possessed by him, or from carrying such
14 ammunition from the place of purchase to said dwelling or land, nor
15 shall subsection f. (1) be construed to prevent any licensed retail or
16 wholesale firearms dealer from possessing such ammunition at its
17 licensed premises, provided that the seller of any such ammunition
18 shall maintain a record of the name, age and place of residence of
19 any purchaser who is not a licensed dealer, together with the date of
20 sale and quantity of ammunition sold.

21 b. Nothing in subsection f.(1) shall be construed to prevent a
22 designated employee or designated licensed agent for a nuclear
23 power plant under the license of the Nuclear Regulatory
24 Commission from possessing hollow nose ammunition while in the
25 actual performance of his official duties, if the federal licensee
26 certifies that the designated employee or designated licensed agent
27 is assigned to perform site protection, guard, armed response or
28 armed escort duties and is appropriately trained and qualified, as
29 prescribed by federal regulation, to perform those duties.

30 (3) Nothing in paragraph (2) of subsection f. or in subsection j.
31 shall be construed to prevent any licensed retail or wholesale
32 firearms dealer from possessing that ammunition or large capacity
33 ammunition magazine at its licensed premises for sale or disposition
34 to another licensed dealer, the Armed Forces of the United States or
35 the National Guard, or to a law enforcement agency, provided that
36 the seller maintains a record of any sale or disposition to a law
37 enforcement agency. The record shall include the name of the
38 purchasing agency, together with written authorization of the chief
39 of police or highest ranking official of the agency, the name and
40 rank of the purchasing law enforcement officer, if applicable, and
41 the date, time and amount of ammunition sold or otherwise
42 disposed. A copy of this record shall be forwarded by the seller to
43 the Superintendent of the Division of State Police within 48 hours
44 of the sale or disposition.

45 (4) Nothing in subsection a. of this section shall be construed to
46 apply to antique cannons as exempted in subsection d. of
47 N.J.S.2C:39-6.

48 (5) Nothing in subsection c. of this section shall be construed to
49 apply to any person who is specifically identified in a special deer

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9

1 management permit issued by the Division of Fish and Wildlife to
2 utilize a firearm silencer as part of an alternative deer control
3 method implemented in accordance with a special deer management
4 permit issued pursuant to section 4 of P.L.2000, c.46 (C.23:4-42.6),
5 while the person is in the actual performance of the permitted
6 alternative deer control method and while going to and from the
7 place where the permitted alternative deer control method is being
8 utilized. This exception shall not, however, otherwise apply to any
9 person to authorize the purchase or possession of a firearm silencer.

10 h. Stun guns. Any person who knowingly has in his possession
11 any stun gun is guilty of a crime of the fourth degree.

12 i. Nothing in subsection e. of this section shall be construed to
13 prevent any guard in the employ of a private security company, who
14 is licensed to carry a firearm, from the possession of a nightstick
15 when in the actual performance of his official duties, provided that
16 he has satisfactorily completed a training course approved by the
17 Police Training Commission in the use of a nightstick.

18 j. Any person who knowingly has in his possession a large
19 capacity ammunition magazine is guilty of a crime of the fourth
20 degree unless the person has registered: (1) an assault firearm
21 pursuant to section 11 of P.L.1990, c.32 (C.2C:58-12) and the
22 magazine is maintained and used in connection with participation in
23 competitive shooting matches sanctioned by the Director of Civilian
24 Marksmanship of the United States Department of the Army ; or

25 (2) a firearm with a fixed magazine capacity or detachable
26 magazine capable of holding up to 15 rounds pursuant to section 7
27 of P.L.2018, c.39 (C.2C:39-20).

28 k. Handcuffs. Any person who knowingly has in his
29 possession handcuffs as defined in P.L.1991, c.437 (C.2C:39-9.2),
30 under circumstances not manifestly appropriate for such lawful uses
31 as handcuffs may have, is guilty of a disorderly persons offense. A
32 law enforcement officer shall confiscate handcuffs possessed in
33 violation of the law.

34 l. Bump stock or trigger crank. Any person who knowingly
35 possesses a bump stock as defined in subsection ee. of N.J.S.2C:39-
36 1 or a trigger crank as defined in subsection ff. of N.J.S.2C:39-1,
37 regardless of whether the person is in possession of a firearm, is
38 guilty of a crime of the third degree.

39 Notwithstanding the provisions of N.J.S.2C:1-8 or any other
40 provision of law, a conviction arising out of this subsection shall
41 not merge with a conviction for possessing an assault firearm in
42 violation of subsection f. of N.J.S.2C:39-5 or a machine gun in
43 violation of subsection a. of N.J.S.2C:39-5 and a separate sentence
44 shall be imposed upon each conviction. Notwithstanding the
45 provisions of N.J.S.2C:44-5 or any other provisions of law, the
46 sentence imposed pursuant to this subsection shall be served
47 consecutively to that imposed for unlawfully possessing an assault
48 firearm in violation of subsection f. of N.J.S.2C:39-5.

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1 m. Covert or undetectable firearms. Any person who
2 knowingly possesses any covert firearm as defined in subsection hh.
3 of N.J.S.2C:39-1, an undetectable firearm as defined in subsection
4 ii. of N.J.S.2C:39-1, or a firearm enclosed in a container or covering
5 that is designed or modified to allow the firearm to be fired while so
6 enclosed and that disguises or obscures the shape of the firearm
7 such that it does not resemble a handgun, rifle, shotgun, or machine
8 gun is guilty a crime of the third degree.²
9 (cf: P.L.2018, c.39, s.2).

10

11 ²[1.] 3.² N.J.S.2C:39-9 is amended to read as follows:

12 2C:39-9. Manufacture, Transport, Disposition and Defacement
13 of Weapons and Dangerous Instruments and Appliances. a.
14 Machine guns. Any person who manufactures, causes to be
15 manufactured, transports, ships, sells or disposes of any machine
16 gun without being registered or licensed to do so as provided in
17 chapter 58 ²of Title 2C of the New Jersey Statutes² is guilty of a
18 crime of the third degree.

19 b. Sawed-off shotguns. Any person who manufactures, causes
20 to be manufactured, transports, ships, sells or disposes of any
21 sawed-off shotgun is guilty of a crime of the third degree.

22 c. Firearm silencers. Any person who manufactures, causes to
23 be manufactured, transports, ships, sells or disposes of any firearm
24 silencer is guilty of a crime of the fourth degree.

25 d. Weapons. Any person who manufactures, causes to be
26 manufactured, transports, ships, sells or disposes of any weapon,
27 including gravity knives, switchblade knives, ballistic knives,
28 daggers, dirks, stilettos, billies, blackjacks, metal knuckles,
29 sandclubs, slingshots, cesti or similar leather bands studded with
30 metal filings, or, except as otherwise provided in subsection i. of
31 this section, in the case of firearms if he is not licensed or registered
32 to do so as provided in chapter 58 ²of Title 2C of the New Jersey
33 Statutes², is guilty of a crime of the fourth degree. Any person who
34 manufactures, causes to be manufactured, transports, ships, sells or
35 disposes of any weapon or other device which projects, releases or
36 emits tear gas or other substances intended to produce temporary
37 physical discomfort or permanent injury through being vaporized or
38 otherwise dispensed in the air, which is intended to be used for any
39 purpose other than for authorized military or law enforcement
40 purposes by duly authorized military or law enforcement personnel
41 or the device is for the purpose of personal self-defense, is pocket-
42 sized and contains not more than three-quarters of an ounce of
43 chemical substance not ordinarily capable of lethal use or of
44 inflicting serious bodily injury, or other than to be used by any
45 person permitted to possess such weapon or device under the
46 provisions of subsection d. of N.J.S.2C:39-5, which is intended for
47 use by financial and other business institutions as part of an
48 integrated security system, placed at fixed locations, for the

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11

1 protection of money and property, by the duly authorized personnel
2 of those institutions, is guilty of a crime of the fourth degree.

3 e. Defaced firearms. Any person who defaces any firearm is
4 guilty of a crime of the third degree. Any person who knowingly
5 buys, receives, disposes of or conceals a defaced firearm, except an
6 antique firearm or an antique handgun, is guilty of a crime of the
7 fourth degree.

8 f. (1) Any person who manufactures, causes to be
9 manufactured, transports, ships, sell, or disposes of any ²bullet,
10 which is primarily designed for use in a handgun, and which is
11 comprised of a bullet whose core or jacket, if the jacket is thicker
12 than .025 of an inch, is made of tungsten carbide, or hard bronze, or
13 other material which is harder than a rating of 72 or greater on the
14 Rockwell B. Hardness Scale, and is therefore capable of breaching
15 or penetrating body armor and armor piercing ammunition as
16 defined in subsection gg. of N.J.S.2C:39-1² which is intended to be
17 used for any purpose other than for authorized military or law
18 enforcement purposes by duly authorized military or law
19 enforcement personnel, is guilty of a crime of the fourth degree.

20 (2) Nothing in this subsection shall be construed to prevent a
21 licensed collector of ammunition as defined in paragraph (2) of
22 subsection f. of N.J.S.2C:39-3 from transporting the bullets defined
23 in paragraph (1) of this subsection from (a) any licensed retail or
24 wholesale firearms dealer's place of business to the collector's
25 dwelling, premises, or other land owned or possessed by him, or (b)
26 to or from the collector's dwelling, premises or other land owned or
27 possessed by him to any gun show for the purposes of display, sale,
28 trade, or transfer between collectors, or (c) to or from the collector's
29 dwelling, premises or other land owned or possessed by him to any
30 rifle or pistol club organized in accordance with the rules prescribed
31 by the National Board for the Promotion of Rifle Practice; provided
32 that the club has filed a copy of its charter with the superintendent
33 of the State Police and annually submits a list of its members to the
34 superintendent, and provided further that the ammunition being
35 transported shall be carried not loaded in any firearm and contained
36 in a closed and fastened case, gun box, or locked in the trunk of the
37 automobile in which it is being transported, and the course of travel
38 shall include only such deviations as are reasonably necessary under
39 the circumstances.

40 g. Assault firearms. Any person who manufactures, causes to
41 be manufactured, transports, ships, sells or disposes of an assault
42 firearm without being registered or licensed to do so pursuant to
43 N.J.S.2C:58-1 et seq. is guilty of a crime of the third degree.

44 h. Large capacity ammunition magazines. Any person who
45 manufactures, causes to be manufactured, transports, ships, sells or
46 disposes of a large capacity ammunition magazine which is
47 intended to be used for any purpose other than for authorized
48 military or law enforcement purposes by duly authorized military or
49 law enforcement personnel is guilty of a crime of the fourth degree.

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12

1 i. Transporting firearms into this State for an unlawful sale or
 2 transfer. Any person who knowingly transports, ships or otherwise
 3 brings into this State any firearm for the purpose of unlawfully
 4 selling, transferring, giving, assigning or otherwise disposing of that
 5 firearm to another individual is guilty of a crime of the second
 6 degree. Any motor vehicle used by a person to transport, ship, or
 7 otherwise bring a firearm into this State for unlawful sale or transfer
 8 shall be subject to forfeiture in accordance with the provisions of
 9 N.J.S.2C:64-1 et seq.; provided however, this forfeiture provision
 10 shall not apply to innocent owners, nor shall it affect the rights of a
 11 holder of a valid lien.

12 The temporary transfer of a firearm shall not constitute a
 13 violation of this subsection if that firearm is transferred:

14 (1) while hunting or target shooting in accordance with the
 15 provisions of section 1 of P.L.1992, c.74 (C.2C:58-3.1);

16 (2) for shooting competitions sponsored by a licensed dealer,
 17 law enforcement agency, legally recognized military organization,
 18 or a rifle or pistol club which has filed a copy of its charter with the
 19 superintendent in accordance with the provisions of section 1 of
 20 P.L.1992, c.74 (C.2C:58-3.1); or

21 (3) for participation in a training course conducted by a certified
 22 instructor in accordance with the provisions of section 1 of
 23 P.L.1997, c.375 (C.2C:58-3.2).

24 The transfer of any firearm that uses air or carbon dioxide to
 25 expel a projectile; or the transfer of an antique firearm shall not
 26 constitute a violation of this subsection.

27 j. Any person who manufactures, causes to be manufactured,
 28 transports, ships, sells, or disposes of a bump stock as defined in
 29 subsection ee. of N.J.S.2C:39-1 or a trigger crank as defined in
 30 subsection ff. of N.J.S.2C:39-1 is guilty of a crime of the third
 31 degree.

32 k. Purchasing firearm parts to manufacture ¹[untraceable] a¹
 33 firearm ¹without a serial number¹. In addition to any other
 34 ¹[penalty imposed] criminal penalties provided¹ under ¹[current]¹
 35 law, a person who ¹, with the purpose to manufacture ²or otherwise
 36 assemble² a firearm and without being registered or licensed do so
 37 as provided in chapter 58 of Title 2C of the New Jersey Statutes,¹
 38 purchases ¹or otherwise obtains¹ separately or as ¹part of¹ a kit ¹a
 39 firearm frame or firearm receiver which is not imprinted with a
 40 serial number registered with a federally licensed manufacturer or¹
 41 any combination of parts from which a firearm ¹without a serial
 42 number¹ may be readily ¹[assembled with the purpose to
 43 manufacture an untraceable firearm] manufactured ²or otherwise
 44 assembled², but which does not have the capacity to function as a
 45 firearm unless manufactured¹ ²or otherwise assembled² is guilty of
 46 a crime of the third degree. Notwithstanding the provisions of
 47 N.J.S.2C:1-8 or any other law, a conviction under this subsection
 48 shall not merge with a conviction for any other criminal offense and

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13

1 the court shall impose separate sentences upon a violation of this
 2 subsection and any other criminal offense.

3 As used in this subsection, ¹["untraceable firearm" means an
 4 unlawfully manufactured firearm for which the sale or distribution
 5 chain from a licensed retailer to the point of its first retail sale
 6 cannot be traced by law enforcement officials] "firearm frame or
 7 firearm receiver" means the part of a firearm that provides housing
 8 for the firearm's internal components, such as the hammer, bolt or
 9 breechblock, action, and firing mechanism^{1 2}, and includes without
 10 limitation any object or part which is not a firearm frame or receiver
 11 in finished form but is designed or intended to be used for that
 12 purpose and which may readily be made into a firearm frame or
 13 receiver through milling or other means².

14 ²1. Manufacturing or facilitating the manufacture of a firearm
 15 using a three-dimensional printer. In addition to any other criminal
 16 penalties provided under law it is a third degree crime for:

17 (1) a person who is not registered or licensed to do so as a
 18 manufacturer as provided in chapter 58 of Title 2C of the New
 19 Jersey Statutes, to use a three-dimensional printer or similar device
 20 to manufacture or produce a firearm, firearm receiver, magazine, or
 21 firearm component; or

22 (2) a person to distribute by any means, including the Internet,
 23 to a person in New Jersey who is not registered or licensed as a
 24 manufacturer as provided in chapter 58 of Title 2C of the New
 25 Jersey Statutes, digital instructions in the form of computer-aided
 26 design files or other code or instructions stored and displayed in
 27 electronic format as a digital model that may be used to program a
 28 three-dimensional printer to manufacture or produce a firearm,
 29 firearm receiver, magazine, or firearm component.

30 As used in this subsection: "three-dimensional printer" means a
 31 computer or computer-driven machine or device capable of
 32 producing a three-dimensional object from a digital model; and
 33 "distribute" means to sell, or to manufacture, give, provide, lend,
 34 trade, mail, deliver, publish, circulate, disseminate, present, exhibit,
 35 display, share, advertise, offer, or make available via the Internet or
 36 by any other means, whether for pecuniary gain or not, and includes
 37 an agreement or attempt to distribute.

38 m. Covert or undetectable firearms. Any person who
 39 manufactures, causes to be manufactured, transports, ships, sells or
 40 disposes of any covert firearm as defined in subsection hh. of
 41 N.J.S.2C:39-1 or any undetectable firearm as defined in subsection
 42 ii. of N.J.S.2C:39-1 is guilty of a crime of the third degree.²

43 (cf: P.L.2018, c.38, s.3)

44

45 ²[2.] 4.² This act shall take effect immediately.

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Establishes crimes of purchasing firearm parts to unlawfully manufacture firearms without a serial number, manufacturing or possessing covert or undetectable firearms, and manufacturing or facilitating the manufacture of firearms using a three-dimensional printer.

EXHIBIT

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IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

DEFENSE DISTRIBUTED and) Case No. 1:18-CV-637-RO
SECOND AMENDMENT)
FOUNDATION, INC.,)
Plaintiffs,)
v.)
GURBIR GREWAL, in his)
Official capacity as)
New Jersey Attorney)
General; MICHAEL FEUER,)
in his official capacity)
as Los Angeles City)
Attorney; ANDREW CUOMO,)
in his official capacity)
as New York Governor;)
MATTHEW DENN, in his)
official capacity as)
Attorney General of the)
State of Delaware; JOSH)
SHAPIRO, in his official)
capacity as Attorney)
General of Pennsylvania;)

1 and THOMAS WOLF, in his)
2 official capacity as)
3 Pennsylvania Governor,)
4 Defendants.)

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* * * * *

8

AUDIOTAPE TRANSCRIPTION OF

9

GOVERNOR SIGNS GHOST GUN BILL

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<https://www.youtube.com/watch?v=lJiQ6iFH5x4>

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TRANSCRIBED BY Donnette Cowgill

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P R O C E E D I N G S

MR. RESIK: Good afternoon, everyone. My name is John Resik (phonetic) and I'm a freshman, studying at Princeton University. I grew up in Jersey City where, unfortunately, gun violence seemed to surround our community every single day, taking needless lives and cutting short the potential of so many. I have family that still lives in Jersey City and while it continues to get better and better, there's still needless gun violence on the streets.

Last month, news broke that 11 people had been killed at a Pittsburgh synagogue but closer to home that same weekend, Jersey City teen, Jade Saunders (phonetic) was shot and killed in front of her friends. This type of violence cannot continue. It is through the sustained efforts of our leaders that we can work toward a safer future where no person has to worry about having their life cut short for fear of a gun.

Thanks to some of the strictest gun safety laws in the nation, New Jersey has one of the lowest gun death rates in the country. Since taking office, Governor Murphy has done a phenomenal job in enacting legislation to protect the citizens of New

1 Jersey. Rather than a reaction-based approach to
2 gun safety, Governor Murphy has proactively signed
3 important laws that take commonsense steps to make
4 us safer. He has mandated background checks, helped
5 put a system in place to keep guns out of the hands
6 of people who should not have them, and vowed to do
7 so much more. Today, we take another step toward a
8 better New Jersey as the governor prepares to sign
9 legislation that will outlaw ghost guns in this
10 state.

11 No weapon should ever be untraceable and
12 after today, our communities will not have to worry
13 about these firearms. Thank you to Governor Murphy,
14 to Attorney General Gurbir Grewal, and all the
15 legislators who came and worked together to make
16 this a reality for the citizens of New Jersey. It
17 is because of your continued efforts that the people
18 of New Jersey and the children of our state will
19 live and grow in a safer community.

20 Now it is my honor to introduce Governor
21 Phil Murphy.

22 GOVERNOR MURPHY: Thank you, John.
23 Man, I'm a big John fan. Thank you, John Resik, for
24 that -- for your introduction, for your efforts in
25 our fight against gun violence. Your generation has

1 already shown so much courage and resolve and I urge
2 you to keep at it. And your brother, Peter, I think
3 lives in Squirrel Hill, right?

4 MR. RESIK: Yeah, he does.

5 GOVERNOR MURPHY: In Pittsburgh, and
6 I read your piece about that.

7 Before we jump into a -- the topic of the
8 day, which was scheduled before what happened
9 overnight -- but last night, we were given another
10 reminder as to why we need you, John, and your peers
11 to never give up. In Thousand Oaks, California,
12 another mass shooting. This time at a club hosting
13 a college theme night. Eleven people who went out
14 just to be with their friends are now dead. A
15 heroic Ventura County Sheriff's Sergeant responding
16 to the scene, Ron Helus, was also murdered.

17 Attorney General Grewal and I were both at
18 the Blue Mass at the cathedral in Newark this
19 morning for fallen officers, which reminds us of the
20 indelible impact that gun violence has on all of us
21 but also it's had on the lives of our law
22 enforcement brothers, sisters, and families.

23 Another 12 Americans whose lives have been
24 cut short by senseless gun violence. At what point
25 do we finally wake up to the reality that we remain

1 the only advanced society that tolerates such horror
2 on such a regular basis? At what point do we wake
3 up to the reality that we're the only advanced
4 nation so awash in easy-to-access guns? When do we
5 finally put two and two together? We dedicate today
6 and all of our efforts going forward to the simple
7 and commonsense premise that mass murder is not the
8 price we have to pay for the Second Amendment?

9 Peter and John and his generation have
10 already done more in the last year to move this
11 conversation forward than my generation, our
12 generation, has done in decades. We need to listen.
13 We need to act. And today we're doing just that.

14 It is an honor to stand up here with the
15 Attorney General, Gurbir Grewal -- honored to be
16 with you, General -- and dear friend, Senator Joe
17 Cryan, and importantly, not just Senator Joe Cryan,
18 a dear friend, former Sheriff Joe Cryan from Union
19 County. Also honored in the front row, in Seat 1A,
20 to be joined by Mercer County Executive Brian
21 Hughes; Senior Advisor to my office, and dear
22 friend, on gun safety matters, Bill Castner; and the
23 rock in legislative 15th representatives, Senator
24 Shirley Turner, Assemblywoman Verlina Renolds-
25 Jackson and Assemblyman Anthony Verelli. It's an

1 honor to be with you and, as usual, with the panoply
2 and colors of t-shirts with us today, more red than
3 blue, by the way. The Brady folks are in the house
4 but the moms are here in the house in a big way.
5 But it's great to have you all here.

6 We're here for an important purpose.
7 We're here to close a dangerous loophole in our gun
8 laws and to expressly outlaw so-called ghost guns
9 here in New Jersey. We are ensuring that anyone
10 caught possessing a homemade or a 3D printed
11 firearm, meaning guns manufactured specifically to
12 be untraceable by law enforcement, will be
13 prosecuted to the fullest extent of the law and face
14 up to five years in prison.

15 The Attorney General has been a national
16 leader in this fight. Last June he issued a cease
17 and desist letter to the companies that deal in
18 ghost guns, saying explicitly that New Jersey is off
19 limits to them. He joined like-minded attorneys
20 general in successfully stopping in federal court
21 the release of blueprints that would've allowed
22 anyone with a computer and access to a 3D printer
23 the ability to build their own, untraceable firearm.
24 This law that we're going to sign today further
25 backs up his efforts, and I thank him for all that

1 he has done. Thank you, Gurbir.

2 I thank Senator Cryan for his leadership,
3 generally, and specifically for sponsoring this bill
4 along with Senator Nick Scutari, Assemblyman Paul
5 Moriarty -- and I was back and forth with Paul many
6 times this morning, talking about last night in
7 Thousand Oaks and the importance of what we're doing
8 today -- Assemblyman Gary Schaer, and Assemblywoman
9 Annette Quijano, was well as the overwhelming
10 majority in the legislature who passed this bill --
11 and I might add by tremendous bipartisan margins.

12 These votes show that, unlike in
13 Washington, we could -- we can work across the aisle
14 to pass commonsense gun safety laws. The NRA, to
15 the surprise of absolutely no one, has mocked the
16 effort to outlaw ghost guns. Well, let them explain
17 why they would protect criminals who attempt to get
18 around our laws by buying ghost gun kits and
19 building untraceable guns. I can't wait to hear
20 their excuses as to why. Somehow, by some extreme
21 stretch of poorly conceived logic, untraceable and
22 undetectable ghost guns are a good thing that need
23 to be protected, not made illegal. I just don't get
24 it.

25 Already this year, we have taken action to

1 ensure that our gun laws have the strength they need
2 to make our communities and families safer. Signing
3 the first package of bills on June 13 ranks as one
4 of the most fulfilling days of my administration.
5 But we continue to do more because we must. The
6 attorney general has taken the unprecedented step of
7 naming and shaming the sources of crime guns that
8 flow into New Jersey from states with lax laws.

9 I have said it before, I will say it
10 again: plus or minus 80 percent of the crimes
11 committed -- gun crimes committed in this state are
12 committed with guns that illegally came into New
13 Jersey from outside of New Jersey, which means we
14 can't do this just by our self, although we have to
15 continue to do that; therefore, we've joined with
16 our fellow states in partnership to undertake
17 important gun safety research that Congress
18 stubbornly forbids.

19 Last week, I stood with the attorney
20 general and Assembly Majority Leader Lou Greenwald
21 to unveil our next round of commonsense bills that
22 will close remaining loopholes, institute sensible
23 regulations on ammunition sales, speed the
24 development of smart gun technology, and combat gun
25 violence in our communities, like Jersey City.

1 We have all shared the shock and despair
2 of our fellow Americans following these mass
3 shootings, whether it was in Parkland, in Annapolis,
4 Pittsburgh, and now Thousand Oaks. But we've been
5 spurred to act by the need to combat gun violence
6 right here in our own communities, right here
7 including in Trenton, which is why it's so important
8 that the legislators who do such an extraordinary
9 job are with us today.

10 I will not let the next generation of New
11 Jerseyans grow up in fear. I have no intention of
12 letting up in the fight for commonsense gun safety,
13 and I know the leaders up here with me and in the
14 first row with me don't intend to let up. I know
15 the grassroots advocates and activists, who have
16 been so strong through this fight and who I'm
17 honored to stand shoulder-to-shoulder with, don't
18 either.

19 I particularly want to acknowledge the
20 efforts of the Giffords Law Center, which brought
21 this issue to our attention and Every Town For Gun
22 Safety and the Brady Campaign to Prevent Gun
23 Violence, which helped us along the way.

24 We must change the conversation and we
25 will. We will not let the NRA and their small

1 fringe of extremists instill their guns-in-every-
2 corner beliefs here in New Jersey. Together, we
3 will win this battle. It may be one step at a time,
4 one commonsense law at a time, but we will win it.

5 Thank you all so much, again, for
6 everything you do, particular our leaders here, our
7 activists -- thank you for everything. It's now my
8 honor to introduce the attorney general of the great
9 state of New Jersey, Gurbir Grewal.

10 ATTORNEY GENERAL GREWAL: Thank you,
11 Governor, and good afternoon everyone.

12 Here we are, yet again, gathering after
13 another tragedy, another mass shooting, another law
14 enforcement officer killed, another community in
15 mourning, another list of lives lost and families
16 shattered. Now, while we don't know the full story
17 of what transpired in Thousand Oaks, California,
18 last night, we know this: enough is enough.

19 And so we gather this afternoon, committed
20 as ever in our efforts to ensure public safety, to
21 ensure law enforcement safety, to ensure lawful gun
22 ownership, to combat the gun violence that plagues
23 communities across our state, and importantly, to
24 prevent the next Sandy Hook; the next Aurora,
25 Colorado; the next Oak Creek; the next Las Vegas;

1 Parkland; Pittsburgh; and now Thousand Oaks. And
2 today, we're doing that by closing dangerous
3 loopholes in our existing laws -- loopholes that
4 some companies and individuals have tried to
5 exploit.

6 This summer, for example, a Texan named
7 Cody Wilson promised to publicly release computer
8 files that would let anyone, even terrorists,
9 felons, and domestic abusers, create firearms using
10 a 3D printer. These guns would have no serial
11 numbers, meaning that they would be untraceable,
12 making it more difficult for our law enforcement
13 officers to solve gun crimes. And because some of
14 these weapons would be made entirely of plastic,
15 they wouldn't necessarily activate metal detectors.
16 That meant these weapons would be particularly
17 appealing to anyone trying to access a secure
18 facility, whether it was a courthouse, an airport,
19 or a government building.

20 And so back in July, we successfully
21 challenged Cody Wilson in court. We obtained legal
22 orders that temporarily halted the release of these
23 codes. But his supporters are not relenting,
24 they're still trying to release these codes online.
25 And so it's clear that we need stronger tools to

1 stop them, tools like the -- excuse me -- tools like
2 the legislation crafted by Senator Cryan and that
3 Governor Murphy is signing today.

4 But it's not just about printable guns.
5 We have similar concerns about the so-called ghost
6 gun industry. These folks know that they can't sell
7 their weapons -- weapons like assault weapons --
8 into New Jersey. So instead, they sell all the
9 parts for these weapons and then provide a link to a
10 video that shows you how to build them at home. So
11 they essentially sell you weapons that you couldn't
12 otherwise buy in the Garden State. And they sell
13 you these weapons without conducting any background
14 checks. And they sell you these weapons without
15 serial numbers on them so we can't trace them or
16 link them to their owners when they're found in
17 connection with gun crimes.

18 Their conduct poses a serious and
19 immediate threat to the community and to our law
20 enforcement officers. But they believe that they
21 can do all of this with impunity because they're not
22 technically selling fully assembled assault weapons.
23 And so they incorrectly believe that our firearms
24 laws don't apply to them.

25 So earlier this year, we went after some

1 of the biggest players in this industry. We told
2 them that they were wrong on the law. We told them
3 that they were, in fact, breaking the law here in
4 New Jersey by selling those weapons here. And we
5 told them to stop. And some of them complied. But
6 others did not, and so those investigations are
7 ongoing at this time.

8 But in both of those cases, bad actors
9 were trying to take advantage of loopholes because
10 no law squarely addressed printable guns or ghost
11 guns. So we had to rely on other laws, like our
12 public nuisance law or our assault weapons law, to
13 fight back. Now, don't get me wrong: Those laws
14 are important and they're great tools and they
15 helped us stop the spread of these dangerous,
16 untraceable weapons, but a law right on point
17 strengthens law enforcement's hand even more.

18 And so today, there is no question that
19 printable guns and ghost guns are deadly and selling
20 them in New Jersey is illegal. And that's why I'm
21 so proud to support Governor Murphy's efforts and
22 the legislature's efforts to close those loopholes,
23 to stop the next Cody Wilson, to fight the ghost gun
24 industry, and to regulate the next dangerous gun
25 models before they spread into our communities.

1 And here's my message today to anyone who
2 is contemplating making a printable gun or to the
3 next ghost gun company trying to sell their
4 dangerous weapons into New Jersey: Your products
5 are unlawful and if you break our laws we will come
6 after you. And to anyone else who thinks of trying
7 to find other loopholes in our laws, especially to
8 sell dangerous firearms, we're just as committed to
9 stopping each of you. The safety of our residents,
10 the safety of our law enforcement officers demands
11 nothing less.

12 Thank you.

13 GOVERNOR MURPHY: Well said, man.
14 Well said. Well said and thank you, General, for
15 your leadership on this and so many other matters.

16 I -- I can't say enough good things about
17 the leadership and the public service of Senator Joe
18 Cryan, a guy who's got courage, who's willing to
19 stand up and speak truth to power, will occasionally
20 give me a -- a shot upside the head to make sure I
21 got my head screwed on straight, and I particularly
22 can't thank him enough -- he has to get in line, by
23 the way, to do that -- I -- I particularly can't
24 thank him enough for his leadership on this
25 incredibly important piece of legislation. Ladies

1 and gentleman, Senator Joe Cryan.

2 SENATOR CRYAN: Thank you, Governor.
3 Thank you. Thank you. Thank you. Thank you,
4 Governor, and thanks for -- for the nice intro.

5 I just want to begin by acknowledging John
6 again. We had a chance to chat, the three -- the
7 four of us, in the back. John's a -- John's got a
8 remarkable story. Grew up Jersey City. His
9 brother, who was in Squirrel Hill, goes to Carnegie-
10 Mellon. John's twin, Anna, was accepted to all
11 eight -- all nine Ivy League schools, eight Ivy --

12 MR. RESIK: Eight.

13 SENATOR CRYAN: -- all eight Ivy
14 League schools. She chose Brown, for those of you
15 that are counting. So John is the slouch in the
16 family. He's -- he's in his freshman year in
17 Princeton. So -- so John, thank you for being here.

18 MR. RESIK: Thank you.

19 SENATOR CRYAN: Governor, thank you
20 for your leadership on this -- in this -- for this
21 legislation and most importantly, thank you for
22 signing it in just a moment or two.

23 GOVERNOR MURPHY: Thank you.

24 SENATOR CRYAN: And I want to thank
25 some folks and the -- and then just tell you the

1 genesis as to how this bill came about, with the
2 advocates and how we molded a bill that began in one
3 area and became something much more important and
4 much more -- much more greater for the sum of its
5 parts.

6 I want to thank two folks who moved it out
7 of their houses -- Senate President Steve Sweeney
8 and Assembly Speaker Coughlin, and I want to thank
9 Kevin Drennan from the Majority Office and Skip
10 Ciminio from the Assembly Majority Office for their
11 leadership on this. We were able to get these bills
12 on the same day coincided. I thank them very much
13 for that, and I'd be remiss if I didn't thank my
14 Chief of Staff who helped coordinate all this, and
15 that's Jessica Cohen over there. I appreciate it,
16 Jessica. Thank you.

17 I have one other thank-you to say and --
18 and General, I know that the big guys do all the
19 work, but once in a while we let the others, right?

20 ATTORNEY GENERAL GREWAL: Right.

21 SENATOR CRYAN: And one of them is
22 Steve Finkel from your office who did an amazing
23 job. Stephan, thank you for your work here. We --
24 we appreciate it.

25 So the genesis of this bill was, as Phil

1 was nice enough to mention, I -- I used to have the
2 privilege of being the Union County Sheriff. And
3 one of my officers came into the office one day and
4 sat down and said, "Look, you just got elected to
5 the senate but you need to start thinking about
6 this. There are people here that can buy guns off
7 the internet and people we deal with that can buy
8 untraceable weapons," 80/20s is what he specifically
9 talked about.

10 Then he sat down on the computer and in
11 less than two minutes showed me how to buy an AR-15
12 unassembled that I could have, literally at that
13 moment, if I wanted to, with my credit card. I was
14 flabbergasted, to tell you the truth. I knew that
15 we had issues in the Sheriff's Office over a variety
16 of things, but perhaps the most important or most
17 difficult is when we dealt with untraceable weapons
18 in our crime scene unit and how important it is that
19 any sort of clue or ability to fingerprint or lift
20 anything we can from a crime scene. Without the
21 idea of a serial number was frightening to all.

22 And if you wonder, when we talk about
23 untraceable, you get that, right? That we don't
24 have a serial number, we can't find out where it
25 came from. Think about for a moment -- and the

1 general mentioned it -- for those of you that have
2 walked through an airport scanner or any building
3 where you felt safer because you were scanned,
4 imagine the person behind you has a weapon that is
5 untraceable to that. And that's what we're talking
6 about here. This affects every individual in the
7 State of New Jersey, if not the country. You know,
8 it's an important piece of the puzzle that the
9 governor has taken so much of leadership on with the
10 general and gun safety here in New Jersey and
11 throughout the nation. When you think about that
12 and put it in context, we realize the importance of
13 today.

14 And with that in mind, we began with a
15 bill that began with just 80/20s, internet sales.
16 And thanks to the intervention of Bill Castner from
17 the Governor's Office and others, we took a
18 leadership role in amendment after amendment. This
19 bill evolved, and which I think is -- is what makes
20 legislation particularly -- particularly special.
21 When you take an idea, you take the best ideas that
22 you can, people willing to work with you, whether
23 they're the leader of the state, the general of the
24 state, or folks that come by in advocacy and say,
25 "This is a better idea."

1 We could've had this bill done a couple
2 months ago, but it wouldn't be the bill it is today.
3 And for that, I say thank you to the advocates and a
4 particular shout-out to Bill Castner for your work.
5 I appreciate it very much.

6 I finally want to say this: If you don't
7 know what a 3D printer is, just google it and take a
8 look. You're not talking about buying a cartridge
9 down at Staples. And if you watch it and actually
10 watch videos of how one of these things can actually
11 be made, what Cody Wilson wants for New Jersey and
12 for this country -- which is stunning to me -- it is
13 frightening to watch, and it is alarming to
14 appreciate that people believe that somehow this is
15 a free right in America to have an untraceable,
16 undetectable weapon.

17 And whether it's for John, his amazing
18 sister and his amazing brother and their safety and
19 their generation's safety, or whether it's for our
20 safety or your mom's and your dad's safety -- it's
21 for everyone that, today, we sign this bill and,
22 today, we make New Jersey a little bit safer. So I
23 thank you very much. Thank you.

24 GOVERNOR MURPHY: Well said, Senator.
25 Thank you, Joe, for that. I'll take a couple of

1 questions before we sign this one on the dotted
2 line. Please, Nick.

3 AUDIENCE: I -- I believe the
4 attorney general's cease and desist letter earlier
5 this summer actually said that untraceable assault
6 weapons were already illegal, and it's already
7 illegal to possess it, so how does this law strike
8 the matter of obtaining (inaudible)?

9 ATTORNEY GENERAL GREWAL: Sure. As I
10 mentioned in my remarks, we were using the assault
11 weapon law to target those ghost gun manufacturers
12 because we didn't have a law directly on point
13 outlawing ghost guns, as this law does, that the
14 buying of these parts of these partially completed
15 guns is unlawful, so we were using another tool that
16 we had. Now we have a tool directly on point to go
17 after future manufacturers or people who are still
18 persisting in marketing these products into New
19 Jersey.

20 AUDIENCE: Did you name those
21 manufacturers (inaudible)?

22 ATTORNEY GENERAL GREWAL: So the --
23 we sent, I -- I believe about seven or eight cease
24 and desist letters this -- earlier this summer. I'm
25 not going to name them because like I mentioned in

1 my remarks, some had complied, others have not. I
2 don't want to flag the particular companies who
3 we're still investigating at this point, by naming
4 them.

5 GOVERNOR MURPHY: I think the point
6 you make is a good one. You could've cobbled this
7 together, but this, thanks to Joe's leadership and
8 the other sponsors, this is a -- a -- a precision
9 shot into this type of gun and that's what makes it
10 important. Please.

11 AUDIENCE: Governor, a question on
12 another topic. Do you want me to wait?

13 GOVERNOR MURPHY: You're kidding?
14 Any other -- I'll come back to you. Any other gun
15 safety questions? Anybody? Please.

16 AUDIENCE: Senate President Steve
17 Sweeney was with the Association of CPAs this
18 morning. He was talking about a couple of different
19 things, including --

20 GOVERNOR MURPHY: The Association of
21 CPAs? Okay.

22 AUDIENCE: CPAs. And he was
23 discussing what was going on with the marijuana
24 legislation and why it hasn't gone through yet, and
25 one of the things he's talked about was the fact

1 that there is differing opinions about how much tax
2 should be charged for recreational marijuana. He
3 said he wouldn't go higher than 12 percent. I was
4 wondering, Governor, obviously, you have a lot of
5 input into this as it's moving forward. What's your
6 feeling about this? Is there any agreement on the
7 horizon? What kind of -- should the towns get a cut
8 and piece of the action, in terms of the tax and
9 where are we right now?

10 GOVERNOR MURPHY: So, I -- I won't
11 get into the specifics of it because I would not
12 normally do that with a piece of legislation that's
13 evolving, and I've not married myself to a
14 particular tax rate. The -- the key, I think, is
15 just as in sports betting, which by the way, is
16 booming and may it continue to do so, even when the
17 NFL is not in season -- you want to have a rate to
18 the consumer that allows you to eliminate, as best
19 you can, the black market. And that's the key here.

20 So I'm not sure I -- I -- I'm not sure
21 where the senate president gets that particular
22 number. I don't begrudge him that, by the way, I
23 just have not married myself to a number. I'm going
24 to defer to experts on this who have looked at how
25 -- how it's evolved in other states, in particular

1 where the -- as -- as I've said many times and I
2 don't use marijuana -- I'm sure as heck glad we're
3 not state number one. I want to do it; I want to do
4 it for the social justice reasons, but I want to do
5 it right.

6 AUDIENCE: Could I just follow, sir?

7 GOVERNOR MURPHY: Real quick, yeah.

8 AUDIENCE: With -- with regard to the
9 black market, he expressed the same concerns you're
10 talking about.

11 GOVERNOR MURPHY: Yep.

12 AUDIENCE: That you don't want to
13 push people that way. In your mind, is there any
14 kind of a figure where that would happen or --

15 GOVERNOR MURPHY: I -- I don't have
16 a --

17 AUDIENCE: -- (inaudible) make sure
18 that --

19 GOVERNOR MURPHY: -- don't have a
20 specific number for you, but I share the same
21 passion that you want to -- it -- it's best -- you
22 know, why are we doing this? We're doing this
23 because we have the widest white/non-white gap of
24 persons incarcerated in America. It's not the only
25 reason but a big reason is low-end drug crime. So

1 let's start with that and we -- by the way we've got
2 to have -- and I think we all agree on this -- we've
3 got to have a lookback provision that mirrors what
4 -- what it is that we're ultimately going to
5 legalize.

6 Secondly, we want to take the business out
7 of the hands of the bad guys. Thirdly, we want to
8 protect our kids. We want to regulate it, and
9 lastly, if we can make a few bucks on it, I'm --
10 count me -- count me in for that.

11 David?

12 AUDIENCE: Governor, the Special
13 Committee on Investigations held their first meeting
14 today. There has been some concern expressed by
15 some in your administration and others -- concern
16 about this becoming an unwieldy process and the
17 committee looking into areas that are not
18 necessarily part of their initial charge. Are you
19 concerned that this could turn into some fishing
20 expedition?

21 GOVERNOR MURPHY: You know, I'm --
22 I'm -- I'm -- I'm in the same place I've been --
23 Gurbir and I were in the Blue Mass, I think, when
24 they met this morning, so I haven't -- I haven't
25 really taken any time to see what -- what the

1 proceedings looked like. I respect the processes
2 that we've put in place. One is with a former
3 member of the supreme court, former chief counsel,
4 former chief of staff who's doing an investigation,
5 figuring out how the heck this happened.

6 Secondly, inside of government process led
7 by Mampta Patel (phonetic) to look at. You know, we
8 think we've got good laws and policies around EEO
9 and other matters, but, you know what, we can be
10 better. We know and we must be better. So, she's
11 leading a process on that respect and the attorney
12 general is leading the more holistic process. At
13 the end of the day, the one that's probably going to
14 have the most impact on a going-forward basis,
15 particular for survivors, and that is how can New
16 Jersey be the best in class in our entire country if
17 something like this awful happens to somebody.

18 So I respect those processes. I have no
19 reason not to respect the legislative process. I
20 think the -- the guidelines the -- this sort of the
21 benchmarks for all of us to keep in mind are: One,
22 is we stand with survivors. Two, we can't let
23 politics get into this at all. This has got to be
24 calling balls and strikes. And thirdly, it's got to
25 be a whole of government. We got to -- all of us,

1 as I said a couple weeks ago -- we're looking in the
2 mirror and it, at times, that can be very
3 uncomfortable. And I just want to make sure that
4 we're all going to look in the mirror together.

5 Please. Maybe one more.

6 AUDIENCE: Yes. And in regards to
7 last night's shooting, how will, you know, how will
8 (inaudible) be address PTSD, you know, mental
9 illness or (inaudible)?

10 GOVERNOR MURPHY: Yeah, I'm not --
11 I'm not familiar with the details and as to whether
12 or not that was a causal factor but I will say this:
13 One of the things that I'm proud we've done -- away
14 from -- so let -- let me just stipulate. We want to
15 be the number one state in the nation as it relates
16 to commonsense gun safety laws. And we think
17 there's no reason we -- we can't be that and still
18 respect the Second Amendment. So I find those
19 arguments to be completely unpersuasive and
20 obviously, we're going to sign, in a minute, another
21 piece toward that end.

22 I'm very proud that we, very early on in
23 our administration, opened up the medical marijuana
24 regime. And I hope through legislation we could
25 continue to open it up. And you're already seeing

1 thousands of more people qualified, the stigma
2 associated with physicians reducing, and PTSD is one
3 of the -- one of the list of maladies that is on
4 there and that's a big deal. We -- as soon as I --
5 almost as soon as we had signed that executive
6 order, a guy walked up to me in a diner in East
7 Newark and said, "You've just changed my life." So
8 I think it's -- a lot of the things that New Jersey
9 does well but we all need to, again, continue to
10 look in the mirror and ask ourselves, "How can we
11 even be better?" particularly with our veterans.

12 You know, we just continue to, as a
13 country, and I -- I think we do a good job, but we
14 must do a much better job in our state with veterans
15 as it relates to mental health, healthcare
16 generally, jobs, housing and homelessness. Again,
17 relative to other states, I'm proud of where we are
18 but we're not where we need to be.

19 I think with that, we're going to turn to
20 the table, invite our distinguished guests in the
21 front row to come on up and join us, and let's sign
22 this. Thank you-all.

23 Give you the money shot here. I've got my
24 glasses.

25 Okay.

1 Pen number one is the one and only, John
2 Resik. Come on, man.

3 Attorney General Gurbir Grewal. Thanks,
4 man. Bless you.

5 Senator Joe Cryan. God bless you, Joe.

6 (Inaudible.)

7 The Senator Shirley Turner from the house.

8 Assemblywoman Verlina Reynolds-Jackson.

9 Verlina, where are you?

10 Assemblyman Anthony Verelli. (Inaudible.)

11 And last but not least, County Executive
12 (inaudible) Brian Hughes.

13 MR. HUGHES: Anything you want to
14 call me, Joe.

15 GOVERNOR MURPHY: Love you, buddy.
16 Congratulations.

17 This is now effective -- by the way, this
18 law is effective immediately. It's the law of the
19 land. Only I'm a man who (inaudible). Thank you
20 all, so much, for coming up.

21 (End of Proceedings.)

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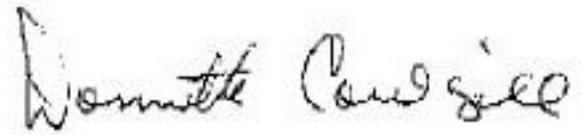
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CERTIFICATION
TO THE AUDIO TRANSCRIPTION OF
RECORDED AUDIO OF
GOVERNOR SIGNS GHOST BILL

I, DONNETTE COWGILL, do hereby
certify that I have listened to and transcribed the
above-referenced audio to the best of my ability.

I FURTHER CERTIFY that the foregoing
pages comprise a true and correct computer
transcription by me of said audio.

Subscribed and sworn to by me on this
the 8th day of November, 2018.



Donnette Cowgill

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EXHIBIT

3



State of New Jersey

OFFICE OF THE ATTORNEY GENERAL
DEPARTMENT OF LAW AND PUBLIC SAFETY
DIVISION OF LAW
PO Box 080
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PHILIP D. MURPHY
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GURBIR S. GREWAL
Attorney General

Defense Distributed
2320 Donley Dr., Suite C
Austin, TX 78758

July 26, 2018

To Whom It May Concern:

You are directed to cease and desist from publishing printable-gun computer files for use by New Jersey residents. The files you plan to publish offer individuals, including criminals, codes that they can use to create untraceable firearms—and even to make assault weapons that are illegal in my state. These computer codes are a threat to public safety, and posting them violates New Jersey’s public nuisance and negligence laws. If you do not halt your efforts to proceed with publication, I will bring legal action against your company before August 1, 2018.

The computer files that you plan to publish will undermine the public safety of New Jersey residents. These files allow anyone with a 3-D printer to download your code and create a fully operational gun. More than that, the codes you plan to post will enable individuals to print assault weapons that are illegal in New Jersey. And because the printed guns would not have serial numbers, they would not be traceable by law enforcement. Worst of all, you are going to make the codes available to everyone—regardless of age, criminal status, or history of mental illness. That would undermine New Jersey’s comprehensive scheme for keeping guns out of dangerous criminals’ hands, and it would undermine the safety of our residents.

Not only are your codes dangerous, but posting them would also be illegal. New Jersey’s law is clear: an individual who interferes with public health, safety, peace, and comfort violates our public nuisance law. *See James v. Arms Tech., Inc.*, 359 N.J. Super. 291, 329-33 (App. Div. 2003). As New Jersey courts have held, “[n]o one can seriously debate” that regulated guns are “dangerous instrumentalities” and thus implicate our public nuisance law. *Id.* at 320. So when a group of manufacturers “flood[ed] the gun market” through a high volume of sales, while failing to develop “reasonable safeguards over the distribution scheme” and “refus[ing] to oversee or supervise the control of handgun distribution in order to prevent the foreseeable channeling of guns to such an illegal market,” New Jersey courts found they could be held responsible when their actions “facilitate[d] the illegal sale of weapons to criminals and other unlawful users.” *Id.* at 312. That is what your actions will do as well—make do-it-yourself guns available to anyone, even if the individuals are prohibited from owning guns because of prior convictions, history of mental illness, or history of domestic violence, even if the weapons they print are illegal in my



July 26, 2018

Page 2

state, and even if they plan to use their weapons to further crimes and acts of violence. Because your actions will flood the illegal firearms market and pose a direct threat to the public safety of my state, they constitute a public nuisance.

Worse still, your comments make clear that you hope your actions will undermine all the efforts of states like New Jersey to keep guns out of criminals' hands. You have stated, "All this Parkland stuff, the students, all these dreams of 'common sense gun reforms'? No. The internet will serve guns, the gun is downloadable."¹ You have also stated, "I'm not worried about public safety."² And on July 10, 2018, you tweeted a photo of a gravestone engraved with the words "American Gun Reform."³ These comments show that you have no intention of precluding your printable-gun computer files, including designs for assault weapons, from winding up in the hands of criminals, minors, and the mentally ill. Not only does that reveal a lack of regard for safety, but it also shows that your interference with the public's health and safety is intentional and per se unreasonable. *James*, 359 N.J. Super. at 330.

Finally, your widespread dissemination of printable-gun computer files is negligent because it encourages an illegal gun market, which will foreseeably lead to increased crime and violence in New Jersey, and which will lead to an increase in expenditures of public funds for combatting crime and protecting our resident's health. *See id.* at 308-24 (finding a legally valid negligence claim against same manufacturers of guns that flooded the illegal market). Your planned method of making codes available and your public comments show that you are ignoring and violating your duty. By broadly sharing an inherently dangerous product, you should reasonably foresee the resulting governmental and public costs and must bear them. *Id.* at 323-24.

As the chief law enforcement officer for New Jersey, I demand that you halt publication of the printable-gun computer files. Should you fail to comply with this letter, my Office will initiate legal action barring you from publishing these files before August 1, 2018.

Sincerely,



Gurbir S. Grewal
Attorney General

¹ Andy Greenberg, "A Landmark Legal Shift Opens Pandora's Box for DIY Guns," *Wired* (July 10, 2018), available at <https://www.wired.com/story/a-landmark-legal-shift-opens-pandoras-box-for-diy-guns/>.

² Tess Owen, "Get Ready for the New Era of 3D-Printed Guns Starting August 1," *Vice News* (July 18, 2018), available at https://news.vice.com/en_us/article/ev8xjn/get-ready-for-the-new-era-of-3d-printed-guns-starting-august-1.

³ Cody R. Wilson (@Radomysisky), *TWITTER* (July 10, 2018, 12:25 P.M.), <https://twitter.com/Radomysisky/status/1016765282017337344>.

EXHIBIT

4



State of New Jersey
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Governor

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Lt. Governor

GURBIR S. GREWAL
Attorney General

MICHELLE L. MILLER
Director

July 30, 2018

VIA HAND DELIVERY

Deputy Clerk of the Court
Superior Court of New Jersey
Chancery Division, General Equity Part
Wilentz Justice Complex
212 Washington Street - 8th Floor
Newark, New Jersey 07102

Re: Grewal v. Defense Distributed, et al.
Docket No.: ESX-C- -18

Dear Sir/Madam:

I am the Deputy Attorney General responsible for the representation of plaintiff Gurbir S. Grewal, Attorney General of the State of New Jersey ("Plaintiff"), in the above-referenced action.

Enclosed please find an original and two (2) copies of the following documents in support of the filing of this action: (1) Order to Show Cause with Temporary Restraints Pursuant to Rule 4:5-2; (2) Verified Complaint; (2) Certification of New Jersey Office of Homeland Security Director Jared Maples, with accompanying exhibit; (3) Certification of Deputy Chief of Detective Christopher W. Donohue; (4) Certification of Investigator Aziza Salikhova; and (5) Memorandum of Law.

As reflected in the Order to Show Cause, Plaintiff seeks the Court's ex parte consideration and entry of temporary restraints. Such request is premised upon the need for this Court's immediate intervention to halt the publishing, exporting and/or distributing by defendants Defense Distributed and Cody R. Wilson of printable-gun computer files, which they plan to do



July 30, 2018
Page 2

this Wednesday, August 1, 2018.

I request that one (1) copy of the above-referenced papers be file-stamped and provided to my office.

Respectfully submitted,

GURBIR S. GREWAL
ATTORNEY GENERAL OF NEW JERSEY

By: 
Lara J. Fogel
Deputy Attorney General

Enclosures

GURBIR S. GREWAL
ATTORNEY GENERAL OF NEW JERSEY
Division of Law
124 Halsey Street
P.O. Box 45029
Newark, New Jersey 07101
Attorney for Plaintiff

By: Lorraine K. Rak (035771985)
Deputy Attorney General, Section Chief
Lara J. Fogel (038292006)
Melissa Medoway (028422011)
Jesse J. Sierant (049342013)
Deputy Attorneys General
Affirmative Civil Enforcement
(973) 877-1280

SUPERIOR COURT OF NEW JERSEY
CHANCERY DIVISION, ESSEX COUNTY
DOCKET NO. _____

GURBIR S. GREWAL, Attorney General
of the State of New Jersey,

Plaintiff,

v.

DEFENSE DISTRIBUTED, CODY R.
WILSON, and JANE and JOHN DOES 1-
20, individually and as owners,
officers, directors, shareholders,
founders, members, managers,
agents, servants, employees,
representatives and/or independent
contractors of DEFENSE
DISTRIBUTED, and XYZ CORPORATIONS
1-20,

Defendants.

Civil Action

**ORDER TO SHOW CAUSE
WITH TEMPORARY RESTRAINTS
PURSUANT TO RULE 4:52**

THIS MATTER being brought before the Court by Lara F.
Fogel, Deputy Attorney General, for plaintiff Gurbir S. Grewal,
Attorney General of New Jersey ("Plaintiff"), seeking relief by

way of temporary restraints pursuant to R. 4:52, based upon the facts set forth in the Verified Complaint and supporting Certifications and Brief filed herewith; and it appearing that immediate and irreparable harm will likely result before notice can be given and a hearing held, and for good cause shown.

It is on this ____ day of _____ **ORDERED** that defendants Defense Distributed and Cody Wilson (collectively, "Defendants"), appear and show cause before the Superior Court of New Jersey, Chancery Division - General Equity Part, Essex County, at the Wilentz Justice Complex in Newark, New Jersey, at ____am/pm or as soon thereafter as counsel can be heard, on the ____ day of _____, 2018, why an Order should not be issued preliminarily enjoining and restraining Defendants from:

- A. Publishing, exporting, and distributing the printable-gun computer files as described in the Verified Complaint whether through the websites located at <https://defdist.org>, <https://defcad.com>, and <https://ghostgunner.net>, or otherwise;
- B. Destroying, concealing, altering, transferring, disposing or removing in any manner, directly or indirectly, any books or records, information stored in computer-maintained form (such as electronic mail) and any other "document," as that term is defined in Rule 4:18-1(a), in their possession, subject to their control or available to them, that directly or indirectly relate to Defense Distributed, including memberships, donations, web content, advertisements and sales records;
- C. Failing to make and/or keep any books or records, information stored in computer-maintained form (such as electronic mail) and any other "document," as that term is defined in Rule 4:18-1(a) that directly or

indirectly relate to Defense Distributed, including memberships, donations, web content, advertisements and sales records;

- D. Continuing the temporary injunctive and ancillary relief already ordered by the Court; and
- E. Granting such other relief as the Court deems equitable and just.

And it is further **ORDERED** that pending the return date herein, Defendants are temporarily enjoined and restrained from:

- A. Publishing, exporting, and distributing the printable-gun computer files as described in the Verified Complaint whether through the websites located at <https://defdist.org>, <https://defcad.com>, and <https://ghostgunner.net>, or otherwise;
- B. Destroying, concealing, altering, transferring, disposing or removing in any manner, directly or indirectly, any books or records, information stored in computer-maintained form (such as electronic mail) and any other "document," as that term is defined in Rule 4:18-1(a), in their possession, subject to their control or available to them, that directly or indirectly relate to Defense Distributed, including memberships, donations, web content, advertisements and sales records; and
- C. Failing to make and/or keep any books or records, information stored in computer-maintained form (such as electronic mail) and any other "document," as that term is defined in Rule 4:18-1(a) that directly or indirectly relate to Defense Distributed, including memberships, donations, web content, advertisements and sales records.

And it is further **ORDERED** that:

- 1. Defendants may move to dissolve or modify the temporary restraints herein contained upon two (2) days' notice to the Plaintiff's attorney.

2. A copy of this Order to Show Cause, Verified Complaint, Brief and Certifications submitted in support of this application shall be served upon the Defendants personally (or by other means) within _____ days of the date hereof, in accordance with R. 4:4-3 and R. 4:4-4, this being original process.

3. Plaintiff must file with the Court its proof of service of the pleadings on the Defendants no later than three (3) days before the return date.

4. Defendants shall file and serve a written response to this Order to Show Cause and the request for entry of injunctive relief and proof of service by _____, 2018. The original documents must be filed with the Clerk of the Superior Court in the county listed above. A directory of these offices is available in the Civil Division Management Office in the county listed above and online at http://www.njcourts.gov/forms/10153_deptyclerklawref.pdf. You must send a copy of your opposition papers directly to Judge _____, whose address is Superior Court of New Jersey, Chancery Division, General Equity Part, Essex County, Wilentz Justice Complex, 212 Washington Street - 8th Floor, Newark, New Jersey 07102. You must also send a copy of your opposition papers to the Plaintiff's attorney, whose name and address appears above. A telephone call will not protect your

rights; you must file your opposition and pay the required fee of \$_____ and serve your opposition on your adversary, if you want the Court to hear your opposition to the injunctive relief the Plaintiff is seeking.

5. Plaintiff must file and serve any written reply to the Defendants' Order to Show Cause opposition by _____, 2018. The reply papers must be filed with the Clerk of the Superior Court in the county listed above and a copy of the reply papers must be sent directly to the Chambers of Judge _____.

6. If the Defendants do not file and serve opposition to this Order to Show Cause, Plaintiff's application will be decided on the papers on the return date and relief may be granted by default, provided that the Plaintiff files a proof of service and a proposed form of Order at least three (3) days prior to the return date.

7. If the Plaintiff has not already done so, a proposed form of Order addressing the relief sought on the return date (along with a self-addressed return envelope with return address and postage) must be submitted to the Court no later than three (3) days before the return date.

8. Defendants, take notice that the Plaintiff has filed a lawsuit against you in the Superior Court of New Jersey. The Verified Complaint attached to this Order to Show Cause states

the basis of the lawsuit. If you dispute this Verified Complaint, you, or your attorney, must file a written Answer to the Verified Complaint and proof of service within thirty-five (35) days from the date of service of this Order to Show Cause; not counting the day you received it.

These documents must be filed with the Clerk of the Superior Court in the county listed above. A directory of these offices is available in the Civil Division Management Office in the county listed above and online at http://www.njcourts.gov/forms/10153_deptyclerklawref.pdf.

Include a \$_____ filing fee payable to the "Treasurer, State of New Jersey." You must also send a copy of your Answer to the Plaintiff's attorney whose name and address appear above. A telephone call will not protect your rights; you must file and serve your Answer (with the fee) or judgment may be entered against you by default. Please note: Opposition to the Order to Show Cause is not an Answer and you must file both. Please note further: if you do not file and serve an Answer within thirty-five (35) days of this Order to Show Cause, the Court may enter a default against you for the relief Plaintiff demands.

9. If you cannot afford an attorney, you may call the Legal Services office in the county in which you live or the Legal Services of New Jersey Statewide Hotline at 1-888-LSNJ-LAW (1-888-576-5529). If you do not have an attorney and are not

eligible for free legal assistance you may obtain a referral to an attorney by calling one of the Lawyer Referral Services. A directory with contact information for local Legal Services Offices and Lawyer Referral Services is available in the Civil Division Management Office in the county listed above and online at http://www.judiciary.state.nj.us/prose/10153_depty_clerklawref.pdf.

10. The Court will entertain argument, but not testimony, on the return date of the Order to Show Cause, unless the Court and parties are advised to the contrary no later than _____ days before the return date.

Hon.

GURBIR S. GREWAL
ATTORNEY GENERAL OF NEW JERSEY
Division of Law
124 Halsey Street
P.O. Box 45029
Newark, New Jersey 07101
Attorney for Plaintiff

By: Lorraine K. Rak (035771985)
Deputy Attorney General, Section Chief
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SUPERIOR COURT OF NEW JERSEY
CHANCERY DIVISION, ESSEX COUNTY
DOCKET NO. _____

GURBIR S. GREWAL, Attorney General
of the State of New Jersey,

Plaintiff,

v.

DEFENSE DISTRIBUTED, CODY R.
WILSON, and JANE and JOHN DOES 1-
20, individually and as owners,
officers, directors, shareholders,
founders, members, managers,
agents, servants, employees,
representatives and/or independent
contractors of DEFENSE
DISTRIBUTED, and XYZ CORPORATIONS
1-20,

Defendants.

Civil Action

VERIFIED COMPLAINT

Plaintiff Gurbir S. Grewal, Attorney General of the State
of New Jersey ("Attorney General"), with an office located at
124 Halsey Street, Fifth Floor, Newark, New Jersey 07101, by way

of this Verified Complaint states:

PRELIMINARY STATEMENT

1. In just two days, Defense Distributed and its founder Cody R. Wilson (collectively, "Defendants") are planning to take an unprecedented and dangerous action - to publish computer files that enable anyone, including terrorists, domestic abusers, criminals, gang members, and juveniles, to print firearms using a three-dimensional ("3D") printer right from the comfort of their own homes. Worse still, the codes they plan to post enable individuals to print assault weapons that are illegal under the laws of the State of New Jersey ("New Jersey" or "State"). Further, because the printed guns do not have serial numbers, they would not be traceable, which would undermine law enforcement's ongoing efforts to solve and reduce gun crime. The implications for public safety and homeland security are clear and the risk is imminent; once Defendants open that Pandora's Box, it can never be closed.

2. For years, the Federal Government and multiple federal courts recognized that Defense Distributed's plans posed a direct threat to public safety and national security across the United States, and so the Government barred the company from publishing the Computer Aided Design ("CAD") files. In response, Defendants sued the Federal Government, seeking a

declaration that the CAD files were not subject to regulation. Despite the Federal Government's proper challenge to Defense Distributed's ability to publish these codes, the Federal Government just recently disclosed that it settled this litigation. Troublingly, the Federal Government abruptly flipped positions (even after multiple courts had agreed about the pending risk to public safety) and decided to allow Defense Distributed to move forward with its plans to share these computer codes on the Internet, available to all.

3. New Jersey law provides a separate and independent basis for preventing Defense Distributed and Cody Wilson from moving forward. New Jersey's public nuisance law provides a cause of action to hold firearm manufacturers accountable - and to enjoin imminent violations of the law - when their plans would facilitate the illegal sale of weapons to criminals and other prohibited users, and when the manufacturer has done too little to prevent that illegal market from developing. More than that, Defense Distributed and Wilson's codes will enable individuals to create firearms without serial numbers, again in direct contravention of State law.

4. In light of the grave and imminent harm posed with the release of printable-gun computer files, which can and will be used to create illegal and untraceable firearms in New Jersey,

the Attorney General submits this Verified Complaint in connection with an Order to Show Cause with Temporary Restraints in order to immediately halt Defendants from publishing, exporting and/or distributing the printable-gun computer files, which they plan to do on August 1, 2018.

PARTIES

5. Plaintiff, as the Attorney General of New Jersey, brings this action on behalf of the residents of New Jersey. The Attorney General, as the sole legal advisor and attorney for the State, is authorized to bring this suit in the interest and protection of the public in New Jersey. N.J.S.A. 52:17A-4; Mayor & Council of Borough of Alpine v. Brewster, 7 N.J. 42, 52 (1951).

6. Defendant Defense Distributed is incorporated in the State of Texas with a mailing address of 2320 Donley Drive, Suite C, Austin, Texas 78758.

7. Defendant Cody R. Wilson ("Wilson") is the director and founder of Defense Distributed and at all times relevant to this action, has controlled, directed and/or participated in the operation of Defense Distributed. Upon information and belief, Wilson maintains a mailing address of 2510 Tracy Trail, Austin, Texas 78728.

8. John and Jane Does 1 through 20 are fictitious individuals meant to represent the owners, officers, directors, shareholders, founders, members, managers, agents, servants, employees, representatives, and/or independent contractors of Defense Distributed who have been involved in the conduct that gives rise to this Verified Complaint, but who are heretofore unknown to the Plaintiffs. As these defendants are identified, Plaintiff shall amend the Verified Complaint to include them.

9. XYZ Corporations 1 through 20 are fictitious corporations meant to represent any additional corporations that have been involved in the conduct that gives rise to this Verified Complaint, but that are heretofore unknown to the Plaintiff. As these defendants are identified, Plaintiff shall amend the Verified Complaint to include them.

GENERAL ALLEGATIONS COMMON TO ALL COUNTS

A. Background of Defendants and CAD Files:

10. At all relevant times, Defense Distributed has maintained a website at <https://defdist.org> ("DD Website"). The

"About" section of the DD Website provides as follows:

7/26/2018

About | Defense Distributed



ABOUT

Defense Distributed is a non-profit, private defense firm principally engaged in the research, design, development, and manufacture of products and services for the benefit of the American rifleman. Since 2012, DD has been headquartered in Austin, Texas.

Media inquiries: crw@defdist.org

11. The stated objective of Defense Distributed is for everyone to have access to guns and to undermine the efficacy of firearm safety regulations.

12. Defendant Cody Wilson, who is a self-proclaimed anarchist and believes that "governments should live in fear of their citizenry," founded Defense Distributed.

13. In 2012, Defense Distributed began exporting technical data related to firearms through the publication of CAD files, without restriction, on the Internet.

14. Defendants' CAD files are computer files for the creation of guns and gun components through the use of 3D printers.

15. Through the CAD files, Defense Distributed has enabled anyone anywhere to automatically manufacture firearms on 3D printers.

16. Defendants posted their CAD files on <https://defcad.org> ("DefCad Website"), a website they created to serve as an open-source repository for weapons designs.

17. The DD Website currently states as follows:

Defense Distributed |

 ABOUT CONSULTING LOGIN JOIN

AUGUST 1
2018

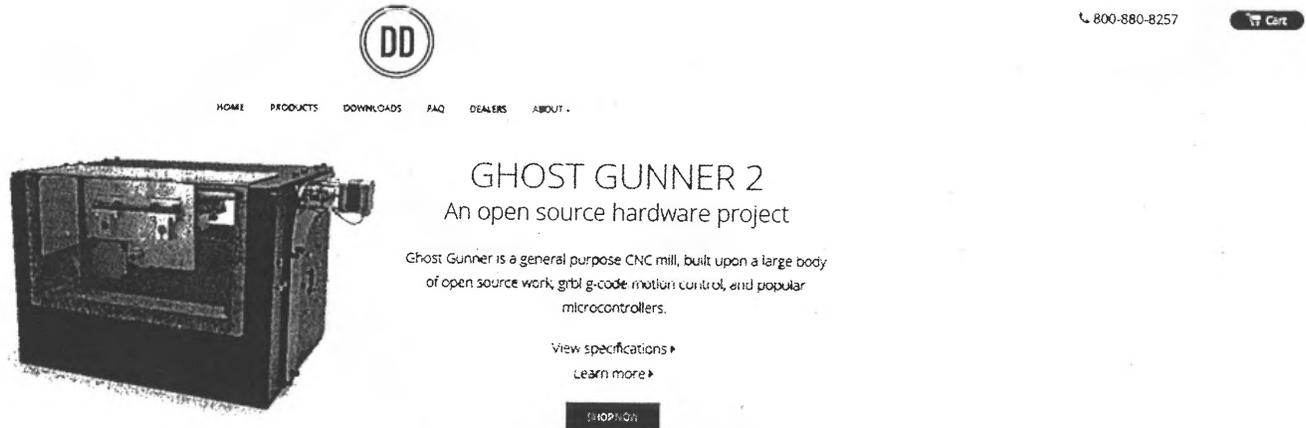
Defense Distributed relaunches DEFCAD after reaching a settlement agreement with the US Department of State, concluding a multi-year federal lawsuit. The age of the downloadable gun begins.

18. The DefCad Website includes data to automatically manufacture the "Liberator" pistol, which is a plastic firearm

that contains a six ounce piece of steel that can be easily removed enabling the firearm to be undetected in walk-through metal detectors. The DefCad Website depicts the Liberator pistol as follows:



19. Through the related website of <https://ghostgunner.net> ("GG Website"), Defense Distributed also manufactures and sells a "computer-controlled milling machine" called the "Ghost Gunner," which is designed to allow its owner to carve gun parts out of aluminum. The GGG Website depicts the Ghost Gunner as follows:



DD

800-880-8257 Cart

HOME PRODUCTS DOWNLOADS FAQ DEALERS ABOUT

GHOST GUNNER 2

An open source hardware project

Ghost Gunner is a general purpose CNC mill, built upon a large body of open source work, g-code motion control, and popular microcontrollers.

[View specifications >](#)
[Learn more >](#)

SHOP NOW

FOR 80 PERCENT RECEIVERS AND FRAMES

No prior CNC experience required

Ghost Gunner is specially designed to manufacture a growing library of mil-spec 80 percent lowers to completion. With simple tools and point and click software, the machine automatically finds and aligns to your 80% lower to get to work. No prior CNC knowledge or experience is required to manufacture from design files. Legally manufacture unserialized rifles and pistols in the comfort and privacy of home.

B. Federal Court Litigation and Settlement:

20. In May 2013, the United States Department of State's Directorate of Defense Trade Controls ("DDTC") advised Defense Distributed that its publication of CAD files without authorization from the DDTC potentially violated the International Traffic in Arms Regulations ("ITAR") administered by DDTC.

21. The violation stemmed from the fact that the CAD files were being made available outside of the United States via the Internet.

22. DDTTC concluded that several of the published CAD files were subject to regulation under ITAR.

23. To make the CAD files available outside of the United States, ITAR required Defendants to seek preapproval of publication from the DDTTC.

24. On May 6, 2015, Defense Distributed as well as the Second Amendment Foundation, Inc. ("SAF") and Conn Williamson (collectively, "DD/SAF/CW"), commenced an action in the United States District Court for the Western District of Texas, Case No. 1:15-cv-00372-RP ("Texas Litigation").

25. DD/SAF/CW sought a declaration that the DDTTC's preapproval requirement for privately generated unclassified information was unconstitutional and violated the First, Second, and Fifth Amendments.

26. DD/SAF/CW also sought to enjoin the DDTTC from enforcing the prepublication approval requirement against them.

27. In opposing DD/SAF/CW's request, Lisa V. Aguirre, the Director of the Office of Defense Trade Controls Management testified that:

- (a) "[t]he 'Liberator' firearm included in Defense Distributed's CAD designs presented a specific and unique risk to the national security and foreign policy interests of the United States";
- (b) making the CAD files available online would provide terrorist organizations with firearms,

which could be used against the United States or its allies; and

- (c) "[a]ccess to weapons technology coupled with the uncontrolled ubiquitous means of productions... could contribute to armed conflict, terrorist or criminal acts, and seriously undermine global export and non-proliferation regimes designed to prevent the dangerous and destabilizing spread and accumulation of weapons and related technologies."

28. After a hearing, the District Court denied DD/SAF/CW's request for a preliminary injunction and found, among other things, that the public interest in national defense and national security outweighed any countervailing interests. The United States Court of Appeals for the Fifth Circuit affirmed the denial. Defense Distributed v. United States Dept. of State, 838 F.3d, 451, 461 (5th Cir. 2016), cert. denied, 138 S. Ct. 638 (2018).

29. The Texas Litigation continued until April 30, 2018, when DD/SAF/CW advised the District Court that the parties reached a tentative settlement.

30. On June 28, 2018, the parties informed the District Court that DD/SAF/CW and the Federal Government reached an approved settlement.

31. The settlement agreement was available on the Internet on or around July 12, 2018, and provides:

- (a) The Federal Government will commit to draft and pursue a notice of proposed rulemaking and final rule that would exclude the data on the CAD files at issue from ITAR regulation;
- (b) The Federal Government will announce on or before July 27, 2018, a temporary modification to exclude the data on the CAD files from ITAR regulation;
- (c) The Federal Government will issue a letter to DD/SAF/CW on or before July 27, 2018, advising that certain files are approved for public release and are exempt from the ITAR licensing requirements;
- (d) The Federal Government will acknowledge that the temporary modification referenced above permits "any United States person" "to access, discuss, use, reproduce, or otherwise benefit from the technical data" that is the subject of the litigation;
- (e) The Federal Government's payment of \$39,581 to DD/SAF/CW; and
- (f) Filing of the stipulation of dismissal no sooner than August 1, 2018, which it ultimately filed on July 27, 2018.

C. Imminent Publication of Printable-Gun CAD Files:

32. Because of the settlement with the Federal Government, Defendants announced that they will re-launch their CAD file repository on August 1, 2018.

33. Thus, at present, the DefCad Website provides as follows:

7/26/2018

DEFCAD

DEFCAD

SEARCH

UPLOAD

PROFILE

SIGN
OUT



34. The DefCad Website will contain a repository of firearm computer files for "more exotic DIY semi-automatic weapons."

35. The DefCad Website also accepts user financial contributions and has a user comment feature where information can be posted or shared.

36. Defendant Wilson intends the DefCad Website to serve as "a searchable, user-generated database of practically any firearm imaginable."

37. The database "will be available to anyone anywhere in the world with an uncensored internet connection, to download, alter, remix, and fabricate into legal weapons with tools like 3D printers and computer-controlled milling machines."

38. Defendant Wilson publicly stated, "What's about to happen is a Cambrian explosion of the digital content related to firearms.... [a]ll this Parkland stuff, the students, all these firearms of 'common sense gun reforms'? No. The internet will serve guns, the gun is downloadable... No amount of petitions or die-ins or anything else can change that."

**D. Direct and Immediate Threat to the
Public Health and Safety of New Jersey:**

39. During the pendency of the Texas Litigation, Defendants "developed a trove" of 3-D-printable weapon computer files, including AR-15s.

40. Assault weapons like the AR-15 and semiautomatic weapons were designed for military use.

41. In New Jersey, weapons like the AR-15 and semiautomatic weapons are banned as illegal assault weapons. N.J.S.A. 2C:39-1w(1); N.J.S.A. 2C:39-5(f).

42. Printable-gun computer files will allow anyone with a 3D printer to download a code and create a fully operational gun.

43. Because the 3D printed firearms will not have serial numbers or other identifiable marks, they will never be traceable by law enforcement. The ability to trace a firearm is critical when law enforcement investigates gun-related crimes.

44. Further, New Jersey law prohibits certain categories of persons from purchasing firearms, including individuals convicted of certain violent crimes and other offenses involving acts of domestic violence and individuals suffering from certain mental illnesses.

45. If Defendants' actions are allowed, anyone with access to a 3D printer will be able to manufacture a firearm, regardless of the disqualifiers under New Jersey law.

46. Any person in New Jersey can log onto the DefCad Website and register by merely inputting a username and email address.

47. The DefCad Website does not require a certain age, a criminal background, or any other eligibility factor.

48. Through the DD Website and DefCad Websites, Defendants declared that it will start publishing the printable-gun computer files on August 1, 2018.

E. Post-Settlement Proceedings:

49. Defendants' actions subvert New Jersey's system of gun regulation and threaten the health, safety, and welfare of our citizens.

50. Responding to this threat, on July 26, 2018, the Attorney General sent a cease-and-desist letter ("New Jersey Cease-And-Desist Letter"), instructing Defense Distributed not to publish the files online.

51. Defense Distributed responded to the New Jersey Cease and Desist Letter the next day. Although Defense Distributed said that it would "attempt to restrict files made available on the internet to prevent download within New Jersey" by blocking users with New Jersey-based IP Addresses from accessing the files, it made clear its intent to proceed with publication of the codes on August 1, 2018.

52. On July 25, 2018, The Brady Campaign to Prevent Gun Violence, Everytown for Gun Safety Action Fund, Inc., and Giffords (collectively, "Proposed Intervenors") sought to intervene in the Texas Litigation and requested a temporary restraining order and a preliminary injunction to enjoin Defense Distributed from publishing the printable gun-computer files at issue here to prevent immediate and irreparable harm to United States national security.

53. On Friday, July 27, 2018, a hearing was held before the Honorable Robert Pitman wherein both of the Proposed Intervenor's motions were denied.

54. On July 29, 2018, Defense Distributed and SAF (collectively, "DD/SAF") filed a Complaint in the United States District Court for the Western District of Texas (Case No. 1:18-cv-00637), seeking declaratory and injunctive relief, damages, and attorney's fees against the Attorney General and Michael Feuer, the Los Angeles City Attorney.

55. DD/SAF initiated this lawsuit against the Attorney General in response to the New Jersey Cease-And-Desist Letter, alleging, among other things, that it constitutes an unconstitutional prior restraint.

56. Notably, DD/SAF state in their Complaint that "[b]ut for Defendant Grewal's letter, Defense Distributed would freely distribute the files in New Jersey."

57. In their Complaint, DD/SAF also allege that "[t]he Second Amendment Foundation's members and supporters are among Defense Distributed's audience" and that "SAF has over 650,000 members and supporters nationwide, including members in . . . New Jersey."

58. On July 30, 2018, the Commonwealth of Pennsylvania, Governor Tom Wolf, Attorney General Josh Shapiro and the

Pennsylvania State Police filed a Complaint against Defense Distributed, DEFCAD, Ghost Gunner and Wilson (collectively, "PA Defendants") for declaratory judgment and a preliminary injunction, as well as a motion for a temporary restraining order and preliminary injunction to enjoin the PA Defendants from publishing the printable-gun computer files at issue here.

COUNT I
PUBLIC NUISANCE

59. Plaintiff incorporates the allegations contained in Paragraphs 1 through 58 above, as if more fully set forth herein.

60. By publishing printable-gun computer files to New Jersey residents, Defendants will intentionally and recklessly flood the illegal firearms market in New Jersey and pose a direct threat to the public health and safety of New Jersey.

61. Defendants know or should know that the publication of the printable-gun computer files will bring illegal firearms into existence in New Jersey, which will result in increased crime, injury, and death to New Jersey residents.

62. Defendants' intentional and reckless conduct will create an unreasonable and significant interference with the public health, public safety, and public peace of the residents of New Jersey.

63. Defendants' conduct, if left unabated, will have long-lasting effects on the health and safety of New Jersey residents.

64. As demonstrated by their own statements, Defendants know or have reason to know that their actions will have a significant impact on the health and safety of New Jersey residents.

COUNT II
NEGLIGENCE

65. Plaintiff incorporates the allegations contained in Paragraphs 1 through 64 above, as if more fully set forth herein.

66. New Jersey law prohibits the types of weapons that Defendants seek to create in publishing their printable-gun computer files.

67. By publishing printable-gun computer files to New Jersey residents so that individuals may create their own illegal firearms, Defendants' conduct is wholly proscribed by New Jersey law. N.J.S.A. 2C:39-5(f).

68. Defendants' conduct, if left unabated, will have a long-lasting, direct and proximate impact on the safety and health residents of New Jersey.

69. Defendants' conduct, if left unabated, will result in increased crime, injury, and death to New Jersey residents.

PRAYER FOR RELIEF

WHEREFORE, based upon the foregoing allegations, Plaintiff respectfully requests that the Court enter judgment:

- (a) Awarding judgment in its favor and against Defendants on each cause of action asserted in the Verified Complaint;
- (b) Permanently enjoining Defendants and their owners, officers, directors, founders, members, managers, agents, servants, employees, representatives, independent contractors, and all other persons or entities directly under their control, from engaging in an activity that is the subject of Plaintiff's request for temporary and preliminary injunctive relief, as set forth in the accompanying Order to Show Cause with Temporary Restraints Pursuant to Rule 4:52;
- (c) Requiring Defendants to abate any public nuisance that their conduct has created;
- (d) Ordering Defendants to pay costs and fees, including attorneys' fees, for the use of the State of New Jersey; and
- (e) Granting such other relief as the interests of justice may require.

GURBIR S. GREWAL
ATTORNEY GENERAL OF NEW JERSEY
Attorney for Plaintiff

By: Lara J. Fogel
Lara J. Fogel
Deputy Attorney General

Dated: July 30, 2018
Newark, New Jersey

RULE 4:5-1 CERTIFICATION

I certify, to the best of my information and belief, that the matter in controversy in this action is not the subject of any other action pending in any other court of this State, but that an action titled Defense Distributed, et al. v. Gurbir S. Grewal, et al., Case No. 1:18-cv-00637 has been commenced in the United States District Court, Western District of Texas. I further certify, to the best of my information and belief, that the matter in controversy in this action is not the subject of a pending arbitration proceeding in this State, nor is any other action or arbitration proceeding contemplated. I certify that there is no other party who should be joined in this action at this time.

GURBIR S. GREWAL
ATTORNEY GENERAL OF NEW JERSEY
Attorney for Plaintiff

By: Lara J. Fogel
Lara J. Fogel
Deputy Attorney General

Dated: July 30, 2018
Newark, New Jersey

RULE 1:38-7(c) CERTIFICATION OF COMPLIANCE

I certify that confidential personal identifiers have been redacted from documents now submitted to the court, and will be redacted from all documents submitted in the future in accordance with R. 1:38-7(b).

GURBIR S. GREWAL
ATTORNEY GENERAL OF NEW JERSEY
Attorney for Plaintiff

By: Lara J. Fogel
Lara J. Fogel
Deputy Attorney General

Dated: July 30, 2018
Newark, New Jersey

DESIGNATION OF TRIAL COUNSEL

Pursuant to R. 4:25-4, Lara J. Fogel, Deputy Attorney General, is hereby designated as trial counsel on behalf of Plaintiffs.

GURBIR S. GREWAL
ATTORNEY GENERAL OF NEW JERSEY
Attorney for Plaintiff

By: Lara J. Fogel
Lara J. Fogel
Deputy Attorney General

Dated: July 30, 2018
Newark, New Jersey

VERIFICATION

I, Aziza Salikhova, of full age, hereby certify as follows:

1. I am an Investigator with the New Jersey Division of Consumer Affairs ("Division"), Office of Consumer Protection.

2. I have read the foregoing Verified Complaint and on my own personal knowledge and review of documents in possession of the Division, I know that the facts set forth herein are true and they are incorporated in this certification by reference, except for those alleged upon information and belief.

3. I certify that the above statements made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.



AZIZA SALIKHOVA

Dated: July 30, 2018
Newark, New Jersey

GURBIR S. GREWAL
ATTORNEY GENERAL OF NEW JERSEY
Division of Law
124 Halsey Street
P.O. Box 45029
Newark, New Jersey 07101
Attorney for Plaintiff

By: Lorraine K. Rak (035771985)
Deputy Attorney General, Section Chief
Lara J. Fogel (038292006)
Melissa Medoway (028422011)
Jesse J. Sierant (049342013)
Deputy Attorneys General
Affirmative Civil Enforcement
(973) 877-1280

SUPERIOR COURT OF NEW JERSEY
CHANCERY DIVISION, ESSEX COUNTY
DOCKET NO. _____

GURBIR S. GREWAL, Attorney General
of the State of New Jersey,

Plaintiff,

v.

DEFENSE DISTRIBUTED, CODY R.
WILSON, and JANE and JOHN DOES 1-
20, individually and as owners,
officers, directors, shareholders,
founders, members, managers,
agents, servants, employees,
representatives and/or independent
contractors of DEFENSE
DISTRIBUTED, and XYZ CORPORATIONS
1-20,

Defendants.

Civil Action

CERTIFICATION OF NEW JERSEY
OFFICE OF HOMELAND SECURITY
DIRECTOR JARED MAPLES

I, Jared Maples, of full age, certify as follows:

1. I have been the Director of the New Jersey Office of
Homeland Security and Preparedness (NJOHSP) since June 5, 2017.

2. In this role, I serve as the Governor of New Jersey's designated Homeland Security Advisor (HSA) and am the Cabinet level executive responsible for coordinating and leading New Jersey's Counterterrorism, Cybersecurity and Emergency Preparedness efforts.

3. I previously served in NJOHSP as the Director of the Division of Administration, from 2016 to 2017. The Division encompasses information technology and security, human resources, and facilities management and financial activities for the Office, including oversight of millions of dollars in federal homeland security grant funding.

4. Prior to joining NJOHSP, I spent over a decade at the Central Intelligence Agency (CIA) in a variety of leadership roles, and previously worked at the US Department of Defense in the Office of the Secretary of Defense.

5. As a seasoned intelligence officer, my career has focused on executive strategy development and execution, organizational and operational change management, emergency operations response, internal security investigations and personnel protection in high threat environments. I have traveled around the world on behalf of the US Government, including many deployments to areas of active hostilities.

6. I have a Master's degree in Business Administration from Georgetown University, a Bachelor's degree from Villanova

University, and an Associate's degree from Valley Forge Military College.

7. Domestic terrorism and mass shootings are an unfortunate reality and a source of growing concern. Access to weapons has been an enabling component to these incidents.

8. NJOHSP provides Active Shooter Response Resources to bolster the preparedness and resilience of New Jersey and its residents in the event of an active shooter incident.

9. The computer-aided design (CAD) codes of Defense Distributed and Cody R. Wilson (collectively, "Defendants") will allow individuals across New Jersey to automatically manufacture on 3D printers lethal firearms that are untraceable and that can be modified to be virtually undetectable in metal detectors.

10. This is concerning to NJOHSP because terrorists and other networks directing violence at the United States and in New Jersey could use this technology to manufacture guns, including assault firearms. Those guns would be untraceable by law enforcement. That means if a gun were used to commit an act of violence, law enforcement would be unable to determine who manufactured, purchased, or transferred the gun.

11. Unregulated and untraceable guns would significantly curtail law enforcement's ability to apprehend the persons involved in the act of violence and stop them from committing future acts of violence. The proliferation of untraceable guns

would also give terrorist groups a significant advantage and deprive NJOHSP the ability to gather the necessary intelligence to combat them and reduce their threat they pose to our citizens.

12. NJOHSP and other New Jersey law enforcement agencies have traced guns thousands of times, and such traces are a critical tool to help solve crimes. We use the results of these traces to identify the methods by which firearms entered the illegal market and to devise strategies to disrupt these criminal networks. But if there were to be a proliferation of untraceable 3D guns, crimes and criminal networks might go unsolved and the perpetrators might go on to commit additional acts of violence.

13. Indeed, in 2013, journalists in Israel were able to print a Defense Distributed gun and get within arm's reach of the country's prime minister at the government capitol. (Lazar Berman, Journalists Print Gun, Point It at Netanyahu, Times of Israel (July 13, 2013), available at <https://bit.ly/2mD6AOJ>.) We at NJOHSP are concerned that if 3D gun codes are generally available, similar incidents could occur on New Jersey soil.

14. Upon review of Defendants' January 2, 2015 Commodity Jurisdiction Request to the United States Department of State Directorate of Defense Trade Controls, Defendants' CAD files can be used to "automatically find, align, and mill" a firearm, such

as an AR-15, on a 3D printer or other manufacturing device. (See Ex. A, pg. 2.) Manufacture of a firearm in this manner requires considerably less technical knowledge than the manufacture of a weapon relying on conventional technical data that may be currently publicly available, but which only provides guidance on how to create a firearm and requires additional craftsmanship, know-how, tools, and materials from the manufacturer.

15. Posting of Defendants' CAD files on the Internet without restriction would make those files available throughout New Jersey to any Internet user, thereby permitting the export of those files to any New Jersey resident or visitor with access to Defendants' website. The likely effect of this publishing would be to cause significant harm to the health, safety, peace, and comfort of the citizens of New Jersey.

16. For example, the "Liberator" firearm included in Defendants' CAD designs presents a specific and unique risk to State security since the Liberator is a plastic firearm that can be produced in a way as to be both fully operable and virtually undetectable by conventional security measures. 3D firearms can defeat normal detection such as metal detectors and wands, and present a problem to public safety in venues such as airports, arenas, schools, government buildings, and/or courthouses.

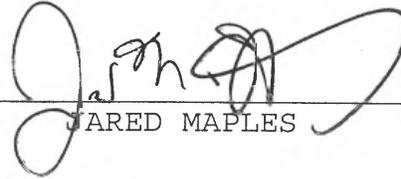
17. Making Defendants' CAD files available through unrestricted access on the Internet would provide terrorists and crime organizations with firearms at their convenience, subject only to access to a 3D printer, an item that is widely commercially available. (See e.g., [https://www.staples.com/3D-Printers/cat_CL211598?fids=&sr=true&sby=2&min=&max=&myStoreId=&deptFid=.](https://www.staples.com/3D-Printers/cat_CL211598?fids=&sr=true&sby=2&min=&max=&myStoreId=&deptFid=)) Terrorist groups and other bad actors could then manufacture and use such weapons against New Jersey citizens.

18. Unrestricted access to Defendants' CAD files would likewise provide armed criminal or terrorist organizations with access to firearms components and replacement parts.

19. Access to weapons technology coupled with the uncontrolled and increasingly ubiquitous means of production, such as 3D printers, could contribute to terrorist or criminal acts and undermine New Jersey's efforts to reduce gun violence within the State.

20. For the foregoing reasons, Defendants' effort to post these CAD files through the Internet represents a direct threat to New Jersey's homeland security.

I certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.



JARED MAPLES

Dated: July 30, 2018

EXHIBIT A

MATTHEW A. GOLDSTEIN, PLLC
1012 14TH STREET, N.W. SUITE 2000
WASHINGTON, D.C. 20005

VIA ELECTRONIC FILING

January 2, 2015

PM/DDTC, SA-1, 12th Floor
Office of Defense Trade Controls
Bureau of Political Military Affairs
U.S. Department of State
Washington, D.C. 20522-0012

SUBJECT: Commodity Jurisdiction Request for Ghost Gunner Machine, Plastic Mounting Jig, User Instructions, and Software (Defense Distributed, Inc., PM/DDTC Code M-34702)

Dear Sir or Madam:

Pursuant to Section 120.4 of the International Traffic in Arms Regulations ("ITAR") (22 C.F.R. Sections 120-130), Defense Distributed requests a commodity jurisdiction determination from the Directorate of Defense Trade Controls ("DDTC") on the Ghost Gunner machine (the "Ghost Gunner"), its plastic mounting jig, user instructions, and software for production, operation, and use of the Ghost Gunner.

The Ghost Gunner is an approximately one-foot-cubed black box that uses a drill bit mounted on a head that moves in three dimensions to automatically carve digitally-modeled shapes into polymer, wood or aluminum. It functions as a 3-axis computer-numerically-controlled ("CNC") press that can be used to manufacture parts to firearms controlled under U.S. Munitions List ("USML") Category I. It can also be used to manufacture items that are not controlled under the USML. The machine was designed, developed, and manufactured by Defense Distributed to automatically manufacture publicly available designs with nearly zero user interaction.

As discussed below, the Department of Defense recommended that Defense Distributed submit this commodity jurisdiction request.

Export jurisdiction over the Ghost Gunner, Jig, software, and instructions is uncertain because, although the Department of Commerce Export Administration Regulations ("EAR") maintain a control listing for jigs, fixtures, and other metal-working items "exclusively designed for use in the manufacture of firearms" under Commerce Control List ("CCL") Export Control Number ("ECCN") 2B018.n, there is no corresponding carve-out for these items and related software and technical information otherwise controlled by USML Category I generally; and Category I(i) controls technical data and defense services directly related to firearms, with technical data directly related to the manufacture or production of firearms designated as Significant Military Equipment.

Please note that a letter from Defense Distributed authorizing my law firm to file this request was uploaded with this DS-4076 submission. Please direct any questions and all correspondence related to this request to my office. Communications to me at matthew@goldsteinpllc.com are preferred.

I. BACKGROUND

A. Defense Distributed

Defense Distributed is a Texas corporation, registered with the Department of State under PM/DDTC Code M-34702. The company has developed technical information that can be used to produce, manufacture, and assemble various parts components, accessories, and attachments to firearms controlled under USML Category I. This includes information for the design and production of the Ghost Gunner, software necessary to operate Ghost Gunner, and code that allows production of certain items by the Ghost Gunner.¹

Following notification from DDTC in May 8, 2013, that the agency requires U.S. Government prior approval before publications of otherwise ITAR-controlled technical data into the public domain (Attachment 1), Defense Distributed has submitted requests for U.S. Government clearance of technical data to the Department of Defense Office of Prepublication and Security Review ("DOPSR").² On October 1, 2014, DOPSR returned a Defense Distributed request for clearance of technical information on the Ghost Gunner for public release, stating that commodity jurisdiction over the item was uncertain and recommending that Defense Distributed submit a commodity jurisdiction request. See Attachment 2.

B. The Ghost Gunner

Existing CNC machines are expensive or too inaccurate to manufacture firearms for the casual user. Defense Distributed developed the Ghost Gunner to address this problem by miniaturizing the build envelope to just large enough to mill common firearm receivers, which in turn improves rigidity, reduces material cost and simultaneously relaxes certain design limits, allowing Defense Distributed to sell an inexpensive machine with more than enough accuracy to manufacture firearms.

The first design tested on the Ghost Gunner was for an AR-15 lower receiver and the Ghost Gunner was able to automatically find, align, and mill a so-called "80%" lower receiver, which was not a firearm prior to milling. The Ghost Gunner has since undergone several design revisions to reduce machine chatter, backlash, and jitter, all with the goal of keeping total design cost low.

Photographs of Ghost Gunner are provided at Attachment 3 and rendered images of the machine with the plastic jig are provided at Attachment 4.

¹ This commodity jurisdiction request seeks a determination of the code necessary to operate Ghost Gunner. It does not seek a determination on the various project files specific to production of certain items by the Ghost Gunner.

² In complying with DDTC prepublication review requirements on publication of technical information into the public domain, Defense Distributed does not intend to, nor should it be considered to, waive any defense, claim or right under law.

A schematic drawing for the Ghost Gunner is provided at Attachment 5.

Ghost Gunner form, fit, function, and performance characteristics include the following:

- It uses a compact, powder coated A36 steel frame and thick stainless T-slot rail, with preloaded ball bearings for maximum rigidity. Linear motion is achieved with low-backlash direct-drive ball screws mounted in-line with the cutting surface, thus preventing torsional gantry chatter while machining.
- It incorporates an electronic probe that automatically detects when the machine comes into contact with the work piece, allowing automatic part discovery and alignment. Ghost Gunner requires conductive parts if auto-discovery and alignment are used.
- It can manually machine nonconductive materials, but this requires manual calibration of a part to the machine - following a few simple instructions - as is required with existing CNC machines.
- Its moving parts are entirely sealed from chip debris. All bearings are sealed and contain wipers to prevent foreign contaminate entry. The rails are stainless steel and are factory lubricated, but do require periodic wiping to prolong life. End Mills dull over time and are considered a consumable.
- To contain aluminum chips, it includes a chip collection tray and all moving components are fully enclosed.
- It is capable of manufacturing deep pockets due to its horizontal gantry, which allows gravity to pull chips away from the cutting surface before they can build up and dull the end mill, as is the case on traditional CNC designs.
- It uses industry standard ER-11 collets, and ships with both 1/4" and 5/32" collets.
- It uses a standard IEC power cord and is compatible with any 110/220V circuit. No external power brick is used; the machine is entirely self-contained.
- It has two ports: Power (IEC standard) and USB (Type 'B').
- Its machinable dimensions are 140 x 75 x 60mm (~5.50 x 2.95 x 2.35")
- Its maximum part dimensions are 230 x 90 x 100mm (~9.05 x 3.50 x 3.90")
- Its overall footprint is 330 x 280mm (~13 x 11")
- Its weight is 20kg (~45 pounds)

- Its Spindle Speed is 10,000+ RPM (Final Value TBD)
- Its software requirements are Windows 7 or higher. Mac version TBD

As noted above, Ghost Gunner is capable of manufacturing more than just firearm receivers. With Defense Distributed's open source Physibles Development SDK ("pDev"), designers can distribute files via the company's '.dd' file format, which contains all installation and assembly instructions, any required jig files to hold a part in place (that users can print with a 3D printer), and all machine definitions and code to physically manufacture a particular design. To a casual user, the .dd file is a one-stop solution to manufacturing any aluminum physible that the public can design to fit into the build envelope. Defense Distributed will be developing in and supporting this format.

The .dd file format is itself open source and not constrained to the Ghost Gunner or Defense Distributed; any user can define any existing machine's specific parameters via the machine parameters list. A single file can contain specific code and installation instructions for any number of machines. A user with both a Ghost Gunner and a Tormach P1100 could manufacture a particular .dd file on either machine and manufacture the same physible with zero additional user knowledge, as only the instructions required for a particular machine are revealed to the end user. The .dd file format is a CNC response to 3D printing's universal .stl file format. However, Ghost Gunner will also accept TinyG code from any CAM program.

In operation, users provide the parts for milling. They can then simply plug their computer into the Ghost Gunner, install the Ghost Gunner software, and download any compatible .dd design file. 3D printable jigs are used to hold each part in place as each milling step is performed. For example, milling an eighty percent AR-15 lower receiver requires two jig pieces to secure the lower in place while the trigger pocket is milled, and then two more jig pieces are installed to drill the trigger pinholes. As most eighty percent firearms require deep pocket milling, Ghost Gunner's mounting table is parallel to the end mill shaft. This orientation maximizes 3D printed jig strength, minimizes jig complexity, and mechanically aligns the part to the machine upon insertion into the Maker Slide-patterned, Open Source T Slot stainless rails.

Defense Distributed expects its typical order fulfillment will contain the fully assembled Ghost Gunner CNC, plastic mounting jig designed to secure 80% AR-15 receivers, operating software and instructions. Defense Distributed also intends to place instructions and computer code needed to build and use Ghost Gunner into the public domain as Open Source technology.

Block 13 ("Sales information") is not provided with this request because the Ghost Gunner is still in development as Defense Distributed awaits arrival of various production pieces and continues to make any required changes to the product. As such, the company has not yet delivered any machines (i.e., no completed sales). However, the company has accepted 469 pre-orders and 413 advance deposits from prospective purchasers. Each of these orders, except for one, are intended for domestic sale. In addition, consistent with U.S. law, final sales will carry conditions that limit purchases to private use (i.e., not for commercial or military use).

Commodity Jurisdiction Request

January 2, 2015

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C. User Instructions and Operating Software for the Ghost Gunner

The current draft User Instructions for the Ghost Gunner accompanies this commodity jurisdiction request at Attachment 6. It contains information on how to attach a "80%" lower receiver to Ghost Gunner, such that Ghost Gunner can mill and drill all required holes to transform the lower receiver into a firearm. Ghost Gunner presents numerous User Instructions, User Graphics, and User Selections to the operator. Ghost Gunner performs work via Calibration Code and Milling Code. Ghost Gunner also assists the user in creating 3D printable Jigs, if needed.

The software necessary to produce and operate the Ghost Gunner includes AutoDesk Inventor and a simple executable application that can interpret CNC part files and TinyG code. Additional information detailing the purpose, function, and capability of the software, as requested by DDTC's DS-4076 Commodity Jurisdiction (CJ) Guidance for Software, accompanies this commodity jurisdiction request at Attachment 7.

II. COMMODITY JURISDICTION STANDARD

The standard applicable to Department of State and other agency considerations of commodity jurisdiction is set forth at ITAR Section 120.3. ITAR Subsection 120.3(a) extends Department of State jurisdiction to any item that meets the criteria of a defense article described on the USML or that provides equivalent performance capabilities; and ITAR Section 120.3(b) provides that a specific article not presently described on the USML shall be determined in the future as a defense article if it provides a critical military or intelligence advantage.

A. Relevant USML Control Listings

Subparagraph (h) to USML Category I controls components, parts, accessories, and attachments for firearms to .50 caliber inclusive. The Ghost Gunner does not meet the Category I(h) criteria because it is not a component or part to a firearm. Rather, it is a machine that can be used for the manufacture of such articles.

Subparagraph (i) to USML Category I controls technical data, to include "software" as defined at Section 120.45(f), and defense services directly related to the firearms and components, parts, accessories, and attachments for firearms to .50 caliber inclusive. Technical data directly related to the manufacture or production of firearms controlled in Category I is designated as Significant Military Equipment.

The USML does not contain a control listing that describes items used for the manufacture of firearms. Instead, that listing is contained on the EAR Commerce Control List ("CCL") entry for ECCN 2B018.n, which controls "Jigs and fixtures and other metal-working implements or "accessories" of the kinds exclusively designed for use in the manufacture of firearms. ECCN 2D018 controls software" for the "development", "production" or "use" of equipment controlled by 2B018; and ECCN 2E018, in turn, controls "Technology" for the "use" of equipment controlled by 2B018.

The scope of the CCL controls on firearms manufacturing equipment and technology is unclear because the EAR only controls items not described on the USML and Category I does not contain any carve-out from ITAR control for software or technology controlled under ECCNs 2D018 and 2E018. To the contrary, if literally applied, USML Category I(i) treats such technical information as Significant Military Equipment.

Because there is no specific carve-out in Category I or elsewhere in the USML for software or technology controlled by 2D018 and 2E018, it is very difficult to distinguish between technical data for the manufacture or production of firearms controlled in Category I and technology for the development, production, and use of equipment used to manufacture firearms controlled at 2D018 and 2E018. This is a primary concern of the present commodity jurisdiction request.

Nevertheless, EAR control is consistent with U.S. Implementation of Wassenaar Controls. Specifically, ECCNs 2B018, ECCN 2E018, and 2B018 are Wassenaar Arrangement-based controls, subject to the National Security reason for control and which correspond to Category 2 of the Wassenaar Arrangement List of Dual-Use Items. In fact, 2B018 is titled, "Equipment on the Wassenaar Arrangement Munitions List."

Although relevant text of the ITAR and EAR control listings lack clarity, it appears that the U.S. Government decided to implement export controls on firearms manufacturing equipment and associated technical information in the EAR when it first implemented the Wassenaar Arrangement controls for such items. Accordingly, Defense Distributed believes that the Ghost Gunner does not meet criteria of a defense article described on the USML and that it does not provide equivalent performance capabilities to an article described on the USML.

Defense Distributed further notes that the DDTC should consider amending USML Category I to provide an express carve-out for EAR items controlled under ECCNs 2B018.n, ECCN 2E018, and 2B018. Alternatively, if DDTC intends to control firearms manufacturing equipment under the USML, it should make this clear in the regulations. Towards this end, any determination on the instant request that imposes ITAR control should be widely disseminated and shared with the firearms manufacturing industry.

B. Ghost Gunner Does Not Provide a Critical Military or Intelligence Advantage.

As noted above, ITAR Section 120.3(b) provides that a specific article not presently described on the USML shall be determined in the future as a defense article if it provides a critical military or intelligence advantage.

The function and performance of the Ghost Gunner does not provide a critical military or intelligence advantage. Rather, it is essentially a jig press based on a simple design that is easily replicated by any skilled machinist. In fact, the Ghost Gunner can be produced by persons with no formal engineering background.

Commodity Jurisdiction Request
January 2, 2015
Page 7 of 9

In addition, Ghost Gunner builds on technology readily available in the Open Source community, including the gshield 3 axis motion hardware (<http://synthetos.myshopify.com/products/gshield-v5>), the grbl g-code parser and motion controller (<https://github.com/grbl/grbl>), and the Arduino microcontroller (<http://arduino.cc>).

Further, instructions and/or electronic files for production of jig presses with similar form, fit, and function to the Ghost Gunner are publicly available for download at a variety of web addresses, to include the following:

<http://aresarmor.com/store/Item/Polymer-80-Black>
<http://www.thingiverse.com/thing:160266>
https://github.com/DefiantCad/defcad-repo/tree/master/Rifles/AR-15_80_percent_lower_v5-shadowfall/AR-15_80_percent_Lower_Drill_Jig_v1-Shadowfall
<http://www.advancedrifles.com/3d-printed-jig-version-2-0/>
<http://www.80percentarms.com/products/80-ar-15-easy-jig>
<http://www.sierranevadaarms.com/jig.pdf>
<http://www.rockethub.com/projects/24384-80-lower-receiver-ar15-ar10-rudius-1911>

III. CONCLUSION

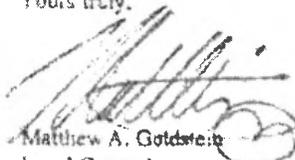
Considering the apparent intent of the U.S. Government in implementing relevant Wassenaar Arrangement controls in the EAR, Defense Distributed believes that the Ghost Gunner does not meet the criteria of an article described on the USML. In addition, the Ghost Gunner does not provide a critical military or intelligence advantage. Accordingly, Defense Distributed respectfully requests that the Department of State issue a commodity jurisdiction determination stating that the Ghost Gunner, its plastic mounting jig, operating software, and production and operation instructions do not meet the criteria of ITAR 120.3 and are subject to Department of Commerce jurisdiction under the EAR.

Defense Distributed authorizes the release for general publication of the information contained in Block 5 of the DS-4076 Form. However, other information in this request and documents submitted with Defense Distributed's DS-4076 Submission contain sensitive business information that is proprietary, confidential, and exempt from disclosure under the Freedom of Information Act, 5 U.S.C. Section 552, and is also protected under the Trade Secrets Act, 18 U.S.C. Section 1905. Accordingly, pursuant to ITAR Section 130.15, Defense Distributed requests that information in this submission other than that contained in Block 5 be withheld in the event of a request for its disclosure.

Commodity Jurisdiction Request
January 2, 2015
Page 8 of 9

Thank you for your prompt attention to this matter and please contact me at 202-550-0040 or at matthew@goldsteinpllc.com if any additional information is needed

Yours truly,


Matthew A. Goldstein
Legal Counsel

COMPANY CERTIFICATION:

Cody Wilson, the Principal of Defense Distributed, certifies that he is the duly authorized representative of Defense Distributed; and that in such capacity, he certifies that he has carefully read the foregoing Commodity Jurisdiction request; and that the contents of the request are true and correct to the best of his knowledge, information and belief after reasonable inquiry into the matters discussed.

Signature 

1/2/2015
Date

ATTACHMENTS TO LETTER OF EXPLANATION:

- Attachment 1 May 8, 2013 DDTC Letter to Defense Distributed
- Attachment 2 October 1, 2014 DOPSR Letter to Defense Distributed
- Attachment 3 Photographs of Ghost Gunner Machine
- Attachment 4 Rendered Images of Ghost Gunner Machine
- Attachment 5 Ghost Gunner Schematics
- Attachment 6 Ghost Gunner User Instructions
- Attachment 7 Answers to DS-4076 Commodity Jurisdiction (CJ) Guidance for Software

www.GoldsteinPLLC.com

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Commodity Jurisdiction Request

January 2, 2015

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OTHER ATTACHMENTS INCLUDED WITH DS-4076 SUBMISSION:

DD_DS4076.pdf

DD_Attorney_Authorization_Letter_Block_2-1.pdf

[Instant document] DD_Cover_Ltr_Block_6-1.pdf

DD_Certification_Block_19-1.pdf

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United States Department of State

Bureau of Political-Military Affairs
Directorate of Defense Trade Controls

Washington, D.C. 20522-0112

In Reply refer to
DDTC Case CJ 1083-14 (RE-ISSUE)

APR 15 2015

YOUR SUBMISSION DATED: January 2, 2015

COMMODITY JURISDICTION DETERMINATION FOR: **Ghost Gunner Machine, Plastic Mounting Jig, User Instructions, and Software**

The product described in your submission is a one cubic foot box that functions as a 3-axis, computer-numerically-controlled (CNC) press capable of automatically milling parts out of various materials through software designs.

A technical review of your commodity jurisdiction (CJ) request has been concluded by the requisite agencies of the United States Government. A split jurisdiction determination of this request has been determined, as follows:

The Department of State has determined that the **Ghost Gunner, its plastic mounting jig, operating software, and production and operation instructions are not subject to the jurisdiction of the Department of State**. However, export may require authorization from the Department of Commerce (DOC). Please consult the DOC Office of Exporter Services at (202) 482-4811 to make a Classification Request (CCATS) and satisfy other applicable requirements prior to export.

The Department of State has determined that the **project files, data files, or any form of technical data for producing a defense article, including an 80% AR-15 lower receiver, are subject to the jurisdiction of the Department of State in accordance with the International Traffic in Arms Regulations (ITAR) (22 CFR 120 through 130)**. They are

Continued on Page Two

Cody R. Wilson
Defense Distributed, Inc.
1101 W 34th Street, #340
Austin, TX 78705
crw@deddist.org

Page Two

In Reply refer to
DDTC Case CJ 1083-14

designated as technical data under Category I(i) of the United States Munitions List (USML). A license or other approval is required pursuant to the ITAR prior to any export or temporary import.

Should you not agree with this determination and have additional facts not included in the original submission, you may submit a new CJ request. If you do not agree with this determination and have no additional facts to present, you may request that this determination be reviewed by the Deputy Assistant Secretary of State for Defense Trade Controls.

Should you require further assistance on this matter, please contact Samuel Harmon at (202) 663-2811 or HarmonSC@state.gov.

Sincerely,



C. Edward Peartree

Director

Office of Defense Trade Controls Policy

Cc: Matthew A. Goldstein
1012 14th Street, NW, Suite 620
Washington, DC 20005
matthew@goldsteinpllc.com

GURBIR S. GREWAL
ATTORNEY GENERAL OF NEW JERSEY
Division of Law
124 Halsey Street
P.O. Box 45029
Newark, New Jersey 07101
Attorney for Plaintiff

By: Lorraine K. Rak (035771985)
Deputy Attorney General, Section Chief
Lara J. Fogel (038292006)
Melissa Medoway (028422011)
Jesse J. Sierant (049342013)
Deputy Attorneys General
Affirmative Civil Enforcement
(973) 877-1280

SUPERIOR COURT OF NEW JERSEY
CHANCERY DIVISION, ESSEX COUNTY
DOCKET NO. _____

GURBIR S. GREWAL, Attorney General
of the State of New Jersey,

Plaintiff,

v.

DEFENSE DISTRIBUTED, CODY R.
WILSON, and JANE and JOHN DOES 1-
20, individually and as owners,
officers, directors, shareholders,
founders, members, managers,
agents, servants, employees,
representatives and/or independent
contractors of DEFENSE
DISTRIBUTED, and XYZ CORPORATIONS
1-20,

Defendants.

Civil Action

CERTIFICATION OF
DEPUTY CHIEF OF DETECTIVES
CHRISTOPHER W. DONOHUE

I, Christopher W. Donohue, of full age, certify as follows:

1. I am a citizen of the United States and a resident of
the State of New Jersey ("New Jersey").

2. I am over 21 years of age.

3. I am the Deputy Chief of Detectives, shield #1783, of the Gangs/Organized Crime Bureau of the New Jersey Division of Criminal Justice ("DCJ").

4. I graduated with honors from the Westchester County Police Academy, in Valhalla, New York in 1996, and became an Investigator for the New York County District Attorney's Office in New York City in the same year. I attained the rank of Senior Investigator and Field Training Officer (FTO) before leaving in November of 2001.

5. In 2001, I became a detective with DCJ and was assigned to the Gangs/Organized Crime Bureau. I was promoted to the rank of Lieutenant in 2009, and remained assigned to the Gangs/Organized Crime Bureau. In 2014, I was promoted to the rank of Deputy Chief of Detectives of the Gangs/Organized Crime Bureau.

6. In my current capacity as Deputy Chief of Detectives, I am responsible for overseeing all criminal investigations administered by the Gangs/Organized Crime Bureau. The Gangs/Organized Crime Bureau is responsible for investigating groups and/or individuals associated with street gangs and organized crime who commit criminal offenses in violation of New Jersey State law, such as narcotics trafficking, weapons offenses, money laundering, and murder. The vast majority of

cases investigated by the Gangs/Organized Crime Bureau involve a firearm.

7. During my career, I have investigated and supervised hundreds of cases involving organized crime, narcotics trafficking, weapons offenses, homicide, and money laundering. Throughout my career, I have served as an affiant on numerous wiretap applications, as well as search and arrest warrant applications.

8. In addition to attending the Westchester County Police Academy, I have also received specialized training over the course of my career from agencies, such as the New York City Police Department, the New Jersey State Police ("NJSP"), the United States Drug Enforcement Administration, and the NY/NJ High Intensity Drug Trafficking Area. I have also participated in numerous in-service trainings from the New York County District Attorney's Office and DCJ. I have also received meritorious commendations from the New Jersey Attorney General, the New York City Police Department, the Federal Bureau of Investigation, the United States Drug Enforcement Administration, the NJSP, and the United States Attorney's Office.

9. I am trained in and qualified to carry several types of firearms. Twice a year, I am required to attend in-service trainings and qualify to carry firearms. I have attended these

twice-a-year trainings and qualifications every year since 1996.

10. Printable-gun computer files allow anyone with a third dimensional ("3D") printer to download a code and create a fully operational gun. Because the 3D printed firearms will not have serial numbers or other identifiable marks, they will never be traceable by law enforcement. This completely subverts New Jersey's system of gun regulation and threatens the health, safety, and welfare of our citizens.

11. A serial number is required to be placed on all firearms so that they can be traced to their original owners if they are ever used to commit a criminal offense. Law enforcement traces firearms by finding the owner's name in the gun dealer's records, and then interviewing that person and any other person to whom he sold the gun, and so on. Through this process, law enforcement is able to determine the manufacturer of the gun, the date it was sold, the dealership, and the purchaser. This information assists law enforcement in determining what happened to a particular gun after it left the dealer by learning the history of who owned the gun.

12. Being able to trace a gun is critical in the investigation of gun-related crimes. The computer-aided design (CAD) codes of defendants Defense Distributed and Cody R. Wilson (collectively, "Defendants") will allow individuals across New Jersey to automatically manufacture untraceable guns

on 3D printers. If law enforcement is unable to trace 3D guns to determine their owners, law enforcement will be critically hampered in its ongoing efforts to solve gun crimes and prevent new gun crimes from being committed. This poses a direct and immediate threat to public health, safety, and welfare.

13. Defendants' codes for 3D guns will also enable individuals to print assault weapons, which are illegal in New Jersey under N.J.S.A. 2C:39-5(f).

14. In addition, Defendants' codes for 3D guns will be available to everyone in New Jersey, regardless of age, criminal status, history of mental illness, or other disqualifying characteristic. There will thus be no way for law enforcement to prevent guns from winding up in the hands of those who are prohibited from purchasing firearms under New Jersey law, including the following:

- a. those who have been convicted of crimes and disorderly persons offenses involving acts of domestic violence (prohibited by N.J.S.A. 2C:58-39(c)(1));
- b. those who are drug dependent (N.J.S.A. 2C:58-3(c)(2));
- c. those who are confined for mental disorders to hospitals, mental institutions or sanitariums (N.J.S.A. 2C:58-3(c)(2));

- d. those who suffer from a physical defect or disease that would make it unsafe for them to handle firearms (N.J.S.A. 2C:58-3(c)(3));
- e. those who have been confined for a mental disorder (N.J.S.A. 2C:58-3(c)(3));
- f. those who are alcoholics and are unable to produce proof demonstrating that they no longer suffer from that particular disability in a manner that would interfere with or handicap them in the handling of firearms (N.J.S.A. 2C:58-3(c)(3));
- g. juveniles (N.J.S.A. 2C:58-3(c)(4));
- h. those for whom the issuance of a permit to purchase a handgun or firearms purchaser identification card would not be in the interests of the public health, safety, or welfare (N.J.S.A. 2C:58-3(c)(5));
- i. those who are subject to restraining orders issued pursuant to the "Prevention of Domestic Violence Act" prohibiting them from possessing firearms (N.J.S.A. 2C:58-3(c)(6));
- j. those who were adjudicated delinquent for offenses which, if committed by an adult, would constitute a crime involving the unlawful use or possession of weapons, explosives, or destructive devices (N.J.S.A. 2C:58-3(c)(7));

- k. those who had a firearm seized pursuant to the Prevention of Domestic Violence Act (N.J.S.A. 2C:58-3(c)(8)); and
- l. those who are named on the consolidated Terroristic Watchlist maintained by the Terrorist Screening Center administered by the Federal Bureau of Investigation (N.J.S.A. 2C:58-3(c)(9)).

15. The New Jersey Legislature has passed these laws prohibiting the foregoing groups of individuals from obtaining permits to purchase handguns and firearms purchaser identification cards because the legislative judgment is that if such persons had access to guns, there would be a direct threat to public safety. However, if Defendants' codes for 3D guns are readily available to the general public, everyone with access to a 3D printer will be able to manufacture a gun, and law enforcement will have no way to ensure that guns are not possessed by persons who are prohibited from possessing them under current New Jersey law. This undermines the legislative will and poses a direct and immediate threat to public health, safety, and welfare of New Jersey residents.

16. Of particular concern are certain persons who are prohibited from purchasing, owning, possessing, or controlling any and all firearms under N.J.S.A. 2C:39-7(b), due to their prior convictions for aggravated assault, arson, burglary,

escape, extortion, homicide, kidnapping, robbery, aggravated sexual assault, sexual assault, bias intimidation, endangering the welfare of a child, stalking, or a crime involving domestic violence. Those persons face a mandatory term of imprisonment with at least five years of parole ineligibility if they purchase, own, possess, or control a firearm. But the 3D codes will allow them to easily download firearms, which will severely hamper law enforcement's ongoing efforts to keep dangerous guns out of the hands of dangerous criminals.

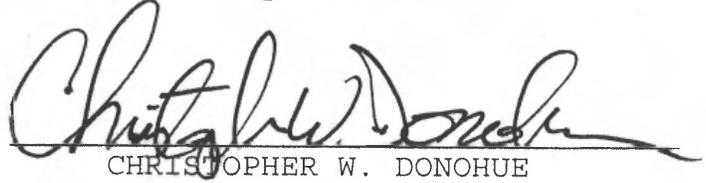
17. I was able to log on to the Defense Distributed website (located at <https://defcad.com>) and register simply by providing a username and email address. There was nothing on the website requiring that I attest to being over a certain age, not having a criminal background, or being otherwise ineligible to possess a weapon. The website indicated that the download will be free starting August 1, 2018. Thus, on August 1, 2018, any person in New Jersey will be able download the 3D gun codes for free, regardless of that person's eligibility to legally purchase or possess a weapon.

18. I read Defense Distributed's Complaint filed on July 29, 2018, in the Western District of Texas, where it claimed that "[u]sers with New Jersey based IP addresses are currently blocked from accessing the files[.]" Later that day, I attempted to and was still able to log on to the website using a smartphone while in New Jersey, contrary to Defense Distributed's claim.

19. Even were Defense Distributed's controls effective, that does not fix the problem. I still would be able to travel to the State of New York quickly, download the code one time, return to New Jersey, and print the 3D guns in New Jersey indefinitely.

20. In sum, Defendants' codes for 3D guns will facilitate the illegal possession of weapons to criminals and other unlawful users, will undermine New Jersey's comprehensive scheme for keeping guns out of dangerous criminals' hands, and will undermine the safety of New Jersey residents. Based upon my experience, to allow individuals to download the 3D gun from Defendants' website will result in printable 3D guns that will flood the illegal firearms market and pose a direct threat to the public safety of New Jersey.

I certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.



CHRISTOPHER W. DONOHUE

Dated: July 30, 2018

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SUPERIOR COURT OF NEW JERSEY
CHANCERY DIVISION, ESSEX COUNTY
DOCKET NO. _____

GURBIR S. GREWAL, Attorney General
of the State of New Jersey,

Plaintiff,

v.

DEFENSE DISTRIBUTED, CODY R.
WILSON, and JANE and JOHN DOES 1-
20, individually and as owners,
officers, directors, shareholders,
founders, members, managers,
agents, servants, employees,
representatives and/or independent
contractors of DEFENSE
DISTRIBUTED, and XYZ CORPORATIONS
1-20,

Defendants.

Civil Action

CERTIFICATION OF
INVESTIGATOR
AZIZA SALIKHOVA

I, Aziza Salikhova, of full age, certify as follows:

1. I make this Certification based upon my personal knowledge and review of documents in my possession.

2. I am currently employed as an Investigator with the New Jersey Division of Consumer Affairs ("Division"), Office of Consumer Protection. I have held this position since approximately March 10, 2001.

3. In that capacity, I am responsible for investigating possible violations of New Jersey laws and regulations.

4. Defense Distributed has a website¹ located at <https://defdist.org> ("DD Website"). The "About" section of the DD Website provides as follows:

7/26/2018

About | Defense Distributed



ABOUT

Defense Distributed is a non-profit, private defense firm principally engaged in the research, design, development, and manufacture of products and services for the benefit of the American rifleman. Since 2012, DD has been headquartered in Austin, Texas.

Media inquiries: crw@defdist.org

5. Defendants have posted their Computer Aided Design ("CAD") files on <https://defcad.org> ("DefCad Website"), a

¹ On July 26, 2018 I was able to access Defense Distributed's websites located at <https://defdist.org>, <https://defcad.com>, and <https://ghostgunner.net>. I completed electronic captures of these web sites which are available to be produced upon request.

website they created to serve as an open-source repository for weapons designs.

6. The DD Website currently states as follows:

Defense Distributed |

DD ABOUT CONSULTING LOGIN JOIN

AUGUST 1
2018

Defense Distributed relaunches DEFCAD after reaching a settlement agreement with the US Department of State, concluding a multi-year federal lawsuit. The age of the downloadable gun begins.

7. The DefCad Website includes data to automatically manufacture the "Liberator" pistol, which is a plastic firearm. The DefCad Website depicts the Liberator pistol as follows:

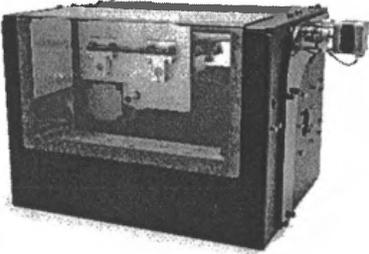


8. Through the related website of <https://ghostgunner.net> ("GG Website"), Defense Distributed also manufactures and sells a "computer-controlled milling machine" called the "Ghost Gunner," which is designed to allow its owner to carve gun parts out of aluminum. The GG Website includes the following depiction of the Ghost Gunner:



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[HOME](#) [PRODUCTS](#) [DOWNLOADS](#) [FAQ](#) [DEALERS](#) [ABOUT](#)



GHOST GUNNER 2

An open source hardware project

Ghost Gunner is a general purpose CNC mill, built upon a large body of open source work, grbl g-code motion control, and popular microcontrollers.

[View specifications](#) ▶
[Learn more](#) ▶

[SHOP NOW](#)

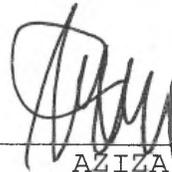
FOR 80 PERCENT RECEIVERS AND FRAMES

No prior CNC experience required

Ghost Gunner is specially designed to manufacture a growing library of mil-spec 80 percent lowers to completion. With simple tools and point and click software, the machine automatically finds and aligns to your 80% lower to get to work. No prior CNC knowledge or experience is required to manufacture from design files. Legally manufacture unsensitized rifles and pistols in the comfort and privacy of home.

9. On July 26, 2018, I created a user account on the DefCad Website. During the process I was not asked to verify my age, criminal background, or any other factors that would render me ineligible to possess a firearm.

I certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.



AZIZA SALIKHOVA

Dated: July 30, 2018
Newark, New Jersey

SUPERIOR COURT OF NEW JERSEY
CHANCERY DIVISION, ESSEX COUNTY
DOCKET NO. ESX-C-

GURBIR S. GREWAL, Attorney
General of the State of New
Jersey,

Plaintiff,

v.

DEFENSE DISTRIBUTED, CODY R.
WILSON, and JANE and JOHN DOES
1-20, individually and as
owners, officers, directors,
shareholders, founders, members,
managers, agents, servants,
employees, representatives
and/or independent contractors
of DEFENSE DISTRIBUTED, and XYZ
CORPORATIONS 1-20,

Defendants.

Civil Action

**PLAINTIFF'S MEMORANDUM OF LAW IN SUPPORT OF ORDER
TO SHOW CAUSE WITH TEMPORARY RESTRAINTS**

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Affirmative Civil Enforcement

PRELIMINARY STATEMENT

In just two days, Defense Distributed and its founder Cody Wilson are planning to take an unprecedented and dangerous action - to publish Computer Aided Design ("CAD") files that enable anyone, including terrorists, domestic abusers, criminals, gang members and juveniles, to print firearms using a three-dimensional ("3D") printer directly from the comfort of their own homes. Worse still, the codes they plan to post enable individuals to print extremely dangerous assault weapons that are illegal under New Jersey law. And that is not all - because the printed guns would not have serial numbers, they would not be traceable by law enforcement, which would undermine law enforcement's ongoing efforts to solve and reduce gun crime. The implications for public safety and homeland security are clear and the risk is imminent; once Defendants open that Pandora's Box, it can never be closed. This lawsuit seeks to enjoin Defendants from heading down this path.

For years, the Federal Government and multiple federal courts recognized that Defense Distributed's plans posed a direct threat to public safety and national security across the United States, and so the Government barred the company from publishing the CAD files. Indeed, the Federal Government stated in litigation that Defense Distributed's plans to publish these

firearm codes posed a specific and unique risk to the national security and foreign policy interests of the United States. That was, unfortunately, unsurprising; founder Cody Wilson had made clear that the company's objective is for everyone to have access to guns and to make any firearm regulations impossible, even stating that "common sense gun reforms" would no longer be possible. And although the Federal Government had properly challenged Defense Distributed's ability to publish codes that will enable terrorists and criminals to print firearms, just recently the Federal Government disclosed that it had earlier settled this litigation. Troublingly, the Federal Government has now abruptly flipped positions (even after multiple courts had agreed about the pending risk to public safety) and decided to allow Defense Distributed to proceed with its plans to share these computer codes on the Internet, available to all.

But New Jersey law provides a separate and independent basis to prevent Defense Distributed and Cody Wilson from engaging in this dangerous, irreversible conduct. New Jersey's public nuisance law provides a cause of action to hold firearm manufacturers accountable - and to enjoin imminent violations of the law - when their plans would facilitate the illegal sale of weapons to criminals and other prohibited users, and when the manufacturer has done too little to prevent that illegal market

from developing. And that is what will happen here - Defendants will make accessible codes that will allow terrorists, domestic violence abusers, criminals, gang members and juveniles to print guns at home, even though they cannot lawfully possess them. More than that, Defendants' codes will enable individuals to create firearms without serial numbers, again in direct contravention of state law. But Defendants have done nothing to prevent the flood of illegal, 3D-printed weapons that is sure to result, and as noted above, have instead wholeheartedly embraced and encouraged these troubling results.

In light of the grave and imminent harm posed with the release of printable-gun computer files, which can, and will, be used to create illegal and untraceable firearms in New Jersey, the Attorney General requests that the Court immediately enter an order enjoining and restraining Defendants from publishing and distributing these dangerous printable-gun computer files, which Defendants plan to publish this Wednesday, on August 1, 2018.

FACTUAL BACKGROUND

In 2012, Defense Distributed, founded by Cody Wilson, began exporting technical data related to firearms through the publication of CAD files, without restriction, on the Internet. (Defense Distributed v. U.S. Dept. of State, Civil Action No.

1:15-CV-00372-RP, W.D. Tex., (DD v. U.S.), Dkt. 32, p.1; Dkt. 8, pp. 5-6; Defense Distributed v. U.S. Dept. of State, 838 F.3d 451, 460-61 (5th Cir. 2016).) These files are computer files with instructions for how to create guns and gun components through the use of three-dimensional printers. (DD v. U.S., Dkt. 32, p.5.) Defense Distributed posted these CAD files on DefCad.org ("Website"), a website it created to serve as an open-source repository for weapons designs. (DD v. U.S., Dkt. 32; Dkt. 8.) The site accepts user financial contributions and has a users' comments feature where information can be posted or shared. (See <https://defdist.org/>; <https://defcad.com.>) The files Defense Distributed put online included data to automatically manufacture its first model—what it termed the "Liberator" pistol. (DD v. U.S., Dkt. 32, 8.) The Liberator is a plastic firearm that contains a six ounce piece of steel that can be easily removed enabling the firearm to be undetected in walk-through metal detectors. (DD v. U.S., Dkt. 32; Dkt. 8.)

In May 2013, the State Department's Directorate of Defense Trade Controls ("DDTC") advised Defense Distributed that its publication of CAD files without authorization from the DDTC potentially violated the International Traffic in Arms Regulations ("ITAR") administered by DDTC. (Executive Order 13637(n)(iii); 22 C.F.R. §§ 120-130.) The violation stemmed

from the fact that the CAD files were being made available outside the United States via the Internet. (DD v. U.S., Dkt. 32, pp. 5-7.) After a review, DDTC concluded that several of the CAD files were subject to regulation under ITAR. (DD v. U.S., Dkt. 32, pp. 5-7.) To make the CAD files available outside the United States, ITAR required Defendants to seek preapproval of publication. (DD v. U.S., Dkt. 32.)

On May 6, 2015, Defense Distributed, the Second Amendment Foundation ("SAF") and Conn Williamson (collectively, "DD/SAF/CW") brought suit in the United States District Court for the Western District of Texas, seeking a declaration that the DDTC's preapproval requirement for privately generated unclassified information was an unconstitutional government action and violated the First, Second, and Fifth Amendments. (DD v. U.S., Dkt. 1.) When the Federal Government opposed the suit, Lisa V. Aguirre, the Director of the Office of Defense Trade Controls Management, testified that: (a) "[t]he 'Liberator' firearm included in DD/SAF/CW's CAD designs presented a specific and unique risk to the national security and foreign policy interests of the United States"; (b) making the CAD files available online would provide terrorist organizations with firearms, which could be used against the United States or its allies; and (c) "[a]ccess to weapons

technology coupled with the uncontrolled ubiquitous means of productions . . . could contribute to armed conflict, terrorist or criminal acts, and seriously undermine global export and non-proliferation regimes designed to prevent the dangerous and destabilizing spread and accumulation of weapons and related technologies." (DD v. U.S., Dkt. 32-1, ¶ 35.)

After a hearing, the District Court denied DD/SAF/CW's request for a preliminary injunction, finding among other things that the public interest in national defense and national security outweighed any countervailing interests. (DD v. U.S., Dkt. 43.) The Fifth Circuit affirmed the denial, relying on the same national security concerns. (Defense Distributed v. U.S. Dept. of State, 838 F.3d, 451, 461 (5th Cir. 2016), cert. denied 138 S. Ct. 638 (2018).)

Litigation continued until April 30, 2018, when DD/SAF/CW notified the court that the parties had reached a tentative settlement. The parties approved the settlement on June 28, 2018. The settlement agreement, which was only recently made publicly available, provided:

- a.) The Federal Government will commit to draft and pursue a notice of proposed rulemaking and final rule that would exclude the data on the CAD files at issue from ITAR regulation;

b.) The Federal Government will announce on or before July 27, 2018, a temporary modification to exclude the data on the CAD files from ITAR regulation;

c.) The Federal Government will issue a letter to DD/SAF/CW on or before July 27, 2018, advising that certain files are approved for public release and are exempt from the ITAR licensing requirements;

d.) The Federal Government will acknowledge that the temporary modification referenced above permits "any United States person . . . to access, discuss, use, reproduce, or otherwise benefit from the technical data" that is the subject of the litigation;

e.) The Federal Government's payment of \$39,581 to DD/SAF/CW; and

f.) The Federal Government will file a stipulation of dismissal no sooner than August 1, 2018, which it ultimately filed on July 27, 2018. (DD v. U.S., Dkt. 112.)

Relying on that settlement, Defendants announced their plans to re-launch the CAD file repository on August 1, 2018.

(See <https://defdist.org/>; <https://defcad.com.>) In addition to older models, the Website will contain a repository of firearm computer files for "more exotic DIY semi-automatic weapons."

(Andy Greenberg, "A Landmark Legal Shift Opens Pandora's Box for

DIY Guns, Wired (July 10, 2018), available at <https://www.wired.com/story/a-landmark-legal-shift-opens-pandoras-box-for-diy-guns/>.) The new database "will be available to anyone anywhere in the world with an uncensored internet connection to download, alter, remix, and fabricate into legal weapons with tools like 3D printers and computer-controlled milling machines." (Ibid.) According to Wilson, "What's about to happen is a Cambrian explosion of the digital content related to firearms . . . [a]ll this Parkland stuff, the students, all these firearms of 'common sense gun reforms'? No. The internet will serve guns, the gun is downloadable... No amount of petitions or die-ins or anything else can change that." (Ibid.)

Throughout the litigation with the Federal Government, Defendants "developed a trove of other 3-D-printable weapon blueprints, including Assembly AR-15s and AR-10s." (Deanna Paul, "Meet the man who might have brought on the age of 'downloadable guns,'" Washington Post (July 18, 2018), available at https://www.washingtonpost.com/news/post-nation/wp/2018/07/18/meet-the-man-who-wants-to-bring-on-the-age-of-downloadable-guns-and-may-have-already-succeeded/?utm_term=.725b8a04f11a.) Members of the United States armed forces routinely use firearms in semiautomatic mode

in combat conditions, and the designs of many semiautomatic firearms are inherently military. (Giffords Law Center Comment Letter to the Director of Defense Trade Controls, July 9, 2018, at 4.) Assault rifles like the AR-15 were originally designed for military use. (Giffords Law Center Comment Letter to the Director of Defense Trade Controls, July 9, 2018, at 4.) The military included the option to fire in semiautomatic mode because military combat sometimes requires use of a firearm in semiautomatic mode. (Giffords Law Center Comment Letter to the Director of Defense Trade Controls, July 9, 2018, at 4.) Shooting in semiautomatic mode is more accurate and hence more lethal. (With AR-15s, Mass Shooters Attack with the Rifle Firepower Typically Used by Infantry Troops, NY Times, Feb. 28, 2018, <https://www.nytimes.com/interactive/2018/02/28/ar-15-rifle-mass-shootings.html>.) In fact, military-style semiautomatic firearms were used to perpetrate the tragedies that occurred in an elementary school in Newtown, Connecticut, at a music festival in Las Vegas, Nevada, at a workplace in San Bernardino, California, in a movie theatre in Aurora, Colorado, and at a high school in Parkland, Florida, among others. (Giffords Law Center Comment Letter to the Director of Defense Trade Controls, July 9, 2018, at 5.)

Because of the dangerous nature of these weapons, New

Jersey and seven (7) other states, including New York and California, have banned them. (See Giffords Law Center to Prevent Gun Violence, Assault Weapons at <http://lawcenter.giffords.org/gun-laws/policy-areas/hardware-ammunition/assault-weapons/>.) In New Jersey, certain AR-15 semiautomatic models are banned as assault weapons and ownership is highly restrictive. N.J.S.A. 2C:39-1w(1); N.J.S.A. 2C:39-5(f). But printable-gun computer files will allow them to be printed anyway.

Defendants' printable-gun computer files will allow individuals across New Jersey to generate lethal firearms that are untraceable. This means that if a printed gun was used in an act of violence or other crime, law enforcement would be unable to determine who manufactured, purchased, or transferred the gun - taking away a critical tool that New Jersey law enforcement consistently uses in seeking to combat and reduce gun crime. In addition, at least some of the printed plastic guns can be modified to be virtually undetectable in metal detectors, which poses a public safety problem for venues such as airports, arenas, schools, and courthouses.

Responding to this threat, on July 26, 2018, Attorney General Grewal sent a cease-and-desist letter (the "New Jersey Cease-And-Desist Letter"), instructing Defense Distributed not

to publish the files online. Defense Distributed responded the next day. Although Defense Distributed said that it would "attempt to restrict files made available on the internet to prevent download within New Jersey" by blocking users with New Jersey-based IP addresses from accessing the files, it made clear its intent to proceed with publication of the codes on August 1.

On July 25, 2018, The Brady Campaign to Prevent Gun Violence, Everytown for Gun Safety Action Fund, Inc. and Giffords (collectively, "Proposed Intervenors") sought to intervene in the Texas litigation and requested a temporary restraining order and a preliminary injunction to enjoin Defense Distributed from publishing the printable gun-computer files at issue here to prevent immediate and irreparable harm to United States national security. On Friday, July 27, 2018, a hearing was held before the Honorable Robert Pitman wherein both of the proposed Intervenors' motions were denied.

On July 29, 2018, Defense Distributed filed a Complaint in the United States District Court for the Western District of Texas seeking declaratory and injunctive relief, damages, and attorney's fees against Attorney General Grewal and Michael Feuer, the Los Angeles City Attorney ("Feuer"). Defense Distributed and SAF initiated this lawsuit against Grewal in

response to the New Jersey Cease-And-Desist Letter, alleging, among other things, that it constitutes an unconstitutional prior restraint.

On July 30, 2018, the Commonwealth of Pennsylvania, Governor Tom Wolf, Attorney General Josh Shapiro and the Pennsylvania State Police (together, the "Plaintiffs") filed a complaint against Defense Distributed, DEFCAD, Ghost Gunner and Cody Wilson (collectively, "PA Defendants") for declaratory judgment and a preliminary injunction, as well as a motion for a temporary restraining order and preliminary injunction to enjoin the PA Defendants from publishing the printable-gun computer files that are at issue in the instant litigation.

This lawsuit followed.

LEGAL ARGUMENT

BECAUSE AN IMMEDIATE AND DIRECT THREAT TO
PUBLIC SAFETY IN NEW JERSEY EXISTS,
INJUNCTIVE RELIEF IS WARRANTED

The Court should grant the State's application for injunctive relief to safeguard the health and safety of New Jersey's residents. Defendants' planned dissemination of computer codes directing the manufacture and assembly of untraceable and unlicensed firearms endangers the citizens of this State and violates New Jersey's public nuisance and negligence laws. The codes allow anyone with a 3D printer to

create a fully operational gun with a few clicks. Defendants seek to make the codes available to everyone, including criminals, juveniles, and domestic abusers, which undermines New Jersey's comprehensive scheme for keeping guns out of criminals' hands and jeopardizes the safety of New Jersey residents.

All the preliminary relief factors point in favor of enjoining Defendants from publishing their codes. To obtain relief, the moving party must demonstrate by clear and convincing evidence that: (1) relief is needed to prevent irreparable harm; (2) the applicant's claim rests on settled law and has a reasonable probability of succeeding on the merits; and (3) a balancing of hardships reveals that greater harm would occur if a stay is not granted than if it were. See Crowe v. DeGioia, 90 N.J. 126, 132-34 (1982); Brown v. City of Paterson, 424 N.J. Super. 176, 183 (App. Div. 2012). When a case presents an issue of "significant public importance," as here, courts must also consider a fourth factor: harm to the public interest. See Garden State Equality v. Dow, 216 N.J. 314, 320-21 (2013). Notably, "[i]n acting only to preserve the status quo, the court may 'place less emphasis on a particular Crowe factor if another greatly requires the issuance of a remedy.'" Brown, 424 N.J. Super. at 183. As this brief explains, each factor points in favor of granting the State's application for injunctive relief.

A. Plaintiff will suffer immediate and irreparable injury if a preliminary injunction is not issued.

First, injunctive relief is needed to prevent irreparable harm. "Harm is generally considered irreparable in equity if it cannot be redressed adequately by monetary damages." Crowe, 90 N.J. at 132. Threats to public safety are the quintessential irreparable harm; indeed, "danger of increased mortality" is "as irreparable a harm as any that can be imagined." Somerset Air Service, Inc. v. Township of Bedminster, 2006 WL 861498, at *4 (Sup. Ct. Law Div., Somerset Cnty., Apr. 4, 2006).

The irreparable harm here is clear: the moment that Defendants post their codes on the Internet, it can be downloaded, saved, and forever used to print guns with a few clicks. And that poses a grave and permanent threat to public safety. First, the availability of these codes means that individuals who are otherwise banned for purchasing and possessing firearms will be able to print them; law enforcement cannot stop individuals from owning 3D printers. That means the "codes will be available to everyone in New Jersey—regardless of age, criminal status, history of mental illness, or other disqualifying characteristic. There will thus be no way for law enforcement to prevent guns from winding up in the hands of those who are prohibited from purchasing firearms under New Jersey law, including" individuals on the FBI Terroristic Watch

List, persons with criminal convictions (even for violent offenses), domestic abusers (even if subject to ongoing restraining orders), and juveniles. (Certification of Deputy Chief of Detective Christopher W. Donohue ("Donohue Cert."), ¶ 14.) This "will severely hamper law enforcement's ongoing efforts to keep dangerous guns out of the hands of dangerous criminals." (Id. ¶16.) And not only does this give criminals access to weapons, but to illegal ones - Defendants' codes will also "enable individuals to print assault weapons, which are illegal in New Jersey." (Id. ¶ 13.)

Another irreparable harm is sure to follow - the use of these codes will make it harder for law enforcement to solve and reduce gun crime. Because "the 3D printed firearms will not have serial numbers or other identifiable marks, they will never be traceable by law enforcement." (Id. ¶ 10). As Deputy Chief Donohue explains,

A serial number is required to be placed on all firearms so that they can be traced to its original owners if they are ever used to commit a criminal offense. Law enforcement traces firearms by finding the owner's name in the gun dealer's records, and then interviewing that person and any other person to whom he sold the gun, and so on. Through this process, law enforcement is able to determine the manufacturer of the gun, the date it was sold, the dealership, and the purchaser. This information assists law enforcement in determining what happened to a particular gun after it left the dealer

by learning the history of who owned the gun.

Being able to trace a gun is critical in the investigation of gun-related crimes. The [CAD] codes of [Defendants] will allow individuals across New Jersey to automatically manufacture untraceable guns on 3D printers. If law enforcement is unable to trace 3D guns to determine their owners, law enforcement will be critically hampered in its ongoing efforts to solve gun crimes and prevent new gun crimes from being committed. This poses a direct and immediate threat to public health, safety, and welfare.

(Id. ¶¶ 11-12.)

And the Director of the New Jersey Office of Homeland Security and Preparedness, Jared Maples, agrees, noting that law enforcement agencies "use the results of these traces to identify the methods by which firearms entered the illegal market and to devise strategies to disrupt these criminal networks. But if there were to be a proliferation of untraceable 3D guns, these crimes and criminal networks might go unsolved and the perpetrators might go on to commit additional acts of violence." (Certification of New Jersey Office of Homeland Security Director Jared Maples ("Maples Cert."), ¶ 12.)

The risks to homeland security are equally pressing. As Director Maples has explained, "terrorists and other networks directing violence at the United States and in New Jersey could use this technology to manufacture guns, including assault

firearms.” (Id. ¶ 10.) Moreover, “proliferation of untraceable guns would also give terrorist groups a significant advantage and deprive NJOHSP the ability to gather the necessary intelligence to combat them and reduce their threat they pose to our citizens.” (Id. ¶ 11.) And finally, at least one code is for a “plastic firearm that can be produced in a way as to be both fully operable and virtually undetectable by conventional security measures. 3D firearms can defeat normal detection such as metal detectors and wands, and present a problem to public safety in venues such as airports, arenas, schools, government buildings, and/or courthouses.” (Id. ¶ 16.) As a result, “Defendants’ effort to post these CAD files represents a direct threat to New Jersey’s homeland security.” (Id. ¶ 20.)

For all of these reasons, other courts have recognized that “very strong public interest[s]” would be irreparably harmed by Defendants’ threatened conduct. Defense Distributed v. U.S. Dep’t of State, 838 F.3d 451, 458 (5th Cir. 2016). Indeed, the U.S. Court of Appeals for the Fifth Circuit refused to allow Defense Distributed to release the same computer files it threatens to release here, because the government’s “national defense and national security interest would be harmed forever” if Defense Distributed were permitted to follow through on its threatened activities. Id. at 460; see also Defense Distributed

v. U.S. Dep't of State, 121 F. Supp. 3d 680, 689-90 (W.D. Tex. 2015). New Jersey is in the same position now - it has a strong sovereign interest in protecting homeland security within its borders, and that interest would be irreparably harmed if the Court permits Defendants to follow through on their threats.

The Defense Distributed decisions comport with decisions from other courts finding that state governmental interests would be impaired by conduct of the exact kind threatened here. In Tracy Rifle & Pistol LLC v. Harris, 118 F. Supp. 3d 1182 (E.D. Cal. 2015), for example, the court acknowledged California's sovereign interest in enforcing a law that prohibited retail firearms dealers from advertising or displaying handguns, such that the advertisement or display could readily be seen from the outside. The court determined that the State's interest in preventing the proliferation of hand guns outweighed the dealer's interest in having the regulation preliminarily enjoined. See id. at 1183, 1193-95. As that court put it, "[t]he costs of being mistaken, on the issue of whether the injunction would have a detrimental effect on handgun crime, violence, and suicide, would be grave. These costs would affect members of the public, and they would affect the Government which is tasked with managing handgun violence." Id. at 1193. The Ninth Circuit upheld the district court's

order allowing the ban to remain in place, likewise recognizing that "serious public risks are implicated" by the activity the firearms dealer sought to undertake. Tracy Rifle & Pistol LLC v. Harris, 637 Fed. App'x 401, 402 (9th Cir. Feb. 23, 2016).

Moreover, the harms to New Jersey identified in Deputy Chief of Detectives Donohue's and Director Maples's Declarations are at least as severe as the harms to "law enforcement and public safety interests" underlying decisions granting states' requests for temporary equitable relief in other contexts. See, e.g. Maryland v. King, 133 S. Ct. 1, 3 (2012) (Roberts, C.J.) (finding that a state was irreparably harmed by a lower court decision enjoining collection of DNA samples from individuals charged with certain crimes because DNA testing "provides a valuable tool for investigating unsolved crimes and thereby helping to remove violent offenders from the general population"); Coleman v. Paccar Inc., 424 U.S. 1301, 1307 (1976) (Rehnquist, C.J.) (finding that the government would suffer irreparable harm if it could not enforce certain motor vehicle safety standards for even a 60-day period, where delay would leave manufacturers "free to produce as many vehicles as they can and . . . obtain substantial stockpiles of noncomplying vehicles for later sale," resulting in a "serious setback" for "the goals of federal motor vehicle safety"). New Jersey would

suffer immeasurably more harm if the State were flooded with the 3-D guns that Defendants seek to make available to everyone.

All these public harms - in the form of increased mortality, increased lawlessness, and decreased security - cannot be addressed outside of an injunction. See Crowe, 90 N.J. at 132. That is so for one simple reason: posting these codes is a bell that can never be un-rung. Criminals, gangs, and terrorist networks only need to download a code once to benefit from it permanently. The consequences of publishing the printable-gun codes are grave and irreversible, and no money can restore or make up for the threats to public safety and law enforcement safety that will follow. Accordingly, the Court should order an injunction to prevent irreparable harm to the residents of New Jersey.

B. Plaintiff has demonstrated a settled legal right and a likelihood of success on the merits.

Second, Defendants' planned actions violate New Jersey public nuisance and negligence law. The Attorney General can therefore demonstrate a reasonable probability of success on the merits. Crowe, 90 N.J. at 133. Nonetheless, "mere doubt as to the validity of [a] claim is not an adequate basis for refusing to maintain the status quo." Crowe, 90 N.J. at 133-34 (citing Naylor v. Harkins, 11 N.J. 435 (1953)). "Indeed, the point of temporary relief is to maintain the parties in substantially the

same condition when the final decree is entered as they were when the litigation began." Id. at 134 (citation and internal quotation marks omitted).

1. Public Nuisance

To state a public nuisance claim, a plaintiff must allege "an unreasonable interference with a right common to the general public." In re Lead Paint Litig., 191 N.J. 405, 425 (2007) (citing The Restatement (Second) of Torts § 821B (1979)). The interference need not involve "conduct that is proscribed by statute or other legislative act." James v. Arms Tech., Inc., 359 N.J. Super. 291, 330 (App. Div. 2003). Rather, a public nuisance may exist "if the conduct complained of involves a 'significant interference' with the public welfare or 'is of a continuing nature or has produced a permanent or long-lasting effect, and, as the actor knows or has reason to know, has a significant effect upon the public right.'" Id. (quoting Restatement § 821B(2)(a) and (c)). So long as the tortfeasor's conduct was a "substantial factor" in causing the injury, regardless of the presence of other intervening causes, the causation element will be satisfied. James, 359 N.J. Super. at 311.

James controls this case. There, the Appellate Division upheld a public nuisance claim asserted by New Jersey

municipalities against firearms manufacturers. The plaintiffs alleged that the manufacturers intentionally marketed and sold firearms to persons who would bring them illegally into Newark. Id. at 307. The municipalities alleged that defendants' unlawful "distribution, promotion, and sale of guns" constituted "an unreasonable interference with . . . the public's right to be free from danger," and that the conduct "resulted in . . . significant costs to the City of Newark in order to enforce the laws and to treat the victims of crimes facilitated through the use of [d]efendants' firearms." Id. at 306-307. The possible actions of intervening third parties did not mean that the municipalities were incapable of establishing that defendants exercised control over the use of illegal firearms. Id. at 332. The nuisance was not the specific guns; instead, the Court focused on the manufacturers' participation in "the creation and supply of this illegal market." James, 359 N.J. Super. at 332. Because manufacturers controlled their own participation in the "creation and supply" of the market, the court held the municipalities had sufficiently pleaded their public nuisance claim, including for causation. Id.

With those principles in mind, the Appellate Division had little trouble understanding why these municipalities had stated a claim against these firearms manufacturers. First, the Court

in James explained, "[n]o one can seriously debate" that regulated guns are "dangerous instrumentalities" and thus implicate New Jersey public nuisance law. Id. at 320. Second, the Court held, it would violate New Jersey law for manufacturers to "flood the gun market" through a high volume of sales, while failing to develop "reasonable safeguards over the distribution scheme" and "refus[ing] to oversee or supervise the control of handgun distribution in order to prevent the foreseeable channeling of guns to such an illegal market." Id. at 312. And so, the Appellate Division concluded, when a defendant floods the gun market and fails to take steps to prevent these distributions from ending up in criminals' hands, they could be held responsible under public nuisance law when their acts "facilitate[d] the illegal sale of weapons to criminals and other unlawful users." Id.

There is no doubt that, under James, Defendants will commit a public nuisance if they proceed with their plans to publish computer files, which will allow anyone with a 3-D printer to download a code and create a fully operational gun with just a few clicks. There is no question that these files will interfere with the public's safety by "flood[ing] the market" with illicit arms. Again, as Deputy Chief Donohue explained, the "codes will be available to everyone in New Jersey."

(Donohue Cert. ¶ 14.)

In addition, these actions will directly undermine New Jersey's statutory scheme - further evidence that they are creating a public firearms nuisance. For one, under N.J.S.A. 2C:39-9(d), it is illegal to manufacture a weapon without a license. And yet Defendants plan to distribute codes that would enable individuals to do just that - to print a gun at home, without a license, and without going through a Federal Firearms Licensee. For another, "certain persons . . . are prohibited from purchasing, owning, possessing, or controlling any and all firearms under N.J.S.A. 2C:39-7(b), due to their prior convictions for aggravated assault, arson, burglary, escape, extortion, homicide, kidnapping, robbery, aggravated sexual assault, sexual assault, bias intimidation, endangering the welfare of a child, stalking, or a crime involving domestic violence. Those persons face a mandatory term of imprisonment with at least five years of parole ineligibility if they purchase, own, possess, or control a firearm. But the 3D codes will allow them to easily download firearms at home, which will severely hamper law enforcement's ongoing efforts to keep dangerous guns out of the hands of dangerous criminals."

(Donohue Cert., ¶ 16.) Still more, Defendants' codes will "enable individuals to print assault weapons, which are illegal

in New Jersey under N.J.S.A. 2C:39-5(f)." (Id. ¶ 13.)

And last—and critically—Defendants made no effort to develop "reasonable safeguards over the distribution scheme" or to "oversee or supervise the control of handgun distribution in order to prevent the foreseeable channeling of guns to such an illegal market." In fact, just the opposite is true: Defendants actively believe their codes should be accessible to individuals who are prohibited from owning weapons. Wilson has stated that his database "will be available to anyone anywhere in the world with an uncensored internet connection, to download, alter, remix, and fabricate into legal weapons with tools like 3D printers and computer-controlled milling machines." (Greenberg, supra.) According to Wilson, "What's about to happen is a Cambrian explosion of the digital content related to firearms . . . [a]ll this Parkland stuff, the students, all these firearms of 'common sense gun reforms'? No. The internet will serve guns, the gun is downloadable . . . No amount of petitions or die-ins or anything else can change that." (Ibid.) He also posted a picture of a tombstone in the ground, engraved with the phrase "American Gun Control." What this all shows is that Defendants' interference with New Jersey's firearm safety regulations is intentional and thus per se unreasonable - and it certainly confirms that Defendants will not put reasonable

safeguards in place to keep guns out of prohibited persons' hands.

All of the other traditional public nuisance factors only confirm that relief is warranted. Defendants are in complete control of the CAD files and their publication, and thus would create, or at a minimum would be a substantial factor in creating, the nuisance by allowing unrestricted access of the files on the Internet through its Website. The public nuisance is also foreseeable to Defendants. Again, Wilson has publicly stated that the database "will be available to anyone anywhere in the world with an uncensored internet connection." (Greenberg, supra.) And Defendants were put on notice by the Federal Government and multiple federal courts that the publication of their CAD files, which permanently make the files available to those with Internet access, would forever harm national defense and national security. (Defense Distributed v. U.S. Dept. of State, 838 F.3d 451, 461 (5th Cir. 2016).) For all these reasons, in light of James, little doubt exists that Defendants' actions constitute a public nuisance.

2. Negligence

For the same reasons that Plaintiff has proven a public nuisance claim, their plan is also negligent. Defendants' planned widespread dissemination of printable-gun code is

negligent because it encourages an illegal gun market, which will foreseeably lead to increased crime and violence in New Jersey, and to an increase in expenditures of government funds to prevent crime and protect the public's health. See James, 359 N.J. Super. at 308-324 (finding legally valid negligence claim against gun manufacturers, trade organizations, and gun distributors and retailers that flooded illegal gun market); see also Iletto v. Glock, Inc., 349 F.3d 1191, 1214-16 (9th Cir. 2003) (reversing dismissal of plaintiffs' claims that gun manufacturers negligently created an illegal secondary market for guns); City of Cincinnati v. Beretta U.S.A. Corp., 95 Ohio St.3d 416, 421-23 (reversing dismissal of city's negligence counts and finding that city had a viable negligence claim against defendant gun manufacturers, trade associations, and distributors).

In James, the trial court denied defendants' motions to dismiss the City of Newark's negligence claim and found that the defendants owed a duty of care to the City of Newark. Id. at 307. In doing so, the trial court considered the "inherent dangerousness of handguns." Ibid. On appeal, the Appellate Division upheld that determination, finding "the dangerous propensity of handguns is self-evident, and the consequence of their misuse is well documented." Id. at 323. Similarly, in

the instant case, Defendants have a duty to the citizens of New Jersey. The printed guns peddled by Defendants are even more dangerous than the guns in James, because they are unserialized and undetectable by traditional law enforcement measures, providing further support for a finding that Defendants owe a duty of care to New Jersey residents. As in James, the State has a valid, viable negligence claim against Defendants.

Accordingly, the State has demonstrated a probability of ultimate success, as to both its public nuisance and negligence claims.

C. On balance, a greater and substantial harm will result if an injunction is not issued.

Any harm to the Defendants arising from the issuance of the requested injunctive relief is clearly outweighed by the resultant harm to New Jersey residents' safety if Defendants flood the illegal gun market and put untraceable weapons in the hands of criminals and minors. When an interlocutory injunction seeks to maintain the status quo, "a court may take a less rigid view" of the Crowe factors. Waste Mgmt. of N.J., Inc. v. Union County Mun. Utils. Auth., 399 N.J. Super 508, 520 (App. Div. 2008). Here, if injunctive relief is granted, Defendants will stand in the same place tomorrow that they stand today. Defendants removed their printable-gun code from the Internet in 2013. Defense Distributed, 121 F.Supp.3d at 687. An injunction

simply preserves this status quo. Conversely, unfettered access to the printable-gun code poses a severe risk to public safety that is irreversible and permanent. Again, the codes will be available to everyone - regardless of age, criminal status, or history of mental illness. (Donohue Cert., ¶ 14.) The only requirement to obtain a gun would be a 3-D printer. Permitting dissemination of the code would undermine all the systems, laws, and regulations currently in place to ensure that those exact individuals do not possess firearms. (Id., ¶ 15.) Additionally, the guns would not have serial numbers and would not contain metal. (Donohue Cert., ¶ 14; Maples Declaration, ¶ 16.) They would thus be untraceable and undetectable, further hamstringing law enforcement efforts. The balance of hardships and the fact that the relief just maintains the status quo both weigh heavily in favor of granting a temporary restraining order.

Notably, the Texas district court and the U.S. Court of Appeals for the Fifth Circuit have already weighed similar harms in determining whether then-plaintiff Defense Distributed was itself entitled to a preliminary injunction. Ultimately, both courts found that the equities weighed in favor of prohibiting dissemination. Defense Distributed, 838 F.3d at 458-61. Even after Defense Distributed contended that "the balance of

interests tilts in their favor because 'it is always in the public interest to prevent the violation of a party's constitutional rights,'" the district court rejected that bald assertion as lacking and determined that the public had a "keen interest in restricting the export of defense articles." Defense Distributed, 121 F.Supp.3d at 689. The Fifth Circuit readily agreed. Defense Distributed, 838 F.3d at 458-61. New Jersey has a similar interest in restricting the proliferation of untraceable, undetectable weapons, and so the balancing of equities should yield the same result in this case.

D. The public interest favors the issuance of an injunction.

This case is one of "significant public importance," and, consequently, in determining whether to issue an injunction, the Court must also consider the harm to the public interest. See Garden State Equality, 216 N.J. at 320-21. That is why "Courts, in the exercise of their equitable powers, 'may, and frequently do, go much farther both to give and withhold relief in furtherance of the public interest than they are accustomed to go when only private interests are involved.'" Waste Mgmt of N.J., Inc., 399 N.J. Super at 520-21, quoting Yakus v. United States, 321 U.S. 414, 441 (1944). For many of the reasons already given, this factor likewise weighs strongly in favor of granting the State's application for injunctive relief.

Threats to public safety and law enforcement safety are the quintessential harm to the public interest. As the Appellate Division has held, "New Jersey has a strong public interest in protecting the public from the violence and social cost associated with the criminal misuse of firearms." James, 359 N.J. Super. at 320. And as explained above, Defendants' plans directly undermine that public interest. Defendants have made it abundantly clear that they wish to flood New Jersey with untraceable and unlicensed firearms, including illegal assault weapons. Again, Defendant Cody Wilson has stated "All this Parkland stuff, the students, all these dreams of 'common sense gun reforms'? No. The internet will serve guns, the gun is downloadable." (Greenberg, supra.) The code will give minors, felons, and domestic abusers access to guns that they would not otherwise have. (Donohue Cert., ¶ 14.) This will lead to an increase in violence, lawlessness, and, ultimately, mortality.

Moreover, permitting dissemination of the printable gun code undermines the democratic process. The New Jersey Legislature has enacted comprehensive gun restrictions to ensure the safety of New Jersey residents. See N.J.S.A. 2C:58-1 et. seq. The dissemination of Defendants' code undermines those restrictions, undermining the democratic process and harming the public. An injunction must thus be entered to avoid significant

and grave harm to the public safety and to New Jersey's statutory scheme.

E. This Court should enjoin Defendants from publishing their codes.

In order to fully protect New Jersey citizens, any injunction must completely preclude Defendants from disseminating the printable-gun code on the Internet. An injunction limited only to publication in New Jersey would be, essentially, a nullity. If the code were disseminated elsewhere, the files could be downloaded and then disseminated further, including on other websites not run by Defense Distributed. That is not academic: when Wilson posted the code for a single gun in 2013 for just a few days before the Federal Government stepped in, that code was downloaded 100,000 times. (Greenberg, supra.) Moreover, a criminal network could access the code in New York, and share it with other members in New Jersey. Merely limiting access from New Jersey IP addresses, as Defense Distributed promises it will do (temporarily) in response to the New Jersey Cease-And-Desist Letter, accomplishes next to nothing. Criminals, gangs, terrorist groups - to name just a few - have a reach that spans across state borders, and would easily access the code, and then continue using it to print firearms in New Jersey. And individuals could likewise do so with ease - all it takes is one trip to New York to download

the code, and then that individual could print weapons in New Jersey for years to come. In addition, it is remarkably easy to mask an IP address using a virtual private network ("VPN"). In fact, web providers such as Google Chrome even sell a way to mask IP addresses via VPN through its website. (See <https://chrome.google.com/webstore/detail/hide-my-ip-vpn/keodbianoliadkoelloecbhllnpiocoi>.)

The only solution that will protect New Jersey's public safety is for this Court to enjoin Defendants from publishing their codes altogether. The consequences of making these codes widely accessible across the United States on the Internet are grave and irreversible, and will plainly and severely impact New Jersey.

CONCLUSION

For the foregoing reasons, the Attorney General respectfully urges this Court to enter the proffered Order to Show Cause so that temporary, preliminary and thereafter final relief can be entered to ensure that Defendants' publication of the printable-gun computer files for use in New Jersey are restricted and, as such, are no longer in a position to irreversibly endanger the health, safety, peace, and comfort of New Jersey citizens.

Respectfully submitted,

GURBIR S. GREWAL
ATTORNEY GENERAL OF NEW JERSEY

By: Lara J. Fogel
Lara J. Fogel
Deputy Attorney General

EXHIBIT

5



State of New Jersey

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July 30, 2018

To Whom It May Concern:

I write to inform you that the website <https://defcad.com/> (“Defcad Website”), operated by the company Defense Distributed, is violating your Acceptable Use Policy. Starting on Wednesday, Defense Distributed plans to publish computer files on the Defcad Website that enable anyone with a 3-D printer to download codes to create a fully operational firearm. These files specifically offer individuals, including criminals, codes they can use to create untraceable firearms—and even to make assault weapons that are illegal in my state. The codes put law enforcement safety and public safety at risk, and posting them violates New Jersey’s public nuisance and negligence laws. I sent a cease and desist letter to Defense Distributed on July 26, 2018, based on violations of New Jersey law, and filed suit in state court today. Because your Acceptable Use Policy bars websites from transmitting material in violation of state law, Defense Distributed’s plans will be in violation of that policy.

There is no doubt that the codes Defense Distributed will place on the Defcad Website undermine the public safety of New Jersey residents and law enforcement officers. These files allow anyone with a 3-D printer to create a fully operational gun. The codes enable individuals to print assault weapons that are illegal in New Jersey. And because these guns would not have serial numbers, they cannot be traced by law enforcement. The codes will be available to all—regardless of age, criminal status, or history of mental illness. These codes thus undermine New Jersey’s comprehensive scheme for keeping guns out of dangerous criminals’ hands.

Not only are these codes dangerous, but posting them would also be illegal. New Jersey’s law is clear: an individual who interferes with public health, safety, peace, and comfort violates our public nuisance law. *See James v. Arms Tech., Inc.*, 359 N.J. Super. 291, 329-33 (App. Div. 2003). As New Jersey courts have held, “[n]o one can seriously debate” that regulated guns are “dangerous instrumentalities” and thus implicate our public nuisance law. *Id.* at 320. So when a group of manufacturers “flood[ed] the gun market” through a high volume of sales, while failing to develop “reasonable safeguards over the distribution scheme” and “refus[ing] to oversee or



July 30, 2018
Page 2

supervise the control of handgun distribution in order to prevent the foreseeable channeling of guns to such an illegal market,” New Jersey courts found they could be held responsible when their actions “facilitate[d] the illegal sale of weapons to criminals and other unlawful users.” *Id.* at 312. That is what Defense Distributed’s actions on the Defcad Website will do—make do-it-yourself guns available to all, even if the individuals are prohibited from owning guns because of prior convictions, history of mental illness, or history of domestic violence, even if the weapons they print are illegal in New Jersey, and even if they plan to use their weapons to further crimes and acts of violence.

Indeed, Defense Distributed seeks to use the Defcad Website to undermine all the efforts of states like New Jersey to keep guns out of criminals’ hands. As Defense Distributed found Cody Wilson stated, “All this Parkland stuff, the students, all these dreams of ‘common sense gun reforms’? No. The internet will serve guns, the gun is downloadable.”¹ Wilson also stated, “I’m not worried about public safety.”² Not only does that reveal a lack of regard for safety, but it also shows that Defense Distributed’s interference with the public’s safety is intentional and thus per se unreasonable. *James*, 359 N.J. Super. at 330.

As a result, Defense Distributed is plainly planning to use the Defcad Website in a way that violates DreamHost’s Acceptable Use Policy. Your Policy says that the “Customer may only use DreamHost Web Hosting’s Server for lawful purpose. Transmission of any material in violation of any Country, Federal, State or Local regulation is prohibited.... Also, using DreamHost’s servers or network to conspire to commit or support the commission of illegal activities is forbidden.”³ Violations may “result in immediate and permanent disablement” of the customer’s website. That is why I write to inform you that Defense Distributed will be using the Defcad Website to violate New Jersey law.

Sincerely,



Gurbir S. Grewal
Attorney General

¹ Andy Greenberg, “A Landmark Legal Shift Opens Pandora’s Box for DIY Guns,” *Wired* (July 10, 2018), available at <https://www.wired.com/story/a-landmark-legal-shift-opens-pandoras-box-for-diy-guns/>.

² Tess Owen, “Get Ready for the New Era of 3D-Printed Guns Starting August 1,” *Vice News* (July 18, 2018), available at https://news.vice.com/en_us/article/ev8xjn/get-ready-for-the-new-era-of-3d-printed-guns-starting-august-1.

³ “Acceptable Use Policy,” available at <https://www.dreamhost.com/legal/acceptableuse-policy/>.

Subject: Fwd: Cloudflare Forwarding a Legal Request
Date: Thursday, November 22, 2018 at 11:00:15 PM Central Standard Time
From: Cody Wilson
To: [REDACTED]
CC: [REDACTED]

----- Forwarded message -----

From: <legal@cloudflare.com>
Date: Mon, Jul 30, 2018 at 1:27 PM
Subject: Cloudflare Forwarding a Legal Request
To: <crw@defdist.org>

Hello,

Cloudflare received the attached letter in reference to your domain. We have attached it for your information.

Regards,

Cloudflare Legal Department

--

Cody R. Wilson
Managing Director

Defense Distributed

2320 Donley Drive Suite C
Austin, TX 78758
p: [512.584.8013](tel:512.584.8013)

www.defdist.org

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Thank you.



State of New Jersey

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Attorney General

Defense Distributed
2320 Donley Dr., Suite C
Austin, TX 78758

July 26, 2018

To Whom It May Concern:

You are directed to cease and desist from publishing printable-gun computer files for use by New Jersey residents. The files you plan to publish offer individuals, including criminals, codes that they can use to create untraceable firearms—and even to make assault weapons that are illegal in my state. These computer codes are a threat to public safety, and posting them violates New Jersey’s public nuisance and negligence laws. If you do not halt your efforts to proceed with publication, I will bring legal action against your company before August 1, 2018.

The computer files that you plan to publish will undermine the public safety of New Jersey residents. These files allow anyone with a 3-D printer to download your code and create a fully operational gun. More than that, the codes you plan to post will enable individuals to print assault weapons that are illegal in New Jersey. And because the printed guns would not have serial numbers, they would not be traceable by law enforcement. Worst of all, you are going to make the codes available to everyone—regardless of age, criminal status, or history of mental illness. That would undermine New Jersey’s comprehensive scheme for keeping guns out of dangerous criminals’ hands, and it would undermine the safety of our residents.

Not only are your codes dangerous, but posting them would also be illegal. New Jersey’s law is clear: an individual who interferes with public health, safety, peace, and comfort violates our public nuisance law. *See James v. Arms Tech., Inc.*, 359 N.J. Super. 291, 329-33 (App. Div. 2003). As New Jersey courts have held, “[n]o one can seriously debate” that regulated guns are “dangerous instrumentalities” and thus implicate our public nuisance law. *Id.* at 320. So when a group of manufacturers “flood[ed] the gun market” through a high volume of sales, while failing to develop “reasonable safeguards over the distribution scheme” and “refus[ing] to oversee or supervise the control of handgun distribution in order to prevent the foreseeable channeling of guns to such an illegal market,” New Jersey courts found they could be held responsible when their actions “facilitate[d] the illegal sale of weapons to criminals and other unlawful users.” *Id.* at 312. That is what your actions will do as well—make do-it-yourself guns available to anyone, even if the individuals are prohibited from owning guns because of prior convictions, history of mental illness, or history of domestic violence, even if the weapons they print are illegal in my



July 26, 2018

Page 2

state, and even if they plan to use their weapons to further crimes and acts of violence. Because your actions will flood the illegal firearms market and pose a direct threat to the public safety of my state, they constitute a public nuisance.

Worse still, your comments make clear that you hope your actions will undermine all the efforts of states like New Jersey to keep guns out of criminals' hands. You have stated, "All this Parkland stuff, the students, all these dreams of 'common sense gun reforms'? No. The internet will serve guns, the gun is downloadable."¹ You have also stated, "I'm not worried about public safety."² And on July 10, 2018, you tweeted a photo of a gravestone engraved with the words "American Gun Reform."³ These comments show that you have no intention of precluding your printable-gun computer files, including designs for assault weapons, from winding up in the hands of criminals, minors, and the mentally ill. Not only does that reveal a lack of regard for safety, but it also shows that your interference with the public's health and safety is intentional and per se unreasonable. *James*, 359 N.J. Super. at 330.

Finally, your widespread dissemination of printable-gun computer files is negligent because it encourages an illegal gun market, which will foreseeably lead to increased crime and violence in New Jersey, and which will lead to an increase in expenditures of public funds for combatting crime and protecting our resident's health. *See id.* at 308-24 (finding a legally valid negligence claim against same manufacturers of guns that flooded the illegal market). Your planned method of making codes available and your public comments show that you are ignoring and violating your duty. By broadly sharing an inherently dangerous product, you should reasonably foresee the resulting governmental and public costs and must bear them. *Id.* at 323-24.

As the chief law enforcement officer for New Jersey, I demand that you halt publication of the printable-gun computer files. Should you fail to comply with this letter, my Office will initiate legal action barring you from publishing these files before August 1, 2018.

Sincerely,



Gurbir S. Grewal
Attorney General

¹ Andy Greenberg, "A Landmark Legal Shift Opens Pandora's Box for DIY Guns," *Wired* (July 10, 2018), available at <https://www.wired.com/story/a-landmark-legal-shift-opens-pandoras-box-for-diy-guns/>.

² Tess Owen, "Get Ready for the New Era of 3D-Printed Guns Starting August 1," *Vice News* (July 18, 2018), available at https://news.vice.com/en_us/article/ev8xjn/get-ready-for-the-new-era-of-3d-printed-guns-starting-august-1.

³ Cody R. Wilson (@Radomysisky), *TWITTER* (July 10, 2018, 12:25 P.M.), <https://twitter.com/Radomysisky/status/1016765282017337344>.

EXHIBIT

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Gurbir S. Grewal
 Attorney General

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For Immediate Release:
 July 30, 2018

Office of The Attorney General
 - Gurbir S. Grewal, Attorney General

For Further Information:
Media Inquiries-
 Lee Moore
 609-292-4791
Citizen Inquiries-
 609-984-5828

AG Grewal Files Lawsuit to Prevent Imminent Release of Printable-Gun Computer Files

AG Grewal Also Tells Web-Hosting Company That Website Will Be Violating Law

- [Complaint Order Brief](#)
- [DreamHost Letter](#)
- [Multistate Letter 3D Firearms](#)

TRENTON – Attorney General Gurbir S. Grewal filed a lawsuit today seeking to prevent a firearms developer from publicly releasing computer files that would enable individuals to create untraceable firearms using a 3-D printer. The firearm developer, a Texas-based company called “Defense Distributed,” has threatened to release the files to the public on Wednesday, August 1, 2018.

Attorney General Grewal filed the lawsuit in Superior Court in Essex County, seeking a temporary restraining order against Defense Distributed and its founder, Cody Wilson. The lawsuit follows a cease-and-desist letter that Attorney General Grewal sent the company on Thursday, July 26, 2018.

In a separate letter, Attorney General Grewal informed DreamHost, the web-hosting provider, that Defense Distributed’s website will be violating the provider’s Acceptable Use Policy. As the letter explains, Defense Distributed impermissibly plans to use the website to facilitate imminent violations of New Jersey state law.

“These dangerous files would allow anyone – including terrorists, domestic abusers, felons, fugitives, and juveniles – to print untraceable assault weapons using a 3D printer from the comfort of their own homes,” said Attorney General Grewal. “And because the guns would be printed without serial numbers, they would be untraceable by law enforcement, making it all the more difficult to solve crimes committed with these weapons. Once Defendants open that Pandora’s box, it can never be closed.”

Defense Distributed made national headlines by developing gun computer files that enable consumers to create fully operational firearms with a 3-D printer. The company’s founder, Cody Wilson, developed a printable plastic pistol known as the “Liberator .380” in 2012 and put the plans online, but was blocked by the federal government. Wilson sued, and under a settlement he reached with the U.S. State Department, his company can begin releasing computer files for printable guns beginning on August 1.

But as explained in today’s court filings, publication of those computer files would still violate New Jersey law.

New Jersey's public nuisance law provides a cause of action to hold firearm manufacturers accountable – and to enjoin imminent violations of the law – when their plans would facilitate the illegal sale of weapons to criminals and other prohibited users, and when the manufacturer has done too little to prevent that illegal market from developing.

On Sunday, July 29, 2018, Defense Distributed and the Second Amendment Foundation, a gun rights organization, sued Attorney General Grewal in federal district court in Austin, Texas, seeking to prevent Attorney General Grewal from preventing the publication of the company's computer files on its website, known as "DEFCAD." The same day, Wilson claimed that he had taken steps to prevent the distribution of those files in New Jersey, posting on his personal Twitter account, "[Yes, DEFCAD has been blocked in New Jersey.](#)" However, as noted in New Jersey's court filings today, the Defense Distributed website remains accessible in New Jersey.

Also today, Attorney General Grewal joined 20 other state attorneys general in a letter criticizing Secretary of State Mike Pompeo and Attorney General Jeff Sessions for settling the federal lawsuit against Defense Distributed and urging them to withdraw from the settlement before the company publishes the computer files later this week.

"For years, and as recently as April 2018, the federal government recognized that these printable-gun computer files would be a threat to United States national security and foreign policy interests," said Attorney General Grewal. "Although the Secretary of State and Attorney General abruptly switched positions – with no good reason – the threat remains. I'm proud to lead the fight in New Jersey to stop Wilson and Defense Distributed from publishing printable-gun computer files, and I call on the federal government to join us in protecting the safety of our residents and our law enforcement officers."

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EXHIBIT

7



MAURA HEALEY
ATTORNEY GENERAL

THE COMMONWEALTH OF MASSACHUSETTS
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July 30, 2018

The Honorable Mike Pompeo
Secretary of State
U.S. Department of State
2201 C. Street, N.W.
Washington, D.C. 20520

The Honorable Jeff Sessions
Attorney General
U.S. Department of Justice
950 Pennsylvania Avenue, N.W.
Washington, D.C. 20530

Dear Secretary Pompeo and Attorney General Sessions:

We, the undersigned Attorneys General, write to express our serious concern about the Department of State's settlement with Defense Distributed and the proposed rules (83 Fed. Reg. 24198; 83 Fed. Reg. 24166) published by the Department of State and the Department of Commerce to amend the International Trafficking in Arms Regulations. As the Chief Law Enforcement Officers of our states, we believe the settlement terms and proposed rules are deeply dangerous and could have an unprecedented impact on public safety. In addition to helping arm terrorists and transnational criminals, the settlement and proposed rules would provide another path to gun ownership for people who are prohibited by federal and state law from possessing firearms. Federal courts have recognized the danger of allowing these guns to be publicly available on the Internet, and this Administration has abruptly disregarded those rulings. We urge you to withdraw from the settlement and withdraw the proposed rules immediately, and allow full and fair consideration of any future proposed rules on these issues.

We believe the settlement and proposed rules will facilitate violations of federal and state laws, and will make Americans less safe from both domestic and international threats. For example, individuals who access the files posted by Defense Distributed (and similar files posted by others in the future) and use those files will be circumventing laws that regulate the

manufacture, sale, transfer, possession, and export of firearms. The Arms Export Control Act requires the federal government to reduce the international trade in, and lessen the burden of, arms abroad. Domestically, many of our states have carefully crafted regulatory regimes geared at preventing gun violence and protecting public safety. The Department of State's abrupt change in position seriously undermines the efficacy of those laws and creates an imminent risk to public safety.

As a result of the Department of State's settlement with Defense Distributed, terrorists, criminals, and individuals seeking to do harm would have unfettered access to print and manufacture dangerous firearms. Some of these weapons may even be undetectable by magnetometers in places like airports and government buildings and untraceable by law enforcement. Illegal trafficking of these guns across state and national borders could also increase, and self-made, unregistered, and untraceable firearms could easily wind up in the hands of (or simply be produced directly by) dangerous individuals.

The proposed rules would also transfer oversight of certain weapons and ammunition – which have long been considered “military grade” and are currently on the United States Munitions List – from the Department of State to the Department of Commerce. The settlement and proposed rules would facilitate the upload of files and other information sufficient to build unsafe and untraceable guns to the Internet. There would be unrestricted access, domestically and abroad, to large amounts of technical data that had previously been regulated to promote serious national security interests.

We agree with the argument that the Department of Justice and Department of State asserted for years in the lawsuit brought by Defense Distributed, before this abrupt reversal: that the release of these computer files of firearms would threaten national security and put our residents in danger.¹ For example, the Department of Justice wrote in its brief to the Fifth Circuit Court of Appeals, “[t]he computer data files at issue here, if made publicly available without restriction, would allow anyone with a 3-D printer (or related device) to create, at the touch of a button, parts and components for an operational firearm that is untraceable and undetectable by metal detectors. Because such printers are readily available, allowing the distribution of the computer files at issue here is tantamount to permitting the dissemination of firearms themselves.”² The settlement and the related proposed rules are inconsistent with the government's longstanding position and recklessly disregard public safety and security.

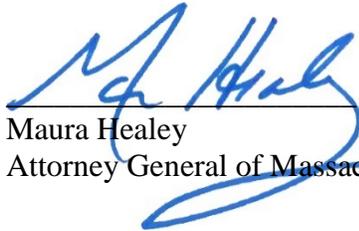
These rules, if finalized, and the settlement, if implemented, set a precedent that would endanger the lives of civilians, law enforcement, and members of the armed forces at home and

¹ *Defense Distributed v. U.S. Dep't of State*, Case 1:15-cv-00372-RP, Defs.' Mot. Dismiss Second Am. Compl., at 1 (W.D. Tex. April 6, 2018).

² Brief for Federal Appellees, 2016 WL 614088, Case No. No. 15-50759, at *7 (5th Cir. 2016). In the same brief, the Department of Justice also wrote “[t]he availability of such firearms to foreign nationals, particularly if...attributable to the United States, could raise significant foreign policy and national security concerns....” *Id.* at *1. The Department of Justice additionally asserted, “[i]f such a firearm were produced and ‘then used to commit an act of terrorism, piracy, assassination, or other serious crime,’ the United States could be held accountable, causing ‘serious and long-lasting harm to the foreign policy and national security interests of the United States.’” *Id.* at *23 (quoting Aguirre Decl. ¶ 35(a) [ROA.571]).

abroad. We urge you to withdraw from the settlement immediately. The status quo – which currently ensures public safety and national security by prohibiting publication of firearm design files on the Internet – should be maintained. Any rulemaking on these issues should not be tied to a specific settlement agreement and should be subject to full and fair rulemaking proceedings, so that all stakeholders may provide input into the rules in the interest of public safety.

Sincerely,



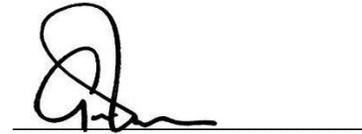
Maura Healey
Attorney General of Massachusetts



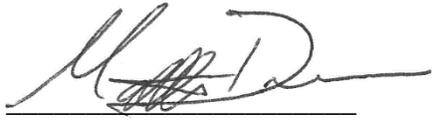
Xavier Becerra
Attorney General of California



Cynthia Coffman
Attorney General of Colorado



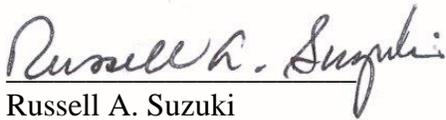
George Jepsen
Attorney General of Connecticut



Matthew P. Denn
Attorney General of Delaware



Karl A. Racine
Attorney General of the District of Columbia



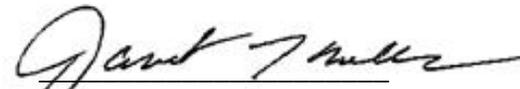
Russell A. Suzuki
Attorney General of Hawaii



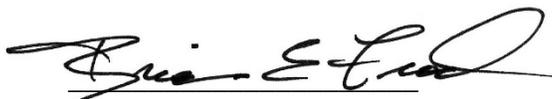
Lisa M. Madigan
Attorney General of Illinois



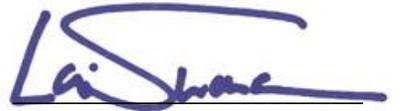
Thomas J. Miller
Attorney General of Iowa



Janet T. Mills
Attorney General of Maine



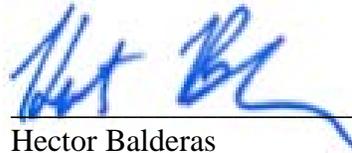
Brian E. Frosh
Attorney General of Maryland



Lori Swanson
Attorney General of Minnesota



Gurbir S. Grewal
Attorney General of New Jersey



Hector Balderas
Attorney General of New Mexico



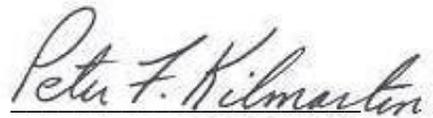
Barbara D. Underwood
Attorney General of New York



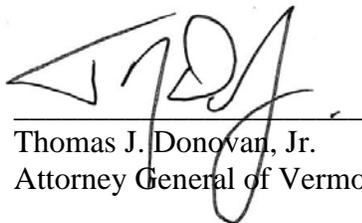
Ellen Rosenblum
Attorney General of Oregon



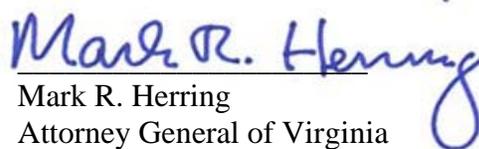
Josh Shapiro
Attorney General of Pennsylvania



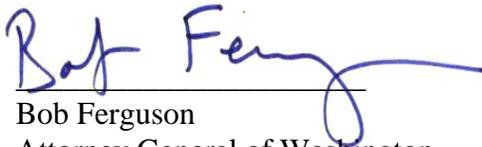
Peter F. Kilmartin
Attorney General of Rhode Island



Thomas J. Donovan, Jr.
Attorney General of Vermont



Mark R. Herring
Attorney General of Virginia



Bob Ferguson
Attorney General of Washington

EXHIBIT

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OFFICE OF THE ATTORNEY GENERAL

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BOSTON, MASSACHUSETTS 02108

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August 10, 2018.

The Honorable Mike Pompeo
Secretary of State
U.S. Department of State
2201 C Street, NW
Washington, DC 20520

The Honorable Jeff Sessions
Attorney General
U.S. Department of Justice
950 Pennsylvania Avenue, NW
Washington, DC 20530

Dear Secretary Pompeo and Attorney General Sessions,

We, the undersigned Attorneys General, write to follow up on our letter dated July 30, 2018, in which we expressed our grave concerns about the Department of State's settlement with Defense Distributed. Since writing to you last week, there have been significant developments, both in and out of court, yet we have not heard from either of you about your willingness to confront the urgent public safety risk posed by firearms that can be generated by use of a 3D printer.

As you know, following execution of the settlement agreement with the Department of State, Defense Distributed posted several downloadable 3D gun files on its website, including files that had been previously identified as subject to the controls of the International Traffic in Arms Regulations. These files remained online even after the Attorneys General of New Jersey and Pennsylvania instituted enforcement actions against Defense Distributed under federal and state law. Only after a coalition of nine state attorneys general, led by the Attorney General of Washington state, and now joined by 11 additional state attorneys general, secured a temporary restraining order from the U.S. District Court in the Western District of Washington were the files removed from Defense Distributed's website. However, soon after their removal by Defense Distributed, the files re-appeared on other websites.

This is a manufactured crisis. The Department of State had won every stage of its litigation with Defense Distributed, yet conceded the case without consulting with Congress or the Department of Defense, as it was required to do, let alone with the White House. Now, the Department of State's inexplicable settlement with Defense Distributed has put lives at risk, including those of our law enforcement officers. As we mentioned in our prior letter, terrorists, criminals, and other individuals seeking to do harm now have access to the technical specifications necessary to print and manufacture dangerous firearms. Some of these weapons may even be undetectable by x-ray machines and magnetometers in places like airports, courthouses, and other government buildings; they are also untraceable by law enforcement. The federal government's actions have made it easier for violent criminals, transnational gangs, and other bad actors to develop, acquire, and conceal firearms, in violation of state and federal laws.

Communications from the White House have indicated that the Administration is reconsidering the wisdom of its handling of the Defense Distributed case. However, we have seen no evidence of any change in course to date. We are not aware of any efforts by the federal government to remove these and other downloadable 3D gun files from the Internet or to enforce federal law against those who have illegally posted these files. We will continue to do what lies within our authority to confront this public safety risk head on. Your swift action is needed as well.

We urge the Department of State to take immediate steps to ensure compliance with the Arms Export Control Act and International Traffic in Arms Regulations. There is no time to waste.

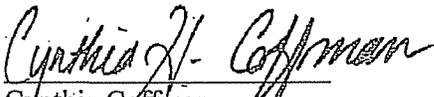
Sincerely,



Maura Healey
Attorney General of Massachusetts



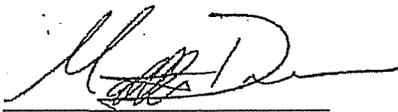
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Attorney General of California



Cynthia Coffman
Attorney General of Colorado



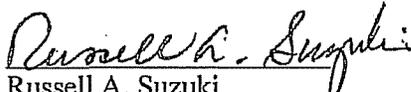
George Jepsen
Attorney General of Connecticut



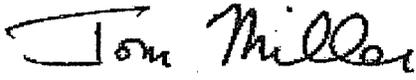
Matthew P. Denn
Attorney General of Delaware

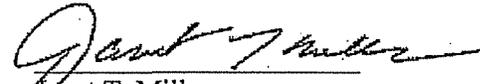


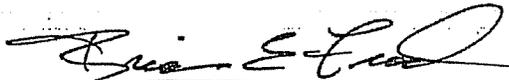
Karl A. Racine
Attorney General of the District of Columbia

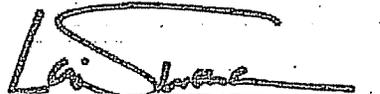

Russell A. Suzuki
Attorney General of Hawaii


Lisa M. Madigan
Attorney General of Illinois

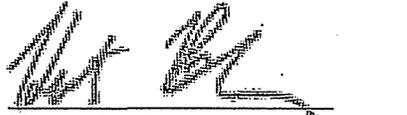

Thomas J. Miller
Attorney General of Iowa


Janet T. Mills
Attorney General of Maine


Brian E. Frosh
Attorney General of Maryland

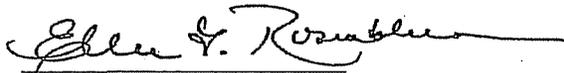

Lori Swanson
Attorney General of Minnesota

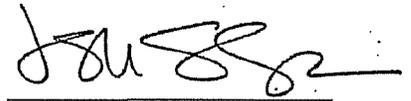

Gurbir S. Grewal
Attorney General of New Jersey

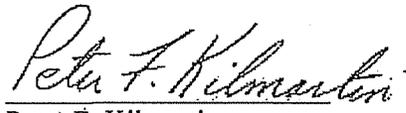

Hector Balderas
Attorney General of New Mexico

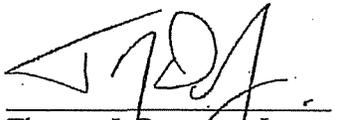

Barbara D. Underwood
Attorney General of New York

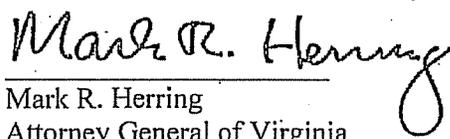

Joshua H. Stein
Attorney General of North Carolina

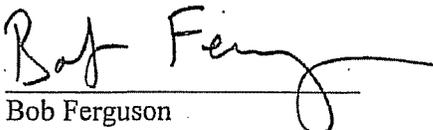

Ellen Rosenblum
Attorney General of Oregon


Josh Shapiro
Attorney General of Pennsylvania


Peter F. Kilmartin
Attorney General of Rhode Island


Thomas J. Donovan, Jr.
Attorney General of Vermont


Mark R. Herring
Attorney General of Virginia


Bob Ferguson
Attorney General of Washington

Cc: Stuart J. Robinson

EXHIBIT

9



State of New Jersey

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DEPARTMENT OF LAW AND PUBLIC SAFETY
DIVISION OF LAW
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Newark, NJ 07101

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

GURBIR S. GREWAL
Attorney General

MICHELLE L. MILLER
Director

August 30, 2018

VIA CERTIFIED MAIL AND ELECTRONIC MAIL

Daniel L. Schmutter, Esq.
Hartman & Winnicki, P.C.
74 Passaic Street
Ridgewood, New Jersey 07450
dschmutter@hartmanwinnicki.com

Re: Grewal v. Defense Distributed, et al.

Dear Mr. Schmutter:

As you are aware, this office represents Gurbir S. Grewal, Attorney General for the State of New Jersey in the above-referenced matter. It has come to our attention that Defense Distributed and Cody R. Wilson (collectively "Defendants") are no longer blocking individuals using New Jersey IP addresses from being able to access <https://defdist.org>, <https://defcad.com>, and <https://ghostgunner.net> (together, "Defendants' websites"). Thus, Defendants are violating Judge Koprowski's Order to Show Cause with Temporary Restraints Pursuant to Rule 4:52 ("Order") entered July 31, 2018. Among other things, and as Defendants agreed, the Order provided that Defendants "will block access to New Jersey IP addresses and mobile devices." That Order remains in full force and effect notwithstanding the removal of this matter to the United States District Court for the District of New Jersey. However, Defendants' websites were accessed by New Jersey Division of Consumer Affairs investigators on August 27, 2018 and August 28, 2018 using New Jersey-based IP addresses on desktop and mobile devices. This is a violation of the Order.

Notably, at the hearing in this matter on July 31, 2018,



August 30, 2018

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Defendants specifically indicated that they would block access to the websites from New Jersey IP addresses. For example, Defendants stated:

After [Defendants] received the cease and desist order from the Attorney General, [Defendants] voluntarily instituted a block on all New Jersey IP addresses. Subsequent to that [Defendants] instituted a block on all mobile devices because [Defendants] found that people accessing the website on their cell phones were actually able to get around it . . . So [Defendants] blocked all mobile access to sites [Defendants] are taking every proactive measure voluntarily to prevent these files to come into the hands of New Jersey downloaders.

(July 31, 2018 Transcript of Oral Argument re Order to Show Cause with Temporary Restraints Pursuant to Rule 4:52 at 18:10-25.)

The Court thus found that Defendants "indicated that the status quo is that . . . there is no access right now, but there will be no access to New Jersey residents with a New Jersey IP address and with a mobile device starting [August 1, 2018]... and access will be denied to the extent that it can be denied to the New Jersey residents . . . and to those people with mobile devices." (Tr. at 46:13-18; 47:8-10.)

Accordingly, the Court ordered "that [Defendants] will bar New Jersey citizens [] from accessing the site by way of either [] their IP's or [] their other devices." (Tr. at 56:13-16.) Defendants have failed to abide by their own representations to the Court, and are in clear violation of the Order. We demand that they immediately take steps to comply with the Order, including by restricting access through New Jersey IP addresses to Defendants' websites.

We also note that the ability of a New Jersey resident to view Defendants' websites in violation of the Order may also violate the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-2 and the Regulations Governing General Advertising, N.J.A.C. 13:45A-9.1 et seq. because at a minimum the <https://defcad.com> website is now selling or offering for sale to New Jersey residents the CAD files at issue, even if shipping to a New Jersey address is blocked. Please inform this office by the close of business on Tuesday, September 4, 2018 that Defendants have restricted

August 30, 2018

Page 3

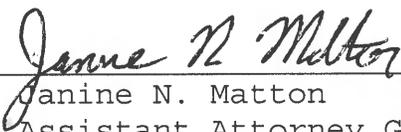
access to Defendants' websites to all New Jersey IP addresses.

Additionally, this office reached out to you and your co-counsel, Chad Flores, Esq. via e-mail on August 28, 2018 regarding Defendants' distribution of a link to a YouTube video that contained a request that viewers host 3D gun files themselves. We asked that your clients cease and desist from any and all additional efforts to have others host any 3D gun files and that you acknowledge your clients' consent to this request. Though Defendants have since revised that video, it is still available to be viewed and contains a solicitation for funds which in turn will be used, at least in part, to develop a "Contract X" and "Contract Y" consisting of "more defense tech" to be made available to the public. We remind you that the Order also prohibits Defendants from uploading any additional files through Defendants' websites or otherwise. Please acknowledge, by the close of business on Tuesday, September 4, 2018, that Defendants will cease and desist from any efforts to upload any additional files.

We invite any discussion on the above issues and look forward to your response.

Sincerely,

GURBIR S. GREWAL
ATTORNEY GENERAL OF NEW JERSEY

By: 
Janine N. Matton
Assistant Attorney General

c: Matthew A. Goldstein, Esq. (via email only)
Chad Flores, Esq. (via email only)

EXHIBIT

10

LAW OFFICES
HARTMAN & WINNICKI, P.C.

Dariusz M. Winnicki *^o
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* * *

WEBSITE
www.hartmanwinnicki.com

Porter E. Hartman (1920-2009)
Charles R. Buhman (1938-1994)
William T. Marsden (1943-1993)
Cyrus D. Samuelson (1911-1998)

* New York and New Jersey Bars
^o Florida Bar
^o Washington, D.C. Bar
^o New Jersey Bar
^x Pennsylvania Bar

September 4, 2018

Via Email

Janine N. Matton
Assistant Attorney General
Office of the Attorney General
P.O. Box 080
Trenton, NJ 08625

**Re: Grewal v. Defense Distributed, et al.
Docket No.: 18-cv-13248-SDW-LDW**

Dear Ms. Matton:

We are responding to your letter of August 30, 2018.

Your letter requests several acknowledgements concerning the computer files that are issue in this case, which is now docketed in the United States District Court for the District of New Jersey as case number 2:18-cv-13248-SDW-LDW and styled *Gurbir S. Grewal v. Defense Distributed et al.* At present, the files at issue in this case are the files described as “Published Files,” “Ghost Gunner Files,” and “CAD Files” by the Settlement Agreement of June 29, 2018 between Defense Distributed, the Second Amendment Foundation, Inc., Conn Williamson, the United States Department of State, the Secretary of State, the Directorate of Defense Trade Controls, the Deputy Assistant Secretary, Defense Trade Controls, and the Director, Office of Defense Trade Controls Policy; and the United States Department of State’s July 27, 2018 letter to Mr. Cody Wilson, Defense Distributed, and Second Amendment Foundation, Inc.

As an initial matter, your letter appears to address several issues not within the scope of this litigation, and therefore seems overly broad. Nevertheless, please note the following:

Janine N. Matton
September 4, 2018
Page 2

First, your letter requests an acknowledgement about whether New Jersey residents can download the files at issue in this case from websites published by Defense Distributed. They cannot because Defense Distributed has removed the files from its website. Of course, the files remain available at many other websites not maintained by Defense Distributed. Links to the files are also available from the federal courts on Pacer.gov.

Defense Distributed removed the files at issue in this litigation from its website after a temporary restraining order was issued in *State of Washington, et al., v. United States Department of State, et al.*, No. C18-1115RSL (W.D. Wash.) (Lasnik, J.). Given that the State of New Jersey is a party to that action and represented by counsel, we have presumed that you are fully aware of its proceedings. For the avoidance of any doubt, we refer you to that action's docket number 95, an order entered by United States District Judge Robert S. Lasnik on August 27, 2018 (four days before your letter). That order identifies the files at issue in that case as the files that are at issue in this case and finds that Defense Distributed "took them down when the temporary restraining order was entered." *Id.* ECF No. 95 at 22. That finding remains true, and Defense Distributed will maintain that state of affairs until the Western District of Washington's injunction is dissolved or Defense Distributed is otherwise relieved of effect by a court of competent jurisdiction.

Second, your letter requests an acknowledgement about whether Defense Distributed will cease uploading "any additional files." To the extent that this request concerns the files at issue in this case, it is addressed by the foregoing explanation. To the extent that this request concerns files *not at issue in this case*, Defense Distributed is under no such obligation.

Finally, we wish to clarify the matter of the order that was entered on July 31 by the Superior Court of New Jersey. The hearing you refer to concerned nothing but the files at issue in this case, and so did the order that resulted from it. More importantly, the order did not constitute a restraint or injunction of any kind. All that the order did was set a hearing date and briefing schedule for the matter of your request for a preliminary injunction and acknowledge a voluntary forbearance by Defendants. This is why the court, by hand, *struck out* the proposed order's phrase "are temporarily enjoined and restrained from," and that is why the court, by hand, *struck out* the proposed order's provision about the right to "dissolve or modify the temporary restraints herein contained" on two days' notice, which is mandatory when entering temporary restraints.

A recitation about what parties have said and agreed to at a hearing is not an injunction, and neither are the hearing statements selectively quoted by your letter. If you believe that you have a legitimate cause of action for the violation of an agreement occurring during that hearing — despite the fact that Defendants have undertaken taken all appropriate steps, voluntarily and in good faith, since the hearing — please explain the basis for it in detail so that we may respond appropriately.

We further note, in the United States District Court for the Western District of Washington, counsel representing the State of New Jersey took the position that the law prohibits only "internet posting" of the files but that it is legal for Defense Distributed to "hand them around domestically." August 21, 2018 Motion Hearing, Verbatim Report of Proceedings Before the Honorable Robert

Janine N. Matton
September 4, 2018
Page 3

S. Lasnik, United States District Judge at 23, *State of Washington, et al., v. United States Department of State, et al.*, No. C18-1115RSL (W.D. Wash.).

Very truly yours,

A handwritten signature in black ink, appearing to read 'D. Schmutter', written over a horizontal line.

DANIEL L. SCHMUTTER

DLS/srs

cc: Chad Flores, Esq. (via email)
Matthew Goldstein, Esq. (via email)
Defense Distributed (via email)

EXHIBIT

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it is unlawful to export any defense article or technical data for which a license or written approval is required without first obtaining the required authorization from the DDTC. Please note that disclosing (including oral or visual disclosure) or transferring technical data to a foreign person, whether in the United States or abroad, is considered an export under § 120.17 of the ITAR.

The Department believes Defense Distributed may not have established the proper jurisdiction of the subject technical data. To resolve this matter officially, we request that Defense Distributed submit Commodity Jurisdiction (CJ) determination requests for the following selection of data files available on DEFCAD.org, and any other technical data for which Defense Distributed is unable to determine proper jurisdiction:

1. Defense Distributed Liberator pistol
2. .22 electric
3. 125mm BK-14M high-explosive anti-tank warhead
4. 5.56/.223 muzzle brake
5. Springfield XD-40 tactical slide assembly
6. Sound Moderator – slip on
7. “The Dirty Diane” 1/2-28 to 3/4-16 STP S3600 oil filter silencer adapter
8. 12 gauge to .22 CB sub-caliber insert
9. Voltlock electronic black powder system
10. VZ-58 front sight.

DTCC/END requests that Defense Distributed submit its CJ requests within three weeks of receipt of this letter and notify this office of the final CJ determinations. All CJ requests must be submitted electronically through an online application using the DS-4076 Commodity Jurisdiction Request Form. The form, guidance for submitting CJ requests, and other relevant information such as a copy of the ITAR can be found on DDTC’s website at <http://www.pmdtcc.state.gov>.

Until the Department provides Defense Distributed with final CJ determinations, Defense Distributed should treat the above technical data as ITAR-controlled. This means that all such data should be removed from public access immediately. Defense Distributed should also review the remainder of the data made public on its website to

determine whether any additional data may be similarly controlled and proceed according to ITAR requirements.

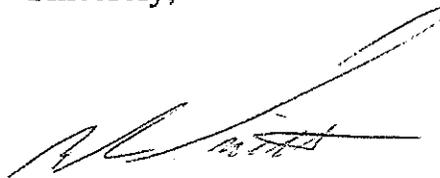
Additionally, DTCC/END requests information about the procedures Defense Distributed follows to determine the classification of its technical data, to include the aforementioned technical data files. We ask that you provide your procedures for determining proper jurisdiction of technical data within 30 days of the date of this letter to Ms. Bridget Van Buren, Compliance Specialist, Enforcement Division, at the address below:

Office of Defense Trade Controls Compliance

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

We appreciate your full cooperation in this matter. Please note our reference number in any future correspondence.

Sincerely,



Glenn E. Smith
Chief, Enforcement Division

EXHIBIT

12

WILLIAMS MULLEN

Jahna M. Harwig
Direct Dial: 202.293-8145
jharwig@williamsmullen.com

June 21, 2013

Ms. Sarah Heidema
U.S. Department of State
Directorate of Defense Trade Controls
PM/DDTC, SA-1, Room 1200
2401 E Street, NW
Washington, DC 20037

Subject: Commodity Jurisdiction Requests for Data Files Posted by Defense Distributed

Enclosures: (1) Printouts of Drawings from Files Posted at DEFCAD.org
(2) Wikipedia Page for 125mm BK-14M HEAT
(3) Thingiverse Page for Sound Moderator
(4) Thingiverse Page for VZ-58 Front Sight
(5) Examples of Solvent Trap Adapters
(6) Examples of CAD Files for .22 Pistols
(7) Examples of CAD Files for Muzzle Brakes
(8) Examples of CAD Files for Slide Assemblies
(9) Examples of CAD Files for Voltlock System

Dear Ms. Heidema:

Defense Distributed has been requested by DTCC/END to submit requests for commodity jurisdiction determinations in connection with Case No. 13-0001444 for ten sets of data files posted to DEFCAD.org. As demonstrated below, the files are primarily Computer Aided Design (CAD) data files and should be considered public domain information that is excluded from the ITAR pursuant to Section 120.11. Defense Distributed therefore respectfully requests a determination that these files are not subject to the ITAR.

COMMODITY DESCRIPTIONS

Each of these Commodity Jurisdiction requests relates to data files, almost all of which are essentially blueprints that can be read by CAD software. A description of each file or set of files is set out below. The files are in one of the following formats:

- STL (STereoLithography or Standard Tessellation Language) is a file format native to the stereolithography CAD software and can be used with some 3D printers. "Stereolithography" is a means of creating physical 3D models of objects using resin or carefully cut and joined pieces of paper. STL files describe only

the surface geometry of a three dimensional object without any representation of color, texture or other common CAD model attributes.

- The IGS (Initial Graphics Exchange Specification) file format is the standard format for transferring three-dimensional models between CAD programs. IGS files can store wireframe models, surface or solid object representations, circuit diagrams, and other objects.
- SLDPRT is the proprietary image file format associated with the SolidWorks brand CAD software. SLDPRT files contain three-dimensional images of one specific part of a product.
- SKP is the CAD drawing format for Google Sketchup, which is a quick, entry-level 3D drawing program.

There are also a small number of Word (.DOC), text (.TXT) or image (.JPG or .BMP) files. A printout of each file is attached to the relevant DS-4076.

As explained further below, each of these files either was previously placed in the public domain or contains only public domain information.

1. Liberator Pistol Data Files

The files for the Liberator Pistol include sixteen STL files for the various parts and components of the pistol, two “read me” text files that explain how to lawfully assemble the pistol, a diagram of a pistol, and a permissive software license. If printed on a 3D printer, the parts could be assembled into a single shot .380 caliber firearm.

2. .22 Electric Data Files

The files for the .22 Electric are two stereolithography (STL) CAD files for models of a barrel and grip for a .22 caliber pistol. If printed, the barrel would be a plastic cylinder with a .22 mm bore and the grip would be a plastic piece with two 5mm diameter holes. If those pieces were printed in plastic and used with an electronic system and firing mechanism, the barrel would be expected to fail upon firing.

3. 125 mm BK-14M High Explosive Anti-Tank Warhead Model Data File

The file is a STL CAD file for a model of a BK-14M high explosive anti-tank warhead without fins. The model, if printed on a 3D printer, would be a solid piece of plastic in the shape of the warhead, but would not be capable of functioning as a warhead.

4. 5.56/.223 Muzzle Brake Data Files

The data files are three different CAD file formats (.IGS, .SLDPRT, and .STL) for a model of a 5.56/.223 muzzle brake. If printed on a 3D printer, the model would be a plastic piece in the shape of the muzzle brake, but would be expected to fail if used with a weapon.

5. Springfield XD-40 Tactical Slide Assembly Data Files

The files are nineteen Computer Aided Design (CAD) data files in the SolidWorks .SLDPRT file format for models of components of a pistol slide for the Springfield XD-40. The

Defense Distributed CJ Requests

June 21, 2013

Page 3

components, if printed on a 3D printer, would be plastic pieces in the shape of the components of the slide assembly, but would be expected to fail if used with a weapon.

6. Sound Moderator – Slip On File

The file is a stereolithography CAD file for a model of a slip-on sound moderator for an air gun. The model, if printed on a 3D printer, would work with an air gun, but would likely melt if used with a firearm.

7. “The Dirty Diane” ½-28 to ¼-16 STP S3600 Oil Filter Silencer Adapter Files

The file is a CAD data file in the SolidWorks .SLDPRT file format for a model of an oil filter silencer adapter that is typically produced in stainless steel. If printed on a 3D printer, this item could be used as a solvent trap adapter, which is used to catch solvents that are used in the process of cleaning a gun. While a metal solvent trap adapter could be used as a silencer, a plastic adapter would likely melt if used with a weapon as a silencer.

8. 12 Gauge to .22 CB Sub-Caliber Insert Files

The files are a SKP CAD file for a model of a sub-caliber insert, two renderings of the sub-caliber insert, and a “read me” text file providing information about the National Firearms Act and the Undetectable Firearms Act. This item, if printed on a 3D printer, would be a plastic cylinder with a .22 bore, and would be expected to fail if used with a weapon.

9. Voltlock Electronic Black Powder System Files

The files are twelve CAD files for models of cylinders of various bores with a touch hole. Eleven of the files are in the STL file format and one is in the IGS format. If those pieces were printed on a 3D printer and used with an electronic ignition, the barrel would be expected to fail.

10. VZ-58 Front Sight Files

The files are a SolidWorks CAD file in the .SLDPRT file format and a rendering of a model of a sight for a VZ-58 rifle. If printed on a 3D printer and used with a weapon, the sight would be expected to fail.

DATA ORIGIN

With the exception of item 1 (Liberator Pistol Data Files), each of these files was provided to Defense Distributed by the creator of the files identified in the DS4076. In addition, as explained below, many of these files were originally posted to www.thingiverse.com or other internet sites, and were freely available to any person with access to the internet.

The Liberator Pistol CAD files were developed by Defense Distributed. The Liberator pistol was designed as a combination of already extant and working files and concepts. The pistol frame, trigger housing, and grip specifications were all taken directly from an AR-15 lower receiver file that is in the public domain. The spring file is taken from a toy car file available on Thingiverse. The hammer relies on striking a common roofing nail, and the barrel is a cylinder bored for .380. The gun functions because of the properties of the .380 cartridge – the brass

Defense Distributed CJ Requests

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Page 4

casing itself is relied on to act as a breech. The printed and assembled gun is a simple improvised weapon, not as complex as many of the improvised weapons of the 20th century, those available in Army manuals, etc. All of the technologies used to create the Liberator data files are widely available in the public domain.

IDENTICAL & SIMILAR FILES

The Liberator Pistol data files are for an improvised firearm that is similar to and based on numerous items that are available on the internet as well as in various books. The Library of Congress online catalog lists numerous books on gunsmithing, including

- Clyde Baker, Modern gunsmithing; a manual of firearms design, construction, and remodeling for amateurs & professionals (1959)
- John E. Traister, Clyde Baker's Modern gunsmithing : a revision of the classic (1981)
- Frank de Haas, Mr. Single Shot's gunsmithing idea book (1983)
- Roy F. Dunlop, Gunsmithing (1996),
- Franklin Fry, Gunsmithing fundamentals : a guide for professional results (1988),
- James Virgil Howe, The modern gunsmith : a guide for the amateur and professional gunsmith in the design and construction of firearms, with practical suggestions for all who like guns (1982),
- Gérard Métral, A do-it-yourself submachine gun: it's homemade, 9mm, lightweight, durable, and it'll never be on any import ban lists! (1995),
- Jack Mitchell, The Gun digest book of pistolsmithing (1980),
- J. Parrish Stelle, The gunsmith's manual; a complete handbook for the American gunsmith (1883), and
- Patrick Sweeney, Gunsmithing: pistols & revolvers (2009),

among many others. Examples of online sources include:

- <http://www.weaponscombat.com/zip-pipe-and-pen-guns>
- <http://www.infinitearms.com/images2/v/manuals/Misc+Gun+Plans>
- <http://thehomegunsmith.com>
- <http://www.scribd.com/doc/24445441/Pen-Gun-Mk1-Blueprint>
- https://www.google.com/search?q=zip+gun+blueprints&rlz=1C1SKPM_enUS436US489&source=lnms&tbn=isch&sa=X&ei=9t-oUZybJILm8wSx0YHoBg&ved=0CAoQ_AUoAQ&biw=1600&bih=837
- <http://ebookbrowse.com/gu/guns-homemade>

Although DD converted this information into CAD file format, DD does not believe that it created any new technical data for the production of the gun.

A drawing of the 125 BK-14M HEAT (Item 3), including measurements, is currently available on Wikipedia at http://en.wikipedia.org/wiki/File:125mm_BK-14m_HEAT.JPG.

Defense Distributed CJ Requests

June 21, 2013

Page 5

The Sound Moderator CAD file (Item 6) was published on Thingiverse on March 3, 2011 and is still available on that site at <http://www.thingiverse.com/thing:6808>. The VZ-58 Front Sight (Item 10) was also published to Grabcad on December 14, 2012 and is still available on that site at <http://grabcad.com/library/front-sight-for-vz-dot-58-rifle>.

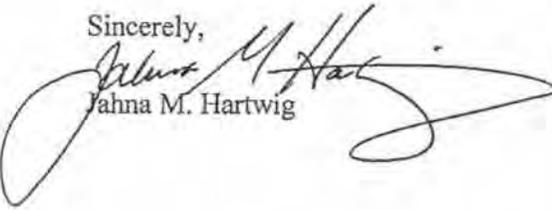
The Oil Filter Silencer Adapter is identical to Solvent Trap Adapters, which are produced by numerous manufacturers and available as commercial products on many websites, including amazon.com. (see http://www.amazon.com/s/ref=nb_sb_noss_1?url=search-alias%3Dautomotive&field-keywords=solvent+trap+adapter&rh=n%3A15684181%2Ck%3Asolvent+trap+adapter.) These items appear to be commercial products that would be subject to the EAR. As such, any related technologies or technical data would also be subject to the EAR.

Examples of CAD files similar to the .22 Electric Pistol (Item 2), Muzzle Brake (Item 4), Slide Assembly (Item 5), and Voltlock Electronic Black Powder System (Item 9) that are currently available on the internet are attached to the relevant DS4076.

As demonstrated above, all of the technical information included in the data files posted to DEFCAD.org was previously available in the public domain. As such, this information is excluded from the definition of "technical data" by 22 C.F.R. § 120.10(a)(5). For these reasons, Defense Distributed respectfully requests that the Department determine that the subject data files posted to DEFCAD.org are not subject to the ITAR.

This submission contains Defense Distributed confidential business information. We respectfully request that the submission be kept confidential. If you need additional information regarding this submission, please contact me at 202-293-8145 or jhartwig@williamsmullen.com.

Sincerely,


Jahna M. Hartwig

Electronic Form Version Number: 1.2
 For DDTC Use Only
 CJ Number: _____

OMB APPROVAL NO: 1405-0163
 EXPIRATION DATE: 01/31/2013
 *ESTIMATED BURDEN: 10 Hours

U.S. Department of State

DS-4076 Commodity Jurisdiction (CJ) Determination Form

*PAPERWORK REDUCTION ACT STATEMENT: Public reporting burden for this collection of information is estimated to average 10 hours per response, including time required for searching existing data sources, gathering the necessary data, providing the information required, and reviewing the final collection. Send comments on the accuracy of this estimate of the burden and recommendations for reducing it to: Department of State (V/CIS/DIR) Washington, D.C. 20520.

A. Applicant Information

1. Applicant's Information: (Select all that apply)

Applicant is: Government Manufacturer Exporter Manufacturer's Representative Other

Applicant Name: (Company, Organization) Defense Distributed

Address: 711 W. 32nd Street, Apt. 115

City: Austin

State: TX

Zip Code: 78705

Phone #: 501-743-9680

PM/DDTC Registrant Code: _____

(If applicable)

Add Item

Remove Item

Name: (Point of Contact) Cody R. Wilson

Phone #: 501-743-9680

Fax #: _____

Email: crw@defdist.org

2. Submitter Information if other than Applicant in Block 1: (Complete if applicable)

Submitter Name: (Company, Organization) Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington

State: DC

Zip Code: 20006

Phone #: 202-293-8145

PM/DDTC Registrant Code: _____

(If applicable)

Add Item

Remove Item

Name: (Point of Contact) Jahna M. Hartwig

Phone #: 202-293-8145

Fax #: _____

Email: jhartwig@williamsmullen.com

Attachment: Authorization from Applicant to Submitter authorizing submitter to file on its behalf and to release information in Block 5.

B. Transaction Description and Compliance Information

3. Transaction Description: (Note: No request involving Classified information will be considered.)

This Application Represents:

a. New Request

b. Resubmission

Prior CJ Case Number: _____

Returned Without Action (RWA)

Reconsideration (Include Prior CJ Determination Case Number)

Summarize Reason for Resubmission (limited to 1200 characters)

Related to Compliance Matter (limited to 1200 characters)

Yes No

If yes, provide disclosure and/or case number (if available) and details to include U.S. Government Point of Contact. If status changes advise DDTC.

DTCC Case 13-0001444. This CJ is submitted at the request of DTCC/END in its letter to Defense Distributed dated May 8, 2013. The DTCC/END Compliance Specialist is assigned to this matter is Ms. Bridget Van Buren.

C. Commodity Description

4. Select Commodity Type: (Select all that apply) (22 C.F.R. 120.9, 120.10 and 121.8)

End Item

Component/Major

Component/Minor

Part

Accessory/Attachment

Software

Firmware

Services

System

Information or Technical Data

5. Commodity/Service Information: (Note: Complete all that apply and if not applicable, enter "N/A.")

a. Product Name: Liberator Pistol Data Files

b. Model/Version Number: N/A

c. Part Number: N/A

d. National Stock Number: N/A

e. Other Identifier: (If applicable) N/A

f. Manufacturer: Defense Distributed

g. Service: N/A

h. Generic Description: Data files for single shot .380 caliber firearm

i. Manufacturer's Website: www.defdist.org

j. Commodity/Service Website: http://defcad.com/liberator/

Note: Only one commodity may be entered; variants require separate submission. However, variants of a commodity or a family of commodities closely related, that is, major characteristics and descriptive information of the commodity are essentially the same and would be included in the same U.S. Munitions List category and subcategory may be considered.

6. Additional Commodity Information/Documentation:
 (Brochures, Technical Information, Drawings, Schematics, Blue Prints, Course Syllabus/Handouts, Training Materials.) Attach product datasheet or other technical information such that an informed technical evaluation is possible.) Note: cost in U.S. Dollars. If unit is not listed in drop down list, e.g. service or training, enter the commodity.

a. Cost Per Unit: \$0.00 _____ Copies _____

b. Documentation Attached:

c. Patent Information: n/a

7. Commodity/Service Description: *(limited to 1200 characters)*
 Brief summary of commodity or service (e.g. component used in aircraft communication system). Describe the product's use (what it does, how it operates, the components/system in which it is used and all current uses). Specify if commodity/service is controlled or restricted for public release by U.S. Government.

The files for the Liberator Pistol include sixteen STL files for the various parts and components of the pistol, two "read me" text files that explain how to lawfully assemble the pistol, a diagram of a pistol, and a permissive software license. If printed on a 3D printer, the parts could be assembled into a single shot .380 caliber firearm.

8. Identify any special and/or unique characteristics/capabilities: (Mark all boxes that apply and provide explanation/description)

a. Designed to military or intelligence standards or specifications.

b. Designed for military application.

c. Special characteristics (e.g. radiation-hardening, ballistic protection, hard points, TEMPEST capability, thermal or infrared signature reduction capability, surveillance or intelligence gathering capability).

d. Commercial item modified for military application, provide nomenclature and model number to differentiate from commercial item.

e. Commercial item modified for military application, state specific distinct difference between original commercial item and modified item.

f. Services (provide comparable information as that which provided above and by marking this box, indicate it is for services versus hardware).

Explanation/Description (If the product is included in a higher assembly or end item, identify each higher assembly or end item that incorporates the product and its use. Identify all military applications and military capabilities of the product, and any equivalent products used for military application.) Summarize technical details of special characteristics (e.g. if image intensification tubes, provide level of technology, such as Gen II, Gen III, etc.). *(limited to 600 characters)*

N/A

D. Product Origin

9. Military/Commercial Modification of Commodity:

a. Was this commodity originally specifically designed or developed for a military use?
 Yes No

b. Was this commodity originally civil and subsequently adapted, configured or modified for a military use?
 Yes No

c. Was this commodity originally military and subsequently adapted, reconfigured or modified for commercial use?
 Yes No

d. Specifically define the modifications/changes and capabilities added to the commodity. List any differences in form, fit and/or function between the modified and unmodified versions: *(limited to 600 characters)*

N/A

Supporting Documentation Attached

10. Status of Product Development: (Mark the status of the product and provide an explanation/description)

a. In Development

b. In Use

Explanation/Description *(limited to 4000 characters)*

These files have been used to produce the parts for the Liberator and the Liberator has been assembled and tested.

Supporting Documentation Attached

11. Funding History: (Check all that apply)
 Include funding source contract or subcontract number and supporting documentation.

a. USG Agency

b. Foreign Government Agency

c. U.S. or Foreign Contractor

d. Self Funded

e. University Funded

Explanation/Description *(limited to 600 characters)*

Defense Distributed received no funding from any outside source for the creation of the file.

Supporting Documentation Attached

12. U.S. and/or Foreign Availability of Identical Products: (Enter Foreign Export Controls, if known)

None

Manufacturer: John Simms

Commodity: online library of downloadable, printable books, blueprints, manuals and more concerning firearms, weaponry and combat topics

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://www.weaponscombat.com/zip-pipe-and-pen-guns

Manufacturer: Roderus Productions, LLC

Commodity: How-To information for the home/hobby gunsmith and enthusiast.

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://www.homegunsmith.com/

Manufacturer: E. Martillo

Commodity: Pen Gun MK1 Blueprint

Model #: NA In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://www.scribd.com/doc/24445441/Pen-Gun-Mk1-Blueprint

Manufacturer: Gun Doctor

Commodity: 1911 Frame blueprint

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://www.weaponeer.net/forum/forum_posts.asp?TID=6933

Manufacturer: Infinite Arms, Inc.

Commodity: Silenced .22 Pistol Blueprint

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://www.infinitearms.com/images2/v/manuals/Misc+Gun+Plans

Explanation/Description (limited to 600 characters)

These are examples of public domain gun blueprints and information regarding home gunsmithing. Additional information is available in the attached letter.

Supporting Documentation Attached

E. Sales Information

13. Sales Information: (Select One) (See Block 13 Template)
 Military and commercial sales data must be provided, as well as listing of the military and commercial customers. The information pertains specifically to the commodity/service in Block 8. Complete the attachment, if applicable. (Note: Submit one single file up to 35MB with sales information. Do not separate the sales information into multiple smaller files.)

Sales Information Attachment (Template "Block 13 Sales Information") Attached

No Sales

F. Miscellaneous Information

14. Has this Commodity been: (limited to 100 characters)

a. Has this Commodity been Previously Exported Yes No Unknown
 If yes, cite U.S. Government licensing jurisdiction and provide license number, if applicable.
Posted to the internet as public domain information.

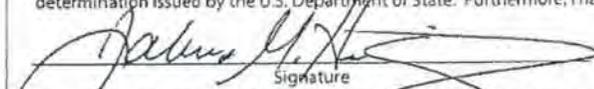
b. Has this Commodity been the subject of a Prior CJ? Yes No Unknown
 If yes, Cite CJ Number.
 (Applicant should list any prior CJ even if not submitted by them, e.g., submitted by Original Equipment Manufacturer (OEM), by the U.S. Government or by a third party.)

c. Has this Commodity been subject to a Department of Commerce Classification Request? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	
If yes, cite U.S. Government licensing jurisdiction and if under Department of Commerce, attach a copy with Export Control Classification Number (ECCN).	
<input type="text"/>	
d. Has this Commodity been Exported under a Foreign Military Sale (FMS) case? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	
If yes, cite Foreign Military Sale (FMS) case number.	
<input type="text"/>	
15. Description of the commodity and final DDTC action will be posted on the DDTC website for public access based on the information provided in Block 5 and any other descriptive information provided below. If you believe that any information contained in Block 5 is proprietary, please specifically identify the information below and provide summarized rationale for DDTC to consider withholding the information from public notice: (Limited to 600 characters. Additional justification may be provided as an attachment.)	
<input type="text"/>	
N/A	
16. Reason for Submitting CJ: (limited to 600 characters)	
<input type="text"/>	
Per request of DTCC/END, Case No. 13-0001444.	
17. Suggested U.S. Munitions List or Commerce Control List Number:	
a. U.S. Munitions List (22 C.F.R. 121) Category/Sub Category	
<input type="text"/>	
N/A	
b. Export Administration Regulations (15 C.F.R. 730-774), Export Control Classification Number	
<input type="text"/>	
N/A	
18. Other Miscellaneous Information to be Considered that is not Otherwise Included in this Form: (e.g. U.S. Government Agency and point of contact information.) (limited to 300 characters)	
<input type="text"/>	
<input checked="" type="checkbox"/> Supporting Documentation Attached	

G. Applicant/Submitter's Certification

19. Applicant/Submitter's Certification: Note: ONLY this one page must be printed, signed, and scanned as an attachment.
Under Penalty According to Federal Law (See 22 CFR 127, 22 U.S.C. 2778, and 22 U.S.C. 1001).

I am the authorized employee of the company cited in Block 1, or a third party as described in Block 2 authorized to submit on behalf of the company in Block 4, and certify as to the accuracy and completeness of the information provided and have not knowingly omitted information that could have an impact on the final determination issued by the U.S. Department of State. Furthermore, I have specific authority to release for publication the text contained in Block 5.

 Signature Jahna M. Hartwig Printed Name 06/21/2013 Date

By checking this box, Applicant authorizes DDTC to email the Commodity Jurisdiction determination as well as any other information associated with this case. **The Commodity Jurisdiction determination will be mailed to the address below if box is not checked.**

Name: Jahna M. Hartwig

Title: Partner

Company: Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington State: DC Zip Code: 20006

Phone #: 202-293-8145 Email: jhartwig@williamsmullen.com

Electronic Form Version Number: 1.2
 For DDTC Use Only
 CJ Number: _____

OMB APPROVAL NO. 1405-0163
 EXPIRATION DATE: 01/31/2013
 *ESTIMATED BURDEN: 10 Hours

U.S. Department of State

DS-4076 Commodity Jurisdiction (CJ) Determination Form

*PAPERWORK REDUCTION ACT STATEMENT: Public reporting burden for this collection of information is estimated to average 10 hours per response, including time required for searching existing data sources, gathering the necessary data, providing the information required, and reviewing the final collection. Send comments on the accuracy of this estimate of the burden and recommendations for reducing it to: Department of State (A/GIS/DIR) Washington, D.C. 20520.

A. Applicant Information

1. Applicant's Information: (Select all that apply)

Applicant is: Government Manufacturer Exporter Manufacturer's Representative Other

Applicant Name: (Company, Organization) Defense Distributed

Address: 711 W. 32nd Street, Apt. 115

City: Austin State: TX Zip Code: 78705

Phone #: 501-743-9680 PM/DDTC Registrant Code: _____ (If applicable)

Add Item

Remove Item

Name: (Point of Contact) Cody R. Wilson

Phone #: 501-743-9680 Fax #: _____ Email: crw@defdist.org

2. Submitter Information if other than Applicant in Block 1: (Complete if applicable)

Submitter Name: (Company, Organization) Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington State: DC Zip Code: 20006

Phone #: 202-293-8145 PM/DDTC Registrant Code: _____ (If applicable)

Add Item

Remove Item

Name: (Point of Contact) Jahna M. Hartwig

Phone #: 202-293-8145 Fax #: _____ Email: jhartwig@williamsmullen.com

Attachment: Authorization from Applicant to Submitter authorizing submitter to file on its behalf and to release information in Block 5.

B. Transaction Description and Compliance Information

3. Transaction Description: (Note: No request involving Classified information will be considered.)

This Application Represents:

a. New Request

b. Resubmission

Prior CJ Case Number: _____

Returned Without Action (RWA)

Reconsideration (Include Prior CJ Determination Case Number)

Summarize Reason for Resubmission (limited to 1200 characters)

Related to Compliance Matter (limited to 1200 characters) Yes No

If yes, provide disclosure and/or case number (if available) and details to include U.S. Government Point of Contact. If status changes advise DDTC.

DTCC Case 13-0001444. This CJ is submitted at the request of DTCC/END in its letter to Defense Distributed dated May 8, 2013. The DTCC/END Compliance Specialist is assigned to this matter is Ms. Bridget Van Buren.

C. Commodity Description

4. Select Commodity Type: (Select all that apply) (22 C.F.R. 120.9, 120.10 and 121.8)

End Item

Component/Major

Component/Minor

Part

Accessory/Attachment

Software

Firmware

Services

System

Information or Technical Data

5. Commodity/Service Information: (Note: Complete all that apply and if not applicable, enter "N/A".)

a. Product Name: .22 Electric Data Files

b. Model/Version Number: N/A

c. Part Number: N/A

d. National Stock Number: N/A

e. Other Identifier: (if applicable) N/A

f. Manufacturer: Proteus

g. Service: N/A

h. Generic Description: STL data files for plastic model of barrel and grip pieces for .22 electric firearm

i. Manufacturer's Website: www.defdist.org

j. Commodity/Service Website: http://defcad.com/capacitor-22-firearm/

Note: Only one commodity may be entered; variants require separate submission. However, variants of a commodity or a family of commodities closely related, that is, major characteristics and descriptive information of the commodity are essentially the same and would be included in the same U.S. Munitions List category and subcategory may be considered.

6. Additional Commodity Information/Documentation:
 (Brochures, Technical Information, Drawings, Schematics, Blue Prints, Course Syllabus/Handouts, Training Materials.) Attach product datasheet or other technical information such that an informed technical evaluation is possible.) Note: cost in U.S. Dollars. If unit is not listed in drop down list, e.g. service or training, enter the commodity.

a. Cost Per Unit: 50.00 Copies

b. Documentation Attached:

c. Patent Information: n/a

7. Commodity/Service Description: (limited to 1200 characters)
 Brief summary of commodity or service (e.g. component used in aircraft communication system). Describe the product's use (what it does, how it operates, the components/system in which it is used and all current uses). Specify if commodity/service is controlled or restricted for public release by U.S. Government.

The files are two stereolithography CAD files that are models of a barrel and grip for a .22 caliber pistol. If printed, the barrel would be a plastic cylinder with a .22 mm bore and the grip would be a plastic piece with two 5mm diameter holes. If those pieces were printed in plastic and used with an electronic system and firing mechanism, the barrel would be expected to fail upon firing.

8. Identify any special and/or unique characteristics/capabilities: (Mark all boxes that apply and provide explanation/description)

a. Designed to military or intelligence standards or specifications.

b. Designed for military application.

c. Special characteristics (e.g. radiation-hardening, ballistic protection, hard points, TEMPEST capability, thermal or infrared signature reduction capability, surveillance or intelligence gathering capability).

d. Commercial item modified for military application, provide nomenclature and model number to differentiate from commercial item.

e. Commercial item modified for military application, state specific distinct difference between original commercial item and modified item.

f. Services (provide comparable information as that which provided above and by marking this box, indicate it is for services versus hardware).

Explanation/Description (If the product is included in a higher assembly or end item, identify each higher assembly or end item that incorporates the product and its use. Identify all military applications and military capabilities of the product, and any equivalent products used for military application.) Summarize technical details of special characteristics (e.g. if image intensification tubes, provide level of technology, such as Gen II, Gen III, etc.). (limited to 600 characters)

N/A

D. Product Origin

9. Military/Commercial Modification of Commodity:

a. Was this commodity originally specifically designed or developed for a military use?
 Yes No

b. Was this commodity originally civil and subsequently adapted, configured or modified for a military use?
 Yes No

c. Was this commodity originally military and subsequently adapted, reconfigured or modified for commercial use?
 Yes No

d. Specifically define the modifications/changes and capabilities added to the commodity. List any differences in form, fit and/or function between the modified and unmodified versions: (limited to 600 characters)

N/A

Supporting Documentation Attached

10. Status of Product Development: (Mark the status of the product and provide an explanation/description)

a. In Development

b. In Use

Explanation/Description (limited to 4000 characters)

To the best of Defense Distributed's knowledge, this file is conceptual in nature and has not been used to produce the plastic models of the barrel or grip.

Supporting Documentation Attached

11. Funding History: (Check all that apply)
 Include funding source contract or subcontract number and supporting documentation.

a. USG Agency

b. Foreign Government Agency

c. U.S. or Foreign Contractor

d. Self Funded

e. University Funded

Explanation/Description (limited to 600 characters)

To the best of Defense Distributed's knowledge, Proteus received no funding from any outside source for the creation of the file.

Supporting Documentation Attached

12. U.S. and/or Foreign Availability of Identical Products: (Enter Foreign Export Controls, if known)

None

Manufacturer: Allan Howard

Commodity: Ruger kmkiii6 stainless steel .22 automatic pistol with 6" barrel CAD Files

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://grabcad.com/library/ruger-kmkiii6-stainless-steel-22-automatic-pistol-with-6-barrel

Manufacturer: Tom Prex

Commodity: .22lr Pistol CAD Files

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://grabcad.com/library/22lr-pistol

Manufacturer: Fred Works

Commodity: Browning Buck Mark Threaded Barrel

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://grabcad.com/library/browning-buck-mark-threaded-barrel

Explanation/Description (limited to 600 characters)

These CAD files are for models of a complete .22 pistol, including the barrel and grip, as well as other components.

Supporting Documentation Attached

E. Sales Information

13. Sales Information: (Select One) (See Block 13 Template)

Military and commercial sales data must be provided, as well as listing of the military and commercial customers. The information pertains specifically to the commodity/service in Block 8. Complete the attachment, if applicable. (Note: Submit one single file up to 35MB with sales information. Do not separate the sales information into multiple smaller files.)

Sales Information Attachment (Template "Block 13 Sales Information") Attached

No Sales

F. Miscellaneous Information

14. Has this Commodity been: (limited to 100 characters)

a. Has this Commodity been Previously Exported Yes No Unknown

If yes, cite U.S. Government licensing jurisdiction and provide license number, if applicable.

Posted to the internet as public domain information.

b. Has this Commodity been the subject of a Prior CJ? Yes No Unknown

If yes, Cite CJ Number.

(Applicant should list any prior CJ even if not submitted by them, e.g., submitted by Original Equipment Manufacturer (OEM), by the U.S. Government or by a third party.)

c. Has this Commodity been subject to a Department of Commerce Classification Request? Yes No Unknown

If yes, cite U.S. Government licensing jurisdiction and if under Department of Commerce, attach a copy with Export Control Classification Number (ECCN).

d. Has this Commodity been Exported under a Foreign Military Sale (FMS) case? Yes No Unknown

If yes, cite Foreign Military Sale (FMS) case number.

15. Description of the commodity and final DDTC action will be posted on the DDTC website for public access based on the information provided in Block 5 and any other descriptive information provided below. If you believe that any information contained in Block 5 is proprietary, please specifically identify the information below and provide summarized rationale for DDTC to consider withholding the information from public notice: (Limited to 600 characters. Additional justification may be provided as an attachment.)

N/A

16. Reason for Submitting CJ: (limited to 600 characters)

Per request of DTCC/END, Case No. 13-0001444.

17. Suggested U.S. Munitions List or Commerce Control List Number:

a. U.S. Munitions List (22 C.F.R. 121) Category/Sub Category

N/A

b. Export Administration Regulations (15 C.F.R. 730-774), Export Control Classification Number

N/A

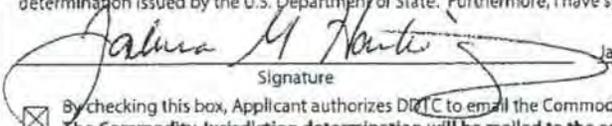
18. Other Miscellaneous Information to be Considered that is not Otherwise Included in this Form: (e.g. U.S. Government Agency and point of contact information.)
(limited to 300 characters)

Supporting Documentation Attached

G. Applicant/Submitter's Certification

19. Applicant/Submitter's Certification: Note: ONLY this one page must be printed, signed, and scanned as an attachment. Under Penalty According to Federal Law (See 22 CFR 127, 22 U.S.C. 2778, and 22 U.S.C. 1001).

I am the authorized employee of the company cited in Block 1, or a third party as described in Block 2 authorized to submit on behalf of the company in Block 4, and certify as to the accuracy and completeness of the information provided and have not knowingly omitted information that could have an impact on the final determination issued by the U.S. Department of State. Furthermore, I have specific authority to release for publication the text contained in Block 5.



Signature

Jahna M. Hartwig

Printed Name

06/21/2013

Date

By checking this box, Applicant authorizes DITC to email the Commodity Jurisdiction determination as well as any other information associated with this case. **The Commodity Jurisdiction determination will be mailed to the address below if box is not checked.**

Name: Jahna M. Hartwig

Title: Partner

Company: Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington

State: DC

Zip Code: 20006

Phone #: 202-293-8145

Email: jhartwig@williamsmullen.com

U.S. Department of State
DS-4076 Commodity Jurisdiction (CJ) Determination Form

*PAPERWORK REDUCTION ACT STATEMENT: Public reporting burden for this collection of information is estimated to average 10 hours per response, including time required for searching existing data sources, gathering the necessary data, providing the information required, and reviewing the final collection. Send comments on the accuracy of this estimate of the burden and recommendations for reducing it to: Department of State (V/GIS/DIR) Washington, D.C. 20520.

A. Applicant Information

1. Applicant's Information: (Select all that apply)

Applicant is: Government Manufacturer Exporter Manufacturer's Representative Other

Applicant Name: (Company, Organization) Defense Distributed

Address: 711 W. 32nd Street, Apt. 115

City: Austin

State: TX

Zip Code: 78705

Phone #: 501-743-9680

PM/DDTC Registrant Code: _____

(If applicable)

Add Item

Remove Item

Name: (Point of Contact) Cody R. Wilson

Phone #: 501-743-9680

Fax #: _____

Email: crw@defdist.org

2. Submitter Information if other than Applicant in Block 1: (Complete if applicable)

Submitter Name: (Company, Organization) Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington

State: DC

Zip Code: 20006

Phone #: 202-293-8145

PM/DDTC Registrant Code: _____

(If applicable)

Add Item

Remove Item

Name: (Point of Contact) Jahna M. Hartwig

Phone #: 202-293-8145

Fax #: _____

Email: jhartwig@williamsmullen.com

Attachment: Authorization from Applicant to Submitter authorizing submitter to file on its behalf and to release information in Block 5.

B. Transaction Description and Compliance Information

3. Transaction Description: (Note: No request involving Classified information will be considered.)

This Application Represents:

a. New Request

b. Resubmission

Prior CJ Case Number: _____

Returned Without Action (RWA)

Reconsideration (Include Prior CJ Determination Case Number)

Summarize Reason for Resubmission (limited to 1200 characters)

Related to Compliance Matter (limited to 1200 characters)

Yes No

If yes, provide disclosure and/or case number (if available) and details to include U.S. Government Point of Contact. If status changes advise DDTC.

DTCC Case 13-0001444. This CJ is submitted at the request of DTCC/END in its letter to Defense Distributed dated May 8, 2013. The DTCC/END Compliance Specialist is assigned to this matter is Ms. Bridget Van Buren.

C. Commodity Description

4. Select Commodity Type: (Select all that apply) (22 C.F.R. 120.9, 120.10 and 121.6)

End Item

Component/Major

Component/Minor

Part

Accessory/Attachment

Software

Firmware

Services

System

Information or Technical Data

5. Commodity/Service Information: (Note: Complete all that apply and if not applicable, enter "N/A")

a. Product Name: 125 mm BK-14M high explosive anti-tank warhead model Data File

b. Model/Version Number: N/A

c. Part Number: N/A

d. National Stock Number: N/A

e. Other Identifier: (If applicable) N/A

f. Manufacturer: Proteus

g. Service: N/A

h. Generic Description: STL data file for a plastic model of a 125mm BK-14M high explosive anti-tank warhead

i. Manufacturer's Website: www.defdist.org

j. Commodity/Service Website: http://defcad.com/125mm-heat/

Note: Only one commodity may be entered; variants require separate submission. However, variants of a commodity or a family of commodities closely related, that is, major characteristics and descriptive information of the commodity are essentially the same and would be included in the same U.S. Munitions List category and subcategory may be considered.

6. Additional Commodity Information/Documentation:
 (Brochures, Technical Information, Drawings, Schematics, Blue Prints, Course Syllabus/Handouts, Training Materials.) Attach product datasheet or other technical information such that an informed technical evaluation is possible.) Note: cost in U.S. Dollars. If unit is not listed in drop down list, e.g. service or training, enter the commodity.

a. Cost Per Unit: \$0.00 Copies

b. Documentation Attached:

c. Patent Information: n/a

7. Commodity/Service Description: (limited to 1200 characters)
 Brief summary of commodity or service (e.g. component used in aircraft communication system). Describe the product's use (what it does, how it operates, the components/system in which it is used and all current uses). Specify if commodity/service is controlled or restricted for public release by U.S. Government.

The file is a STL CAD files for a model of a BK-14M high explosive anti-tank warhead without fins. The model, if printed on a 3D printer, would be a solid piece of plastic in the shape of the warhead, but would not be capable functioning as a warhead.

8. Identify any special and/or unique characteristics/capabilities: (Mark all boxes that apply and provide explanation/description)

a. Designed to military or intelligence standards or specifications.

b. Designed for military application.

c. Special characteristics (e.g. radiation-hardening, ballistic protection, hard points, TEMPEST capability, thermal or infrared signature reduction capability, surveillance or intelligence gathering capability).

d. Commercial item modified for military application, provide nomenclature and model number to differentiate from commercial item.

e. Commercial item modified for military application, state specific distinct difference between original commercial item and modified item.

f. Services (provide comparable information as that which provided above and by marking this box, indicate it is for services versus hardware).

Explanation/Description (If the product is included in a higher assembly or end item, identify each higher assembly or end item that incorporates the product and its use. Identify all military applications and military capabilities of the product, and any equivalent products used for military application.) Summarize technical details of special characteristics (e.g. if image intensification tubes, provide level of technology, such as Gen II, Gen III, etc.). (limited to 600 characters)

N/A

D. Product Origin

9. Military/Commercial Modification of Commodity:

a. Was this commodity originally specifically designed or developed for a military use?
 Yes No

b. Was this commodity originally civil and subsequently adapted, configured or modified for a military use?
 Yes No

c. Was this commodity originally military and subsequently adapted, reconfigured or modified for commercial use?
 Yes No

d. Specifically define the modifications/changes and capabilities added to the commodity. List any differences in form, fit and/or function between the modified and unmodified versions: (limited to 600 characters)

N/A

Supporting Documentation Attached

10. Status of Product Development: (Mark the status of the product and provide an explanation/description)

a. In Development

b. In Use

Explanation/Description (limited to 4000 characters)

To the best of Defense Distributed's knowledge, this file is conceptual in nature and has not been used to produce the plastic model of the warhead.

Supporting Documentation Attached

11. Funding History: (Check all that apply)
 Include funding source contract or subcontract number and supporting documentation.

a. USG Agency

b. Foreign Government Agency

c. U.S. or Foreign Contractor

d. Self Funded

e. University Funded

Explanation/Description (limited to 600 characters)

To the best of Defense Distributed's knowledge, Proteus received no funding from any outside source for the creation of the file.

Supporting Documentation Attached

12. U.S. and/or Foreign Availability of Identical Products: (Enter Foreign Export Controls, if known)

None Add Item

Remove Item

Manufacturer: Wikipedia

Commodity: Data File for 125mm BK-14m HEAT Round

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://en.wikipedia.org/wiki/File:125mm_BK-14m_HEAT.JPG

Explanation/Description (limited to 600 characters)

This data file contains a drawing with the dimensions for the 125mm BK14M HEAT Round along with a picture of the round.

Supporting Documentation Attached

E. Sales Information

13. Sales Information: (Select One) (See Block 13 Template)

Military and commercial sales data must be provided, as well as listing of the military and commercial customers. The information pertains specifically to the commodity/service in Block 8. Complete the attachment, if applicable. (Note: Submit one single file up to 35MB with sales information. Do not separate the sales information into multiple smaller files.)

Sales Information Attachment (Template "Block 13 Sales Information") Attached

No Sales

F. Miscellaneous Information

14. Has this Commodity been: (limited to 100 characters)

a. Has this Commodity been Previously Exported Yes No Unknown

If yes, cite U.S. Government Licensing jurisdiction and provide license number, if applicable.

Posted to the internet as public domain information.

b. Has this Commodity been the subject of a Prior CJ? Yes No Unknown

If yes, Cite CJ Number.

(Applicant should list any prior CJ even if not submitted by them, e.g., submitted by Original Equipment Manufacturer (OEM), by the U.S. Government or by a third party.)

c. Has this Commodity been subject to a Department of Commerce Classification Request? Yes No Unknown

If yes, cite U.S. Government licensing jurisdiction and if under Department of Commerce, attach a copy with Export Control Classification Number (ECCN).

d. Has this Commodity been Exported under a Foreign Military Sale (FMS) case? Yes No Unknown

If yes, cite Foreign Military Sale (FMS) case number.

15. Description of the commodity and final DDTC action will be posted on the DDTC website for public access based on the information provided in Block 5 and any other descriptive information provided below. If you believe that any information contained in Block 5 is proprietary, please specifically identify the information below and provide summarized rationale for DDTC to consider withholding the information from public notice: (Limited to 600 characters. Additional justification may be provided as an attachment.)

N/A

16. Reason for Submitting CJ: (limited to 600 characters)

Per request of DTCC/END, Case No. 13-0001444.

17. Suggested U.S. Munitions List or Commerce Control List Number:

a. U.S. Munitions List (22 C.F.R. 121) Category/Sub Category

N/A

b. Export Administration Regulations (15 C.F.R. 730-774), Export Control Classification Number

N/A

18. Other Miscellaneous Information to be Considered that is not Otherwise Included in this Form: (e.g. U.S. Government Agency and point of contact information.) (limited to 300 characters)

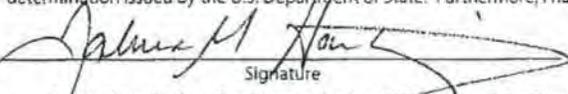
Supporting Documentation Attached

G. Applicant/Submitter's Certification

19. Applicant/Submitter's Certification: Note: ONLY this one page must be printed, signed, and scanned as an attachment.

Under Penalty According to Federal Law (See 22 CFR 127, 22 U.S.C. 2778, and 22 U.S.C. 1001).

I am the authorized employee of the company cited in Block 1, or a third party as described in Block 2 authorized to submit on behalf of the company in Block 4, and certify as to the accuracy and completeness of the information provided and have not knowingly omitted information that could have an impact on the final determination issued by the U.S. Department of State. Furthermore, I have specific authority to release for publication the text contained in Block 5.


Signature

Jahna M. Hartwig

Printed Name

06/21/2013

Date



By checking this box, Applicant authorizes DDTC to email the Commodity Jurisdiction determination as well as any other information associated with this case. **The Commodity Jurisdiction determination will be mailed to the address below if box is not checked.**

Name: Jahna M. Hartwig

Title: Partner

Company: Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington

State: DC

Zip Code: 20006

Phone #: 202-293-8145

Email: jhartwig@williamsmullen.com

Electronic Form Version Number: 1.2
 For DDTC Use Only
 CJ Number: _____

OMB APPROVAL NO. 1405-0163
 EXPIRATION DATE: 01/31/2013
 *ESTIMATED BURDEN: 10 Hours

U.S. Department of State

DS-4076 Commodity Jurisdiction (CJ) Determination Form

*PAPERWORK REDUCTION ACT STATEMENT: Public reporting burden for this collection of information is estimated to average 10 hours per response, including time required for searching existing data sources, gathering the necessary data, providing the information required, and reviewing the final collection. Send comments on the accuracy of this estimate of the burden and recommendations for reducing it to: Department of State (A/GIS/DIR) Washington, D.C. 20520.

A. Applicant Information

1. Applicant's Information: (Select all that apply)

Applicant is: Government Manufacturer Exporter Manufacturer's Representative Other

Applicant Name: (Company, Organization) Defense Distributed

Address: 711 W. 32nd Street, Apt. 115

City: Austin State: TX Zip Code: 78705
 Phone #: 501-743-9680 PM/DDTC Registrant Code: _____ (If applicable)

Add Item

Remove Item

Name: (Point of Contact) Cody R. Wilson

Phone #: 501-743-9680 Fax #: _____ Email: crw@defdist.org

2. Submitter Information if other than Applicant in Block 1: (Complete if applicable)

Submitter Name: (Company, Organization) Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington State: DC Zip Code: 20006
 Phone #: 202-293-8145 PM/DDTC Registrant Code: _____ (If applicable)

Add Item

Remove Item

Name: (Point of Contact) Jahna M. Hartwig

Phone #: 202-293-8145 Fax #: _____ Email: jhartwig@williamsmullen.com

Attachment: Authorization from Applicant to Submitter authorizing submitter to file on its behalf and to release information in Block 5.

B. Transaction Description and Compliance Information

3. Transaction Description: (Note: No request involving Classified information will be considered.)

This Application Represents:

- a. New Request
- b. Resubmission

Prior CJ Case Number: _____

- Returned Without Action (RWA)
- Reconsideration (Include Prior CJ Determination Case Number)

Summarize Reason for Resubmission (limited to 1200 characters)

Related to Compliance Matter (limited to 1200 characters) Yes No

If yes, provide disclosure and/or case number (if available) and details to include U.S. Government Point of Contact. If status changes advise DDTC. DTCC Case 13-0001444. This CJ is submitted at the request of DTCC/END in its letter to Defense Distributed dated May 8, 2013. The DTCC/END Compliance Specialist is assigned to this matter is Ms. Bridget Van Buren.

C. Commodity Description

4. Select Commodity Type: (Select all that apply) (22 C.F.R. 120.9, 120.10 and 121.8)

- | | | | | |
|-----------------------------------|--|--|---------------------------------|---|
| <input type="checkbox"/> End Item | <input type="checkbox"/> Component/Major | <input type="checkbox"/> Component/Minor | <input type="checkbox"/> Part | <input type="checkbox"/> Accessory/Attachment |
| <input type="checkbox"/> Software | <input type="checkbox"/> Firmware | <input type="checkbox"/> Services | <input type="checkbox"/> System | <input checked="" type="checkbox"/> Information or Technical Data |

5. Commodity/Service Information: (Note: Complete all that apply and if not applicable, enter "N/A".)

- a. Product Name: 5.56/.223 Muzzle Brake Data Files
- b. Model/Version Number: N/A
- c. Part Number: N/A
- d. National Stock Number: N/A
- e. Other Identifier: (If applicable) N/A
- f. Manufacturer: Shane Naughton
- g. Service: N/A
- h. Generic Description: Three CAD data files for a 5.56/.223 muzzle brake

i. Manufacturer's Website: www.defdist.org

j. Commodity/Service Website: http://defcad.com/5-56-223-muzzle-break/

Note: Only one commodity may be entered; variants require separate submission. However, variants of a commodity or a family of commodities closely related, that is, major characteristics and descriptive information of the commodity are essentially the same and would be included in the same U.S. Munitions List category and subcategory may be considered.

6. Additional Commodity Information/Documentation:
 (Brochures, Technical Information, Drawings, Schematics, Blue Prints, Course Syllabus/Handouts, Training Materials.) Attach product datasheet or other technical information such that an informed technical evaluation is possible. Note: cost in U.S. Dollars. If unit is not listed in drop down list, e.g. service or training, enter the commodity.

a. Cost Per Unit: \$0.00 Copies _____

b. Documentation Attached:

c. Patent Information: n/a

7. Commodity/Service Description: (limited to 1200 characters)
 Brief summary of commodity or service (e.g. component used in aircraft communication system). Describe the product's use (what it does, how it operates, the components/system in which it is used and all current uses). Specify if commodity/service is controlled or restricted for public release by U.S. Government.
The data files are three different CAD file formats (.IGS, .SLDPRT, and .STL) for a model of a 5.56/.223 muzzle brake. If printed on a 3D printer, the model would be a plastic piece in the shape of the muzzle brake, but would be expected to fail if used with a weapon.

8. Identify any special and/or unique characteristics/capabilities: (Mark all boxes that apply and provide explanation/description)

a. Designed to military or intelligence standards or specifications.

b. Designed for military application.

c. Special characteristics (e.g. radiation-hardening, ballistic protection, hard points, TEMPEST capability, thermal or infrared signature reduction capability, surveillance or intelligence gathering capability).

d. Commercial item modified for military application, provide nomenclature and model number to differentiate from commercial item.

e. Commercial item modified for military application, state specific distinct difference between original commercial item and modified item.

f. Services (provide comparable information as that which provided above and by marking this box, indicate it is for services versus hardware).

Explanation/Description (If the product is included in a higher assembly or end item, identify each higher assembly or end item that incorporates the product and its use. Identify all military applications and military capabilities of the product, and any equivalent products used for military application.) Summarize technical details of special characteristics (e.g. if image intensification tubes, provide level of technology, such as Gen II, Gen III, etc.). (limited to 600 characters)
N/A

D. Product Origin

9. Military/Commercial Modification of Commodity:

a. Was this commodity originally specifically designed or developed for a military use?
 Yes No

b. Was this commodity originally civil and subsequently adapted, configured or modified for a military use?
 Yes No

c. Was this commodity originally military and subsequently adapted, reconfigured or modified for commercial use?
 Yes No

d. Specifically define the modifications/changes and capabilities added to the commodity. List any differences in form, fit and/or function between the modified and unmodified versions: (limited to 600 characters)
N/A

Supporting Documentation Attached

10. Status of Product Development: (Mark the status of the product and provide an explanation/description)

a. In Development

b. In Use

Explanation/Description (limited to 4000 characters)
To the best of Defense Distributed's knowledge, this file is conceptual in nature and has not been used to produce the plastic model of the muzzle brake.

Supporting Documentation Attached

11. Funding History: (Check all that apply)
 Include funding source contract or subcontract number and supporting documentation.

a. USG Agency

b. Foreign Government Agency

c. U.S. or Foreign Contractor

d. Self Funded

e. University Funded

Explanation/Description (limited to 600 characters)
To the best of Defense Distributed's knowledge, Shane Naughton received no funding from any outside source for the creation of the file.

Supporting Documentation Attached

12. U.S. and/or Foreign Availability of Identical Products: (Enter Foreign Export Controls, if known)

None Add Item

Remove Item

Manufacturer: Reimo Soosaar

Commodity: Muzzle brake for vz.58 CAD file

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://grabcad.com/library/muzzle-brake-for-vz-58

Remove Item

Manufacturer: Sam D.

Commodity: 7.62mm muzzle brake (compensator)

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://grabcad.com/library/7-62mm-muzzle-brake-compensator

Remove Item

Manufacturer: Brett Desilva

Commodity: Mz1 brake

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://grabcad.com/library/mz1-brake

Remove Item

Manufacturer: ToddAho

Commodity: Amd 65/ak 47 muzzle brake

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://grabcad.com/library/amd-65-ak-47-muzzle-brake

Remove Item

Manufacturer: John Reese

Commodity: Barret m82a1

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://grabcad.com/library/barret-m82a1

Remove Item

Manufacturer: John Reese

Commodity: M95 muzzle brake

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://grabcad.com/library/m95-muzzle-brake

Remove Item

Manufacturer: Reimo Soosar

Commodity: Muzzle brake

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://grabcad.com/library/muzzle-brake

Remove Item

Manufacturer: Cody Hulett

Commodity: Mosin nagant m44 muzzle brake

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://grabcad.com/library/mosin-nagant-m44-muzzle-brake

Remove Item

Manufacturer: Robert Ronstad

Commodity: Suppressor 7mm

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://grabcad.com/library/suppressor-7mm

Remove Item

Manufacturer: Justin Riegel

Commodity: 50 cal muzzle brake

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://grabcad.com/library/50-cal-muzzle-brake

Remove Item

Manufacturer: Klaus Falk Hansen (klunk4real)

Commodity: SolidWorks Tutorial: Muzzle Brake

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://solidworks.cad2design.com/videos/196815/SolidWorks+tutorial+Muzzle+brake

Explanation/Description *(limited to 600 characters)*
These CAD files contain drawings for models of various muzzle brakes. Item #13 is a video that explains how to design a muzzle brake using SolidWorks, a CAD design program.

Supporting Documentation Attached

E. Sales Information

13. Sales Information: (Select One) (See Block 13 Template)
 Military and commercial sales data must be provided, as well as listing of the military and commercial customers. The information pertains specifically to the commodity/service in Block 8. Complete the attachment, if applicable. (Note: Submit one single file up to 35MB with sales information. Do not separate the sales information into multiple smaller files.)

Sales Information Attachment (Template "Block 13 Sales Information") Attached

No Sales

F. Miscellaneous Information

14. Has this Commodity been: *(limited to 100 characters)*

a. Has this Commodity been Previously Exported Yes No Unknown
 If yes, cite U.S. Government licensing jurisdiction and provide license number, if applicable.
Posted to the internet as public domain information.

b. Has this Commodity been the subject of a Prior CJ? Yes No Unknown
 If yes, Cite CJ Number.
 (Applicant should list any prior CJ even if not submitted by them, e.g., submitted by Original Equipment Manufacturer (OEM), by the U.S. Government or by a third party.)

c. Has this Commodity been subject to a Department of Commerce Classification Request? Yes No Unknown
 If yes, cite U.S. Government licensing jurisdiction and if under Department of Commerce, attach a copy with Export Control Classification Number (ECCN).

d. Has this Commodity been Exported under a Foreign Military Sale (FMS) case? Yes No Unknown
 If yes, cite Foreign Military Sale (FMS) case number.

15. Description of the commodity and final DDTC action will be posted on the DDTC website for public access based on the information provided in Block 5 and any other descriptive information provided below. If you believe that any information contained in Block 5 is proprietary, please specifically identify the information below and provide summarized rationale for DDTC to consider withholding the information from public notice: *(Limited to 600 characters. Additional justification may be provided as an attachment.)*

N/A

16. Reason for Submitting CJ: *(limited to 600 characters)*

Per request of DTCC/END, Case No. 13-0001444.

17. Suggested U.S. Munitions List or Commerce Control List Number:

a. U.S. Munitions List (22 C.F.R. 121) Category/Sub Category

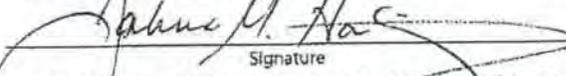
N/A

b. Export Administration Regulations (15 C.F.R. 730-774), Export Control Classification Number
N/A
18. Other Miscellaneous Information to be Considered that is not Otherwise Included in this Form: (e.g. U.S. Government Agency and point of contact information.) <i>(limited to 300 characters)</i>
<input checked="" type="checkbox"/> Supporting Documentation Attached

G. Applicant/Submitter's Certification

19. Applicant/Submitter's Certification: Note: ONLY this one page must be printed, signed, and scanned as an attachment.
Under Penalty According to Federal Law (See 22 CFR 127, 22 U.S.C. 2778, and 22 U.S.C. 1001).

I am the authorized employee of the company cited in Block 1, or a third party as described in Block 2 authorized to submit on behalf of the company in Block 4, and certify as to the accuracy and completeness of the information provided and have not knowingly omitted information that could have an impact on the final determination issued by the U.S. Department of State. Furthermore, I have specific authority to release for publication the text contained in Block 5.

 Signature _____ Jahna M. Hartwig Printed Name _____ 06/21/2013 Date

By checking this box, Applicant authorizes DDTC to email the Commodity Jurisdiction determination as well as any other information associated with this case. The Commodity Jurisdiction determination will be mailed to the address below if box is not checked.

Name: Jahna M. Hartwig
Title: Partner
Company: Williams Mullen PC
Address: 1666 K St., NW, Suite 1200
City: Washington State: DC Zip Code: 20006
Phone #: 202-293-8145 Email: jhartwig@williamsmullen.com

Electronic Form Version Number: 1.2
 For DDTC Use Only
 CJ Number: _____

OMB APPROVAL NO. 1405-0163
 EXPIRATION DATE: 01/31/2013
 *ESTIMATED BURDEN: 10 Hours

U.S. Department of State
DS-4076 Commodity Jurisdiction (CJ) Determination Form

*PAPERWORK REDUCTION ACT STATEMENT: Public reporting burden for this collection of information is estimated to average 10 hours per response, including time required for searching existing data sources, gathering the necessary data, providing the information required, and reviewing the final collection. Send comments on the accuracy of this estimate of the burden and recommendations for reducing it to: Department of State (A/GIS/DIR) Washington, D.C. 20520.

A. Applicant Information

1. Applicant's Information: (Select all that apply)

Applicant is: Government Manufacturer Exporter Manufacturer's Representative Other

Applicant Name: (Company, Organization) Defense Distributed

Address: 711 W. 32nd Street, Apt. 115

City: Austin

State: TX

Zip Code: 78705

Phone #: 501-743-9680

PM/DDTC Registrant Code: _____

(If applicable)

Add Item

Remove Item

Name: (Point of Contact) Cody R. Wilson

Phone #: 501-743-9680

Fax #: _____

Email: crw@defdist.org

2. Submitter Information if other than Applicant in Block 1: (Complete if applicable)

Submitter Name: (Company, Organization) Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington

State: DC

Zip Code: 20006

Phone #: 202-293-8145

PM/DDTC Registrant Code: _____

(If applicable)

Add Item

Remove Item

Name: (Point of Contact) Jahna M. Hartwig

Phone #: 202-293-8145

Fax #: _____

Email: jhartwig@williamsmullen.com

Attachment: Authorization from Applicant to Submitter authorizing submitter to file on its behalf and to release information in Block 5.

B. Transaction Description and Compliance Information

3. Transaction Description: (Note: No request involving Classified information will be considered.)

This Application Represents:

a. New Request

b. Resubmission

Prior CJ Case Number: _____

Returned Without Action (RWA)

Reconsideration (Include Prior CJ Determination Case Number)

Summarize Reason for Resubmission (limited to 1200 characters)

Related to Compliance Matter (limited to 1200 characters)

Yes No

If yes, provide disclosure and/or case number (if available) and details to include U.S. Government Point of Contact. If status changes advise DDTC. DTCC Case 13-0001444. This CJ is submitted at the request of DTCC/END in its letter to Defense Distributed dated May 8, 2013. The DTCC/END Compliance Specialist is assigned to this matter is Ms. Bridget Van Buren.

C. Commodity Description

4. Select Commodity Type: (Select all that apply) (22 C.F.R. 120.9, 120.10 and 121.8)

End Item

Component/Major

Component/Minor

Part

Accessory/Attachment

Software

Firmware

Services

System

Information or Technical Data

5. Commodity/Service Information: (Note: Complete all that apply and if not applicable, enter "N/A")

a. Product Name: Sound Moderator - Slip On Data File

b. Model/Version Number: N/A

c. Part Number: N/A

d. National Stock Number: N/A

e. Other Identifier: (If applicable) N/A

f. Manufacturer: vik

g. Service: N/A

h. Generic Description: STL file for a slip on sound moderator for an airgun

i. Manufacturer's Website: www.defdist.org

j. Commodity/Service Website: http://defcad.com/sound-moderator/

Note: Only one commodity may be entered; variants require separate submission. However, variants of a commodity or a family of commodities closely related, that is, major characteristics and descriptive information of the commodity are essentially the same and would be included in the same U.S. Munitions List category and subcategory may be considered.

6. Additional Commodity Information/Documentation:
 (Brochures, Technical Information, Drawings, Schematics, Blue Prints, Course Syllabus/Handouts, Training Materials.) Attach product datasheet or other technical information such that an informed technical evaluation is possible. Note: cost in U.S. Dollars. If unit is not listed in drop down list, e.g. service or training, enter the commodity.

a. Cost Per Unit: 50.00 Copies

b. Documentation Attached:

c. Patent Information: n/a

7. Commodity/Service Description: (limited to 1200 characters)
 Brief summary of commodity or service (e.g. component used in aircraft communication system). Describe the product's use (what it does, how it operates, the components/system in which it is used and all current uses). Specify if commodity/service is controlled or restricted for public release by U.S. Government.
The file is a stereolithography CAD file for a model of a slip-on sound moderator for an air gun. The model, if printed on a 3D printer, would work with an air gun, but would likely melt if used with a firearm.

8. Identify any special and/or unique characteristics/capabilities: (Mark all boxes that apply and provide explanation/description)

a. Designed to military or intelligence standards or specifications.

b. Designed for military application.

c. Special characteristics (e.g. radiation-hardening, ballistic protection, hard points, TEMPEST capability, thermal or infrared signature reduction capability, surveillance or intelligence gathering capability).

d. Commercial item modified for military application, provide nomenclature and model number to differentiate from commercial item.

e. Commercial item modified for military application, state specific distinct difference between original commercial item and modified item.

f. Services (provide comparable information as that which provided above and by marking this box, indicate it is for services versus hardware).

Explanation/Description (if the product is included in a higher assembly or end item, identify each higher assembly or end item that incorporates the product and its use. Identify all military applications and military capabilities of the product, and any equivalent products used for military application.) Summarize technical details of special characteristics (e.g. if image intensification tubes, provide level of technology, such as Gen II, Gen III, etc.). (limited to 600 characters)
N/A

D. Product Origin

9. Military/Commercial Modification of Commodity:

a. Was this commodity originally specifically designed or developed for a military use?
 Yes No

b. Was this commodity originally civil and subsequently adapted, configured or modified for a military use?
 Yes No

c. Was this commodity originally military and subsequently adapted, reconfigured or modified for commercial use?
 Yes No

d. Specifically define the modifications/changes and capabilities added to the commodity. List any differences in form, fit and/or function between the modified and unmodified versions: (limited to 600 characters)
N/A

Supporting Documentation Attached

10. Status of Product Development: (Mark the status of the product and provide an explanation/description)

a. In Development

b. In Use

Explanation/Description (limited to 4000 characters)
To the best of Defense Distributed's knowledge, this file is conceptual in nature and has not been used to produce the plastic model of the sound moderator.

Supporting Documentation Attached

11. Funding History: (Check all that apply)
 Include funding source contract or subcontract number and supporting documentation.

a. USG Agency

b. Foreign Government Agency

c. U.S. or Foreign Contractor

d. Self Funded

e. University Funded

Explanation/Description (limited to 600 characters)
To the best of Defense Distributed's knowledge, vik received no funding from any outside source for the creation of the file.

Supporting Documentation Attached

12. U.S. and/or Foreign Availability of Identical Products: (Enter Foreign Export Controls, if known)

None Add Item

Remove Item

Manufacturer: Vik

Commodity: Sound Moderator CAD file

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://www.thingiverse.com/thing:6808

Explanation/Description (limited to 600 characters)

This file was published on Thingiverse on March 3, 2011 and is still available on that site.

Supporting Documentation Attached

E. Sales Information

13. Sales Information: (Select One) (See Block 13 Template)
 Military and commercial sales data must be provided, as well as listing of the military and commercial customers. The information pertains specifically to the commodity/service in Block 8. Complete the attachment, if applicable. (Note: Submit one single file up to 35MB with sales information. Do not separate the sales information into multiple smaller files.)

Sales Information Attachment (Template: "Block 13 Sales Information") Attached

No Sales

F. Miscellaneous Information

14. Has this Commodity been: (limited to 100 characters)

a. Has this Commodity been Previously Exported Yes No Unknown
 If yes, cite U.S. Government licensing jurisdiction and provide license number, if applicable.
Posted to the internet as public domain information.

b. Has this Commodity been the subject of a Prior CJ? Yes No Unknown
 If yes, Cite CJ Number.
 (Applicant should list any prior CJ even if not submitted by them, e.g., submitted by Original Equipment Manufacturer (OEM), by the U.S. Government or by a third party.)

c. Has this Commodity been subject to a Department of Commerce Classification Request? Yes No Unknown
 If yes, cite U.S. Government licensing jurisdiction and if under Department of Commerce, attach a copy with Export Control Classification Number (ECCN).

d. Has this Commodity been Exported under a Foreign Military Sale (FMS) case? Yes No Unknown
 If yes, cite Foreign Military Sale (FMS) case number.

15. Description of the commodity and final DDTC action will be posted on the DDTC website for public access based on the information provided in Block 5 and any other descriptive information provided below. If you believe that any information contained in Block 5 is proprietary, please specifically identify the information below and provide summarized rationale for DDTC to consider withholding the information from public notice: (Limited to 600 characters. Additional justification may be provided as an attachment.)

N/A

16. Reason for Submitting CJ: (limited to 600 characters)

Per request of DTCC/END, Case No. 13-0001444.

17. Suggested U.S. Munitions List or Commerce Control List Number:

a. U.S. Munitions List (22 C.F.R. 121) Category/Sub Category
N/A

b. Export Administration Regulations (15 C.F.R. 730-774), Export Control Classification Number
N/A

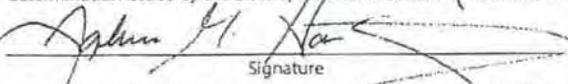
18. Other Miscellaneous Information to be Considered that is not Otherwise Included in this Form: (e.g. U.S. Government Agency and point of contact information.) (limited to 300 characters)

Supporting Documentation Attached

G. Applicant/Submitter's Certification

19. Applicant/Submitter's Certification: Note: ONLY this one page must be printed, signed, and scanned as an attachment. Under Penalty According to Federal Law (See 22 CFR 127, 22 U.S.C. 2778, and 22 U.S.C. 1001).

I am the authorized employee of the company cited in Block 1, or a third party as described in Block 2 authorized to submit on behalf of the company in Block 4, and certify as to the accuracy and completeness of the information provided and have not knowingly omitted information that could have an impact on the final determination issued by the U.S. Department of State. Furthermore, I have specific authority to release for publication the text contained in Block 5.


Jahna M. Hartwig
06/21/2013
Signature
Printed Name
Date

By checking this box, Applicant authorizes DDTC to email the Commodity Jurisdiction determination as well as any other information associated with this case. **The Commodity Jurisdiction determination will be mailed to the address below if box is not checked.**

Name: Jahna M. Hartwig

Title: Partner

Company: Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington State: DC Zip Code: 20006

Phone #: 202-293-8145 Email: jhartwig@williamsmullen.com

Electronic Form Version Number: 1.2
 For DDTC Use Only
 CJ Number: _____

DDTC Application ID: 1405-0163
 EXPIRATION DATE: 01/31/2013
 *ESTIMATED BURDEN: 10 Hours

U.S. Department of State

DS-4076 Commodity Jurisdiction (CJ) Determination Form

*PAPERWORK REDUCTION ACT STATEMENT: Public reporting burden for this collection of information is estimated to average 10 hours per response, including time required for searching existing data sources, gathering the necessary data, providing the information required, and reviewing the final collection. Send comments on the accuracy of this estimate of the burden and recommendations for reducing it to: Department of State (A/GIS/DIR) Washington, D.C. 20520.

A. Applicant Information

1. Applicant's Information: (Select all that apply)

Applicant is: Government Manufacturer Exporter Manufacturer's Representative Other

Applicant Name: (Company, Organization) Defense Distributed

Address: 711 W. 32nd Street, Apt. 115

City: Austin

State: TX

Zip Code: 78705

Phone #: 501-743-9680

PM/DDTC Registrant Code: _____

(If applicable)

Add Item

Remove Item

Name: (Point of Contact) Cody R. Wilson

Phone #: 501-743-9680

Fax #: _____

Email: crw@defdist.org

2. Submitter Information if other than Applicant in Block 1: (Complete if applicable)

Submitter Name: (Company, Organization) Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington

State: DC

Zip Code: 20006

Phone #: 202-293-8145

PM/DDTC Registrant Code: _____

(If applicable)

Add Item

Remove Item

Name: (Point of Contact) Jahna M. Hartwig

Phone #: 202-293-8145

Fax #: _____

Email: jhartwig@williamsmullen.com

Attachment: Authorization from Applicant to Submitter authorizing submitter to file on its behalf and to release information in Block 5.

B. Transaction Description and Compliance Information

3. Transaction Description: (Note: No request involving Classified information will be considered.)

This Application Represents:

a. New Request

b. Resubmission

Prior CJ Case Number: _____

Returned Without Action (RWA)

Reconsideration (Include Prior CJ Determination Case Number)

Summarize Reason for Resubmission (limited to 1200 characters)

Related to Compliance Matter (limited to 1200 characters)

Yes No

If yes, provide disclosure and/or case number (if available) and details to include U.S. Government Point of Contact. If status changes advise DDTC.

DTCC Case 13-0001444. This CJ is submitted at the request of DTCC/END in its letter to Defense Distributed dated May 8, 2013. The DTCC/END Compliance Specialist is assigned to this matter is Ms. Bridget Van Buren.

C. Commodity Description

4. Select Commodity Type: (Select all that apply) (22 C.F.R. 120.9, 120.10 and 121.8)

End Item

Component/Major

Component/Minor

Part

Accessory/Attachment

Software

Firmware

Services

System

Information or Technical Data

5. Commodity/Service Information: (Note: Complete all that apply and if not applicable, enter "N/A")

a. Product Name: 12 Gauge to .22 CB Sub-Caliber Insert Data Files

b. Model/Version Number: N/A

c. Part Number: N/A

d. National Stock Number: N/A

e. Other Identifier: (If applicable) N/A

f. Manufacturer: Pietro

g. Service: N/A

h. Generic Description: SKP CAD file, renderings and text file describing a sub-caliber insert

Supporting Documentation Attached

12. U.S. and/or Foreign Availability of Identical Products: (Enter Foreign Export Controls, if known)

None

Add Item

Remove Item

Manufacturer: _____

Commodity: _____

Model #: _____ In Use/In Development: _____

Foreign Exports Control: _____

Manufacturer's Website: _____

Explanation/Description (limited to 600 characters)

Supporting Documentation Attached

E. Sales Information

13. Sales Information: (Select One) (See Block 13 Template)

Military and commercial sales data must be provided, as well as listing of the military and commercial customers. The information pertains specifically to the commodity/service in Block 8. Complete the attachment, if applicable. (Note: Submit one single file up to 35MB with sales information. Do not separate the sales information into multiple smaller files.)

Sales Information Attachment (Template "Block 13 Sales Information") Attached

No Sales

F. Miscellaneous Information

14. Has this Commodity been: (limited to 100 characters)

a. Has this Commodity been Previously Exported Yes No Unknown

If yes, cite U.S. Government licensing jurisdiction and provide license number, if applicable.

Posted to the internet as public domain information.

b. Has this Commodity been the subject of a Prior CJ? Yes No Unknown

If yes, Cite CJ Number.

(Applicant should list any prior CJ even if not submitted by them, e.g., submitted by Original Equipment Manufacturer (OEM), by the U.S. Government or by a third party.)

c. Has this Commodity been subject to a Department of Commerce Classification Request? Yes No Unknown

If yes, cite U.S. Government licensing jurisdiction and if under Department of Commerce, attach a copy with Export Control Classification Number (ECCN).

d. Has this Commodity been Exported under a Foreign Military Sale (FMS) case? Yes No Unknown

If yes, cite Foreign Military Sale (FMS) case number.

15. Description of the commodity and final DDTC action will be posted on the DDTC website for public access based on the information provided in Block 5 and any other descriptive information provided below. If you believe that any information contained in Block 5 is proprietary, please specifically identify the information below and provide summarized rationale for DDTC to consider withholding the information from public notice: (Limited to 600 characters. Additional justification may be provided as an attachment.)

N/A

16. Reason for Submitting CJ: (limited to 600 characters)

Per request of DTCC/END, Case No. 13-0001444.

17. Suggested U.S. Munitions List or Commerce Control List Number:

a. U.S. Munitions List (22 C.F.R. 121) Category/Sub Category

N/A

b. Export Administration Regulations (15 C.F.R. 730-774), Export Control Classification Number

N/A

18. Other Miscellaneous Information to be Considered that is not Otherwise Included in this Form: (e.g. U.S. Government Agency and point of contact information.) (limited to 300 characters)

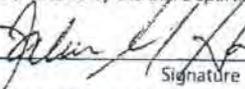
Supporting Documentation Attached

G. Applicant/Submitter's Certification

19. Applicant/Submitter's Certification: Note: ONLY this one page must be printed, signed, and scanned as an attachment.

Under Penalty According to Federal Law (See 22 CFR 127, 22 U.S.C. 2778, and 22 U.S.C. 1001).

I am the authorized employee of the company cited in Block 1, or a third party as described in Block 2 authorized to submit on behalf of the company in Block 4, and certify as to the accuracy and completeness of the information provided and have not knowingly omitted information that could have an impact on the final determination issued by the U.S. Department of State. Furthermore, I have specific authority to release for publication the text contained in Block 5.



Signature

Jahna M. Hartwig

Printed Name

06/21/2013

Date

By checking this box, Applicant authorizes D.C.T.C. to email the Commodity Jurisdiction determination as well as any other information associated with this case. **The Commodity Jurisdiction determination will be mailed to the address below if box is not checked.**

Name: Jahna M. HartwigTitle: PartnerCompany: Williams Mullen PCAddress: 1666 K St., NW, Suite 1200City: WashingtonState: DCZip Code: 20006Phone #: 202-293-8145Email: jhartwig@williamsmullen.com

Electronic Form Version Number: 1.2
 For DDTC Use Only
 CJ Number: _____

OMB APPROVAL NO. 1405-0163
 EXPIRATION DATE: 01/31/2013
 *ESTIMATED BURDEN: 10 Hours

U.S. Department of State

DS-4076 Commodity Jurisdiction (CJ) Determination Form

*PAPERWORK REDUCTION ACT STATEMENT: Public reporting burden for this collection of information is estimated to average 10 hours per response, including time required for searching existing data sources, gathering the necessary data, providing the information required, and reviewing the final collection. Send comments on the accuracy of this estimate of the burden and recommendations for reducing it to: Department of State (A/GIS/DIR) Washington, D.C. 20520.

A. Applicant Information

1. Applicant's Information: (Select all that apply)

Applicant is: Government Manufacturer Exporter Manufacturer's Representative Other

Applicant Name: (Company, Organization) Defense Distributed

Address: 711 W. 32nd Street, Apt. 115

City: Austin

State: TX

Zip Code: 78705

Phone #: 501-743-9680

PM/DDTC Registrant Code: _____

(If applicable)

Add Item

Remove Item

Name: (Point of Contact) Cody R. Wilson

Phone #: 501-743-9680

Fax #: _____

Email: crw@defdist.org

2. Submitter Information if other than Applicant in Block 1: (Complete if applicable)

Submitter Name: (Company, Organization) Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington

State: DC

Zip Code: 20006

Phone #: 202-293-8145

PM/DDTC Registrant Code: _____

(If applicable)

Add Item

Remove Item

Name: (Point of Contact) Jahna M. Hartwig

Phone #: 202-293-8145

Fax #: _____

Email: jhartwig@williamsmullen.com

Attachment: Authorization from Applicant to Submitter authorizing submitter to file on its behalf and to release information in Block 5.

B. Transaction Description and Compliance Information

3. Transaction Description: (Note: No request involving Classified information will be considered.)

This Application Represents:

a. New Request

b. Resubmission

Prior CJ Case Number: _____

Returned Without Action (RWA)

Reconsideration (Include Prior CJ Determination Case Number)

Summarize Reason for Resubmission (limited to 1200 characters)

Related to Compliance Matter (limited to 1200 characters)

Yes No

If yes, provide disclosure and/or case number (if available) and details to include U.S. Government Point of Contact. If status changes advise DDTC.

DTCC Case 13-0001444. This CJ is submitted at the request of DTCC/END in its letter to Defense Distributed dated May 8, 2013. The DTCC/END Compliance Specialist is assigned to this matter is Ms. Bridget Van Buren.

C. Commodity Description

4. Select Commodity Type: (Select all that apply) (22 C.F.R. 120.9, 120.10 and 121.8)

End Item

Component/Major

Component/Minor

Part

Accessory/Attachment

Software

Firmware

Services

System

Information or Technical Data

5. Commodity/Service Information: (Note: Complete all that apply and if not applicable, enter "N/A".)

a. Product Name: "The Dirty Diane" Oil Filter Silencer Adapter Data File

b. Model/Version Number: N/A

c. Part Number: N/A

d. National Stock Number: N/A

e. Other Identifier: (if applicable) N/A

f. Manufacturer: emptythemagazine

g. Service: N/A

h. Generic Description: SolidWorks CAD data file for an oil filter silencer adapter

i. Manufacturer's Website: www.defdist.org

j. Commodity/Service Website: http://defcad.com/the-dirty-diane-12-28-to-34-16-stp-s3600-oil-filter-silencer-adapter/

Note: Only one commodity may be entered; variants require separate submission. However, variants of a commodity or a family of commodities closely related, that is, major characteristics and descriptive information of the commodity are essentially the same and would be included in the same U.S. Munitions List category and subcategory may be considered.

6. Additional Commodity Information/Documentation:
 (Brochures, Technical Information, Drawings, Schematics, Blue Prints, Course Syllabus/Handouts, Training Materials.) Attach product datasheet or other technical information such that an informed technical evaluation is possible.) Note: cost in U.S. Dollars. If unit is not listed in drop down list, e.g. service or training, enter the commodity.

a. Cost Per Unit: \$0.00 Copies

b. Documentation Attached:

c. Patent Information: n/a

7. Commodity/Service Description: (limited to 1200 characters)
 Brief summary of commodity or service (e.g. component used in aircraft communication system). Describe the product's use (what it does, how it operates, the components/system in which it is used and all current uses). Specify if commodity/service is controlled or restricted for public release by U.S. Government.

The file is a Computer Aided Design (CAD) data file in the SolidWorks .SLDPRT file format for a model of an oil filter silencer adapter that is typically produced in stainless steel. If printed on a 3D printer, this item could be used as solvent trap adapter, which is used to catch solvents that are used in the process of cleaning a gun. While a metal solvent trap adapter could be used as a silencer, a plastic adapter would likely melt if used with a weapon as a silencer.

8. Identify any special and/or unique characteristics/capabilities: (Mark all boxes that apply and provide explanation/description)

a. Designed to military or intelligence standards or specifications.

b. Designed for military application.

c. Special characteristics (e.g. radiation-hardening, ballistic protection, hard points, TEMPEST capability, thermal or infrared signature reduction capability, surveillance or intelligence gathering capability).

d. Commercial item modified for military application, provide nomenclature and model number to differentiate from commercial item.

e. Commercial item modified for military application, state specific distinct difference between original commercial item and modified item.

f. Services (provide comparable information as that which provided above and by marking this box, indicate it is for services versus hardware).

Explanation/Description (If the product is included in a higher assembly or end item, identify each higher assembly or end item that incorporates the product and its use. Identify all military applications and military capabilities of the product, and any equivalent products used for military application.) Summarize technical details of special characteristics (e.g. if image intensification tubes, provide level of technology, such as Gen II, Gen III, etc.). (limited to 600 characters)

N/A

D. Product Origin

9. Military/Commercial Modification of Commodity:

a. Was this commodity originally specifically designed or developed for a military use?
 Yes No

b. Was this commodity originally civil and subsequently adapted, configured or modified for a military use?
 Yes No

c. Was this commodity originally military and subsequently adapted, reconfigured or modified for commercial use?
 Yes No

d. Specifically define the modifications/changes and capabilities added to the commodity. List any differences in form, fit and/or function between the modified and unmodified versions: (limited to 600 characters)

N/A

Supporting Documentation Attached

10. Status of Product Development: (Mark the status of the product and provide an explanation/description)

a. In Development

b. In Use

Explanation/Description (limited to 4000 characters)

To the best of Defense Distributed's knowledge, this file is conceptual in nature and has not been used to produce a plastic oil filter silencer adapter.

Supporting Documentation Attached

11. Funding History: (Check all that apply)
 Include funding source contract or subcontract number and supporting documentation.

a. USG Agency

b. Foreign Government Agency

c. U.S. or Foreign Contractor

d. Self Funded

e. University Funded

Explanation/Description (limited to 600 characters)

To the best of Defense Distributed's knowledge, emptythemagazine received no funding from any outside source for the creation of the file.

Supporting Documentation Attached

12. U.S. and/or Foreign Availability of Identical Products: (Enter Foreign Export Controls, if known)

None Add Item

Remove Item

Manufacturer: Infinite Product Solutions

Commodity: Stainless Solvent Trap 1/2-28 3/4-16 Thread Oil Filter Adapter

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://www.infiniteproductsolutions.com/

Remove Item

Manufacturer: Dead Iron Machining

Commodity: 1/2-28 ID X 3/4 - 16 Black Anodized Solvent Trap

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: www.amazon.com/s/ref=bl_sr_automotive?_encoding=UTF8&field-brandtextbin=Dead%20Iron%20Machining&node

Explanation/Description (limited to 600 characters)
 The items included in this section are examples of physical products available in stainless steel, rather than the identical CAD files. Solvent Trap Adapters are available from numerous manufacturers and available as commercial products on many websites, including amazon.com. (see http://www.amazon.com/s/ref=nb_sb_noss_1?url=search-alias%3Dautomotive&field-keywords=solvent+trap+adapter&rh=n%3A15684181%2Ck%3Asolvent+trap+adapter)

Supporting Documentation Attached

E. Sales Information

13. Sales Information: (Select One) (See Block 13 Template)
 Military and commercial sales data must be provided, as well as listing of the military and commercial customers. The information pertains specifically to the commodity/service in Block 8. Complete the attachment, if applicable. (Note: Submit one single file up to 35MB with sales information. Do not separate the sales information into multiple smaller files.)

Sales Information Attachment (Template "Block 13 Sales Information") Attached

No Sales

F. Miscellaneous Information

14. Has this Commodity been: (limited to 100 characters)

a. Has this Commodity been Previously Exported Yes No Unknown
 If yes, cite U.S. Government licensing jurisdiction and provide license number, if applicable.
Posted to the internet as public domain information.

b. Has this Commodity been the subject of a Prior CJ? Yes No Unknown
 If yes, Cite CJ Number.
 (Applicant should list any prior CJ even if not submitted by them, e.g., submitted by Original Equipment Manufacturer (OEM), by the U.S. Government or by a third party.)

c. Has this Commodity been subject to a Department of Commerce Classification Request? Yes No Unknown
 If yes, cite U.S. Government licensing jurisdiction and if under Department of Commerce, attach a copy with Export Control Classification Number (ECCN).

d. Has this Commodity been Exported under a Foreign Military Sale (FMS) case? Yes No Unknown
 If yes, cite Foreign Military Sale (FMS) case number.

15. Description of the commodity and final DDTC action will be posted on the DDTC website for public access based on the information provided in Block 5 and any other descriptive information provided below. If you believe that any information contained in Block 5 is proprietary, please specifically identify the information below and provide summarized rationale for DDTC to consider withholding the information from public notice: (Limited to 600 characters. Additional justification may be provided as an attachment.)
N/A

16. Reason for Submitting CJ: (limited to 600 characters)
Per request of DTCC/END, Case No. 13-0001444.

17. Suggested U.S. Munitions List or Commerce Control List Number:

a. U.S. Munitions List (22 C.F.R. 121) Category/Sub Category
N/A

b. Export Administration Regulations (15 C.F.R. 730-774), Export Control Classification Number
N/A

18. Other Miscellaneous Information to be Considered that is not Otherwise Included in this Form: (e.g. U.S. Government Agency and point of contact information.)
(limited to 300 characters)

Supporting Documentation Attached

Electronic Form Version Number: 1.2
 For DDTC Use Only
 CJ Number: _____

OMB APPROVAL NO. 1405-0163
 EXPIRATION DATE: 01/31/2013
 *ESTIMATED BURDEN: 10 Hours

U.S. Department of State
DS-4076 Commodity Jurisdiction (CJ) Determination Form

*PAPERWORK REDUCTION ACT STATEMENT: Public reporting burden for this collection of information is estimated to average 10 hours per response, including time required for searching existing data sources, gathering the necessary data, providing the information required, and reviewing the final collection. Send comments on the accuracy of this estimate of the burden and recommendations for reducing it to: Department of State (A/GIS/DIR) Washington, D.C. 20520.

A. Applicant Information

1. Applicant's Information: (Select all that apply)

Applicant is: Government Manufacturer Exporter Manufacturer's Representative Other

Applicant Name: (Company, Organization) Defense Distributed

Address: 711 W. 32nd Street, Apt. 115

City: Austin

State: TX

Zip Code: 78705

Phone #: 501-743-9680

PM/DDTC Registrant Code: _____

(If applicable)

Remove Item

Add Item

Name: (Point of Contact) Cody R. Wilson

Phone #: 501-743-9680

Fax #: _____

Email: crw@defdist.org

2. Submitter Information if other than Applicant in Block 1: (Complete if applicable)

Submitter Name: (Company, Organization) Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington

State: DC

Zip Code: 20006

Phone #: 202-293-8145

PM/DDTC Registrant Code: _____

(If applicable)

Remove Item

Add Item

Name: (Point of Contact) Jahna M. Hartwig

Phone #: 202-293-8145

Fax #: _____

Email: jhartwig@williamsmullen.com

Attachment: Authorization from Applicant to Submitter authorizing submitter to file on its behalf and to release information in Block 5.

B. Transaction Description and Compliance Information

3. Transaction Description: (Note: No request involving Classified information will be considered.)

This Application Represents:

a. New Request

b. Resubmission

Prior CJ Case Number: _____

Returned Without Action (RWA)

Reconsideration (Include Prior CJ Determination Case Number)

Summarize Reason for Resubmission (limited to 1200 characters)

Related to Compliance Matter (limited to 1200 characters)

Yes No

If yes, provide disclosure and/or case number (if available) and details to include U.S. Government Point of Contact. If status changes advise DDTC.

DTCC Case 13-0001444. This CJ is submitted at the request of DTCC/END in its letter to Defense Distributed dated May 8, 2013. The DTCC/END Compliance Specialist is assigned to this matter is Ms. Bridget Van Buren.

C. Commodity Description

4. Select Commodity Type: (Select all that apply) (22 C.F.R. 120.9, 120.10 and 121.8)

End Item

Component/Major

Component/Minor

Part

Accessory/Attachment

Software

Firmware

Services

System

Information or Technical Data

5. Commodity/Service Information: (Note: Complete all that apply and if not applicable, enter "N/A".)

a. Product Name: Voltlock Electronic Black Powder System Data Files

b. Model/Version Number: N/A

c. Part Number: N/A

d. National Stock Number: N/A

e. Other Identifier: (If applicable) N/A

f. Manufacturer: Mozi

g. Service: N/A

h. Generic Description: STL and IGS CAD files for models of cylinders of various bores with a touch hole

i. Manufacturer's Website: www.defdist.org
 j. Commodity/Service Website: http://defcad.com/voltlock-black-powder/
 Note: Only one commodity may be entered; variants require separate submission. However, variants of a commodity or a family of commodities closely related, that is, major characteristics and descriptive information of the commodity are essentially the same and would be included in the same U.S. Munitions List category and subcategory may be considered.

6. Additional Commodity Information/Documentation:
 (Brochures, Technical Information, Drawings, Schematics, Blue Prints, Course Syllabus/Handouts, Training Materials.) Attach product datasheet or other technical information such that an informed technical evaluation is possible.) Note: cost in U.S. Dollars. If unit is not listed in drop down list, e.g. service or training, enter the commodity.
 a. Cost Per Unit: 50.00 _____ Copies _____
 b. Documentation Attached:
 c. Patent Information: n/a

7. Commodity/Service Description: (limited to 1200 characters)
 Brief summary of commodity or service (e.g. component used in aircraft communication system). Describe the product's use (what it does, how it operates, the components/system in which it is used and all current uses). Specify if commodity/service is controlled or restricted for public release by U.S. Government.
The files are twelve CAD files for models of cylinders of various bores with a touch hole. Eleven of the files are in the STL file format and one is in the IGS format. If those pieces were printed on a 3D printer and used with an electronic ignition, the barrel would be expected to fail.

8. Identify any special and/or unique characteristics/capabilities: (Mark all boxes that apply and provide explanation/description)
 a. Designed to military or intelligence standards or specifications.
 b. Designed for military application.
 c. Special characteristics (e.g. radiation-hardening, ballistic protection, hard points, TEMPEST capability, thermal or infrared signature reduction capability, surveillance or intelligence gathering capability).
 d. Commercial item modified for military application, provide nomenclature and model number to differentiate from commercial item.
 e. Commercial item modified for military application, state specific distinct difference between original commercial item and modified item.
 f. Services (provide comparable information as that which provided above and by marking this box, indicate it is for services versus hardware).
 Explanation/Description (If the product is included in a higher assembly or end item, identify each higher assembly or end item that incorporates the product and its use. Identify all military applications and military capabilities of the product, and any equivalent products used for military application.) Summarize technical details of special characteristics (e.g. if image intensification tubes, provide level of technology, such as Gen II, Gen III, etc.). (limited to 600 characters)
N/A

D. Product Origin

9. Military/Commercial Modification of Commodity:
 a. Was this commodity originally specifically designed or developed for a military use?
 Yes No
 b. Was this commodity originally civil and subsequently adapted, configured or modified for a military use?
 Yes No
 c. Was this commodity originally military and subsequently adapted, reconfigured or modified for commercial use?
 Yes No
 d. Specifically define the modifications/changes and capabilities added to the commodity. List any differences in form, fit and/or function between the modified and unmodified versions: (limited to 600 characters)
N/A
 Supporting Documentation Attached

10. Status of Product Development: (Mark the status of the product and provide an explanation/description)
 a. In Development
 b. In Use
 Explanation/Description (limited to 4000 characters)
To the best of Defense Distributed's knowledge, this file is conceptual in nature and has not been used to produce the plastic cylinders.
 Supporting Documentation Attached

11. Funding History: (Check all that apply)
 Include funding source contract or subcontract number and supporting documentation.
 a. USG Agency
 b. Foreign Government Agency
 c. U.S. or Foreign Contractor
 d. Self Funded
 e. University Funded
 Explanation/Description (limited to 600 characters)
To the best of Defense Distributed's knowledge, Mozi received no funding from any outside source for the creation of the file.

Supporting Documentation Attached

12. U.S. and/or Foreign Availability of Identical Products: (Enter Foreign Export Controls, if known)
 None Add Item

Remove Item

Manufacturer: Allan Howard
 Commodity: Ruger kmkiii6 stainless steel .22 automatic pistol with 6" barrel CAD Files
 Model #: N/A In Use/In Development: In Use
 Foreign Exports Control: _____
 Manufacturer's Website: http://grabcad.com/library/ruger-kmkiii6-stainless-steel-22-automatic-pistol-with-6-barrel

Remove Item

Manufacturer: Tom Prex
 Commodity: .22lr pistol CAD files
 Model #: N/A In Use/In Development: In Use
 Foreign Exports Control: _____
 Manufacturer's Website: http://grabcad.com/library/22lr-pistol

Remove Item

Manufacturer: Fred Works
 Commodity: Browning Buck Mark Threaded Barrel
 Model #: N/A In Use/In Development: In Use
 Foreign Exports Control: _____
 Manufacturer's Website: http://grabcad.com/library/browning-buck-mark-threaded-barrel
 Explanation/Description (limited to 600 characters)
These CAD files are for a models of a complete .22 pistol, including the barrel and grip, as well as other components, and the barrel of a .22 caliber pistol.
 Supporting Documentation Attached

E. Sales Information

13. Sales Information: (Select One) (See Block 13 Template)
 Military and commercial sales data must be provided, as well as listing of the military and commercial customers. The information pertains specifically to the commodity/service in Block 8. Complete the attachment, if applicable. (Note: Submit one single file up to 35MB with sales information. Do not separate the sales information into multiple smaller files.)
 Sales Information Attachment (Template "Block 13 Sales Information") Attached
 No Sales

F. Miscellaneous Information

14. Has this Commodity been: (limited to 100 characters)

a. Has this Commodity been Previously Exported Yes No Unknown
 If yes, cite U.S. Government licensing jurisdiction and provide license number, if applicable.
Posted to the internet as public domain information.

b. Has this Commodity been the subject of a Prior CJ? Yes No Unknown
 If yes, Cite CJ Number.
 (Applicant should list any prior CJ even if not submitted by them, e.g., submitted by Original Equipment Manufacturer (OEM), by the U.S. Government or by a third party.)

c. Has this Commodity been subject to a Department of Commerce Classification Request? Yes No Unknown
 If yes, cite U.S. Government licensing jurisdiction and if under Department of Commerce, attach a copy with Export Control Classification Number (ECCN).

d. Has this Commodity been Exported under a Foreign Military Sale (FMS) case? Yes No Unknown
 If yes, cite Foreign Military Sale (FMS) case number.

15. Description of the commodity and final DDTC action will be posted on the DDTC website for public access based on the information provided in Block 5 and any other descriptive information provided below. If you believe that any information contained in Block 5 is proprietary, please specifically identify the information below and provide summarized rationale for DDTC to consider withholding the information from public notice: (Limited to 600 characters. Additional justification may be provided as an attachment.)
N/A

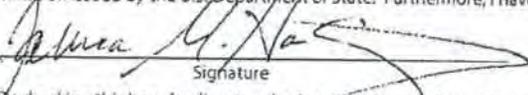
16. Reason for Submitting CJ: (limited to 600 characters)
Per request of DTCC/END, Case No. 13-0001444.

17. Suggested U.S. Munitions List or Commerce Control List Number:
a. U.S. Munitions List (22 C.F.R. 121) Category/Sub Category N/A
b. Export Administration Regulations (15 C.F.R. 730-774), Export Control Classification Number N/A
18. Other Miscellaneous Information to be Considered that is not Otherwise Included in this Form: (e.g. U.S. Government Agency and point of contact information.) (limited to 300 characters)
<input checked="" type="checkbox"/> Supporting Documentation Attached

G. Applicant/Submitter's Certification

19. Applicant/Submitter's Certification: Note: ONLY this one page must be printed, signed, and scanned as an attachment.
Under Penalty According to Federal Law (See 22 CFR 127, 22 U.S.C. 2778, and 22 U.S.C. 1001).

I am the authorized employee of the company cited in Block 1, or a third party as described in Block 2 authorized to submit on behalf of the company in Block 4, and certify as to the accuracy and completeness of the information provided and have not knowingly omitted information that could have an impact on the final determination issued by the U.S. Department of State. Furthermore, I have specific authority to release for publication the text contained in Block 5.



Signature

Jahna M. Hartwig

Printed Name

06/21/2013

Date

By checking this box, Applicant authorizes DDTC to email the Commodity Jurisdiction determination as well as any other information associated with this case.
The Commodity Jurisdiction determination will be mailed to the address below if box is not checked.

Name: Jahna M. Hartwig

Title: Partner

Company: Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington

State: DC

Zip Code: 20006

Phone #: 202-293-8145

Email: jhartwig@williamsmullen.com

Electronic Form Version Number: 1.2
 For DDTC Use Only
 CJ Number: _____

OMB APPROVAL NO. 1405-0163
 EXPIRATION DATE: 01/31/2013
 *ESTIMATED BURDEN: 10 Hours

U.S. Department of State
DS-4076 Commodity Jurisdiction (CJ) Determination Form

*PAPERWORK REDUCTION ACT STATEMENT: Public reporting burden for this collection of information is estimated to average 10 hours per response, including time required for searching existing data sources, gathering the necessary data, providing the information required, and reviewing the final collection. Send comments on the accuracy of this estimate of the burden and recommendations for reducing it to: Department of State (A/GIS/DIR) Washington, D.C. 20520.

A. Applicant Information

1. Applicant's Information: (Select all that apply)

Applicant is: Government Manufacturer Exporter Manufacturer's Representative Other

Applicant Name: (Company, Organization) Defense Distributed

Address: 711 W. 32nd Street, Apt. 115

City: Austin

State: TX

Zip Code: 78705

Phone #: 501-743-9680

PM/DDTC Registrant Code: _____

(If applicable)

Add Item

Remove Item

Name: (Point of Contact) Cody R. Wilson

Phone #: 501-743-9680

Fax #: _____

Email: crw@defdist.org

2. Submitter Information if other than Applicant in Block 1: (Complete if applicable)

Submitter Name: (Company, Organization) Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington

State: DC

Zip Code: 20006

Phone #: 202-293-8145

PM/DDTC Registrant Code: _____

(If applicable)

Add Item

Remove Item

Name: (Point of Contact) Jahna M. Hartwig

Phone #: 202-293-8145

Fax #: _____

Email: jhartwig@williamsmullen.com

Attachment: Authorization from Applicant to Submitter authorizing submitter to file on its behalf and to release information in Block 5.

B. Transaction Description and Compliance Information

3. Transaction Description: (Note: No request involving Classified information will be considered.)

This Application Represents:

a. New Request

b. Resubmission

Prior CJ Case Number: _____

Returned Without Action (RWA)

Reconsideration (Include Prior CJ Determination Case Number)

Summarize Reason for Resubmission (limited to 1200 characters)

Related to Compliance Matter (limited to 1200 characters)

Yes No

If yes, provide disclosure and/or case number (if available) and details to include U.S. Government Point of Contact. If status changes advise DDTC.

DTCC Case 13-0001444. This CJ is submitted at the request of DTCC/END in its letter to Defense Distributed dated May 8, 2013. The DTCC/END Compliance Specialist is assigned to this matter is Ms. Bridget Van Buren.

C. Commodity Description

4. Select Commodity Type: (Select all that apply) (22 C.F.R. 120.9, 120.10 and 121.8)

End Item

Component/Major

Component/Minor

Part

Accessory/Attachment

Software

Firmware

Services

System

Information or Technical Data

5. Commodity/Service Information: (Note: Complete all that apply and if not applicable, enter "N/A".)

a. Product Name: VZ-58 Front Sight Data Files

b. Model/Version Number: N/A

c. Part Number: N/A

d. National Stock Number: N/A

e. Other Identifier: (if applicable) N/A

f. Manufacturer: Reimo Soosaar

g. Service: N/A

h. Generic Description: Solidworks CAD file and rendering of a model of a site for a VZ-58 rifle.

i. Manufacturer's Website: www.defdist.org

j. Commodity/Service Website: http://defcad.com/vz-58-front-sight/

Note: Only one commodity may be entered; variants require separate submission. However, variants of a commodity or a family of commodities closely related, that is, major characteristics and descriptive information of the commodity are essentially the same and would be included in the same U.S. Munitions List category and subcategory may be considered.

6. Additional Commodity Information/Documentation:
 (Brochures, Technical Information, Drawings, Schematics, Blue Prints, Course Syllabus/Handouts, Training Materials.) Attach product datasheet or other technical information such that an informed technical evaluation is possible. Note: cost in U.S. Dollars. If unit is not listed in drop down list, e.g. service or training, enter the commodity.

a. Cost Per Unit: 50.00 Copies _____

b. Documentation Attached:

c. Patent Information: n/a

7. Commodity/Service Description: *(limited to 1200 characters)*
 Brief summary of commodity or service (e.g. component used in aircraft communication system). Describe the product's use (what it does, how it operates, the components/system in which it is used and all current uses). Specify if commodity/service is controlled or restricted for public release by U.S. Government.

The files are a SolidWorks CAD file in the .SLDPRT file format and a rendering of a model of a sight for a VZ-58 rifle. If printed on a 3D printer and used with a weapon, the sight would be expected to fail.

8. Identify any special and/or unique characteristics/capabilities: (Mark all boxes that apply and provide explanation/description)

a. Designed to military or intelligence standards or specifications.

b. Designed for military application.

c. Special characteristics (e.g. radiation-hardening, ballistic protection, hard points, TEMPEST capability, thermal or infrared signature reduction capability, surveillance or intelligence gathering capability).

d. Commercial item modified for military application, provide nomenclature and model number to differentiate from commercial item.

e. Commercial item modified for military application, state specific distinct difference between original commercial item and modified item.

f. Services (provide comparable information as that which provided above and by marking this box, indicate it is for services versus hardware).

Explanation/Description (If the product is included in a higher assembly or end item, identify each higher assembly or end item that incorporates the product and its use. Identify all military applications and military capabilities of the product, and any equivalent products used for military application.) Summarize technical details of special characteristics (e.g. if image intensification tubes, provide level of technology, such as Gen II, Gen III, etc.). *(limited to 600 characters)*

N/A

D. Product Origin

9. Military/Commercial Modification of Commodity:

a. Was this commodity originally specifically designed or developed for a military use?
 Yes No

b. Was this commodity originally civil and subsequently adapted, configured or modified for a military use?
 Yes No

c. Was this commodity originally military and subsequently adapted, reconfigured or modified for commercial use?
 Yes No

d. Specifically define the modifications/changes and capabilities added to the commodity. List any differences in form, fit and/or function between the modified and unmodified versions: *(limited to 600 characters)*

N/A

Supporting Documentation Attached

10. Status of Product Development: (Mark the status of the product and provide an explanation/description)

a. In Development

b. In Use

Explanation/Description *(limited to 4000 characters)*

To the best of Defense Distributed's knowledge, this file is conceptual in nature and has not been used to produce a plastic rifle sight model.

Supporting Documentation Attached

11. Funding History: (Check all that apply)
 Include funding source contract or subcontract number and supporting documentation.

a. USG Agency

b. Foreign Government Agency

c. U.S. or Foreign Contractor

d. Self Funded

e. University Funded

Explanation/Description *(limited to 600 characters)*

To the best of Defense Distributed's knowledge, Reimo Soosaar received no funding from any outside source for the creation of the file.

Supporting Documentation Attached

12. U.S. and/or Foreign Availability of Identical Products: (Enter Foreign Export Controls, if known) Add Item

None Remove Item

Manufacturer: Reimo Soosaar

Commodity: Front sight for vz.58 rifle

Model #: N/A In Use/In Development: In Use

Foreign Exports Control: _____

Manufacturer's Website: http://grabcad.com/library/front-sight-for-vz-dot-58-rifle

Explanation/Description (limited to 600 characters)

This file was published on Thingiverse in December 2012 and is still available on that site.

Supporting Documentation Attached

E. Sales Information

13. Sales Information: (Select One) (See Block 13 Template)
 Military and commercial sales data must be provided, as well as listing of the military and commercial customers. The information pertains specifically to the commodity/service in Block 8. Complete the attachment, if applicable. (Note: Submit one single file up to 35MB with sales information. Do not separate the sales information into multiple smaller files.)

Sales Information Attachment (Template "Block 13 Sales Information") Attached

No Sales

F. Miscellaneous Information

14. Has this Commodity been: (limited to 100 characters)

a. Has this Commodity been Previously Exported Yes No Unknown
 If yes, cite U.S. Government licensing jurisdiction and provide license number, if applicable.
Posted to the internet as public domain information.

b. Has this Commodity been the subject of a Prior CJ? Yes No Unknown
 If yes, Cite CJ Number.
 (Applicant should list any prior CJ even if not submitted by them, e.g., submitted by Original Equipment Manufacturer (OEM), by the U.S. Government or by a third party.)

c. Has this Commodity been subject to a Department of Commerce Classification Request? Yes No Unknown
 If yes, cite U.S. Government licensing jurisdiction and if under Department of Commerce, attach a copy with Export Control Classification Number (ECCN).

d. Has this Commodity been Exported under a Foreign Military Sale (FMS) case? Yes No Unknown
 If yes, cite Foreign Military Sale (FMS) case number.

15. Description of the commodity and final DDTC action will be posted on the DDTC website for public access based on the information provided in Block 5 and any other descriptive information provided below. If you believe that any information contained in Block 5 is proprietary, please specifically identify the information below and provide summarized rationale for DDTC to consider withholding the information from public notice: (Limited to 600 characters. Additional justification may be provided as an attachment.)

N/A

16. Reason for Submitting CJ: (limited to 600 characters)

Per request of DTCC/END, Case No. 13-0001444.

17. Suggested U.S. Munitions List or Commerce Control List Number:

a. U.S. Munitions List (22 C.F.R. 121) Category/Sub Category
N/A

b. Export Administration Regulations (15 C.F.R. 730-774), Export Control Classification Number
N/A

18. Other Miscellaneous Information to be Considered that is not Otherwise Included in this Form: (e.g. U.S. Government Agency and point of contact information.) (limited to 300 characters)

Supporting Documentation Attached

10

G. Applicant/Submitter's Certification

19. Applicant/Submitter's Certification: Note: ONLY this one page must be printed, signed, and scanned as an attachment.
Under Penalty According to Federal Law (See 22 CFR 127, 22 U.S.C. 2778, and 22 U.S.C. 1001).

I am the authorized employee of the company cited in Block 1, or a third party as described in Block 2 authorized to submit on behalf of the company in Block 4, and certify as to the accuracy and completeness of the information provided and have not knowingly omitted information that could have an impact on the final determination issued by the U.S. Department of State. Furthermore, I have specific authority to release for publication the text contained in Block 5.

 Signature
Jahna M. Hartwig Printed Name
06/21/2013 Date

By checking this box, Applicant authorizes DDTC to email the Commodity Jurisdiction determination as well as any other information associated with this case.
The Commodity Jurisdiction determination will be mailed to the address below if box is not checked.

Name: Jahna M. Hartwig
Title: Partner
Company: Williams Mullen PC
Address: 1666 K St., NW, Suite 1200
City: Washington State: DC Zip Code: 20006
Phone #: 202-293-8145 Email: jhartwig@williamsmullen.com

Electronic Form Version Number: 1.2
 For DDTC Use Only
 CJ Number: _____

OMB APPROVAL NO. 1405-0163
 EXPIRATION DATE: 01/31/2013
 *ESTIMATED BURDEN: 10 Hours

U.S. Department of State

DS-4076 Commodity Jurisdiction (CJ) Determination Form

*PAPERWORK REDUCTION ACT STATEMENT: Public reporting burden for this collection of information is estimated to average 10 hours per response, including time required for searching existing data sources, gathering the necessary data, providing the information required, and reviewing the final collection. Send comments on the accuracy of this estimate of the burden and recommendations for reducing it to: Department of State (A/GIS/DIR) Washington, D.C. 20520.

A. Applicant Information

1. Applicant's Information: (Select all that apply)

Applicant is: Government Manufacturer Exporter Manufacturer's Representative Other

Applicant Name: (Company, Organization) Defense Distributed

Address: 711 W. 32nd Street, Apt. 115

City: Austin State: TX Zip Code: 78705

Phone #: 501-743-9680 PM/DDTC Registrant Code: _____ (If applicable)

Add Item

Remove Item

Name: (Point of Contact) Cody R. Wilson

Phone #: 501-743-9680 Fax #: _____ Email: crw@defdist.org

2. Submitter Information if other than Applicant in Block 1: (Complete if applicable)

Submitter Name: (Company, Organization) Williams Mullen PC

Address: 1666 K St., NW, Suite 1200

City: Washington State: DC Zip Code: 20006

Phone #: 202-293-8145 PM/DDTC Registrant Code: _____ (If applicable)

Add Item

Remove Item

Name: (Point of Contact) Jahna M. Hartwig

Phone #: 202-293-8145 Fax #: _____ Email: jhartwig@williamsmullen.com

Attachment: Authorization from Applicant to Submitter authorizing submitter to file on its behalf and to release information in Block 5.

B. Transaction Description and Compliance Information

3. Transaction Description: (Note: No request involving Classified information will be considered.)

This Application Represents:

a. New Request

b. Resubmission

Prior CJ Case Number: _____

Returned Without Action (RWA)

Reconsideration (Include Prior CJ Determination Case Number)

Summarize Reason for Resubmission (limited to 1200 characters)

Related to Compliance Matter (limited to 1200 characters) Yes No

If yes, provide disclosure and/or case number (if available) and details to include U.S. Government Point of Contact. If status changes advise DDTC.

DTCC Case 13-0001444. This CJ is submitted at the request of DTCC/END in its letter to Defense Distributed dated May 8, 2013. The DTCC/END Compliance Specialist is assigned to this matter is Ms. Bridget Van Buren.

C. Commodity Description

4. Select Commodity Type: (Select all that apply) (22 C.F.R. 120.9, 120.10 and 121.8)

- | | | | | |
|-----------------------------------|--|--|---------------------------------|---|
| <input type="checkbox"/> End Item | <input type="checkbox"/> Component/Major | <input type="checkbox"/> Component/Minor | <input type="checkbox"/> Part | <input type="checkbox"/> Accessory/Attachment |
| <input type="checkbox"/> Software | <input type="checkbox"/> Firmware | <input type="checkbox"/> Services | <input type="checkbox"/> System | <input checked="" type="checkbox"/> Information or Technical Data |

5. Commodity/Service Information: (Note: Complete all that apply and if not applicable, enter "N/A")

a. Product Name: Springfield XD-40 Tactical Slide Assembly Data Files

b. Model/Version Number: N/A

c. Part Number: N/A

d. National Stock Number: N/A

e. Other Identifier: (If applicable) N/A

f. Manufacturer: Gary G

g. Service: N/A

h. Generic Description: Nineteen SolidWorks CAD data files for components of a Springfield XD-40 Tactical Slide Assembly

i. Manufacturer's Website: www.defdist.org

j. Commodity/Service Website: http://defcad.com/springfield-xd-40-tactical-slide-assembly/

Note: Only one commodity may be entered; variants require separate submission. However, variants of a commodity or a family of commodities closely related, that is, major characteristics and descriptive information of the commodity are essentially the same and would be included in the same U.S. Munitions List category and subcategory may be considered.

6. Additional Commodity Information/Documentation:
 (Brochures, Technical Information, Drawings, Schematics, Blue Prints, Course Syllabus/Handouts, Training Materials.) Attach product datasheet or other technical information such that an informed technical evaluation is possible.) Note: cost in U.S. Dollars. If unit is not listed in drop down list, e.g. service or training, enter the commodity.

a. Cost Per Unit: \$0.00 Copies

b. Documentation Attached:

c. Patent Information: n/a

7. Commodity/Service Description: (limited to 1200 characters)
 Brief summary of commodity or service (e.g. component used in aircraft communication system). Describe the product's use (what it does, how it operates, the components/system in which it is used and all current uses). Specify if commodity/service is controlled or restricted for public release by U.S. Government.

The files are nineteen Computer Aided Design (CAD) data files in the SolidWorks .SLDPRT file format for models of components of a pistol slide for the Springfield XD-40. The components, if printed on a 3D printer, would be plastic pieces in the shape of the components of the slide assembly, but would be expected to fail if used with a weapon.

8. Identify any special and/or unique characteristics/capabilities: (Mark all boxes that apply and provide explanation/description)

a. Designed to military or intelligence standards or specifications.

b. Designed for military application.

c. Special characteristics (e.g. radiation-hardening, ballistic protection, hard points, TEMPEST capability, thermal or infrared signature reduction capability, surveillance or intelligence gathering capability).

d. Commercial item modified for military application, provide nomenclature and model number to differentiate from commercial item.

e. Commercial item modified for military application, state specific distinct difference between original commercial item and modified item.

f. Services (provide comparable information as that which provided above and by marking this box, indicate it is for services versus hardware).

Explanation/Description (If the product is included in a higher assembly or end item, identify each higher assembly or end item that incorporates the product and its use. Identify all military applications and military capabilities of the product, and any equivalent products used for military application.) Summarize technical details of special characteristics (e.g. If image intensification tubes, provide level of technology, such as Gen II, Gen III, etc.). (limited to 600 characters)

N/A

D. Product Origin

9. Military/Commercial Modification of Commodity:

a. Was this commodity originally specifically designed or developed for a military use?
 Yes No

b. Was this commodity originally civil and subsequently adapted, configured or modified for a military use?
 Yes No

c. Was this commodity originally military and subsequently adapted, reconfigured or modified for commercial use?
 Yes No

d. Specifically define the modifications/changes and capabilities added to the commodity. List any differences in form, fit and/or function between the modified and unmodified versions: (limited to 600 characters)

N/A

Supporting Documentation Attached

10. Status of Product Development: (Mark the status of the product and provide an explanation/description)

a. In Development

b. In Use

Explanation/Description (limited to 4000 characters)

To the best of Defense Distributed's knowledge, this file is conceptual in nature and has not been used to produce the plastic model of the slide assembly.

Supporting Documentation Attached

11. Funding History: (Check all that apply)
 Include funding source contract or subcontract number and supporting documentation.

a. USG Agency

b. Foreign Government Agency

c. U.S. or Foreign Contractor

d. Self Funded

e. University Funded

Explanation/Description (limited to 600 characters)

To the best of Defense Distributed's knowledge, Gary G received no funding from any outside source for the creation of the file.

Supporting Documentation Attached

12. U.S. and/or Foreign Availability of Identical Products: (Enter Foreign Export Controls, if known)

None

Add Item

Remove Item

Manufacturer: Reimo Soosaar
 Commodity: Pistol Slide CAD files
 Model #: N/A In Use/In Development: In Use
 Foreign Exports Control: _____
 Manufacturer's Website: http://grabcad.com/library/pistol-slide--1

Remove Item

Manufacturer: Dominic Megali
 Commodity: Glock 21 slide
 Model #: N/A In Use/In Development: In Use
 Foreign Exports Control: _____
 Manufacturer's Website: http://grabcad.com/library/glock-21-slide

Remove Item

Manufacturer: Steven Kiley
 Commodity: Real sig p226 slide
 Model #: N/A In Use/In Development: In Use
 Foreign Exports Control: _____
 Manufacturer's Website: http://grabcad.com/library/real-sig-p226-slde

Remove Item

Manufacturer: mutlu
 Commodity: Colt m1911 slide assembly
 Model #: N/A In Use/In Development: In Use
 Foreign Exports Control: _____
 Manufacturer's Website: http://grabcad.com/library/colt-m1911-slide-assembly

Explanation/Description (limited to 600 characters)
These CAD files contain drawings for models of various slide mechanisms.

Supporting Documentation Attached

E. Sales Information

13. Sales Information: (Select One) (See Block 13 Template)

Military and commercial sales data must be provided, as well as listing of the military and commercial customers. The information pertains specifically to the commodity/service in Block 8. Complete the attachment, if applicable. (Note: Submit one single file up to 35MB with sales information. Do not separate the sales information into multiple smaller files.)

Sales Information Attachment (Template "Block 13 Sales Information") Attached

No Sales

F. Miscellaneous Information

14. Has this Commodity been: (limited to 100 characters)

a. Has this Commodity been Previously Exported Yes No Unknown

If yes, cite U.S. Government licensing jurisdiction and provide license number, if applicable.

Posted to the internet as public domain information.

b. Has this Commodity been the subject of a Prior CJ? Yes No Unknown

If yes, Cite CJ Number.

(Applicant should list any prior CJ even if not submitted by them, e.g., submitted by Original Equipment Manufacturer (OEM), by the U.S. Government or by a third party.)

c. Has this Commodity been subject to a Department of Commerce Classification Request? Yes No Unknown

If yes, cite U.S. Government licensing jurisdiction and if under Department of Commerce, attach a copy with Export Control Classification Number (ECCN).

d. Has this Commodity been Exported under a Foreign Military Sale (FMS) case? Yes No Unknown

If yes, cite Foreign Military Sale (FMS) case number.

15. Description of the commodity and final DDTC action will be posted on the DDTC website for public access based on the information provided in Block 5 and any other descriptive information provided below. If you believe that any information contained in Block 5 is proprietary, please specifically identify the information below and provide summarized rationale for DDTC to consider withholding the information from public notice: (Limited to 600 characters. Additional justification may be provided as an attachment.)

N/A

16. Reason for Submitting CJ: (limited to 600 characters)

Per request of DTCC/END, Case No. 13-0001444.

17. Suggested U.S. Munitions List or Commerce Control List Number:

a. U.S. Munitions List (22 C.F.R. 121) Category/Sub Category

N/A

b. Export Administration Regulations (15 C.F.R. 730-774), Export Control Classification Number

N/A

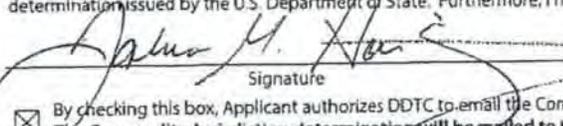
18. Other Miscellaneous Information to be Considered that is not Otherwise Included in this Form: (e.g. U.S. Government Agency and point of contact information.) (limited to 300 characters)

Supporting Documentation Attached

G. Applicant/Submitter's Certification

19. Applicant/Submitter's Certification: Note: ONLY this one page must be printed, signed, and scanned as an attachment.
 Under Penalty According to Federal Law (See 22 CFR 127, 22 U.S.C. 2778, and 22 U.S.C. 1001).

I am the authorized employee of the company cited in Block 1, or a third party as described in Block 2 authorized to submit on behalf of the company in Block 4, and certify as to the accuracy and completeness of the information provided and have not knowingly omitted information that could have an impact on the final determination issued by the U.S. Department of State. Furthermore, I have specific authority to release for publication the text contained in Block 5.

 _____ Jahna M. Hartwig _____ 06/21/2013
 Signature Printed Name Date

By checking this box, Applicant authorizes DDTC to email the Commodity Jurisdiction determination as well as any other information associated with this case.
The Commodity Jurisdiction determination will be mailed to the address below if box is not checked.

Name: Jahna M. Hartwig
 Title: Partner
 Company: Williams Mullen PC
 Address: 1666 K St., NW, Suite 1200
 City: Washington State: DC Zip Code: 20006
 Phone #: 202-293-8145 Email: jhartwig@williamsmullen.com

EXHIBIT

13

Contrary to the Justice Department's warning that such actions are unconstitutional, Defendants unlawfully apply the International Traffic in Arms Regulations, 22 C.F.R. Part 120 *et seq.* ("ITAR") to prohibit and frustrate Plaintiffs' public speech, on the Internet and other open forums, regarding arms in common use for lawful purposes. Defendants' censorship of Plaintiffs' speech, and the ad hoc, informal and arbitrary manner in which that scheme is applied, violate the First, Second, and Fifth Amendments to the United States Constitution. Plaintiffs are entitled to declaratory and injunctive relief barring any further application of this prior restraint scheme, and to recover money damages to compensate for the harm such application has already caused.

The Parties

1. Plaintiff Defense Distributed is a Texas corporation organized under the laws of the State of Texas, whose headquarters are located in Austin, Texas, and whose principal place of business is located in Austin, Texas. Defense Distributed was organized and is operated for the purpose of defending the civil liberty of popular access to arms guaranteed by the United States Constitution through facilitating global access to, and the collaborative production of, information and knowledge related to the three-dimensional ("3D") printing of arms; and to publish and distribute, at no cost to the public, such information and knowledge on the Internet in promotion of the public interest.

2. Plaintiff Second Amendment Foundation, Inc. ("SAF") is a non-profit membership organization incorporated under the laws of Washington with its principal place of business in Bellevue, Washington. SAF has over 650,000 members and supporters nationwide, including in Texas. The purposes of SAF include promoting, securing, and expanding access to the exercise of the right to keep and bear arms; and education, research, publishing and legal

action focusing on the constitutional right to privately own and possess firearms, and the consequences of gun control. SAF brings this action on behalf of its members.

3. Conn Williamson is a natural person and a citizen of the United States and the State of Washington.

4. Defendant the United States Department of State is an executive agency of the United States government responsible for administering and enforcing the ITAR under the authority of the Arms Export Control Act of 1976, 22 U.S.C. § 2778, *et seq.* (“AECA”).

5. Defendant Rex W. Tillerson is sued in his official capacity as the Secretary of State. In this capacity, he is responsible for the operation and management of the United States Department of State, and this includes the operation and management of the Directorate of Defense Trade Controls (“DDTC”) and administration and enforcement of the ITAR.

6. Defendant DDTC is a subordinate unit within the Department of State Bureau of Political and Military Affairs responsible for administering and enforcing the ITAR.

7. Defendant Mike Miller is sued in his official capacity as the Acting Deputy Assistant Secretary of State for Defense Trade Controls in the Bureau of Political-Military Affairs. In his official capacity, Miller is responsible for the operation and management of DDTC, and this includes administration and enforcement of the ITAR.

8. Defendant Sarah Heidema is sued in her official capacity as the Acting Director of the Office of Defense Trade Controls Policy Division. In her official capacity, she is responsible for administration of the ITAR, including ITAR’s commodity jurisdiction procedures; implementation of regulatory changes as a result of defense trade reforms; and providing guidance to industry on ITAR requirements.

JURISDICTION AND VENUE

9. This Court has subject-matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331, 1343, 2201, and 2202.

10. Venue lies in this Court pursuant to 28 U.S.C. § 1391(e)(1)(B) and (C), as a substantial part of the events and omissions giving rise to the claim occurred, and Plaintiff Defense Distributed resides, within the Western District of Texas.

STATEMENT OF FACTS

Broad and Vague Scope of the ITAR

11. The AECA affords the President limited control over the export of “defense articles.” 22 U.S.C. § 2778(a)(1).

12. Although the AECA does not expressly authorize control over “technical data,” the ITAR, which implements the Act, includes “technical data” within its definition of “defense articles.” 22 C.F.R. § 120.6.

13. The ITAR broadly defines “technical data” as information “required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance or modification of defense articles.” 22 C.F.R. § 120.10. This includes “information in the form of blueprints, drawings, photographs, plans, instructions or documentation” and “software” “directly related to defense articles.” *Id.*

14. The ITAR requires advance government authorization to export technical data. Criminal penalties for unauthorized exports of technical data and other violations of the ITAR include, inter alia, prison terms of up to twenty (20) years and fines of up to \$1,000,000 per violation. 22 U.S.C. § 2778(c). Civil penalties include fines of over \$1,000,000 per violation. 22 U.S.C. § 2778(e); 83 Fed. Reg. 234, 235 (Jan. 3, 2018).

15. The scope of technical data subject to ITAR control, as described on the U.S. Munitions List (“USML”), 22 C.F.R. § 121.1, is vague, ambiguous, and complex. Defendants constantly change, often without notice, their views of what this scope entails.

16. Americans have submitted thousands of written requests, known as “commodity jurisdiction requests,” to DDTC for official determinations as to the ITAR’s scope.

History of Defendants’ Prior Restraint Scheme

17. From 1969 to 1984, Footnote 3 to former ITAR Section 125.11 implied that the ITAR imposed a prepublication approval requirement on publications of privately generated ITAR-controlled technical data, stating that “[t]he burden for obtaining appropriate U.S. Government approval for the publication of technical data falling within the definition in § 125.01, including such data as may be developed under other than U.S. Government contract, is on the person or company seeking publication.”

18. Beginning in 1978, the U.S. Department of Justice’s Office of Legal Counsel issued a series of written opinions advising Congress, the White House, and the Department of State that the use of the ITAR to impose a prior restraint on publications of privately generated unclassified information into the public domain violated the First Amendment of the United States Constitution (the “Department of Justice memoranda”).

19. In 1980, the Department of State Office of Munitions Control, the predecessor to Defendant DDTC, issued official guidance providing that “[a]pproval is not required for publication of data within the United States as described in Section 125.11(a)(1). Footnote 3 to Section 125.11 does not establish a prepublication review requirement.”

20. Thereafter, the Department of State removed Footnote 3 from the ITAR, expressly stating its intent to address First Amendment concerns. *See* 49 Fed. Reg. 47,682 (Dec.

6, 1984). As such, to the extent the ITAR imposed any prepublication approval requirement on private, non-classified speech, the requirement was ostensibly removed in 1984.

21. In 1995, Defendant the United States Department of State conceded in federal court that reading the ITAR as imposing a prior restraint “is by far the most **un**-reasonable interpretation of the provision, one that people of ordinary intelligence are least likely to assume is the case.” *Bernstein v. United States Department of State, et. al.*, No. C-95-0582, 1997 U.S. Dist. Lexis 13146 (N.D. Cal. August 25, 1997).

22. Prior to May 2013, Defendant the United States Department of State had not only disavowed the prior restraint in public notices and in federal court, it had never publicly enforced a prior restraint under the ITAR.

The Published Files

23. Posting technical data on the Internet is perhaps the most common and effective means of creating and disseminating information. A cursory search on Google and other Internet search engines evidences that ITAR-controlled technical data is freely published in books, scientific journals, and on the Internet.

24. Plaintiff Defense Distributed publishes files on the Internet as a means of fulfilling its primary missions to promote the right to keep and bear arms and to educate the public.

25. Defense Distributed privately generated technical information regarding a number of gun-related items, including a trigger guard, grips, two receivers, a magazine for AR-15 rifles, and a handgun (the “Published Files”).

26. In December 2012, Defense Distributed began posting the Published Files on the Internet for free, at no cost to the public. That publication inherently advanced Defense Distributed’s educational mission.

27. At the time Defense Distributed posted the Published Files, there was no publicly known case of Defendants enforcing a prepublication approval requirement under the ITAR.

28. Notwithstanding the Department of Justice memoranda, the 1980 guidance, the 1985 ITAR amendment, Defendant the United States Department of State’s representations to a federal court in *Bernstein v. United States*, and Defendants’ failure to previously enforce a prepublication approval requirement under the ITAR, on May 8, 2013, DDTC sent Defense Distributed a letter that warned:

DTCC/END is conducting a review of technical data made publicly available by Defense Distributed through its 3D printing website, DEFCAD.org, the majority of which appear to be related to items in Category I of the USML. Defense Distributed may have released ITAR-controlled technical data without the required prior authorization from the Directorate of Defense Trade Controls (DDTC), a violation of the ITAR.

29. At the time it posted the Published Files, Defense Distributed did not know that DDTC would demand pre-approval of public speech. Defense Distributed believed, and continues to believe, that the United States Constitution guarantees a right to share truthful speech—especially speech concerning fundamental constitutional rights—in open forums. Nevertheless, for fear of criminal and civil enforcement, Defense Distributed promptly complied with DDTC’s demands and removed all of the Published Files from its servers.

30. The DDTC letter further directed Defense Distributed to submit the Published Files to DDTC for review using the DDTC “commodity jurisdiction” procedure, the ITAR procedure “used with the U.S. Government if doubt exists as to whether an article or service is covered by the U.S. Munitions List.” 22 C.F.R. § 120.4(a).

31. Defense Distributed complied with DDTC's request and filed ten (10) commodity jurisdiction requests covering the Published Files on June 21, 2013.

32. On June 4, 2015—nearly two years from the date of Defense Distributed's commodity jurisdiction requests and six days before their first responsive pleading was due in this case—Defendants issued a response to the ten commodity jurisdiction requests. They determined that six of the Published Files, including the handgun files, were ITAR-controlled.

The "Ghost Gunner" Files

33. DDTC identifies the Department of Defense Office of Prepublication Review and Security ("DOPSR") as the government agency from which private persons must obtain prior approval for publication of privately generated technical information subject to ITAR control.

34. Neither the Code of Federal Regulations nor any other public law establishes a timeline for decision, standard of review, or an appeals process for DOPSR public release determinations.

35. Worsening this situation, DOPSR refuses to review information that it deems is not clearly subject to the ITAR.

36. On September 25, 2014, Defense Distributed sent DOPSR a request for prepublication approval for public release of files containing technical information on a machine, named the "Ghost Gunner," that can be used to manufacture a variety of items, including gun parts (the "Ghost Gunner Files").

37. On October 1, 2014, DOPSR sent Defense Distributed a letter stating that it refused to review Defense Distributed's request for approval because DOPSR was unsure whether the Ghost Gunner was subject to the ITAR. Also in its letter, DOPSR recommended that Defense Distributed submit another commodity jurisdiction request to DDTC.

38. Defense Distributed submitted another commodity jurisdiction request for the Ghost Gunner to DDTC on January 2, 2015.

39. On April 13, 2015, DDTC responded to the Ghost Gunner commodity jurisdiction request. It determined that the Ghost Gunner machine is not subject to ITAR, but that “software, data files, project files, coding, and models for producing a defense article, to include 80% AR-15 lower receivers, are subject to the jurisdiction of the Department of State in accordance with [the ITAR].” Defense Distributed did not seek a determination with respect to such files, but it did seek a determination as to whether the software necessary to build and operate the Ghost Gunner machine is ITAR-controlled. DDTC subsequently clarified that such software is, like the machine itself, not subject to ITAR controls, but reiterated its ruling with respect to files related to the production of a “defense article.”

Prior Restraint on CAD Files

40. Since September 2, 2014, Defense Distributed has made multiple requests to DOPSR for prepublication review of certain computer-aided design (“CAD”) files.

41. On December 31, 2014, nearly four months after Defense Distributed submitted the first of the CAD review requests, DOPSR sent Defense Distributed two letters dated December 22, 2014, stating that it refused to review the CAD files. DOPSR’s decision was made, in whole or in part, with specific direction from DDTC.

42. The DOPSR letter directed Defense Distributed to the DDTC Compliance and Enforcement Division for further questions on public release of the CAD files. However, because this is not the DDTC division responsible for issuing licenses or other forms of DDTC authorization, on January 5, 2015, Defense Distributed sent a written request to DDTC for guidance on how to obtain authorization from DDTC Compliance for release of the CAD files.

43. To date, DDTTC has not responded to Defense Distributed's request for guidance on how to obtain authorization from DDTTC Compliance for release of the CAD files.

Prior Restraint on Other Files

44. Defense Distributed has and will continue to create and possess other files that contain technical information, to include design drawings, rendered images, written manufacturing instructions, and other technical information that Defense Distributed intends to post to public forums on the Internet. Many of these files are described in the USML.

45. Plaintiff SAF's members, including, e.g., Conn Williamson and Peter Versnel, have a keen interest in accessing, studying, sharing, modifying, and learning from Defense Distributed's various files, as well as similar 3D printing files related to firearms that they or others have created. They would access and share these files on the Internet, and use the files for various purposes, including the manufacture of firearms of the kind in common use that they would keep operable and use for self-defense, but cannot do so owing to the prepublication approval requirement. But for DDTTC's prepublication approval requirement on such files, SAF would expend its resources to publish and promote, on the Internet, the distribution of Defense Distributed's various files, and similar files generated by its members and others.

High Price Tag for Public Speech Licenses

46. The ITAR requires that any person who engages in the United States in the business of exporting technical data to register with the DDTTC. *See* 22 C.F.R. § 122.1(a). For the purpose of the ITAR, engaging in such a business requires only one occasion of exporting technical data. *Id.*

47. DDTTC Registration is a precondition to the issuance of any license or other approval under the ITAR. *See* 22 C.F.R. § 122.1(c).

48. The base fee for DDTC registration is \$2,250.00 a year. *See* 22 C.F.R. § 122.3(a).

This fee increases based on the number of licenses requested in the previous year.

Great, Irreparable, and Continuing Harm

49. But for DDTC's impositions upon the distribution of the Published Files, Ghost Gunner Files, CAD Files, and Defense Distributed's other files (collectively, the "Subject Files"), Plaintiffs would freely distribute the Subject Files. Plaintiffs refrain from distributing the Subject Files because they reasonably fear that Defendants would pursue criminal and civil enforcement proceedings against Plaintiffs for doing so.

50. DDTC's acts have thus caused irreparable injury to Plaintiffs, their customers, visitors, and members, whose First, Second, and Fifth Amendment rights are violated by DDTC's actions.

COUNT ONE

ULTRA VIRES GOVERNMENT ACTION

51. Paragraphs 1 through 50 are incorporated as though fully set forth herein.

52. The Defendants' imposition of the prepublication requirement, against any non-classified privately-generated speech, including on (but not limited to) the Subject Files, lies beyond any authority conferred upon them by Congress under the AECA, as confirmed by the 1985 ITAR amendment. Accordingly, Defendants' imposition of the prepublication approval requirement is ultra vires and Plaintiffs are entitled to injunctive relief against Defendants' application of the prepublication approval requirement.

COUNT TWO

RIGHT OF FREE SPEECH—U.S. CONST. AMEND. I

53. Paragraphs 1 through 52 are incorporated as though fully set forth herein.

54. Defendants' prepublication approval requirement is invalid on its face, and as applied to Plaintiffs' public speech, as an unconstitutional prior restraint on protected expression.

55. Defendants' prepublication approval requirement is invalid on its face, and as applied to Plaintiffs' public speech, as overly broad, inherently vague, ambiguous, and lacking adequate procedural protections.

56. Defendants' prepublication approval requirement is invalid as applied to Defense Distributed's posting of the Subject Files, because Defendants have selectively applied the prior restraint based on the content of speech and/or the identity of the speaker.

57. Defendants' interruption and prevention of Plaintiffs from publishing the subject files, under color of federal law, violates Plaintiffs' rights under the First Amendment to the United States Constitution, causing Plaintiffs, their customers, visitors and members significant damages. Plaintiffs are therefore entitled to injunctive relief against Defendants' application of the prior restraint.

COUNT THREE

RIGHT TO KEEP AND BEAR ARMS—U.S. CONST. AMEND. II

58. Paragraphs 1 through 57 are incorporated as though fully set forth herein.

59. The fundamental Second Amendment right to keep and bear arms inherently embodies two complimentary guarantees: the right to acquire arms, and the right to make arms.

60. If one cannot acquire or create arms, one cannot exercise Second Amendment rights. Infringing upon the creation and acquisition of arms of the kind in common use for

traditional lawful purposes violates the Second Amendment. *District of Columbia v. Heller*, 554 U.S. 570, 627 (2008).

61. By maintaining and enforcing the prepublication approval requirement and forbidding Plaintiffs from publishing the subject files, which enable the lawful manufacture of firearms, Defendants are violating the Second Amendment rights of Plaintiffs, their customers, members, and visitors. Plaintiffs are therefore entitled to injunctive relief against Defendants' application of the prior restraint.

COUNT FOUR

RIGHT TO DUE PROCESS OF LAW — U.S. CONST. AMEND. V

62. Paragraphs 1 through 61 are incorporated as though fully set forth herein.

63. The Due Process Clause of the Fifth Amendment to the United States Constitution requires the Government to provide fair notice of what is prohibited, prohibits vague laws, and prevents arbitrary enforcement of the laws.

64. On its face, Defendants' prepublication approval requirement is overly broad, vague, arbitrary, and lacks adequate procedural safeguards. Plaintiffs are therefore entitled to injunctive relief against Defendants' application of the prior restraint.

65. As applied to Defense Distributed, Defendants' imposition of the prepublication approval requirement, failure to clearly describe the information subject to the prior restraint, and failure to provide a process for timely review of Defense Distributed's speech have deprived Defense Distributed of its right to fair notice of what is required under the law and adequate process, in violation of the Fifth Amendment. Defense Distributed is therefore entitled to injunctive relief against Defendants' application of the prior restraint.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs request that judgment be entered in their favor and against Defendants as follows:

1. A declaration that Defendants' prepublication approval requirement for privately generated unclassified information is, on its face and as applied to Plaintiffs' public speech, null and void, and of no effect, as an unconstitutional Ultra Vires government action.

2. A declaration that Defendants' prepublication approval requirement for privately generated unclassified information, on its face and as applied to Plaintiffs' public speech, to include Internet postings of the Subject Files, violates the First Amendment to the United States Constitution;

3. A declaration that Defendants' prepublication approval requirement for privately generated unclassified information, on its face and as applied to public speech, to include the Internet posting of files used in the production of arms of the kind in common use for traditional lawful purposes, including but not limited to the Subject Files, violates the Second Amendment to the United States Constitution;

4. A declaration that Defendants' prepublication approval requirement for privately generated unclassified information, on its face and as applied to Plaintiffs' public speech, to include Internet postings of the Subject Files, violates the Fifth Amendment to the United States Constitution;

5. An order permanently enjoining Defendants, their officers, agents, servants, employees, and all persons in active concert or participation with them who receive actual notice of the injunction, from enforcing the prepublication approval requirement against public speech on privately generated unclassified information;

6. An order permanently enjoining Defendants, their officers, agents, servants, employees, and all persons in active concert or participation with them who receive actual notice of the injunction, from enforcing the republication approval requirement against Plaintiffs' public speech, to include Internet postings of the Subject Files;

7. Attorney fees and costs pursuant to 28 U.S.C. § 2412; and

8. Any other further relief as the Court deems just and appropriate.

Dated: January 31, 2018

Respectfully submitted,

/s/ Alan Gura

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*Admitted pro hac vice

EXHIBIT

14

SETTLEMENT AGREEMENT

Defense Distributed (“DD”), Second Amendment Foundation, Inc. (“SAF”), and Conn Williamson (collectively, “Plaintiffs,”) and the United States Department of State (“State”), the Secretary of State, the Directorate of Defense Trade Controls (“DDTC”), the Deputy Assistant Secretary, Defense Trade Controls, and the Director, Office of Defense Trade Controls Policy (collectively, “Defendants”), out of a mutual desire to resolve all of the claims in the case captioned *Defense Distributed, et al. v. Dep’t of State, et al.*, Case No. 15-cv-372-RP (W.D. Tex.) (the “Action”) without the need for further litigation and without any admission of liability, hereby stipulate and agree as follows:

Plaintiffs and Defendants do hereby settle all claims, issues, complaints, or actions described in the case captioned, and any and all other claims, complaints, or issues that have been or could have been asserted by Plaintiffs against Defendants in accordance with the following terms and conditions:

1. *Consideration:* In consideration of Plaintiffs’ agreement to dismiss the claims in the Action with prejudice as described in paragraph 2, below, Defendants agree to the following, in accordance with the definitions set forth in paragraph 12, below:

- (a) Defendants’ commitment to draft and to fully pursue, to the extent authorized by law (including the Administrative Procedure Act), the publication in the Federal Register of a notice of proposed rulemaking and final rule, revising USML Category I to exclude the technical data that is the subject of the Action.
- (b) Defendants’ announcement, while the above-referenced final rule is in development, of a temporary modification, consistent with the International

Traffic in Arms Regulations (ITAR), 22 C.F.R. § 126.2, of USML Category I to exclude the technical data that is the subject of the Action. The announcement will appear on the DDTC website, www.pmddtc.state.gov, on or before July 27, 2018.

- (c) Defendants' issuance of a letter to Plaintiffs on or before July 27, 2018, signed by the Deputy Assistant Secretary for Defense Trade Controls, advising that the Published Files, Ghost Gunner Files, and CAD Files are approved for public release (i.e., unlimited distribution) in any form and are exempt from the export licensing requirements of the ITAR because they satisfy the criteria of 22 C.F.R. § 125.4(b)(13). For the purposes of 22 C.F.R. § 125.4(b)(13) the Department of State is the cognizant U.S. Government department or agency, and the Directorate of Defense Trade Controls has delegated authority to issue this approval.
- (d) Defendants' acknowledgment and agreement that the temporary modification of USML Category I permits any United States person, to include DD's customers and SAF's members, to access, discuss, use, reproduce, or otherwise benefit from the technical data that is the subject of the Action, and that the letter to Plaintiffs permits any such person to access, discuss, use, reproduce or otherwise benefit from the Published Files, Ghost Gunner Files, and CAD Files.
- (e) Payment in the amount of \$39,581.00. This figure is inclusive of any interest and is the only payment that will be made to Plaintiffs or their counsel by Defendants under this Settlement Agreement. Plaintiffs' counsel will provide Defendants'

counsel with all information necessary to effectuate this payment.

The items set forth in subparagraphs (a) through (e) above constitute all relief to be provided in settlement of the Action, including all damages or other monetary relief, equitable relief, declaratory relief, or relief of any form, including but not limited to, attorneys' fees, costs, and/or relief recoverable pursuant to 2 U.S.C. § 1302, 2 U.S.C. § 1311, 2 U.S.C. § 1317, 22 U.S.C. § 6432b(g), 28 U.S.C. § 1920, Fed. R. Civ. P. 54(d), and the Local Rules.

2. *Dismissal with Prejudice:* At the time of the execution of this Settlement Agreement, Plaintiffs agree to have their counsel execute and provide to Defendants' counsel an original Stipulation for Dismissal with Prejudice pursuant to Fed. R. Civ. P. 41(a)(1)(A)(ii) and 41(a)(1)(B). Counsel for Defendants agree to execute the stipulation and file it with the Court in the Action, no sooner than 5 business days after the publication of the announcement described in Paragraph 1(b) of this Settlement Agreement and issuance of the letter described in Paragraph 1(c) of this Settlement Agreement. A copy of the Stipulation for Dismissal with Prejudice is attached hereto.

3. *Release:* Plaintiffs, for themselves and their administrators, heirs, representatives, successors, or assigns, hereby waive, release and forever discharge Defendants, and all of their components, offices or establishments, and any officers, employees, agents, or successors of any such components, offices or establishments, either in their official or

individual capacities, from any and all claims, demands and causes of action of every kind, nature or description, whether currently known or unknown, which Plaintiffs may have had, may now have, or may hereafter discover that were or could have been raised in the Action.

4. *No Admission of Liability:* This Settlement Agreement is not and shall not be construed as an admission by Defendants of the truth of any allegation or the validity of any claim asserted in the Action, or of Defendants' liability therein. Nor is it a concession or an admission of any fault or omission in any act or failure to act. Nor is it a concession or admission as to whether the monetary or equitable relief, attorneys' fees, costs, and expenses sought by Plaintiffs in the Action, are reasonable or appropriate. None of the terms of the Settlement Agreement may be offered or received in evidence or in any way referred to in any civil, criminal, or administrative action other than proceedings permitted by law, if any, that may be necessary to consummate or enforce this Settlement Agreement. The terms of this Settlement Agreement shall not be construed as an admission by Defendants that the consideration to be given hereunder represents the relief that could be recovered after trial. Defendants deny that they engaged in *ultra vires* actions, deny that they violated the First Amendment, Second Amendment, or Fifth Amendment of the United States Constitution, and maintain that all of the actions taken by Defendants with respect to Plaintiffs comply fully with the law, including the United States Constitution.

5. *Merger Clause:* The terms of this Settlement Agreement constitute the entire agreement of Plaintiffs and Defendants entered into in good faith, and no statement, remark, agreement or understanding, oral or written, which is not contained therein, shall be recognized or enforced. Plaintiffs acknowledge and agree that no promise or representation not contained in this Settlement Agreement has been made to them and they acknowledge and represent that this Settlement Agreement contains the entire understanding between Plaintiffs and Defendants and contains all terms and conditions pertaining to the compromise and settlement of the disputes referenced herein. Nor does the Parties' agreement to this Settlement Agreement reflect any agreed-upon purpose other than the desire of the Parties to reach a full and final conclusion of the Action, and to resolve the Action without the time and expense of further litigation.

6. *Amendments:* This Settlement Agreement cannot be modified or amended except by an instrument in writing, agreed to and signed by the Parties, nor shall any provision hereof be waived other than by a written waiver, signed by the Parties.

7. *Binding Successors:* This Settlement Agreement shall be binding upon and inure to the benefit of Plaintiffs and Defendants, and their respective heirs, executors, successors, assigns and personal representatives, including any persons, entities, departments or agencies succeeding to the interests or obligations of the Parties.

8. *Consultation with Counsel:* Plaintiffs acknowledges that they have discussed this Settlement Agreement with their counsel, who has explained these documents to them and that they understand all of the terms and conditions of this Settlement Agreement. Plaintiffs further acknowledge that they have read this Settlement Agreement, understand the contents thereof, and execute this Settlement Agreement of their own free act and deed. The undersigned represent that they are fully authorized to enter into this Settlement Agreement.
9. *Execution:* This Settlement Agreement may be executed in one or more counterparts, each of which shall be deemed an original, and all of which together constitute one and the same instrument, and photographic copies of such signed counterparts may be used in lieu of the original.
10. *Jointly Drafted Agreement:* This Settlement Agreement shall be considered a jointly drafted agreement and shall not be construed against any party as the drafter.
11. *Tax and Other Consequences:* Compliance with all applicable federal, state, and local tax requirements shall be the sole responsibility of Plaintiffs and their counsel. Plaintiffs and Defendants agree that nothing in this Settlement Agreement waives or modifies federal, state, or local law pertaining to taxes, offsets, levies, and liens that may apply to this

Settlement Agreement or the settlement proceeds, and that Plaintiffs are executing this Settlement Agreement without reliance on any representation by Defendants as to the application of any such law.

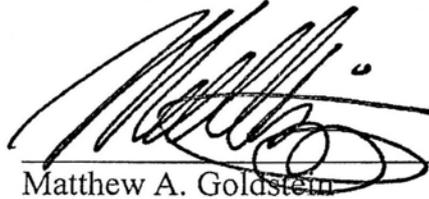
12. *Definitions:* As used in this Settlement Agreement, certain terms are defined as follows:

- The phrase “*Published Files*” means the files described in paragraph 25 of Plaintiffs’ Second Amended Complaint.
- The phrase “*Ghost Gunner Files*” means the files described in paragraph 36 of Plaintiffs’ Second Amended Complaint.
- The phrase “*CAD Files*” means the files described in paragraph 40 of Plaintiffs’ Second Amended Complaint.
- The phrase “*Other Files*” means the files described in paragraphs 44-45 of Plaintiffs’ Second Amended Complaint.
- The phrase “*Military Equipment*” means (1) Drum and other magazines for firearms to .50 caliber (12.7 mm) inclusive with a capacity greater than 50 rounds, regardless of jurisdiction of the firearm, and specially designed parts and components therefor; (2) Parts and components specially designed for conversion of a semi-automatic firearm to a fully automatic firearm; (3) Accessories or attachments specially designed to automatically stabilize aim (other than gun rests) or for automatic targeting, and specially designed parts and components therefor.
- The phrase “*technical data that is the subject of the Action*” means: (1) the Published Files; (2) the Ghost Gunner Files; (3) the CAD Files; and (4) the Other Files insofar as those files regard items exclusively: (a) in Category I(a) of the United States Munitions List (USML), as well as barrels and receivers covered by Category I(g) of the USML that are components of such items; or (b) items.

covered by Category I(h) of the USML solely by reference to Category I(a),
excluding Military Equipment.

Dated: June 29, 2018

Dated: June 29, 2018



Matthew A. Goldstein
Snell & Wilmer LLP
One South Church Ave. Ste. 1500
Tucson, Arizona 85701
Counsel for Plaintiffs

Dated: June 29, 2018



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Counsel for Defendants

EXHIBIT

15



United States Department of State
Bureau of Political-Military Affairs
Directorate of Defense Trade Controls
Washington, D.C. 20522-0112

July 27, 2018

Mr. Cody R. Wilson, Defense Distributed, and Second Amendment Foundation, Inc.
c/o Mr. Matthew A. Goldstein
Snell & Wilmer
One South Church Avenue
Suite 1500
Tucson, AZ 85701-1630

RE: Directorate of Defense Trade Controls Approval of Certain Files for Public Release

Dear Mr. Wilson, Defense Distributed, and Second Amendment Foundation, Inc.:

This letter is provided in accordance with section 1(c) of the Settlement Agreement in the matter of *Defense Distributed, et al., v. U.S. Department of State, et al.*, No. 15-cv-372-RP (W.D. Tx.) (hereinafter referred to as "*Defense Distributed*"). As used in this letter,

- The phrase "Published Files" means the files described in paragraph 25 of Plaintiffs' Second Amended Complaint in *Defense Distributed*.
- The phrase "Ghost Gunner Files" means the files described in paragraph 36 of Plaintiffs' Second Amended Complaint in *Defense Distributed*.
- The phrase "CAD Files" means the files described in paragraph 40 of Plaintiffs' Second Amended Complaint in *Defense Distributed*.

The Department understands that Defense Distributed submitted the Published Files, Ghost Gunner Files, and CAD Files to the Department of Defense's Defense Office of Prepublication and Security Review (DOPSR) in 2014 to request review for approval for public release pursuant to International Traffic in Arms Regulations (ITAR) § 125.4(b)(13). It is our further understanding that DOPSR did not make a determination on the eligibility of these files for release, but instead referred you to the Directorate of Defense Trade Controls (DDTC) regarding public release of these files.

I advise you that for the purposes of ITAR § 125.4(b)(13), the Department of State is a cognizant U.S. government department or agency, and DDTC has authority to issue the requisite approval for public release. To that end, I approve the Published Files, Ghost Gunner Files, and CAD Files for public release (i.e., unlimited distribution). As set forth in ITAR § 125.4(b)(13), technical data approved for public release by the cognizant U.S. government department or agency is not subject to the licensing requirements of the ITAR.

Sincerely,

A handwritten signature in blue ink, consisting of a stylized 'D' followed by a horizontal line that tapers to the right.

Acting Deputy Assistant Secretary for the
Directorate of Defense Trade Controls

EXHIBIT

16

07/27/18

Temporary Modification of Category I of the United States Munitions List

Consistent with the International Traffic in Arms Regulations (ITAR), 22 C.F.R. § 126.2, the Acting Deputy Assistant Secretary for Defense Trade Controls has determined that it is in the interest of the security and foreign policy of the United States to temporarily modify United States Munitions List (USML) Category I to exclude the following technical data identified in the Settlement Agreement for the matter of Defense Distributed, et al., v. U.S. Department of State, et al, Case No. 15-cv-372-RP (W.D. Tex.) (hereinafter “Defense Distributed”):

- “Published Files,” i.e., the files described in paragraph 25 of the Second Amended Complaint in Defense Distributed.
- “Ghost Gunner Files,” i.e., the files described in paragraph 36 of the Second Amended Complaint in Defense Distributed.
- “CAD Files,” i.e., the files described in paragraph 40 of the Second Amended Complaint in Defense Distributed.
- “Other Files,” i.e., the files described in paragraphs 44-45 of the Second Amended Complaint in Defense Distributed, insofar as those files regard items exclusively: (a) in Category I(a) of the USML, as well as barrels and receivers covered by Category I(g) of the USML that are components of such items; or (b) items covered by Category I(h) of the USML solely by reference to Category I(a), excluding Military Equipment. Military Equipment means (1) Drum and other magazines for firearms to .50 caliber (12.7 mm) inclusive with a capacity greater than 50 rounds, regardless of jurisdiction of the firearm, and specially designed parts and components therefor; (2) Parts and components specially designed for conversion of a semi-automatic firearm to a fully automatic firearm; (3) Accessories or attachments specially designed to automatically stabilize aim (other than gun rests) or for automatic targeting, and specially designed parts and components therefor.

This temporary modification will remain in effect while the final rule referenced in paragraph 1(a) of the Settlement Agreement is in development.

Please see the Settlement Agreement and the Second Amended Complaint for additional information.

NOTICE: GENERAL

07/25/18

Public Comments on USML Categories I-III

EXHIBIT

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UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

STATE OF WASHINGTON, *et al.*,

Plaintiffs,

v.

UNITED STATES DEPARTMENT OF
STATE, *et al.*,

Defendants.

NO. C18-1115RSL

TEMPORARY RESTRAINING
ORDER

This matter comes before the Court on plaintiffs’ “Emergency Motion for Temporary Restraining Order (with Notice to Adverse Party)” (Dkt. # 2) and defendants’ oppositions thereto (Dkt. # 11, # 14, and # 16). On or about June 29, 2018, defendants entered into an agreement whereby the federal government agreed to publish a notice of proposed rulemaking and final rule revising the United States Munitions List (“USML”) to allow the distribution of computer aided design (“CAD”) files for the automated production of 3-D printed weapons, to announce a temporary modification of the USML to allow such distribution while the final rule is in development, and to issue a letter to Defense Distributed and other defendants advising that the CAD files are approved for public release and unlimited distribution. The agreement was made public on July 10, 2018, and Defense Distributed is currently allowing individuals to sign up to

1 download specific CAD files on August 1, 2018. DEFCAD, <https://defcad.com> (visited Jul. 31,
2 2018).

3 Prior to the June 29, 2018, agreement, the federal government had taken the position that
4 restrictions on the export of technical data that is indispensable to the creation of guns and their
5 components through a 3-D printing process was an essential part of its efforts to ensure that
6 articles useful for warfare or terrorism do not proliferate and threaten United States interests and
7 security. Under the Arms Export Control Act (“AECA”), the President of the United States is
8 authorized “to control the import and the export of defense articles and defense services” “[i]n
9 furtherance of world peace and the security and foreign policy of the United States.” 22 U.S.C.
10 § 2778(a)(1). “Defense articles and defense services” includes all firearms up to .50 caliber and
11 all technical data related to such firearms, including information that “is required for the design,
12 development, production, manufacture, assembly, operation, repair, testing, maintenance or
13 modification of” the firearms. 22 C.F.R. § 121.1(I)(a) and § 121.10(a).

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16 When defendant Defense Distributed posted CAD files for various weapons on its
17 website in December 2012, the federal government requested that they be immediately removed
18 from public access. The government advised Defense Distributed that it could request a
19 determination from the Directorate of Defense Trade Controls (“DDTC”) within the United
20 States Department of State regarding whether the files were subject to export control under the
21 International Traffic in Arms Regulations (“ITAR”).¹ Defense Distributed filed a number of
22 determination requests. It also filed a lawsuit in the United States District Court for the Western
23 District of Texas in which it argued that the export restrictions constituted a prior restraint on
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27 ¹ The President delegated his authority to regulate under the AECA to the State Department,
which promulgated the ITAR. The DDTC administers the ITAR.

1 and censorship of expression in violation of the First, Second, and Fifth Amendments to the
2 United States Constitution. Defense Distributed v. U.S. Dep’t of State, C15-0372RP (W.D. Tex).
3 Defense Distributed sought a preliminary injunction precluding the imposition of any
4 prepublication approval requirement for its CAD files. The federal government opposed the
5 motion, arguing that:

- 7 ● “export of Defense Distributed’s CAD files could cause serious harm to U.S.
8 national security and foreign policy interests” and “warrant subjecting [the files] to
9 ITAR’s export licensing of technical data;”
- 10 ● Defense Distributed’s “CAD files constitute the functional equivalent of defense
11 articles: capable, in the hands of anyone who possesses commercially available 3D
12 printing equipment, of ‘automatically’ generating a lethal firearm that can be easily
13 modified to be virtually undetectable in metal detectors and other security equipment;”
- 14 ● “The State Department is particularly concerned that [Defense Distributed’s]
15 proposed export of undetectable firearms technology could be used in an assassination,
16 for the manufacture of spare parts by embargoed nations, terrorist groups, or guerrilla
17 groups, or to compromise aviation security overseas in a manner specifically directed at
18 U.S. persons;” and
- 19 ● both the government and the public “have a strong interest in curbing violent
20 regional conflicts elsewhere in the world, especially when such conflict implicates the
21 security of the United States and the world as a whole.”

22 Id., Dkt. # 32 at 19-20 (internal quotation marks and citations omitted). The then-Director of the
23 Office of Defense Trade Controls Management, Lisa V. Aguirre, concluded that the unrestricted
24 export of Defense Distributed’s CAD files would result in the production of plastic firearms that

1 are fully operable and virtually undetectable by conventional security measures, that their use to
2 commit terrorism, piracy, assassinations, or other serious crimes would cause serious and long-
3 lasting harm to the foreign policy and national security interests of the United States, that efforts
4 to restrict the availability of defense articles to enemies of the United States would fail, that the
5 proliferation of weapons and related technologies would contribute to a more dangerous
6 international environment, and that the export would undercut the domestic laws of nations that
7 have more restrictive firearm controls and the United States' foreign relations with those nations
8 would suffer. *Id.*, Dkt. # 32-1 at ¶ 35.

9
10 The district court denied the motion for preliminary injunction, noting that Defense
11 Distributed's avowed purpose is to facilitate "*global* access to, and the collaborative production
12 of, information and knowledge related to the three-dimensional ('3D') printing of arms," and
13 that such activities "undoubtedly increase[] the possibility of outbreak or escalation of conflict"
14 and are of the type Congress authorized the President to regulate through the AECA. *Id.*, Dkt.
15 # 43 at 8-9 (emphasis in original). The Fifth Circuit affirmed, finding that "the State
16 Department's stated interest in preventing foreign nationals - including all manner of enemies of
17 this country - from obtaining technical data on how to produce weapons and weapons parts"
18 constitutes "a very strong public interest in national defense and national security." *Defense*
19 *Distributed v. U.S. Dep't of State*, 838 F.3d 451, 458 (5th Cir. 2016).

20
21
22 In April 2018, the federal government moved to dismiss Defense Distributed's lawsuit,
23 reiterating that what was at stake was "the United States' ability to control the export of weapons
24 - a system of law and regulations that seeks to ensure that articles useful for warfare or terrorism
25 are not shipped from the United States to other countries (or otherwise provided to foreigners)
26 without authorization, where, beyond the reach of U.S. law, they could be used to threaten U.S.

1 national security, U.S. foreign policy interests, or international peace and stability.” Defense
2 Distributed v. U.S. Dep’t of State, C15-0372RP, Dkt. # 92 at 1 (W.D. Tex). Later that month, the
3 parties reached a tentative settlement agreement which, as described in the first paragraph of this
4 order, will allow Defense Distributed to place downloadable CAD files for automated weapons
5 printing on its website. No findings of fact or other statements are provided in the agreement that
6 could explain the federal government’s dramatic change of position or that alter its prior analysis
7 regarding the likely impacts of publication on the United States’ national security interests.
8

9 On July 30, 2018, two days before Defense Distributed plans to place downloadable CAD
10 files on its website, eight states and the District of Columbia filed this lawsuit seeking a
11 declaration that the “temporary modification” of the USML is invalid and an injunction
12 requiring the federal defendants to rescind the procedurally defective modification and refrain
13 from acting on it. Having reviewed the papers submitted by the parties along with the record
14 before the Honorable Robert L. Pitman in the United States District Court for the Western
15 District of Texas, and having heard the arguments of counsel, the Court finds as follows:
16

17 The procedure for obtaining a temporary restraining order differs from that which is
18 applicable in the preliminary injunction context, but the factors considered by the Court are the
19 same. In order to obtain preliminary injunctive relief, plaintiffs must establish that “(1) they are
20 likely to succeed on the merits; (2) they are likely to suffer irreparable harm in the absence of
21 preliminary relief; (3) the balance of equities tips in their favor, and (4) an injunction is in the
22 public interest.” Short v. Brown, 893 F.3d 671, 675 (9th Cir. 2018) (2008). In the Ninth Circuit,
23 “if a plaintiff can only show that there are serious questions going to the merits – a lesser
24 showing than likelihood of success on the merits – then a preliminary injunction may still issue
25 if the balance of hardships tips *sharply* in the plaintiff’s favor, and the other two Winter factors
26

1 are satisfied.” Feldman v. Ariz. Sec. of State’s Office, 843 F.3d 366, 375 (9th Cir. 2016)
2 (quoting Shell Offshore, Inc. v. Greenpeace, Inc., 709 F.3d 1281, 1291 (9th Cir. 2013)) (internal
3 quotation marks omitted, emphasis in original).

4
5 Plaintiffs have shown a likelihood of success on the merits of their Administrative
6 Procedure Act claim insofar as the “temporary modification” has resulted in the removal of one
7 or more items from the USML.² The federal government represents that its settlement was the
8 result of a multi-year review process which was completed in May 2018 and resulted in a
9 determination that the type of firearms and related technical data at issue here would not provide
10 a military advantage to adversaries and therefore no longer warrant export control under the
11 AECA and should be removed from the USML. In such circumstances, the governing statute, 22
12 U.S.C. §2778(f)(1), requires that the results of such reviews be reported to Congress and
13 precludes the removal of any item from the USML until thirty days after such notice is given.
14 When the President delegated his authority under the AECA to the Secretary of State, he also
15 imposed a requirement that any changes in designations of defense articles and defense services
16 subject to export control had to have the concurrence of the Secretary of Defense. There is no
17 indication that the federal government followed the prescribed procedures.
18
19

20 Plaintiffs have also shown a likelihood of irreparable injury if the downloadable CAD
21 files are posted tomorrow as promised. A side effect of the USML has been to make it more
22

23
24 ² For purposes of this temporary order, the Court finds that plaintiffs have standing to pursue
25 their claims. Although the restriction of access to technical data within the United States is not the focus
26 or goal of the USML, there is no separation of the internet between domestic and international
27 audiences. Thus, the listing has effectively limited access to the CAD files within the jurisdictions
28 governed by plaintiffs. The States and the District of Columbia have a clear and reasonable fear that the
proliferation of untraceable, undetectable weapons will enable convicted felons, domestic abusers, the
mentally ill, and others who should not have access to firearms to acquire and use them.

1 difficult to locate and download instructions for the manufacture of plastic firearms. If an
2 injunction is not issued and the status quo alters at midnight tonight, the proliferation of these
3 firearms will have many of the negative impacts on a state level that the federal government
4 once feared on the international stage. Against this hardship is a delay in lifting regulatory
5 restrictions to which Defense Distributed has been subject for over five years: the balance of
6 hardships and the public interest tip sharply in plaintiffs' favor.
7

8
9 For all of the foregoing reasons, plaintiffs' motion for temporary restraining order is
10 GRANTED. The federal government defendants and all of their respective officers, agents, and
11 employees are hereby enjoined from implementing or enforcing the "Temporary Modification of
12 Category I of the United States Munitions List" and the letter to Cody R. Wilson, Defense
13 Distributed, and Second Amendment Foundation issued by the U.S. Department of State on July
14 27, 2018, and shall preserve the status quo *ex ante* as if the modification had not occurred and
15 the letter had not been issued.
16

17 Pursuant to the limitations set forth in Fed. R. Civ. P. 65, this matter is hereby set for
18 hearing on Friday, August 10, 2018, at 9:00 a.m. in Courtroom 15106 to determine whether this
19 temporary restraining order should be converted to a preliminary injunction. No bond shall be
20 required.
21

22
23 DATED this 31st day of July, 2018, at 4:35 p.m.

24 
25 Robert S. Lasnik
26 United States District Judge
27

EXHIBIT

18



U.S. Department of Justice

Civil Division
Federal Programs Branch

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Stuart Robinson
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August 2, 2018

Via Electronic Mail

Jeff Sprung
Assistant Attorney General
Washington Attorney General's Office
800 5th Ave.
Suite 2000
Seattle, WA 98104

**Re: *State of Washington, et al. v. U.S. Department of State, et al.*, No. 2:18-cv-1115
(W.D. Wash.)**

Dear Mr. Sprung:

This letter is in response to your correspondence dated July 31, 2018, in which you “request that the federal government advise us of the steps it has taken to achieve” compliance with the Court’s Order granting Plaintiffs’ Emergency Motion for Temporary Restraining Order, ECF No. 23 (July 31, 2018). As you are aware, the Court enjoined the Government “from implementing or enforcing the ‘Temporary Modification of Category I of the United States Munitions List’ and the letter to Cody R. Wilson, Defense Distributed, and Second Amendment Foundation issued by the U.S. Department of State on July 27, 2018,” and required that the Government “preserve the status quo *ex ante* as if the modification had not occurred and the letter had not been issued.” *Id.* at 7. The Court did not require the Government to provide any status reports to the Court or Plaintiffs regarding compliance with the Order. *See id.*

The Government has fully complied with the Court’s Order, and Plaintiffs have provided no basis to conclude otherwise. On July 31, 2018, the Department of State, Directorate of Defense Trade Controls (“DDTC”), removed from its website its announcement temporarily modifying Category I of the United States Munitions List to exclude technical data identified in the Settlement Agreement for the matter of *Defense Distributed, et al., v. U.S. Department of State, et al.*, Case No. 15-cv-372 (W.D. Tex.). Additionally, on July 31, 2018, my colleague Eric Soskin informed Josh Blackman, counsel for Defense Distributed, that the Government considers the aforementioned letter to Mr. Wilson a nullity during the pendency of the Order entered by the Court. And on August 2, 2018, DDTC added the following to its website: “As of July 31, 2018, and in compliance with the Temporary Restraining Order

issued by the United States District Court for the Western District of Washington, in *Washington v. U.S. Dep't of State*, No. C18-1115RSL, the Directorate of Defense Trade Controls (DDTC) is not implementing or enforcing the 'Temporary Modification of Category I of the United States Munitions List' that was posted to the DDTC website on July 27, 2018, and has since been removed."

If you have any questions related to these matters, please contact me or Mr. Soskin.

Sincerely,

s/ Stuart Robinson

Stuart Robinson
(415) 436-6635

cc: Eric Soskin
Senior Counsel
U.S. Department of Justice

Jeffrey Rupert
Assistant Attorney General
Washington Attorney General's Office

Josh Blackman
Josh Blackman LLC

Joel Ard
Attorney
Immix Law Group

EXHIBIT

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UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON AT SEATTLE

STATE OF WASHINGTON, et al.,)	C18-1115-RSL
)	
Plaintiffs,)	SEATTLE, WASHINGTON
)	
v.)	August 21, 2018
)	
UNITED STATES DEPARTMENT OF)	MOTION HEARING
STATE, et al.,)	
)	
Defendants.)	

VERBATIM REPORT OF PROCEEDINGS
BEFORE THE HONORABLE ROBERT S. LASNIK
UNITED STATES DISTRICT JUDGE

APPEARANCES:

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1 THE CLERK: Case C18-1115-L, State of Washington,
2 et al, versus United States Department of State, et al.
3 Counsel, would you please make your appearances.

4 MR. RUPERT: Jeff Rupert, Assistant Attorney General
5 for plaintiff, states.

6 MR. SPRUNG: And Jeff Sprung, Assistant Attorney
7 General.

8 MS. BENESKI: Kristin Beneski, Assistant Attorney
9 General for the State of Washington.

10 MR. JONES: Zach Jones, Assistant Attorney for the
11 State of Washington.

12 MR. KAPLAN: Scott Kaplan, Assistant Attorney General
13 for the State of Oregon.

14 THE COURT: Who is also a member of the bar of the
15 State of Washington.

16 MR. KAPLAN: Yes, Your Honor.

17 THE COURT: Great.

18 MR. MYERS: Good morning, Your Honor, Steven Myers on
19 behalf of the federal defendants.

20 THE COURT: Mr. Myers, are you all alone representing
21 the entire United States of America?

22 MR. MYERS: I am, Your Honor, yes.

23 THE COURT: We appreciate that.

24 MR. ARD: Good morning, Your Honor, Joel Ard for the
25 defendants Second Amendment Foundation, Defense Distributed,

1 and Conn Williamson.

2 MR. GOLDSTEIN: Your Honor, Matthew Goldstein for the
3 private parties Conn Williamson, Defense Distributed and
4 Second Amendment Foundation.

5 THE COURT: Sure.

6 MR. HAMMOND: Dan Hammond for Defense Distributed.

7 MR. FLORES: Your Honor, my name is Chad Flores. I'm
8 representing Defense Distributed. And I will be giving the
9 argument for all of the private defendants.

10 THE COURT: Welcome, Mr. Flores. Thank you.

11 All right. Well, we are here for the follow-up of the
12 temporary restraining order, and arguing today whether the
13 Court should issue a preliminary injunction in this case.
14 And I believe we will start with Mr. Rupert.

15 And there was an indication that, Mr. Sprung, you would
16 address a Second Amendment issue if it came up; is that
17 right?

18 MR. SPRUNG: Yes, Your Honor.

19 THE COURT: Okay. I think I might save that for
20 rebuttal. So thanks for letting me know.

21 So, Mr. Rupert, you have the floor.

22 MR. RUPERT: Thank you, Your Honor.

23 Your Honor, the State Department voluntarily entered into
24 a settlement agreement with an organization run by a crypto
25 anarchist. The State Department has chosen to give access to

1 potentially untraceable and undetectable firearms to any
2 terrorist, felon, or domestic abuser, with a laptop and 3D
3 printer. This Court granted a temporary restraining order,
4 and we're now asking the Court to convert that to a
5 preliminary injunction.

6 We have procedural claims, the 30-day notice to Congress
7 and the Department of Defense concurrence, as well as an
8 arbitrary and capricious claim. The order I was going to
9 address it in, unless Your Honor wanted me to go in a
10 different order, is I was going to address irreparable harm
11 first, since that seems to be the main challenge by the
12 government; then likelihood of success on the merits;
13 standing; and --

14 THE COURT: That's fine.

15 MR. RUPERT: -- then First Amendment.

16 THE COURT: Um-hum.

17 MR. RUPERT: As far as irreparable harm, the
18 government's chief contention is that the harms that the
19 states have identified in their many declarations cannot be
20 traced to the government's actions. I think that's
21 thoroughly rebutted by the evidence in the record; in fact,
22 by the government's own prior filings in the Texas
23 litigation.

24 Notably, in the April 2018 brief, the government argued
25 that the Internet does not have separate parts, domestic and

1 foreign, it's all one Internet. So once this information
2 goes online, it's going to be available. And as the Court
3 noted in its prior temporary restraining order decision, the
4 proliferation of these firearms will have many of the
5 negative impacts on the state level that the federal
6 government once feared on an international stage.

7 The Court then quoted a number of the government's own
8 words against them -- or not against them, excuse me, just as
9 illustrative from the briefing. But I'd also highlight the
10 declaration of Lisa Aguirre, or Aguirre, I'm not sure how you
11 pronounce her name. But she talked about the potential for
12 terrorist groups using such weapons against the United
13 states.

14 Well, the states are a part of the United States. So we
15 believe that the government's own evidence demonstrates that
16 the government is well aware that significant harm could
17 occur to the states if its rulings are permitted to stand
18 here.

19 One of the central issues that is the cause for the harm
20 is the widespread use of metal detectors. Now, we've
21 submitted numerous declarations about metal detectors, and
22 how they are used, and how they do not pick up these plastic
23 guns. But I'd highlight the declaration from Mary McCord.
24 She was the Acting Assistant Attorney General for National
25 Security, retiring in May 2017. But she oversaw all federal

1 counterterrorism, espionage, and export control prosecutions,
2 including prosecutions of terrorists.

3 And she details the difficulties that would occur if these
4 guns become prevalent. Because they're just not picked up by
5 metal detectors. And it's well known by the government, it's
6 in Lisa Aguirre's declaration as well. Then there's numerous
7 other declarations that make the same point.

8 But metal detectors, as are in the declarations, are used
9 throughout the United States, in airports, the courthouse --
10 in fact, the courthouse downstairs -- government buildings,
11 prisons, stadiums, even schools. One of the interesting
12 things one of the experts pointed out that I hadn't even
13 thought about, that with 3D printers in schools, if the
14 school has a metal detector, the gun could be printed in the
15 school, even evading it further.

16 Now, this all demonstrates the public-safety concern that
17 the states have raised here, by the government's sweeping
18 change of its position that it had for five years. Now, the
19 states have numerous laws about who is prohibited from owning
20 a gun, such as felons, domestic abusers, those with mental
21 health issues, or for age. And we have background checks
22 that are used to identify those folks.

23 Some states even have limits on the manufacturing of a
24 gun. Massachusetts does, for instance. New Jersey does as
25 well. Well, all of those could easily be evaded, again, with

1 a 3D printer and these files. And then the issue becomes,
2 that I just identified, the metal detectors are not going to
3 be useful at all.

4 Just a few other points I'll highlight on irreparable
5 harm, and then I'll move on. I want to just focus on, for a
6 moment, the deposition of Professor Patel from the University
7 of Washington, who is a MacArthur Genius Fellow. He talks
8 about how 3D printing works now, and that this Liberator gun
9 could easily be printed. But then also discusses the
10 advances that he believes, in his opinion, will occur rapidly
11 in this area, that the technology will proceed far -- be far
12 better than we currently have, as new gun designs come out,
13 and, frankly, the 3D printing advances.

14 I also want to highlight that the 3D guns will spread.
15 And by that I'm referring to the declaration from Ron Hosko.
16 He's a 30-year career FBI agent. He was the Assistant
17 Director of the FBI's Criminal Investigative Division and led
18 the Bureau's largest program worldwide. But his declaration
19 discusses his experiences and his belief that the 3D printers
20 will be embraced by criminal enterprises, if it becomes
21 available.

22 One other thing to highlight, and then I'll kind of go on
23 to a few other points here, is that we do know, from the
24 declaration from Blake Graham, the special agent for the
25 California Department of Justice, that ghost guns, these are

1 the metal guns that don't have any identifier on them, they
2 are emerging more and more in California. They've been used
3 in a number of mass shootings.

4 There's heightened risk of terrorist attacks. And the
5 Aguirre and McCord declarations detail those. Then the
6 ability of law enforcement to use serial numbers to solve
7 crimes would be greatly compromised if these became
8 widespread. And there, I point to the declaration of John
9 Camper from the Colorado Bureau of Investigation, who they
10 did some testing on these guns, and they concluded that
11 standard forensic techniques cannot be applied to link a
12 projectile or bullet to a particular 3D-printed firearm.
13 That's because the barrel is not rifled, and the firing
14 conditions can't be replicated. And, frankly, it was unsafe
15 to fire some of the guns.

16 One of the things we hear in response is, well, the
17 Undetectable Firearms Act, you know, that covers this, so why
18 are you complaining, states? Well, as Mary McCord in her
19 declaration notes that the Undetectable Firearms Act does
20 nothing to deter terrorists or bad actors from making a 3D
21 weapon. In fact, the current system has firearms dealers
22 whose livelihood depends on compliance with federal and state
23 law. But those will be removed if these become widespread.

24 I think Chief Best from the Seattle Police Department
25 summed it up best with if we have 3D guns, you know, such a

1 world will be more dangerous for the public and for the
2 police officers whose job it is to protect the public.

3 So we believe the irreparable harm element has been shown
4 to grant a preliminary injunction. And we note that there is
5 no evidence to the contrary submitted by the government or
6 the other private defendants.

7 Turning now to likelihood of success on the merits. As we
8 discussed last time, I think it's pretty clear the items are
9 on the Munitions List. The government has taken that
10 position for five years starting in 2013, all the way up to
11 April 2018 in court filings.

12 They then took two actions to remove the items from the
13 Munitions List, the temporary modification and the letter.
14 Both require notice, 30 days' notice to Congress. And that's
15 -- the statute that requires that is 22 -- excuse me --
16 2778(f)(1).

17 There's no dispute that the notice to Congress was not
18 given. And that's in the record with the declarations from
19 Representative Engel, as well as the letter from Senator
20 Menendez. The position of the government is, though, that it
21 wasn't required because they believe that the statute, when
22 it refers to items, is actually referring to a category or
23 subcategories of items. We've discussed this in the brief,
24 but we don't believe that finds support in the actual text of
25 the statute or the case law.

1 And they also talk about a *Skidmore* defense. But *Skidmore*
2 doesn't apply if the statute is unambiguous. In support we
3 would highlight the CFR section that we highlighted, as well
4 as the case law, which distinguishes between categories and
5 items. And even the executive order that we have at issue,
6 refers to items or categories of items. And if an item was a
7 category it wouldn't make any sense.

8 So we believe that when these were removed, that notice
9 was required. And there's no dispute it was not given.

10 THE COURT: Mr. Rupert, when we first met, the
11 absence of 30-days notice was particularly acute, because we
12 were acting on virtually no notice whatsoever. Now Congress
13 obviously has, even if they haven't received the official
14 notice, they're on notice. And they will have had about
15 30 days to act. And I think it's fairly obvious they're not
16 going to act. So what is the irreparable harm of not giving
17 the notice?

18 MR. RUPERT: Actually the notice, if you look at the
19 statute provision, it requires the notice shall describe the
20 nature of any controls to be imposed, and that item under any
21 other provision of law. It's just not clear what position
22 the government is taking, if it is going to do anything to
23 protect these weapons, under another mechanism or not. And
24 it is a formal mechanism to Congress that is required to be
25 done. And, again, it's a procedural claim, but it was not

1 done.

2 The other procedural claim that we identify was the
3 concurrence of the Secretary of Defense. And there's a bit
4 of a dispute whether that's reviewable. We believe it is
5 based on the *City of Carmel* case from the Ninth Circuit. The
6 government had cited a district court decision out of the
7 D.C. -- D.C., the *Defender of Wildlife* case, which had some
8 similar language. But I would say the *Defender of Wildlife*
9 case noticeably has a section labeled, "Application and
10 judicial review." That's not in the executive order that we
11 have here. And we believe, therefore, that the *City of*
12 *Carmel* case controls.

13 So as far as the Department of Defense, the declarations
14 submitted by the government trying to explain what did occur,
15 there's no mention in that declaration whatsoever that the
16 Department of Defense concurred in the temporary
17 modification.

18 I will say, though, that that declaration does say that
19 the Department of Defense concurred in the letter. Now,
20 there's no details about the date, time, or person that gave
21 it. But it does say that. And I would note that there's a
22 distinction between the letter and the modification, too.
23 The letter addresses just the specific articles that were at
24 issue. That's the Liberator gun and a few other items. The
25 modification, on the other hand, was much broader, because

1 that covered not only the guns that -- the designs that had
2 been submitted, but as well as any future 3D guns that might
3 be submitted by private defendants or anyone else. So that's
4 the much broader one that there's no concurrence from the
5 Department of Defense.

6 Just to give background here. Removals from the Munitions
7 List rarely occur. And I'm referring to the declaration from
8 Representative Engel's letter as well as Senator Menendez's
9 letter. And they explained the usual process that occurs
10 where, well, 30 days is what is required statutorily. Often
11 it's far greater than that. And the Department of Defense is
12 involved in this whole process. And that just wasn't done
13 here.

14 I want to move to the arbitrary and capricious claim. We
15 don't have the record here, and we will need that when we
16 reach the final merits of this, but we believe there is
17 sufficient information before you right now to demonstrate a
18 likelihood of success on the merits. That's because of the
19 following: First, there's a prior CJ determination in 2015,
20 as well as the Aguirre declarations that have findings that
21 these items need to be on the Munitions List for national
22 security reasons. And they also detail the harm that would
23 occur if they were removed.

24 Second, the government in past litigation filings for over
25 three years, said essentially the same thing, discussing the

1 harms and need for national security for these items to
2 remain on the Munitions List. And the third, I would cite
3 the Heidema declaration that the government has submitted in
4 opposition. Now, this declaration details the government's
5 rationale for making its decision.

6 Now, it does, as I mentioned, address the concurrence to
7 the letter by the Department of Defense. But it's notable
8 about what is not in this declaration. This declaration
9 doesn't say there's any justification, rationale or findings
10 for the government's change in position from 2015 in the CJ
11 or the Aguirre declaration until now.

12 The government's declaration does not say there's any
13 national security or public safety, it doesn't even mention
14 at all about putting these guns out there. And there's --
15 the government doesn't say that a new CJ was done. What the
16 government does rely on is proposed rulemaking that it has
17 done to move some items from Category I of the Munitions
18 List, over to the Commerce Department.

19 But this can't be a basis for this decision, at least if
20 it is -- it's an arbitrary and capricious one, because it
21 would be an attempt to make an end run around the rulemaking
22 process. Because these rules are not final. We don't know
23 what will come out of it, in fact. And if they're trying to
24 short-circuit the rulemaking process by using this
25 modification, I think it fails right there as arbitrary and

1 capricious.

2 Then more telling, I would look at the actual rationale
3 that they identify for moving items from the Munitions List
4 over to Commerce. And I'm referring to paragraph 19 of
5 Ms. Heidema's declaration. She refers to the transfer of
6 certain items was informed by the Defense Department's
7 assessment that the items proposed for transfer are already
8 commonly available.

9 We know plastic guns are not commonly available. So if
10 that's the rationale for the government's decision now to
11 make plastic guns available, not even the declaration
12 supports that. And we believe that it's arbitrary and
13 capricious.

14 One of the other items in paragraph 19 that's highlighted
15 is that little national security concern is highlighted by
16 the fact that the Department of Defense does not generally
17 review export license applications for the physical items
18 described in Category I, as the Department does for license
19 applications in other categories. Well, we know that they
20 actually did review this one here, that's the 2015 CJ
21 determination. So, again, this declaration by Ms. Heidema of
22 trying to justify the government's decisions in this case,
23 actually does not justify it at all, and shows the arbitrary
24 nature of it.

25 The final thing -- two other things to highlight. There

1 has been suggestions by the private defendants that the First
2 Amendment was a factor in this analysis. But Ms. Heidema's
3 declaration makes clear that the Department denies and
4 continues to deny that it violated the First or Second
5 Amendment or acted in ultra vires. So that was not the
6 rationale either.

7 And, finally, I'm not quite sure how best to categorize
8 it, because it's so unusual it's hard to find any case law.
9 But we have the President himself tweeting, that this doesn't
10 seem to make much sense. And that's not quite the legal
11 standard, but ultimately that's what is an arbitrary and
12 capricious decision. Does this make sense or not? And we
13 believe that based on Ms. Heidema's declaration, as well as
14 the prior declarations in the 2015 CJ determination that it
15 does not.

16 I was going to move on to standing, unless the Court had
17 any questions about the likelihood of success on the merits.

18 THE COURT: Well, on the Heidema declaration, she's
19 not somebody who was brought in in a new administration or
20 anything like that. It seems like she's been part of the
21 government agencies that have been looking at this for
22 several years. The federal defendants have made the argument
23 that this was a kind of boring bureaucratic look at
24 something, and just happened to cover the 3D guns, but it
25 wasn't set out to change things, in particular to that, it

1 was this 50-caliber or below.

2 What evidence do the states have that this really was a
3 setup to change the 3D guns, rather than a bureaucratic
4 process that could put anyone to sleep?

5 MR. RUPERT: I think the timing is one of the big
6 questions that we have throughout this whole thing, the way
7 it was revealed at certain times, the settlement.

8 Overall, though, regardless of why it was done, what's in
9 that declaration versus what is not, the case law is clear on
10 arbitrary and capriciousness. If you're going to make a
11 significant change, you need to have a rationale for it. It
12 doesn't need to be a better rationale. But you do need to
13 have a rationale. And none is identified in this
14 declaration. Because as I pointed out, this doesn't apply to
15 plastic guns, the rationale that they have, that it's readily
16 available, the guns, because that's just not so for plastic
17 guns.

18 THE COURT: So the action may not be arbitrary and
19 capricious to the larger categories, but its impact on the
20 plastic gun issue is?

21 MR. RUPERT: Correct. That's why we do wonder what
22 will come out in the final rulemaking, which we don't know.
23 But you do wonder, do plastic guns get excepted from the
24 final rulemaking. And then we'll just have to see what they
25 do, and then we'll have to see if there's any challenges to

1 that.

2 THE COURT: Okay. You can move on now, to standing.

3 MR. RUPERT: Sure.

4 As we discussed last time, standing is injury in fact,
5 traceability and redressability. But these requirements are
6 relaxed in the APA case. And the state has standing, if it's
7 either sovereign, quasi-sovereign, or proprietary interest.
8 I want to highlight the *Massachusetts v. EPA* case that talks
9 about the special solicitude in the standing analysis,
10 because that does change it somewhat when the states are
11 involved. And that was applied for the *EPA* case, and also
12 recently applied in the *Texas v. United States* case, that was
13 affirmed by an equally divided court in 2016.

14 This is, I think, pretty well laid out in the briefs, so I
15 was going to move through it somewhat quickly. The states
16 have a sovereign interest to create and enforce the legal
17 code. And we believe that the government's actions under
18 forces our ability to enforce the statutory codes. And we
19 have multiple declarations that support that.

20 It also undermines the maintenance and recognition of
21 borders, because this will allow guns, based on the McCord
22 declaration, to come across the borders by air, sea, and
23 water. Also affects the police power, because it seriously
24 impedes the ability to protect the residents from injury and
25 death. And there's numerous declarations that go into that.

1 On the proprietary standing, the state has submitted
2 declarations related to its jails. Metal detectors are
3 widely used there. And if this technology, that technology
4 being 3D guns, is widely implemented, the metal detectors are
5 going to have a significant hole. And we'll have to buy a
6 whole new wave of technology to scan folks when they come
7 back in, or guests that come in. And we're going to have to
8 do hand searches. So there's going to be significant expense
9 involved.

10 The same with law enforcement, anybody who is relying on
11 metal detectors is going to have to upgrade their technology,
12 if such technology exists, or they're going to have to go to
13 more hand searches, which is going to be more intensive and
14 require more manpower. So we believe that's the proprietary
15 interest right there.

16 As far as quasi-sovereign, we believe there's, again, a
17 threat, similar to the sovereign and proprietary, a threat to
18 safety and physical well-being, to the states' residents by
19 making these weapons more available, which sort of dovetails
20 with what I've discussed about irreparable harm.

21 The next part of a standing analysis is zone of interest
22 and prudential standing. This is not meant to be an
23 especially demanding test. And it's presumptive -- agency
24 actions are presumptively reviewable. When you look at the
25 AECA itself, it's intended to protect domestic security by

1 restricting the flow of military information abroad. But it
2 does so in furtherance of world peace and the security and
3 foreign policy of the United States.

4 As I said before, the states are the United States. If
5 this is going to -- if we're doing it to protect national
6 security, we should be doing it to protect the states. And
7 we have declarations in the record that talk about these guns
8 flowing across our borders, or the potential that somebody in
9 a foreign country could seize an airplane by getting onto the
10 airplane in a foreign country and flying it towards the
11 States.

12 I'm going to move on to the First Amendment issues, unless
13 Your Honor had any questions about standing.

14 We believe the First Amendment is irrelevant to the merits
15 of the case. And we do that because the government, in the
16 Heidema declaration, states that they didn't rely on the
17 First Amendment in deciding these decisions. Now, I do
18 believe the Court should consider the First Amendment when it
19 balances the equities, and that element of the temporary
20 restraining order. We believe it's an easy decision there,
21 though, because Judge Pitman has already done that review,
22 being on a somewhat different standard, but on a preliminary
23 injunction standard, and determined that plaintiffs have not
24 shown a substantial likelihood of success on the merits of
25 their claim under the First Amendment.

1 We have a number of arguments in here, and I'm going to
2 focus on Judge Pitman's analysis. But I do want to highlight
3 some of those arguments before I get to Judge Pitman.

4 First is that 3D guns themselves are not an expressive
5 act. And for that, I'm relying on the *Vartuli* case cited in
6 the briefs. Because the nature of these guns is that you
7 just press a button and it prints. So we don't believe that
8 itself is an expressive act.

9 One of our other arguments that we raise in our briefs is
10 that these load files are integral to criminal conduct and
11 are, therefore, exempt from the First Amendment. And there's
12 some cases that we cite for that. But the gist of that is
13 that with the Undetectable Firearms Act, as well as the state
14 law restrictions, it's illegal to possess a weapon such as a
15 plastic gun. So, therefore, these guns -- excuse me, the
16 files are so tied to those plastic guns, that they themselves
17 have no First Amendment protection.

18 But what I want to focus most on is intermediate scrutiny
19 or whether this is content neutral, as Judge Pitman had
20 determined. Before we get there, though, we need to look at
21 this issue of a prior restraint. Because the private
22 defendants have claimed that if there's a prior restraint,
23 that strict scrutiny automatically applies. Well, that's
24 just not so in the case law.

25 As Judge Pitman cited, the standard review for analyzing

1 prior restraints, there's different standards of review
2 depending on the restraint at issue. While there's a heavy
3 presumption against validity, that's not a standard review in
4 itself. And he cites, for instance, the *Seattle Times* case,
5 where there was a prior restraint, but strict scrutiny was
6 not applied.

7 Following Judge Pitman's analysis, he determined that the
8 law is content neutral. And he did so because the ITAR does
9 not regulate disclosure of technical data, based on the
10 message it's communicating. And that's exactly our position
11 as well. Because the fact that some of these private
12 defendants are in favor of global access to firearms or have
13 some other agenda, is not the basis for regulating the export
14 of the computer files at issue.

15 The motivation of the government, as the government said
16 itself in its brief, is not the product of hostility towards
17 their ideas or the spread of 3D printing technology, but it's
18 the very means to easily do so. So I believe that
19 intermediate scrutiny applies here because it's content
20 neutral.

21 If there is intermediate scrutiny, again, I'm going to
22 follow Judge Pitman's reasoning here. There's a substantial
23 government interest in regulating the dissemination of
24 military information and combatting terrorism. And there's
25 numerous cases on that point. We believe that the

1 regulations here are narrowly tailored, and there's a
2 procedure to challenge it with a CJ. And the declaration
3 from Ms. Aguirre indicated that most CJs are granted. By
4 that, I mean you're allowed to export the item.

5 Finally, there are alternative avenues to produce this
6 information. But here, notably, it only applies to Internet
7 posting. They can hand them around domestically. And also
8 there's a wide exception in the statute for general
9 scientific, mathematical or engineering papers.

10 I would note that Judge Pitman's decision relied on a
11 Ninth Circuit case, which we again believe controls, is the
12 *Chi Mak* case, from the Ninth Circuit in 2012, where the Ninth
13 Circuit quoted -- quote says, it repeatedly rejected First
14 Amendment challenges to the AECA, its implementation of
15 regulations in its predecessor statute.

16 So, again, we believe that decides the issue with the
17 First Amendment. But Your Honor only has to reach these
18 issues on the balancing of the equities test for an
19 injunction.

20 Moving on to the balancing of the equities. We believe
21 there's a real and present danger to the public safety. The
22 President seems to agree. And the preliminary injunction, if
23 it were issued, as with temporary restraining orders, will
24 not harm the government. It would put us back to where we
25 were before this all happened. As to the First Amendment

1 issues that have been raised by the private defendants, I'll
2 just address them there. And they didn't have this ability
3 to publish for five years here. And just continuing it on
4 while this litigation proceeds, we don't believe will cause
5 much harm, when compared with the irreparable harm that the
6 states would suffer, as demonstrated by our declarations.

7 I don't have anything further, unless Your Honor has any
8 questions.

9 THE COURT: I'll catch you in rebuttal.

10 MR. RUPERT: Okay. Thank you.

11 THE COURT: Um-hum. Mr. Myers.

12 MR. MYERS: Thank you, Your Honor. The federal
13 government agrees that undetectable plastic firearms pose a
14 significant risk to domestic public safety. The Department
15 of Justice is fully committed to vigorously enforcing the
16 Undetectable Firearms Act.

17 THE COURT: How do you vigorously enforce an act to
18 find undetectable guns, until that gun ends up being used?
19 How do you proactively stop and find those things?

20 MR. MYERS: Your Honor, federal law enforcement is
21 involved in finding all kinds of illicit contraband;
22 undetectable firearms, unlawful drugs, any number of things.
23 The federal government has a lot of experience doing that.

24 THE COURT: Right. But we don't just wait for the
25 heroin to be produced, and then try to find it. We say it's

1 against the law to produce the heroin.

2 MR. MYERS: Correct, Your Honor.

3 THE COURT: If we have something that, by definition,
4 is undetectable and untraceable, wouldn't it make sense that
5 it should not be manufacturable?

6 MR. MYERS: And to be clear, Your Honor, it is
7 unlawful to produce an undetectable firearm.

8 THE COURT: Right.

9 MR. MYERS: As in other contexts it's unlawful to
10 produce illegal drugs. So that is our point. It is unlawful
11 to produce an undetectable firearm. And it's the
12 Undetectable Firearms Act that is the basis for that
13 illegality. And the government is fully committed to
14 enforcing that statute.

15 It's also fully committed to enforcing other prohibitions
16 on firearms ownership, by people who are ineligible to own
17 firearms: Felons, and those who were judged mentally ill,
18 and others. But the fact that a weapon is dangerous
19 domestically, and there's a basis to regulate it
20 domestically, doesn't mean that it provides a critical
21 military or intelligence advantage, which is the standard
22 that applies when the State Department exercises its
23 authority under the Arms Export Control Act.

24 THE COURT: So are you saying it never should have
25 been there in the first place?

1 MR. MYERS: Your Honor, the key event, from the
2 government's perspective, is the May notices of proposed
3 rulemaking from state and commerce, that reflect the
4 government's judgment that nonautomatic firearms, sub
5 50-caliber, do not present a critical military or
6 intelligence advantage. So, no, I'm not saying it never
7 should have been.

8 THE COURT: But we now have a new proposed
9 modification that will take all those weapons off the table,
10 as far as the Export Control Act goes.

11 MR. MYERS: Correct.

12 THE COURT: And I didn't require production of the
13 record under this tight time schedule, because I didn't want
14 you worrying about that. But at some point the question of
15 whether this was the bureaucracy at work, but not noticing
16 that it affected 3D printed weapons; or, my goodness, let's
17 get these 3D weapons unregulated and this is the way to do
18 it, does become important, doesn't it?

19 MR. MYERS: Your Honor, if this case -- assuming this
20 case proceeds and we're directed to produce the
21 administrative record, everything that is part of the record
22 will be before the Court.

23 THE COURT: Well, do you know the answer to the
24 question? Was it -- did somebody notice that this
25 modification is going to change the 3D gun thing, and it was

1 part of the process; or, we just wanted to change the
2 50-caliber or less, nonautomatic, and we didn't even think
3 about the 3D printing?

4 **MR. MYERS:** Your Honor, I think the face of the
5 documents that we've relied on and put before the Court
6 suggests that there's been a year's long effort to revise the
7 United States Munitions List. And as part of that, the
8 judgment has been made that sub-50-caliber nonautomatic
9 firearms ought not be regulated under the AECA and ITAR. And
10 that extends to professional firearms or plastic firearms,
11 provided that they are nonautomatic and sub-50-caliber.

12 **To be clear, even if the Court were to grant plaintiffs**
13 **every ounce of relief that they seek in this case, Defense**
14 **Distributed could still mail every American citizen in the**
15 **country the files that are at issue here.** And what that gets
16 at, and what I really want to underscore, is the fundamental
17 disconnect between the claims that plaintiffs are asserting
18 here, and the statutory regime at issue.

19 Again, there are domestic prohibitions on undetectable
20 firearms, on firearm possession. Some of those are federal.
21 Some of those are state. And all remain on the books and
22 capable of being enforced. But plaintiffs are trying to rely
23 on the wrong statutes.

24 So let me start by talking about plaintiffs' theory of
25 injury, which is relevant to their claims of both standing

1 and irreparable harm. Their main argument is that as a
2 result of these files being available, that's going to lead
3 to the proliferation of undetectable guns. Again, that harm,
4 that potential harm is not properly traceable to the
5 regulatory action that's at issue here. If those harms
6 occur, it will be because of separate violations of separate
7 statutory prohibitions.

8 Plaintiffs similarly try to question defendants' national
9 security judgment. But the federal government's judgment is
10 that the risk of small-caliber weapons of this kind does not
11 justify their regulation under the Arms Export Control Act.

12 And that judgment, the federal government's national
13 security judgment, to the extent it's reviewable at all, is
14 entitled to significant deference from the Court.

15 Plaintiffs make the observation that the states are the
16 United States. And I suppose that's true in some sense, of
17 course. But the federal government has principal
18 responsibility for ensuring the national security of the
19 country. And the Arms Export Control Act is part of that.
20 That's the function of that statute.

21 With respect to abrogation of state laws, plaintiffs say
22 that somehow the federal government is interfering with their
23 ability to enforce their state laws. But that's just not so.
24 We are not suggesting that the actions at issue here
25 undermine or preempt state law in any respect. Plaintiffs

1 are just as able to enforce those laws today as they were a
2 year ago.

3 As I've tried to indicate, this fundamental mismatch
4 between what plaintiffs are concerned about and the statute
5 on which they're relying, also really undermines their
6 prudential standing. As a matter of prudential standing,
7 they need to show that their claims are in the zone of
8 interests of the statutory provision upon which they rely.
9 But as the Ninth Circuit has made clear, the Arms Export
10 Control Act is designed to, and I'm quoting, "Protect against
11 the national security threat caused by the unrestricted flow
12 of military information abroad." That's the *United States v.*
13 *Posey* case from the Ninth Circuit.

14 The vast majority of the harms that they're talking about
15 are purely domestic harms that are properly the subject of
16 domestic regulation. But they're not relevant to the foreign
17 affairs concerns of the Arms Export Control Act. And, again,
18 plaintiffs are not able and should not be able to
19 second-guess the executive national security determinations.
20 That is the essential function of the federal government, not
21 state governments.

22 Unless Your Honor has questions on what I've said so far,
23 I'll turn to the likelihood of success on the merits of their
24 APA claims.

25 THE COURT: Go ahead.

1 MR. MYERS: Their primary argument is this 30-day
2 notice provision that arises from 22 U.S.C. Section 2278(f).
3 And what that statute says is that before items are removed
4 from the Munitions List, there needs to be 30 days' notice to
5 Congress.

6 Your Honor can simply look at the United States Munitions
7 List to see that nothing, no items have been removed from the
8 Munitions List. The Munitions List consists of 21
9 categories. And then there are items within those
10 categories. And the items, for example in Category I, are
11 things like nonautomatic and semiautomatic firearms, to
12 caliber 50, or combat shotguns, or silencers, mufflers and
13 flash suppressors. Again, all of those items are still
14 there. The USML has not changed at all as a result of the
15 actions challenged here.

16 What the July 27th notice did was temporarily exclude very
17 specific technical data from the scope of the USML, and
18 essentially meant that the USML would not be applied as to
19 those specific files pertaining to those specific articles.
20 But, again, the items on the USML remain exactly the same.

21 The Heidema declaration, which we have submitted, makes
22 clear that the government has consistently, since at least
23 2011, understood the statute's use of the term "items" in
24 exactly that way. And it further makes clear that Congress
25 has been put on notice that that's how the State Department

1 understands the statute. So that understanding is entitled
2 to some degree of deference from this Court.

3 Indeed, 22 CFR Section 126.2 specifically contemplates
4 temporary suspensions of the regulations as to particular
5 articles. And so what I think plaintiffs are really
6 suggesting is that that regulation is an impermissible
7 interpretation of the statute. And that regulation is
8 likewise entitled to some degree of deference, as a
9 reasonable construction of what the statute means.

10 Plaintiffs further say that defendants have violated the
11 executive order which requires the concurrence of the
12 Secretary of Defense. First of all, that claim only can go
13 forward if there has, in fact, been a change to items or
14 categories of items. So in a certain sense, it's duplicative
15 of the notice to Congress claim that I was just discussing.
16 In addition, Section 6(c) of the executive order is explicit
17 that it does not create rights that are enforceable at law
18 against the United States; which is not the case in the
19 authority upon which plaintiffs have relied to try to say
20 that they can litigate under the executive order.

21 And, finally, the Heidema declaration makes perfectly
22 clear that the Defense Department has been consulted
23 throughout this process, both with respect to the notices of
24 proposed rulemaking, which would exclude all -- which would
25 remove all nonautomatic small-caliber firearms from

1 Category I, and specifically with respect to the subject
2 files that are at issue here.

3 Finally, with respect to plaintiffs' arbitrary and
4 capricious claim, we submit that the notices of proposed
5 rulemaking directly answer that claim. Those notices of
6 proposed rulemaking make clear that the federal government
7 has been involved in a year's long process to determine what
8 kinds of weapons present a critical military or intelligence
9 advantage. And they further reflect the government's
10 judgment that small-caliber, nonautomatic firearms, of a kind
11 that you can buy in essentially any gun store in the United
12 States, do not present such a critical military or
13 intelligence advantage.

14 And so we think that answers their arbitrary and
15 capricious claim.

16 THE COURT: Of course you cannot buy a 3D-printed gun
17 in any firearms store in the United States that's
18 undetectable and untraceable, can you?

19 MR. MYERS: No, Your Honor, if it were undetectable
20 and untraceable, that would be a violation of the
21 Undetectable Firearms Act.

22 THE COURT: So what I keep coming back to, Mr. Myers,
23 is saying we're just doing this gross category of "under
24 50-caliber nonautomatic" because that has no defense or
25 international implications, may apply to every other weapon,

1 but does it apply to a 3D gun that is undetectable and
2 unprintable? And if you look at the government's positions
3 in the case in front of Judge Pitman in Texas, they kept
4 saying: This is different. This is serious. This could be
5 utilized in ways that have a direct impact on our country,
6 because of the proliferation in foreign lands, the fact that
7 people who don't have our best interests in mind can get the
8 guns and then come in with them, or use them to get on
9 airplanes. And we could end up with other kinds of 9/11
10 situations or shoe-bomber situations. That this was a very
11 serious issue, in and apart from the 50-caliber issue.

12 You keep wanting to say: That's just not part of the
13 process. It's not what we were talking about. If it happens
14 to implicate that, we'll deal with it in the way we deal with
15 law enforcement in general. And that doesn't comfort people,
16 because we already see mentally ill people get their hands on
17 guns and have mass shootings. We already see people who are
18 felons get their hands on guns. We see people, who are not
19 entitled to have guns, get their hands on guns. We see
20 children shoot other children with what they think are toy
21 guns. And, my goodness, these plastic guns look even more
22 like toy guns.

23 Where is the recognition, seems to be coming somewhat from
24 the President that: Wait a minute, this is a different
25 matter, and Sarah Sanders, we're glad that the judge put a

1 little stop in this so we can take a better look at it.

2 Where is the better look at it?

3 MR. MYERS: Your Honor, since Your Honor entered the
4 TRO, the government has been further studying and further
5 looking into this issue, as the press secretary I think
6 indicated she was -- or the President was welcoming that
7 opportunity. That further look has concluded. And the
8 government's position on this issue has not changed. And the
9 position of the United States is the position that we've set
10 out in the brief filed with this Court.

11 THE COURT: Okay. So that review internally in the
12 Executive Branch did occur, and the decision was made not to
13 change the position?

14 MR. MYERS: There has been no change in position
15 since we filed our TRO brief and since we filed the PI brief
16 and this morning's hearing.

17 THE COURT: Right. But my question was a little bit
18 different, though. I understand there's been no change. But
19 was that decision not to make a change at the highest levels
20 of the Executive Branch, or we just don't know why it wasn't
21 changed.

22 MR. MYERS: Your Honor, I can't really speak as to
23 who or where in the Executive Branch considerations, you
24 know, have or haven't taken place. I can say that the
25 position I'm articulating today is the vetted, authorized

1 position of the United States Government.

2 THE COURT: Great. Thanks, Mr. Myers. I don't want
3 to stop you. Are you moving on to anything else?

4 MR. MYERS: Your Honor, I think all I would add or
5 all I would just underscore is that the government
6 understands all of the harms and issues that Your Honor has
7 just identified. Again, we understand that undetectable
8 plastic firearms are a serious security threat. The
9 Department of Justice takes the issue seriously, is committed
10 to vigorously enforcing statutes that deal with those topics,
11 we just don't think that the Arms Export Control Act is the
12 relevant statute here.

13 THE COURT: As far as the First Amendment issues go,
14 the federal government has never taken a position that
15 anything that had to do with the Arms Export Control Act
16 implicated First Amendment issues, correct?

17 MR. MYERS: We've denied liability on the First
18 Amendment claim.

19 THE COURT: And even the settlement with Defense
20 Distributed didn't admit to any First Amendment violations?

21 MR. MYERS: It continues to deny liability, right.

22 THE COURT: Okay. And you understand that you and
23 the private defendants do separate on this last issue that
24 you talked about. They want everyone to have an
25 undetectable, untraceable gun, because they -- at least

1 according to Mr. Wilson -- that's the way they will protect
2 themselves from an overbearing, overcontrolling government.
3 And so you're not on the same page on that.

4 MR. MYERS: Again, the Department of Justice is fully
5 committed to enforcing all federal criminal laws that
6 regulate these topics.

7 THE COURT: Thanks, Mr. Myers.

8 MR. MYERS: Thank you, Your Honor.

9 THE COURT: Mr. Flores.

10 MR. FLORES: Thank you, Your Honor. We appreciate
11 the Court's indulgence in letting us brief and argue this
12 case as something of a bystander. We should probably start
13 by recognizing that as the Court correctly saw at the TRO
14 stage, and as we see in footnote 1 of the motion, the
15 plaintiffs don't seek any relief against us in this case.
16 And so we have views we'd like to express, but our role is a
17 unique one.

18 I think it's also critical to acknowledge that what we
19 heard both from counsel for the plaintiffs and the government
20 is that my clients could mail the files at issue to anyone in
21 the country and violate no law. And so really what we're
22 talking about isn't the question of whether, but how much.
23 How much of this activity can occur, due to the use of the
24 Internet? And I think that's a critical thing to realize
25 when we're looking at things like irreparable harm and the

1 evidence that you look at from the plaintiffs.

2 When you decide whether or not to enter an injunction, you
3 can't look at evidence of all of the activity that's going
4 on, you have to look at the marginal increase that would be
5 at issue in this case, because of this particular set of
6 parties.

7 I don't really want to get into the merits of a lot of the
8 discussion here. I actually want to focus on a procedural
9 point. And that is that this isn't an up-or-down question of
10 whether or not to continue the TRO and whether or not the
11 temporary modification should stay in place. I think that in
12 order to sign the order that they've drafted for you, you
13 would need to conduct the analysis, the full analysis of
14 standing, and the merits, and irreparable harm, and the
15 constitutional claims, at least four times.

16 Because, remember, the temporary modification doesn't just
17 apply to 3D guns generally. We're talking about very
18 particular files that are defined consistently throughout the
19 actions. You have four categories. Category I is the
20 published files, which is a defined set of expression.
21 Category II is the ghost gunner files. Category III is the
22 CAD files. And Category IV is the other files.

23 And the procedural point I have to make is that we have
24 very strong arguments that apply to many of these. And the
25 plaintiffs have some okay counterarguments. I acknowledge

1 they are close arguments. But I think that at worst, you're
2 going to have to split the baby here.

3 For example, I think our best argument is that the cat is
4 out of the bag as to the files that are already online.
5 There is an enumerated list of ten files at issue. These
6 belong in the category of the published files and the CAD
7 files that are already available online, no matter what
8 happens in this case.

9 And so we think that takes out their case, both at a
10 standing level and at a traceability level. And they have an
11 answer. And their answer is, yes, but the order also
12 concerns other files that don't exist yet. That may be the
13 case. I have other answers as to other files. But that
14 means you can't issue an injunction as to the matters that
15 are already out in the public domain.

16 And so throughout the analysis, they have to thread the
17 needle all the way through as to all four pieces that we're
18 talking about here.

19 Now, on that last piece, the other files that don't exist
20 yet, we do have a solution to that, and that's a standing
21 problem. This is precisely the kind of speculative harm that
22 isn't justiciable. Because remember, we don't know what
23 files we're talking about. We're just imagining what could
24 be created in the future by, not us, but the people who we
25 send expressive files to. And so that, we think, there

1 doesn't have standing to assert.

2 The standing analysis also needs to be divided, we think.
3 We see three standing arguments. And I think only one of
4 them is debatable. And that one really narrows the case.

5 The first standing argument that we don't think they succeed
6 on is this pure sovereign interest in the states' ability to
7 enact their laws and to have their Executive Branch enforce
8 those laws. They can still do that for the reasons that my
9 friend for the government explained. But that's not at risk
10 here.

11 The second kind of standing argument they have is this
12 quasi-sovereign interest in protecting the safety of the
13 citizens and making sure that there's a peaceable place to
14 live. This is a *parens patriae* argument. The argument that
15 the government can assert the general interest in the safety
16 of its citizens. And as a matter of law, if that ever works,
17 it only works between a state and another state or a state
18 and a private party. It does not run in actions against the
19 government. Because when there are two governments, only one
20 of them can assert the interests of the people, and in this
21 case it's the federal government.

22 So the best argument they have is actually not one that
23 they can deploy against the government here.

24 Then we come to the third standing piece. And I think the
25 most arguable point is about the jails, and the notion that

1 this may make jails more expensive. I don't think that gets
2 them there. I think that's a speculative kind of claim. But
3 if it does, remember when you're balancing the equities,
4 you're not balancing the harm of every citizen in the state.
5 What you're balancing is the increased expense of new weapon
6 detectors versus the balances on the other side. So these
7 are two critical examples of how we can't just paint with a
8 broad brush and say: 3D guns, okay or not okay. We're
9 talking about a very specific set of files.

10 I have two more points that I want to make, Your Honor.
11 One of them is a little bit in the weeds and another is sort
12 of a separate issue. The first point is in the weeds of the
13 merits of the case, about whether a removal occurred. You
14 heard an argument from the government that said the reason
15 there haven't been procedural violations is because an item
16 isn't at issue here. We have a slightly different argument.
17 Even if you think that an item is at issue, removal didn't
18 occur. Because there is a difference between removing things
19 from the list and supplying an exemption.

20 And I'll start with an analogy and then I'll take you to
21 the text. The analogy is: I am arguing before the Court
22 today. I haven't been admitted to the bar. There are rules
23 that say I have to take and be a member of the Washington
24 bar, and I'm not. And yet I'm here. And the fact that I'm
25 here, the Court admitted me pro hoc, it doesn't mean the

1 Court removed the requirement of bar admission from the usual
2 way of getting into court. There's a separate system.

3 And you can see this in the statute. It's at 2278(g)(6).
4 And that's where the statute says that the President can
5 require a license or other form of authorization. So you see
6 this throughout the regulatory provisions as we go pretty
7 deep into it in the briefs, is that there isn't just one way
8 to turn the switch on and off. The President has
9 flexibility. This isn't removing anything. We're talking
10 about an exemption.

11 The last issue I want to talk about today is the matter
12 that we filed with the Court on Sunday night. And it's a
13 question of subject matter jurisdiction. We are in the case
14 because the plaintiffs say we're a necessary party. And I'm
15 not sure that that is so. If the case continues, we'll have
16 to litigate that. We'll have to litigate a lot of things.

17 But according to the complaint in paragraph 24, the reason
18 we're in the case is because the relief that they ask for may
19 affect the settlement agreement. And recall that the
20 settlement agreement is a contract that involves the United
21 States as a party and my client, Defense Distributed. So
22 they say we're here because something in this case is going
23 to affect the contract.

24 If that's so, we may have a Tucker Act problem. And the
25 Tucker Act problem is that suits on contract belong only in

1 the court of federal claims. And even when they can be
2 brought in district court, no injunctive relief is available.

3 Now, I'm not sure exactly what the plaintiffs mean when
4 they say this case could affect our rights under the
5 settlement agreement, so maybe we can hear that in rebuttal.
6 But if part of this case entails changing the obligations of
7 the settlement agreement, the Court has to take a hard look.
8 We've given the Court, I think, a starting point for that
9 analysis textually, so it would be a question of 1491 on
10 whether the case is founded upon the contract. And maybe
11 it's not. In which case, we would acknowledge if it's not
12 founded on that, we're out. But it's a matter of subject
13 matter jurisdiction. And I wanted to bring it to the Court's
14 attention, because of our somewhat attenuated role in the
15 case.

16 Unless the Court has further questions, we'll yield the
17 remainder of our time.

18 THE COURT: Thanks very much, Mr. Flores. It's nice
19 to have you here, even if it's under an exemption.

20 All right. Mr. Rupert. I don't think I'll need to hear
21 from Mr. Sprung.

22 MR. RUPERT: Thank you. Your Honor, we've had a
23 discussion of statutory schemes and going through all the
24 elements. But I do want to highlight what's at issue here.
25 For instance, we have Moms Demand Action in the courtroom

1 here. The public is very concerned about these 3D weapons
2 and the potential harm that they could cause. So I want to
3 focus on the irreparable harm. And I will certainly address
4 the points that were made. But I think that's what drove our
5 action and is one of the defining features of this case, is
6 all of the undisputed evidence in the record demonstrating
7 irreparable harm, both from the states as well as the federal
8 government, before it made this change.

9 We heard a number of things from the federal government
10 which I think we have addressed many of them on my initial
11 presentation, but I'll just highlight a few. We heard again
12 this idea that items, removal of items is, in fact, a
13 category. And, again, I think we would point to largely what
14 we did before. If you look at, particularly the executive
15 order that refers to items or categories of items, that
16 interpretation just doesn't find support. I would also
17 highlight the declarations from the congressmen, who
18 certainly believe that they were required to give notice for
19 this.

20 There was also this idea that there was not a removal of
21 items. Well, I submit that when you exclude items, that is,
22 in fact, a removal. And I don't think that bears a lot of
23 discussion, unless Your Honor has questions about that.

24 I do want to highlight the arbitrary and capricious claim.
25 We had some discussion, I thought Your Honor had some very

1 good questions. Because it's the exact points that we're
2 making here that if they're going to justify this, or attempt
3 to justify this decision about 3D guns, they can't do it by
4 referring to a rule that's not yet final. And then even in
5 that rule, as Your Honor identified, it seems to have been a
6 broad category. And we don't know what the reasoning was, if
7 it was administrative oversight, or if it was an intentional
8 decision.

9 But either way, when you look at the justifications in the
10 Heidema declaration for making that rulemaking proposed
11 change, again not final, it's that the items are readily
12 available. And it's obvious that 3D guns are not readily
13 available. And as the government then notes that, in fact,
14 it would be illegal to possess it. So we have a disconnect
15 there. And we believe that demonstrates, very vividly, the
16 arbitrary and capricious nature of the government's action
17 here.

18 Now, we have the private defendants kind of pointing out
19 there were a number of files at issue here and wanting a
20 separate analysis for those. I would just point to Judge
21 Pitman's analysis, that's the one that we have followed. And
22 I believe Judge Pitman readily addressed this issue there.
23 So I think the Court can look to Judge Pitman for that.

24 And then there's also this, I'll call it the
25 cat-out-of-the-box argument, that the idea that, well, some

1 of these files are out there on the Web, so that means that
2 whatever we're here doing today is for no good. I
3 fundamentally disagree with that. I mean, it's one thing to
4 have them out there on the far reaches of the Internet, but
5 it is a far different thing to have them readily available
6 for anyone to find. So I do think that this temporary
7 restraining order that Your Honor has issued, as well as
8 potentially a preliminary injunction, has a real effect in
9 preventing the harm that we've identified. And, again, we
10 have declarations supporting our position. And we have
11 speculation on the other side.

12 We also have this question that, well, this idea that, you
13 know, one of the things we focused on is we that have certain
14 files right now, but then what the government has done with
15 the temporary modification is opened up all kinds of 3D gun
16 files that will come. And they say, well, it's too
17 speculative.

18 Again, let's look at the record. We have Professor Patel
19 talking about the advances that are going to come in 3D
20 printing. So it's not speculative at all.

21 Then, finally, there was a question about standing. But
22 the standing analysis or argument overlooks the case law, the
23 special solicitude case law, in *Massachusetts v. EPA* and
24 *Texas v. United States of America*, which recognized that. I
25 would point Your Honor to that, which is in our briefs as

1 well. And even the private defendants recognize that the
2 proprietary standard is a much closer call, we would say it's
3 an easy call.

4 But if our metal detectors, like the one downstairs, are
5 no longer effective, we're going to have to get something
6 new. And that doesn't come for free. Or the other
7 alternative is start going back to hand searches, which are
8 going to present some issues of their own, about trying to
9 get everybody through, and all kinds of other situations that
10 are going to arise; if you have to search everyone by hand
11 and pat them down, it's going to take a lot more manpower.
12 So we have proprietary standing right there.

13 Then, finally, I'll address this subject matter issue
14 that's been raised in this last-minute filing with just this
15 case. This is not a contract case. We said that last time
16 we were here. This is an APA case. The reason we included
17 them in the case is that when we balanced the equities, they
18 may have an interest in that. And so we wanted them to be
19 heard. And they are here making their arguments.

20 But at the end of the day, this is not a contract case at
21 all. We are attacking the government's decision to allow
22 these 3D guns to be readily available, and the administrative
23 process there. We're not attacking the settlement agreement
24 itself.

25 THE COURT: There may be contractual issues between

1 Defense Distributed and the federal government, based on the
2 settlement agreement. But it's not in front of me and it's
3 not part of this lawsuit is what you're saying?

4 MR. RUPERT: That's correct, Your Honor.

5 THE COURT: I agree with that. But I'm glad to have
6 Mr. Flores and his client here to express a point of view
7 that obviously the federal government isn't willing to go
8 that far. So it's very useful to have him here. But I agree
9 with you, I'm not touching any contract issue in the case.

10 You know, it's a little bit frustrating to be sitting in
11 this chair as a United States District Court Judge and seeing
12 this is an issue that should be solved by the political
13 branches of government. Like I say, when the issue came
14 before me on July 30th and I had to make a decision on
15 July 31st, on probably the most significant case that I've
16 handled as a United States District Court Judge, and having
17 the shortest amount of time possible to rule on the case,
18 that was one thing.

19 But where are the political branches to step up and deal
20 with an important issue like this? And it's very
21 frustrating, because there are justifiable criticisms: Who
22 is this federal judge out in Seattle that's going to make
23 such an important decision? And I'm not going to make an
24 important decision about these issues that you've raised.
25 It's not for me to do. But it is for me to determine: Did

1 the federal government follow their rules in making the
2 modification and sending the letter? And I will deal with
3 those in that technical arena.

4 But a solution to the greater problem is so much better
5 suited to the other two branches of government. And I really
6 hope and wish that the Executive Branch and Congress would
7 face up to this and say, it's a tough issue, but that's why
8 you got into public service to begin with.

9 But thanks very much. Did you have anything else,
10 Mr. Rupert?

11 MR. RUPERT: I do not, Your Honor.

12 THE COURT: I'm going to take the matter under
13 advisement. There is some excellent briefing and issues that
14 I want to take a closer look at. I will definitely get a
15 written decision out by Monday, August 27th. So you'll have
16 it for sure before the expiration of the TRO on the 28th.

17 Okay. Thanks very much, counsel. We are adjourned.

18 (Adjourned.)

19 C E R T I F I C A T E

20

21 I certify that the foregoing is a correct transcript from
22 the record of proceedings in the above-entitled matter.

23

24 /s/ Debbie Zurn

25 DEBBIE ZURN
COURT REPORTER

EXHIBIT

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UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

STATE OF WASHINGTON, *et al.*,

Plaintiffs,

v.

UNITED STATES DEPARTMENT OF
STATE, *et al.*,

Defendants.

NO. C18-1115RSL

PRELIMINARY INJUNCTION

This matter comes before the Court on the “Plaintiff States’ Motion for Preliminary Injunction.” Dkt. # 43. A temporary restraining order was entered on July 31, 2018, enjoining the federal defendants¹ from implementing or enforcing a “Temporary Modification of Category I of the United States Munitions List” and a July 27, 2018, letter issued by the U.S. Department of State to Cody R. Wilson, Defense Distributed, and the Second Amendment Foundation. The order also required the federal defendants to preserve the status quo *ex ante* as if the modification had not occurred and the letter had not been issued. Pursuant to the limitations set forth in Fed. R. Civ. P. 65, the matter was set for hearing on August 10, 2018, but the restraining order was extended by agreement of the parties to August 28, 2018, to accommodate an August

¹ The federal defendants are the United States Department of State, Michael R. Pompeo, the Directorate of Defense Trade Controls, Mike Miller, and Sarah Heidema.

1 system of prior restraints that was applied in an arbitrary manner in violation of Defense
2 Distributed's First, Second, and Fifth Amendment rights. A month after the Texas litigation was
3 filed, the DDTC determined that some, but not all, of the CAD data files Defense Distributed
4 wanted to publish on the internet were technical data subject to the ITAR.
5

6 Defense Distributed filed a motion for preliminary injunction in the Texas litigation to
7 preclude the federal government from imposing prepublication approval requirements on any of
8 its CAD files. The federal government opposed the motion, arguing that:

- 9
- 10 ● "export of Defense Distributed's CAD files could cause serious harm to U.S.
11 national security and foreign policy interests" that "warrant subjecting [the files] to
12 ITAR's export licensing of technical data;"
 - 13 ● Defense Distributed's "CAD files constitute the functional equivalent of defense
14 articles: capable, in the hands of anyone who possesses commercially available 3D
15 printing equipment, of 'automatically' generating a lethal firearm that can be easily
16 modified to be virtually undetectable in metal detectors and other security equipment;"
 - 17 ● "The State Department is particularly concerned that [Defense Distributed's]
18 proposed export of undetectable firearms technology could be used in an assassination,
19 for the manufacture of spare parts by embargoed nations, terrorist groups, or guerrilla
20 groups, or to compromise aviation security overseas in a manner specifically directed at
21 U.S. persons;" and
 - 22 ● both the government and the public "have a strong interest in curbing violent
23 regional conflicts elsewhere in the world, especially when such conflict implicates the
24 security of the United States and the world as a whole."
25
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27 Id., Dkt. # 32 at 19-20 (W.D. Tex.) (internal quotation marks and citations omitted). The then-

1 Director of the Office of Defense Trade Controls Management, Lisa V. Aguirre, concluded that
2 the unrestricted export of Defense Distributed’s CAD files would result in the production of
3 plastic firearms that are fully operable and virtually undetectable by conventional security
4 measures, that their use to commit terrorism, piracy, assassinations, or other serious crimes
5 would cause serious and long-lasting harm to the foreign policy and national security interests of
6 the United States, that efforts to restrict the availability of defense articles to enemies of the
7 United States would fail, that the proliferation of weapons and related technologies would
8 contribute to a more dangerous international environment, and that the export would undercut
9 the domestic laws of nations that have more restrictive firearm controls and the United States’
10 foreign relations with those nations would suffer. *Id.*, Dkt. # 32-1 at ¶ 35.

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12
13 The Honorable Robert L. Pitman denied the motion for preliminary injunction, noting that
14 Defense Distributed’s avowed purpose is to facilitate “*global* access to, and the collaborative
15 production of, information and knowledge related to the three-dimensional (‘3D’) printing of
16 arms,” and that such activities “undoubtedly increase[] the possibility of outbreak or escalation
17 of conflict” and are of the type Congress authorized the President to regulate through the AECA.
18 *Id.*, Dkt. # 43 at 8-9 (emphasis in original). The Fifth Circuit affirmed, finding that “the State
19 Department’s stated interest in preventing foreign nationals - including all manner of enemies of
20 this country - from obtaining technical data on how to produce weapons and weapons parts”
21 constitutes “a very strong public interest in national defense and national security.” Defense
22 Distributed v. U.S. Dep’t of State, 838 F.3d 451, 458 (5th Cir. 2016).

23
24
25 In April 2018, the federal government moved to dismiss Defense Distributed’s lawsuit,
26 reiterating that what was at stake was “the United States’ ability to control the export of weapons
27 - a system of laws and regulations that seeks to ensure that articles useful for warfare or

1 Reg. 24,166 (May 24, 2018). The settlement agreement was signed on June 29, 2018, in the
2 midst of the public comment period, but not made public until July 10, 2018. The temporary
3 modification was published and the letter to the private defendants was issued on July 27, 2018.
4

5 Three days after the temporary modification was published, eight states and the District of
6 Columbia filed this lawsuit, alleging that the federal defendants' conduct was *ultra vires* and in
7 violation of the Administrative Procedure Act ("APA") and the Tenth Amendment to the United
8 States Constitution.⁴ After an expedited hearing, the Court found that plaintiffs had shown a
9 likelihood of success on the merits of their Administrative Procedure Act claim insofar as the
10 temporary modification resulted in the removal of one or more items from the USML, that
11 plaintiffs had shown a likelihood of irreparable injury if an injunction did not issue because
12 Defense Distributed had announced its intent to make the CAD files downloadable from its
13 website on August 1, 2018, and that the balance of hardships and the public interest tipped
14 sharply in plaintiffs' favor.
15

16 DISCUSSION

17 Plaintiffs' request for a preliminary injunction is centered on its claim that the federal
18 defendants violated the APA. The APA authorizes judicial review of final agency action and
19 provides that a "reviewing court shall . . . hold unlawful and set aside agency action, findings,
20 and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in
21 accordance with law; . . . in excess of statutory jurisdiction, authority, or limitations; . . . [or]
22 without observance of procedure required by law." 5 U.S.C. § 706. Plaintiffs argue that the
23 federal government's efforts to immediately remove items from the USML through issuance of a
24
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26 ⁴ An amended complaint, adding eleven more States/Commonwealths as plaintiffs, was filed on
27 August 2, 2018. Dkt. # 29.

1 **1. Standing**

2 In order to present a justiciable case or controversy under Article III of the U.S.
3 Constitution, plaintiffs must have standing to challenge defendants’ conduct and pursue the
4 relief requested.

5
6 [The] constitutional minimum of standing contains three elements. First, the
7 plaintiff must have suffered an injury in fact - an invasion of a legally protected
8 interest which is (a) concrete and particularized . . . and (b) actual or imminent, not
9 conjectural or hypothetical Second, there must be a causal connection
10 between the injury and the conduct complained of - the injury has to be fairly
11 traceable to the challenged action of the defendant, and not the result of the
12 independent action of some third party not before the court. . . . Third, it must be
13 likely, as opposed to merely speculative, that the injury will be redressed by a
14 favorable decision.

15 Lujan v. Defenders of Wildlife, 504 U.S. 555, 560 (1992) (internal quotation marks, citations,
16 and alterations omitted). In an APA action, a State alleging a procedural violation has standing if
17 there is a possibility that the relief requested will prompt the agency to reconsider the decision
18 that is allegedly causing harm. Mass. v. Env’tl Protection Agency, 549 U.S. 497, 517 (2007). In
19 addition, a State has a legally protectable interest if it has a sovereign, quasi-sovereign, or
20 proprietary interest that would be impacted by the litigation. Dep’t of Fair Emp’t & Hous. v.
21 Lucent Techs., 642 F.3d 728, 753 n.5 (9th Cir. 2011).

22 Plaintiffs allege that the federal defendants failed to provide notice of their intent to
23 remove technical data related to the manufacture of 3D guns from the USML and have made a
24 wholly unsupported - and therefore arbitrary and capricious - decision which, in the State
25 Department’s own words, will make anyone in possession of a commercially-available 3D
26 printer capable of automatically generating a lethal firearm that would be virtually undetectable

1 in metal detectors and other security equipment. The federal defendants assert that the alleged
2 failures are harmless or are causally unrelated to any harm the States might suffer because the
3 federal government's regulatory authority under the AECA is limited to exports and the
4 plaintiffs' concerns are purely domestic. Defendants' argument is so myopic and restrictive as to
5 be unreasonable. Whatever defendants' statutory authority, the fact is that the internet is both
6 domestic and international. The federal defendants' determination that the 3D files at issue are
7 subject to regulation under ITAR and could not, therefore, be published on the internet reduced
8 risks of the proliferation of untraceable and undetectable weapons, assassinations, aviation and
9 other security breaches, and violations of gun control laws both abroad and at home. Thus, the
10 alleged failures to provide notice and to make a reasonable evaluation of the risks and benefits of
11 the proposed action not only impact national security but have domestic repercussions as well.

14 The Court finds that plaintiffs have not only alleged harm to their legally protectable
15 sovereign interests under the traditional standing analysis, but have also alleged a procedural
16 APA claim where there is a possibility that compelling compliance with the specified procedures
17 will prompt the agency to reconsider its decision. Forcing the federal defendants to give
18 Congress thirty days' notice of the removal of the CAD files from the USML and to seek the
19 concurrence of the Department of Defense would afford other executive branch entities
20 (including the President) an opportunity to impact the decisionmaking process and would give
21 both Congress and the States a chance to generate any statutes or regulations deemed necessary
22 to address the regulatory void the delisting would create. Forcing the federal defendants to
23 evaluate the effect of the proposed delisting on world peace, national security, and the foreign
24 policy of the United States (factors which Congress intended the President or his designee to
25 consider) may also prompt a reconsideration of the decision to remove the CAD files from the

1 USML. There is, at the very least, a possibility that the States would benefit from the relief
2 requested in this litigation.

3 Plaintiffs have standing to pursue the relief requested in the amended complaint. Plaintiffs
4 have alleged an injury in fact that is directly threatened by the federal defendants' proposed
5 delisting of the technical data contained in Defense Distributed's CAD files and that could be
6 ameliorated, if not avoided entirely, as a result of this litigation.

8 **2. Collateral Attack**

9 The private defendants argue that this lawsuit is an impermissible collateral attack on the
10 dismissal with prejudice of the Western District of Texas litigation. They reason that, had the
11 States moved to intervene in the prior litigation in order to object to the proposed settlement or
12 to seek a preliminary injunction precluding its execution, the motion would have been denied
13 and the States cannot, therefore, obtain such relief here. The conclusion does not follow from the
14 premise. The reasons the States would likely not have been permitted to intervene in the prior
15 litigation is that they were not necessary parties, they had no right to appear simply because they
16 were interested in its outcome, their claim had nothing to do with the facts or law at issue
17 between the existing parties, and their APA-based objections could be heard and their interests
18 protected in a separate litigation with the federal defendants. See Fed. R. Civ. P. 19 and 24. The
19 district court's likely refusal to allow plaintiffs to appear and/or intervene in the Western District
20 of Texas litigation is not relevant to, much less dispositive of, plaintiffs' right to seek relief in
21 this litigation.

22 If, as plaintiffs allege, the federal defendants exceeded their authority in entering into the
23 settlement agreement with the private defendants, they are entitled to file suit under the APA and
24 seek appropriate redress. If the remedy afforded in this litigation impinges on the federal
25

1 defendants' ability to perform under their settlement agreement with the private defendants, the
2 latter may have a breach of contract claim against the former, but there is no jurisdictional bar to
3 this litigation in the circumstances presented here. The dismissal of the Texas litigation is not
4 under attack: rather, the States are challenging the adequacy of agency action. Defendants offer
5 no case law suggesting that violations of the APA can be shielded from judicial review by
6 simply incorporating them into a private settlement agreement.

8 **B. Likelihood of Success on the Merits**

9 **1. Congressional Notice**

10 The AECA authorizes the President of the United States "to control the import and the
11 export of defense articles and defense services" "[i]n furtherance of world peace and the security
12 and foreign policy of the United States." 22 U.S.C. § 2778(a)(1). The President has the power to
13 designate "defense articles and defense services:" the items so designated constitute the USML.
14 Id. The USML identifies categories of defense articles and services that are subject to export
15 controls. The list is "organized by paragraphs and subparagraphs" that "usually start by
16 enumerating or otherwise describing end-items, followed by major systems and equipment;
17 parts, components, accessories, and attachments; and technical data and defense services directly
18 related to the defense articles of that USML category." 22 C.F.R. § 121.1(a). The USML,
19 Category I, includes all firearms up to .50 caliber (22 C.F.R. § 121.1(I)(a) and (b)) and all
20 technical data "required for the design, development, production, manufacture, assembly,
21 operation, repair, testing, maintenance or modification of" such firearms (22 C.F.R. § 120.10(a)).
22 Through the CJ process, the Department of State specifically determined that the CAD files
23 Defense Distributed seeks to publish are subject to the export controls of ITAR. The Department
24 "may not remove any item from the Munitions List until 30 days after the date on which [it] has
25

1 provided notice of the proposed removal to the Committee on International Relations of the
2 House of Representatives and to the Committee on Foreign Relations of the Senate” 22
3 U.S.C. § 2778(f)(1).

4
5 Plaintiffs have shown a likelihood of success on the merits of their APA claim because
6 the temporary modification of the USML to allow immediate publication of the previously-
7 regulated CAD files constitutes the removal of one or more items from the USML without the
8 required Congressional notice. The federal government represents that its settlement with the
9 private defendants was the result of a multi-year review process in which the Departments of
10 Defense, Commerce, and State determined that firearms up to .50 caliber would not provide a
11 military advantage to adversaries and therefore no longer warrant export control and should be
12 removed from the USML.⁷ Assuming that is the case, the federal defendants acknowledge that
13 the governing statute, 22 U.S.C. §2778(f)(1), requires that the results of the review be reported to
14 Congress and precludes the removal of any item from the USML until thirty days after such
15 notice is given.
16

17
18 The Department of State argues that its decision to allow the publication of previously-
19 regulated CAD files does not trigger the Congressional notice requirement because it has not
20 removed an “item” from the USML. Defendants argue that the notice requirement applies only
21

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23 ⁷ The federal defendants refused to produce the administrative record of the agency’s decision
24 (Dkt. # 49) and instead rely on the declaration of the Director of the Office of Defense Trade Control
25 Policy within the DDTTC (Dkt. # 64-1) to explain how and why the decision was made to reverse the CJ
26 determination regarding the CAD files at issue. This tactic has placed plaintiffs and the Court at a
27 decided disadvantage in evaluating what the government relied upon when concluding that the State
28 Department’s prior findings regarding the national security risks posed by plastic, untraceable,
undetectable guns should be overruled. For purposes of the procedural APA claim, however, the
declaration confirms that notice to Congress will be given as required by 22 U.S.C. § 2778(f) if and only
if a final rule is issued. Dkt. # 64-1 at ¶ 24.

1 when a whole group or category of defense articles described in the USML, such as
2 “nonautomatic and semi-automatic firearms to caliber .50 inclusive (12.7 mm),” 22 C.F.R.
3 § 121.1(D)(a), is removed and that that has not yet happened. This argument conflates “category”
4 with “item.” As described in the statute, the USML is a list of items designated by the President
5 as “defense articles and defense services.” 22 U.S.C. § 2778(a)(1). Rather than generate an
6 exhaustive list of every individual article or service that is subject to export control under the
7 AECA, the Department of State opted to populate the USML with generally descriptive
8 categories. Those categories describe end-items, however, and it is those items that are the
9 “defense articles and defense services” that are subject to export control under the AECA. 22
10 C.F.R. § 121.1. See also Fact Sheet on President’s Export Control Reform Initiative (April 20,
11 2010), [https://obamawhitehouse.archives.gov/the-press-office/fact-sheet-presidents-export-](https://obamawhitehouse.archives.gov/the-press-office/fact-sheet-presidents-export-control-reform-initiative)
12 [control-reform-initiative](https://obamawhitehouse.archives.gov/the-press-office/fact-sheet-presidents-export-control-reform-initiative) (visited August 21, 2018) (noting that the United States’ system of
13 export control involved an “extensive list of controlled items which resulted in almost 130,000
14 licenses” in 2009). The congressional review and notice requirements specifically apply to items,
15 not categories of items. 22 U.S.C. § 2778(f). The Department’s CJ regulation further confirms
16 that it is the removal of a particular article or service - *i.e.*, an item rather than a category - that
17 triggers the review and notice requirements. The Department describes the CJ procedure as a
18 means of resolving doubts “as to whether an article or service is covered by the U.S. Munitions
19 List” and to seek “redesignation of an article or service currently covered by the U.S. Munitions
20 List.” 22 C.F.R. § 120.4(a). Immediately after the reference to redesignation, the regulations
21 reiterate that the “Department must provide notice to Congress at least 30 days before any item
22 is removed from the U.S. Munitions List.” *Id.* Given the language, structure, and purpose of the
23 statute and implementing regulations, the Court finds that plaintiffs are likely to prevail on their
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1 argument that the terms “item” and “category” are distinct and that Congressional notice is
2 required whenever a previously-designated defense article or service is to be removed from the
3 AECA’s reach.

4 As noted above, the DDTC made an express determination that certain CAD files that can
5 be used with a 3D printer to manufacture guns and/or their components are “defense articles” or
6 “defense services” under the USML. Defendants attempted to revoke that designation through
7 the issuance of the “temporary modification” described in the settlement agreement in the
8 Western District of Texas litigation, thereby removing the CAD files from the USML and lifting
9 all export controls.⁸ Congress was not notified prior to the removal. This procedural failure
10 cannot be rectified by providing Congressional notice thirty days in advance of any final rule
11 removing firearms up to .50 caliber from the USML. The temporary modification was an effort
12 to implement the removal immediately, without waiting for the rule to become final and without
13 giving Congress notice and an opportunity to exercise its oversight role. Because the removal to
14 which the States object occurred as of July 27, 2018, a subsequent notice is obviously not timely
15 under the statute.⁹

18 **2. Concurrence of the Secretary of Defense**

19 When the President delegated his authority under the AECA to the Secretary of State, he
20 also imposed a requirement that any changes in designations of defense articles and defense
21

22
23 ⁸ The Court rejects the private defendants’ attempt to distinguish the terms “remove” and
24 “exclude” in this context.

25 ⁹ To the extent the federal defendants are relying on 22 C.F.R. § 126.2 as authority for the
26 temporary modification, its use of that procedure to immediately redesignate an item that was previously
27 covered by the USML without Congressional notice violates the governing statute. “It is beyond dispute
28 that a federal regulation cannot empower the Government to do what a federal statute prohibits it from
doing.” Tuan Thai v. Ashcroft, 366 F.3d 790, 798 (9th Cir. 2004).

1 services subject to export control have the concurrence of the Secretary of Defense. There is no
2 indication that the federal government followed the prescribed procedures. Plaintiffs are not
3 likely to succeed on the merits of this aspect of its claim, however, because the relevant
4 executive order expressly states that it does not “create any right or benefit, substantive or
5 procedural, enforceable at law or in equity by any party against the United States, its
6 departments, agencies, or entities, its officers, employees, or agents, or any other person.”
7 Executive Order 13637, § 6(c).
8

9 **3. Abrogation of State and Federal Law**

10 In response to the States’ objections regarding the scope of the purported authorization
11 for “any United States person” to “access, discuss, use, reproduce, or otherwise benefit” from the
12 CAD files at issue, both the federal and private defendants disavow any intent to alter or in any
13 way impact existing federal prohibitions or limitations on the possession of firearms. The federal
14 defendants also recognize the continuing viability of state law gun control measures. Plaintiffs
15 do not address this argument in their reply memorandum.
16

17 **4. Arbitrary and Capricious**

18 Plaintiffs allege that the federal defendants’ decision to allow Defense Distributed to
19 upload to the internet CAD files containing 3D printing instructions for the manufacture of
20 undetectable weapons was arbitrary and capricious because the State Department failed to
21 consider the factors set forth in the AECA and/or to overrule or even address its earlier findings
22 justifying regulation of the files. The federal defendants state that the change was the result of a
23 multi-year review process which led to the determination that firearms up to .50 caliber “do not
24 provide the United States with a critical military or intelligence advantage, and therefore do not
25 warrant continued control on the USML.” Dkt. # 64-1 at ¶ 24. Even if the Court accepts that the
26
27
28

1 undisclosed administrative record will support this argument,¹⁰ there is no indication that the
2 Department considered the unique properties of 3D plastic guns or evaluated the factors
3 Congress deemed relevant when the Department decided to authorize the posting of the CAD
4 files on the internet as of July 27, 2018.
5

6 Until April 2018, the federal government took the position that technical data related to
7 the design and production of weapons using a commercially-available 3D printer posed a threat
8 to world peace and the security and foreign policy of the United States. Some of its concerns
9 related specifically to the undetectable nature of a gun made from plastic. Because they were
10 virtually undetectable in metal detectors and other security equipment, the State Department
11 feared that they could be used in assassination attempts, hijackings, piracy, and terrorist
12 activities. Other concerns related to the portability and ease of a manufacturing process that
13 would allow terrorist groups and embargoed nations to evade sanctions, repair weapons, restock
14 arms supplies, and fuel violent regional conflicts. Both aspects of the technical data at issue
15 would, the State Department feared, subvert the domestic laws of nations with restrictive firearm
16 controls, impairing the United States' foreign relations with those nations. Overall, the
17 Department of State concluded that the worldwide publication of computerized instructions for
18 the manufacture of undetectable firearms was a threat to world peace and the national security
19 interests of the United States and would cause serious and long-lasting harm to its foreign policy.
20
21

22 Against these findings related to the specific defense articles at issue in this litigation, the
23 federal defendants state only that restricting the international availability of firearms up to .50
24 caliber will not provide the United States with a critical military or intelligence advantage. There
25

26
27 ¹⁰ Plaintiffs' motion to strike arguments based on the administrative record is DENIED.

1 is no indication that the Department evaluated the unique characteristics and qualities of plastic
2 guns when it was considering the deletion of the small firearms category from the USML.
3 Statements made at oral argument affirmatively suggest that it did not do so prior to July 27,
4 2018. Nor is there any reasoned explanation for its change in position regarding the harms that
5 publication of the regulated technical data will engender. The State Department also appears to
6 have evaluated the export controls on small caliber firearms only through the prism of whether
7 restricting foreign access would provide the United States with a military or intelligence
8 advantage. Congress, however, directed the Department to consider how the proliferation of
9 technical data and related weaponry would impact world peace, national security, and foreign
10 policy. When President Obama initiated the multi-year review of the export control system on
11 which defendants rely, the stated goals of the review included “enhanc[ing] U.S. national
12 security” and updating the Cold War era system “to address the threats we face today and the
13 changing economic and technological landscape.” Fact Sheet on the President’s Export Control
14 Reform Initiative (April 20, 2010), [https://obamawhitehouse.archives.gov/the-press-office/fact-](https://obamawhitehouse.archives.gov/the-press-office/fact-sheet-presidents-export-control-reform-initiative)
15 [sheet-presidents-export](https://obamawhitehouse.archives.gov/the-press-office/fact-sheet-presidents-export-control-reform-initiative)
16 [-control-reform-initiative](https://obamawhitehouse.archives.gov/the-press-office/fact-sheet-presidents-export-control-reform-initiative) (visited August 21, 2018). Based on the
17 existing record, plaintiffs have raised serious questions regarding the merits of their claim that
18 the federal defendants failed to consider aspects of the problem which Congress deemed
19 important, failed to articulate a reasonable explanation for this particular decision in light of its
20 prior findings and representations, and engaged in arbitrary and capricious agency action.
21
22

23 **5. Agency Discretion**

24 The private defendants argue that this Court lacks jurisdiction over plaintiffs’ APA claims
25 because the APA does not apply “to the extent that . . . agency action is committed to agency
26 discretion by law.” 5 U.S.C. § 701(a)(2). The AECA expressly commits one type of decision to
27

1 agency discretion as a matter of law: the decision to designate an item as a defense article or
2 defense service. 22 U.S.C. § 2778(h). The decision at issue here, however, is the removal of an
3 item from the USML, which Congress chose not to make unreviewable.

4
5 “Over the years, [the Supreme Court has] read § 701(a)(2) to preclude judicial review of
6 certain categories of administrative decisions that courts traditionally have regarded as
7 ‘committed to agency discretion.’” Lincoln v. Vigil, 508 U.S. 182, 191 (1993). Thus, an express
8 legislative bar such as that found in § 2778(h) is not a prerequisite to a finding that an action is
9 committed to agency discretion by law. The Supreme Court has found that an agency’s decision
10 not to initiate enforcement proceedings, not to grant reconsideration of agency action, or how to
11 allocate funds from a lump-sum budget allocation are presumptively unreviewable because those
12 decisions often involve complicated balancing of factors within the agency’s expertise, Congress
13 imposed no relevant requirements or restrictions, and there is no adequate standard by which the
14 judiciary could evaluate the agency action. Id. at 191-93. Those factors do not apply here.

15
16 Plaintiffs are challenging the federal defendants’ failure to comply with certain procedures that
17 Congress and the courts have imposed when making removal decisions under AECA. “The
18 process by which an agency makes a rule may be reviewed for compliance with applicable
19 procedural requirements regardless of whether the substance of the rule is itself reviewable.”
20 Batalla Vidal v. Duke, 295 F. Supp.3d 127, 148 (E.D.N.Y. 2017).

21 **6. First Amendment**

22
23 The private defendants argue that the CAD files are protected speech under the First
24 Amendment, that restrictions on their ability to publish the files constitute a prior restraint that is
25 presumed to be unconstitutional, and that the regulations should be subjected to strict scrutiny.

26
27 **Whether or not the First Amendment precludes the federal government from regulating the**

1 publication of technical data under the authority granted by the AECA is not relevant to the
2 merits of the APA claims plaintiffs assert in this litigation. Plaintiffs allege that the federal
3 defendants failed to follow prescribed procedures and acted in an arbitrary and capricious
4 manner when they issued the temporary modification and letter authorizing the immediate
5 publication of the CAD files. The State Department has not attempted to justify its action as
6 compelled by the First Amendment, nor have the private defendants shown that their First
7 Amendment interests are a defense to or otherwise invalidate plaintiffs' claims against the
8 federal defendants. To the extent the private defendants' speech is impacted, their First
9 Amendment interests are considered in the balancing of hardships and public interest section
10 below.

13 C. Irreparable Harm

14 Plaintiffs have submitted evidence, including declarations and the federal defendants'
15 prior findings, showing that the States will likely suffer irreparable injury if the technical data for
16 designing and producing undetectable weapons using a commercially-available 3D printer are
17 published on the internet. Many of the same concerns that prompted the DDTC to conclude that
18 the CAD files are "defense articles" within the scope of the USML apply with equal force to the
19 States. A gun made from plastic is virtually undetectable in metal detectors and other security
20 equipment intended to promote public safety at airports, sporting events, courthouses, music
21 venues, and government buildings. The portability and ease of a manufacturing process that can
22 be set up virtually anywhere would allow those who are, by law, prohibited from manufacturing,
23 possessing, and/or using guns to more easily evade those limitations. The publication of the
24 technical data would subvert the domestic laws of states with more restrictive firearm controls
25 and threaten the peace and security of the communities where these guns proliferate.

1 In addition, the States have certain public safety, law enforcement, and proprietary
2 interests that were not of particular concern to the United States when considering the effects the
3 technical data would have if exported to other countries. The instability and inaccuracy of 3D
4 printed firearms pose threats to the citizens of the plaintiff States, including both users and
5 bystanders, while the toy-like appearance increases the risk of unintentional discharge, injury,
6 and/or death. Guns that have no identifying information, guns that are undetectable, and guns
7 that thwart the use of standard forensic techniques to link a particular projectile to a particular
8 weapon will hamper law enforcement efforts to prevent and/or investigate crime within the
9 States' respective jurisdictions. And to the extent a State itself utilizes metal detectors in its
10 courthouses, jails, prisons, or public buildings, it will have to expend additional time or money
11 in an effort to maintain security if, as the private defendants advocate, every person owns a
12 plastic gun.
13
14

15 The plaintiff States and the District of Columbia, as sovereigns, represent more than 160
16 million people, many of whom have seen the threat level of their daily lives increase year after
17 year. The District of Columbia, New York, California, Virginia, Maryland, Minnesota, New
18 Jersey, and Pennsylvania have all endured assassinations or assassination attempts. School
19 shootings involving students of all ages have occurred in Colorado, Oregon, Washington,
20 Connecticut, Illinois, California, Virginia, Pennsylvania, North Carolina, Massachusetts,
21 Maryland, Iowa, Hawaii, Minnesota, New York, and New Jersey during the past twenty years.
22 During the same time frame, California, Colorado, Connecticut, Illinois, Minnesota, Hawaii,
23 Massachusetts, Maryland have experienced workplace shootings with multiple victims. And, of
24 course, hijackers were able to crash airplanes into fields and buildings in Pennsylvania, New
25 York, and the District of Columbia/Virginia in 2001. Plaintiffs have a legitimate fear that adding
26
27
28

1 undetectable and untraceable guns to the arsenal of weaponry already available will likely
2 increase the threat of gun violence they and their people experience.

3 Defendants do not argue that any of these injuries are reparable. Rather, defendants argue
4 that the injuries are not causally connected to the State Department's decision to overturn its
5 prior CJ determination and remove the CAD files from the USML. The federal defendants assert
6 that, because the AECA regulates the export of defense articles, a change in their regulatory
7 stance cannot be the cause of the domestic effects of which plaintiffs complain. As discussed in
8 the standing analysis, this argument ignores reality and is wholly unpersuasive. The inclusion of
9 the CAD files on the USML prevented the technical data from being posted on the internet.
10 Because there is no "domestic" internet, the ban had the collateral effect of making it more
11 difficult to locate and download instructions for the manufacture of plastic firearms both
12 domestically and internationally. It takes virtually no imagination to perceive the direct
13 connection between removing the CAD files from the USML, the internet publication of the
14 technical data, and the likelihood of the irreparable injuries plaintiffs have identified.

15
16
17 The private defendants, for their part, argue that the causal connection is broken because
18 nine¹¹ of the CAD files at issue are already on the internet (Defense Distributed posted them
19 again for good measure on July 27, 2018, as soon as the temporary modification and authorizing
20 letter were issued, but took them down when the temporary restraining order was entered).
21 Nevertheless, plaintiffs have shown that they are likely to suffer irreparable harm in the absence
22 of an injunction. **First, it is not clear how available the nine files are: the possibility that a**
23
24

25 ¹¹ In their memorandum and at oral argument, the private defendants state that they published ten
26 CAD files pursuant to the authorizations they received as part of the settlement. The file pertaining to
27 the Ghost Gunner 2 assembly files were not covered by the USML and not subject to ITAR control. Dkt.
28 # 29-1 at 82 and # 63-1 at 8.

1 cybernaut with a BitTorrent protocol will be able to find a file in the dark or remote recesses of
2 the internet does not make the posting to Defense Distributed's site harmless. Second, there is no
3 information regarding when these files were posted and whether they were posted with the
4 approval of the relevant government agency. Absent such approval, the files remain "technical
5 data" subject to ITAR control because they are not in the "public domain" for purposes of the
6 AECA. 22 C.F.R. § 120.10(b) and § 120.11(a)(7). Third, many of the files have not yet been
7 released, including files created by third parties and any files Defense Distributed will develop in
8 the future. Fourth, the private defendants' dogged pursuit of the right to publish these files - and
9 the evident alarm with which the proposed publication has been met in the Congress, in the
10 White House, amongst advocacy groups, and in state houses all over the country - suggest that
11 further publication is not harmless.
12

13
14 Finally, the federal defendants argue that the States will not be harmed at all because the
15 United States is committed to enforcing the Undetectable Firearms Act of 1988. While the Court
16 appreciates the earnestness with which this commitment was made at oral argument, it is of
17 small comfort to know that, once an undetectable firearm has been used to kill a citizen of
18 Delaware or Rhode Island or Vermont, the federal government will seek to prosecute a weapons
19 charge in federal court while the State pursues a murder conviction in state court. The very
20 purpose for which the private defendants seek to release this technical data is to arm every
21 citizen outside of the government's traditional control mechanisms of licenses, serial numbers,
22 and registration. It is the untraceable and undetectable nature of these small firearms that poses a
23 unique danger. Promising to detect the undetectable while at the same time removing a
24 significant regulatory hurdle to the proliferation of these weapons - both domestically and
25 internationally - rings hollow and in no way ameliorates, much less avoids, the harms that are
26
27

1 likely to befall the States if an injunction is not issued.

2 **D. Balance of Hardships and Public Interest**

3 Against the likelihood that the States will suffer the various harms discussed above, the
4 federal defendants identify no hardship of their own, but argue that the public interest in
5 allowing the Executive to exercise its discretion in determining how best to promote national
6 security weighs against preliminary injunctive relief. That discretion must, however, be
7 exercised through the procedures established by Congress and not in an arbitrary and capricious
8 manner.
9

10 The private defendants raise the more substantive argument that a preliminary injunction
11 will impair their First Amendment rights, a loss which, “for even minimal periods of time,
12 unquestionably constitutes irreparable injury.” Elrod v. Burns, 427 U.S. 347, 373-74 (1976). The
13 First Amendment argument raises a number of challenging issues. Is computer code speech? If
14 yes, is it protected under the First Amendment? To answer those questions, one would have to
15 determine what the nature of the files at issue here is: are they written and designed to interact
16 solely with a computer in the absence of the intercession of the mind or will of the recipient or is
17 it an expressive means for the exchange of information regarding computer programming and/or
18 weapons manufacturing? Are the export controls of the ITAR a prior restraint giving rise to a
19 presumption that they are unconstitutional? Is the AECA a general regulatory statute not
20 intended to control the content of speech but only incidentally limiting its unfettered exercise?
21 Or is the government attempting to regulate distribution of the CAD files because of the message
22 they convey? Depending on which level of scrutiny applies, does the regulation advance
23 important governmental interests unrelated to the suppression of free speech and avoid
24 burdening more speech than necessary or is the regulation narrowly tailored to promote a
25

EXHIBIT

21

7. Many law-abiding and responsible adult SAF members and supporters would access, study, share, modify, and learn from the digital firearms information published and republished by Defense Distributed, as well as similar information related to firearms that they or others have created, to include computer assisted design (“CAD”) files.

8. SAF members would create, share, publish, and republish digital firearms information, to include CAD files.

9. In furtherance of SAF’s mission, and to serve its members and the public, SAF would publish, republish, and promote, on the Internet, the free distribution of Defense Distributed’s digital firearms files, and allow its members and others to upload their own digital firearms files to SAF’s servers for Internet publication. SAF is presently refraining from doing so only owing to the Defendants’ threats against Defense Distributed.

10. SAF is proud to bring this action on behalf of its members.

I declare under penalty of perjury that the foregoing is true and correct.

DATED this 29th day of November, 2018.



Alan Gottlieb

EXHIBIT

22

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

DEFENSE DISTRIBUTED and	§	Case No. 1:18-CV-637-RP
SECOND AMENDMENT	§	
FOUNDATION, INC.,	§	
	§	
Plaintiffs,	§	
	§	
v.	§	
	§	
GURBIR GREWAL, et al.,	§	
	§	
Defendants.	§	

DECLARATION OF ALEXANDER ROUBIAN

I, Alexander Roubian, declare:

1. I am a citizen of the United States and a resident of the State of New Jersey.
2. I am over the age of 21, am not under indictment, have never been convicted of a felony or misdemeanor crime of domestic violence, am not a fugitive from justice, am not an unlawful user of or addicted to any controlled substance, have never been adjudicated a mental defective or committed to a mental institution, have never been discharged from the Armed Forces under dishonorable conditions, have never renounced my citizenship, and have never been the subject of a restraining order relating to an intimate partner.
3. I am a member of the Second Amendment Foundation.
4. I am aware that government officials from the states of Delaware, New Jersey, New York, Pennsylvania, and the City of Los Angeles have issued cease

and desist letters, made public announcements, and/or have initiated litigation intended to halt Defense Distributed's online publication and republication of digital firearms information.

5. I saw New Jersey's Governor sign Senate Bill 2465 on November 11, 2018. At that event, New Jersey's Attorney General stated that Defense Distributed was a focus of the new law and he specifically called out Defense Distributed's supporters, stating that Defense Distributed's supporters are not relenting, that the supporters are still trying to release the digital firearms information online, and that the legislation is needed to stop them.

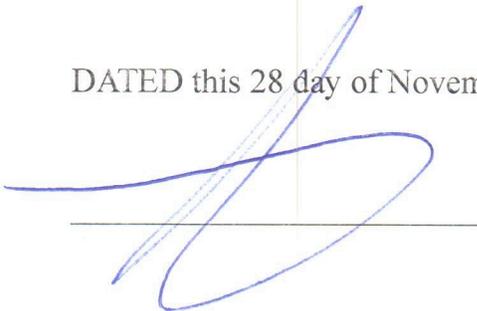
6. I support Defense Distributed and have a keen interest in accessing, studying, sharing, modifying, learning from, and publishing and republishing the digital firearms information published and republished by Defense Distributed, including computer assisted design ("CAD") files, as well as similar digital information related to firearms that Defense Distributed or others have created, published, and republished.

7. I am also interested in sharing my own digital firearms information with other persons online.

8. I refrain from publishing and republishing digital firearms information online out of fear that engaging in such activities may result in civil and criminal enforcement actions against me.

I declare under penalty of perjury that the foregoing is true and correct.

DATED this 28 day of November, 2018.



EXHIBIT

23

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

DEFENSE DISTRIBUTED and
SECOND AMENDMENT FOUNDATION, INC.,

Plaintiffs,

v.

U.S. DEPARTMENT OF STATE, et al.,

Defendants.

§ Case No. 15-CV-372
§
§
§
§
§
§
§
§
§
§

DECLARATION OF CODY WILSON

I, Cody Wilson, declare:

1. I am a citizen of the United States and a resident of Texas.

2. I co-founded and now lead Defense Distributed, a Texas non-profit corporation.

Defense Distributed is organized and operated for the purpose of defending the civil liberty of popular access to arms guaranteed by the United States Constitution through facilitating global access to, and the collaborative production of, information and knowledge related to the 3D printing of arms; and to publish and distribute, at no cost to the public, such information and knowledge on the Internet in promotion of the public interest.

3. Beginning in 2012, Defense Distributed privately generated, and posted on the Internet for free access by the public, technical information about various gun-related items, including a trigger guard, grips, two receivers, a magazine for AR-15 rifles, and a handgun named “The Liberator” (the “Published Files”). At the time it did so, there were no publicly known DDTC enforcement actions for the posting of files on the Internet.

4. The Published Files were downloaded hundreds of thousands times. The Liberator files in particular generated national media attention, with coverage in Forbes, CNN, NBC News, the Wall Street Journal, and even an episode of The Colbert Report.

5. In May 2013, Defense Distributed received a letter dated May 8, 2013, from Glenn Smith,

Chief of Defendant DDTC's Enforcement Division. The letter warned:

DTCC/END is conducting a review of technical data made publicly available by Defense Distributed through its 3D printing website, DEFCAD.org, the majority of which appear to be related to items in Category I of the USML. Defense Distributed may have released ITAR-controlled technical data without the required prior authorization from the Directorate of Defense Trade Controls (DDTC), a violation of the ITAR . . . all such data should be removed from public access immediately.

Exhibit 1 is a true and correct copy of that letter.

6. At the time it posted the Published Files, Defense Distributed did not know that the government would demand to pre-approve its speech. Defense Distributed believed, and continues to believe, that the United States Constitution guarantees a right to share truthful speech—especially speech concerning fundamental constitutional rights—in open forums. Nevertheless, for fear of criminal and civil enforcement, Defense Distributed promptly complied with Defendants' demands and removed all of the Published Files from its servers.

7. Defendants' letter further directed Defense Distributed to submit the Published Files to DDTC for review using the "commodity jurisdiction" procedure. Defense Distributed complied with Defendants' request and filed ten (10) commodity jurisdiction requests covering the Published Files on June 21, 2013. Exhibit 13 is a true and correct copy of those requests (without attachments). Nearly two years later, Defendants have still not responded to the requests.

8. On September 25, 2014, Defense Distributed requested DOPSR's prepublication approval for public release of files containing technical information on a milling machine, named the "Ghost Gunner," that can be used to manufacture a variety of items, including gun parts (the "Ghost Gunner Files").¹ Exhibit 14 is a true and correct copy of that request (without attachments). On October 1, 2014, DOPSR informed Defense Distributed this request for review was refused because DOPSR was unsure whether the Ghost Gunner was subject to ITAR. DOPSR further recommended that Defense Distributed submit another commodity jurisdiction request to the Defendants. Exhibit 15 is a true and correct copy of DOPSR's October 1, 2014 correspondence to Defense Distributed.

9. Defense Distributed submitted another commodity jurisdiction request for the Ghost Gunner to Defendants on January 2, 2015. Exhibit 16 is a true and correct copy of that request (without attachments). On April 15, 2015, Defendant DDTC determined that the Ghost Gunner machine, user manual, and operating software are not subject to ITAR, but that "software, data files, project files, coding, and models for producing a defense article, to include 80% AR-15 lower receivers, are subject to the jurisdiction of the Department of State in accordance with [ITAR]." Exhibit 17 is a true and correct copy of DOPSR's April 15, 2015 correspondence to Defense Distributed.

10. Since September 2, 2014, Defense Distributed has made multiple requests to DOPSR for prepublication review of certain computer-aided design ("CAD") files. Exhibits 18 through 21 are true and correct copies of these requests (without attachments). On December 31,

¹Any milling machine can be modified to mill components that are unlawful to manufacture, just as any saw that may be purchased at a hardware store can be used to unlawfully shorten a shotgun. However, Ghost Gunner does not ship with the jigs and code to

2014, nearly four months after the first such review request, DOPSR sent Defense Distributed two letters dated December 22, 2014, stating its refusal to review the CAD files. The letters directed Defense Distributed to the DDTC Compliance and Enforcement Division for further questions on public release of the CAD files. Exhibit 22 is a true and correct copy of DOPSR's December 31, 2014 correspondence to Defense Distributed.

11. However, because this is not the DDTC division responsible for issuing licenses or other DDTC authorizations, on January 5, 2015, Defense Distributed requested Defendants' guidance on how to obtain authorization from DDTC Compliance for release of the CAD files. Exhibit 23 is a true and correct copy of that request (without attachments). To date, Defendants have not responded to Defense Distributed's request for guidance.

12. Defense Distributed appears to be the ITAR prior restraint scheme's *only* target. Other websites containing similar firearm-related parts, such as GrabCAD.com, Weaponeer.com, Thingiverse.com, Ak-builder.com, AR15.com, Scribd.com, CNCguns.com, we are apparently unimpeded.

13. Defense Distributed has and will continue to create and possess other files that contain technical information, to include design drawings, rendered images, written manufacturing instructions, and other technical information that Defense Distributed intends to post to open forums on the Internet. Many of these files are described in the USML.

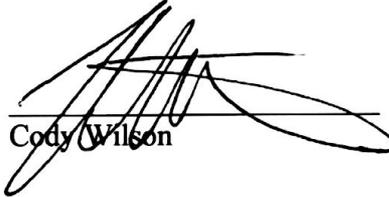
14. But for Defendants' impositions upon the distribution of the Published Files, Ghost Gunner Files, CAD Files, and Defense Distributed's other files (collectively, the "Subject Files"), Defense Distributed would freely distribute the Subject Files and other files relating to

manufacture machine guns, and Defense Distributed has no intention of offering such items for sale.

Second Amendment arms. Defense Distributed refrains from distributing the Subject Files because I fear that Defendants would pursue criminal and civil enforcement proceedings against me and the company for doing so.

I declare under penalty of perjury that the foregoing is true and correct.

This the 8th day of May, 2015.


Cody Wilson

EXHIBIT

24

DECLARATION OF CODY WILSON

I, Cody Wilson, declare:

1. I am a citizen of the United States and a resident of Texas.
2. I co-founded and now lead Defense Distributed.
3. Defense Distributed maintains DEFCAD.com
4. Each of the ten files posted by Defense Distributed on July 27, 2018 were already

in the public domain before that date, as follows:

- (1) The AR-15 assembly files were available at the following sites:

Grabcad: <https://grabcad.com/library/ar-15-m16-a1>
CNCguns: <https://www.cncguns.com/downloads.html>

- (2) The VZ. 58 assembly files were available at the following site:

Grabcad: <https://grabcad.com/library/vz-58-rifle-1>

- (3) The AR-10 assembly files were available at the following site:

Grabcad: <https://grabcad.com/library/ar-10-battle-rifle-7-62x51mm-1>

- (4) The Liberator pistol assembly files were available at the following sites:

Grabcad: <https://grabcad.com/library/liberator-guns-full-1>

PirateBay:
https://thepiratebay.org/torrent/8444391/DefDist_Liberator_Pistol

- (5) The Beretta M9 assembly files were available at the following sites:

Grabcad: <https://grabcad.com/library/beretta-92fs>

- (6) The 1911 assembly files were available at the following sites:

Grabcad: <https://grabcad.com/library/colt-m1911-a1-2>
CNCguns: <https://www.cncguns.com/downloads.html>

1000002.1

(7) The 10/22 assembly files were available at the following sites:

Grabcad: <https://grabcad.com/library/ruger-10-22-1>
CNCguns: <https://www.cncguns.com/downloads.html>

(8) The Ghost Gunner 2 assembly files (not ITAR-controlled) were available at the following site:

Ghost Gunner: <https://ghostgunner.net/downloads/>

(9) The 308 80% lower model files were available at the following site:

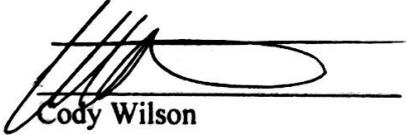
CNCguns: <https://www.cncguns.com/downloads.html>

(10) The AR-15 80% lower model files were available at the following sites:

Grabcad: <https://grabcad.com/library/mil-spec-ar-15-lower>
CNCguns: <https://www.cncguns.com/downloads.html>

I declare under penalty of perjury that the foregoing is true and correct.

This the 15th day of August, 2018.


Cody Wilson

EXHIBIT

25

DECLARATION OF JOHN WALKER

I, John Walker, pursuant to 28 U.S.C. § 1746 hereby declare and say as follows:

1. I was a co-founder of Autodesk, Inc. (ADSK:NASDAQ), developer of the AutoCAD® computer-aided design software. I was president, chairman, and chief executive officer from the incorporation of the company in April 1982 until November 1986, more than a year after its initial public stock offering in June 1985. I continued to serve as chairman of the board of directors until April 1988, after which I concentrated on software development.
2. Autodesk is the developer of the AutoCAD® software, one of the most widely-used computer-aided design and drafting software packages in the world. AutoCAD allows creation of two- and three-dimensional models of designs and, with third-party products, their analysis and fabrication.
3. During the start-up phase of Autodesk, I was one of the three principal software developers of AutoCAD and wrote around one third of the source code of the initial release of the program.
4. Subsequently, I contributed to the development of three-dimensional extensions of the original AutoCAD drafting system, was lead developer on AutoShade[tm], which produced realistic renderings of three-dimensional models, and developed the prototype of integration of constructive solid geometry into AutoCAD, which was subsequently marketed as the AutoCAD Advanced Modeling Extension (AME).
5. I retired from Autodesk in 1994 and since have had no connection with the company other than as a shareholder with less than 5% ownership of the company's common stock.

Design Versus Fabrication

6. From my experience at Autodesk, I became aware of the distinction between the design of an object and the fabrication of that object from the design. For example, the patent drawings and written description in firearms patents provide sufficient information "as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention" [35 U.S.C. § 112 (a)]. But this is in no way a mechanical process. One must interpret the design, choose materials suitable for each component, and then decide which manufacturing process (milling, stamping, turning, casting, etc.) is best to

produce it, including steps such as heat-treating and the application of coatings. This process is called "production planning", and it is a human skill that is required to turn a design, published in a patent description or elsewhere, into a physical realisation of the object described by that design.

7. A three-dimensional model of an object specifies its geometry but does not specify the materials from which it is fabricated, how the fabrication is done, or any special steps required (for example, annealing or other heat treating, coatings, etc.) before the component is assembled into the design.
8. Three-dimensional models of physical objects have many other applications than computer-aided manufacturing. Three-dimensional models are built to permit analysis of designs including structural strength and heat flow via the finite element method. Models permit rendering of realistic graphic images for product visualisation, illustration, and the production of training and service documentation. Models can be used in simulations to study the properties and operation of designs prior to physically manufacturing them. Models for finite element analysis have been built since the 1960s, decades before the first additive manufacturing machines were demonstrated in the 1980s.
9. Some three-dimensional models contain information which goes well beyond a geometric description of an object for manufacturing. For example, it is common to produce "parametric" models which describe a family of objects which can be generated by varying a set of inputs ("parameters"). For example, a three-dimensional model of a shoe could be parameterised to generate left and right shoes of various sizes and widths, with information within the model automatically adjusting the dimensions of the components of the shoe accordingly. The model is thus not the rote expression of a particular manufactured object but rather a description of a potentially unlimited number of objects where the intent of the human designer, in setting the parameters, determines the precise geometry of an object built from the model.
10. A three-dimensional model often expresses relationships among components of the model which facilitate analysis and parametric design. Such a model can be thought of like a spreadsheet, in which the value of cells are determined by their mathematical relationships to other cells, as opposed to a static table of numbers printed on paper.

Additive Manufacturing ("3D Printing")

11. Additive manufacturing (often called, confusingly, "3D [for three-dimensional] printing") is a technology by which objects are built to the specifications of a three-dimensional computer model by a device which fabricates the object by adding material according to

the design. Most existing additive manufacturing devices can only use a single material in a production run, which limits the complexity of objects they can fabricate.

12. Additive manufacturing, thus, builds up a part by adding material, while subtractive manufacturing (for example, milling, turning, and drilling) starts with a block of solid material and cuts away until the desired part is left. Many machine shops have tools of both kinds, and these tools may be computer controlled.
13. Additive manufacturing is an alternative to traditional kinds of manufacturing such as milling, turning, and cutting. With few exceptions, any object which can be produced by additive manufacturing can be produced, from paper drawings or their electronic equivalent, with machine tools that date from the 19th century. Additive manufacturing is simply another machine tool, and the choice of whether to use it or other tools is a matter of economics and the properties of the part being manufactured.
14. Over time, machine tools have become easier to use. The introduction of computer numerical control (CNC) machine tools has dramatically reduced the manual labour required to manufacture parts from a design. The computer-aided design industry, of which Autodesk is a part, has, over the last half-century, reduced the cost of going from concept to manufactured part, increasing the productivity and competitiveness of firms which adopt it and decreasing the cost of products they make. Additive manufacturing is one of a variety of CNC machine tools in use today.
15. It is in no sense true that additive manufacturing allows the production of functional objects such as firearms from design files without human intervention. Just as a human trying to fabricate a firearm from its description in a patent filing (available in electronic form, like the additive manufacturing model), one must choose the proper material, its treatment, and how it is assembled into the completed product. Thus, an additive manufacturing file describing the geometry of a component of a firearm is no more an actual firearm than a patent drawing of a firearm (published worldwide in electronic form by the U.S. Patent and Trademark Office) is a firearm.

Computer Code and Speech

16. Computer programs and data files are indistinguishable from speech. A computer file, including a three-dimensional model for additive manufacturing, can be expressed as text which one can print in a newspaper or pamphlet, declaim from a soapbox, or distribute via other media. It may be boring to those unacquainted with its idioms, but it is speech nonetheless. There is no basis on which to claim that computer code is not subject to the same protections as verbal speech or

printed material.

17. For example, the following is the definition of a unit cube in the STL language used to to express models for many additive manufacturing devices.

```
solid cube_corner
  facet normal 0.0 -1.0 0.0
    outer loop
      vertex 0.0 0.0 0.0
      vertex 1.0 0.0 0.0
      vertex 0.0 0.0 1.0
    endloop
  endfacet
endsolid
```

This text can be written, read, and understood by a human familiar with the technology as well as by a computer. It is entirely equivalent to a description of a unit cube written in English or another human language. When read by a computer, it can be used for structural analysis, image rendering, simulation, and other applications as well as additive manufacturing. The fact that the STL language can be read by a computer in no way changes the fact that it is text, and thus, speech.

18. As an additional example, the following is an AutoCAD DXF[tm] file describing a two-dimensional line between the points (0, 0) and (1, 1), placed on layer 0 of a model.

```
0
SECTION
2
ENTITIES
0
LINE
8
0
10
0.0
20
0.0
11
1.0
21
1.0
0
ENDSEC
0
EOF
```

Again, while perhaps not as easy to read as the STL file until a human has learned the structure of the file, this is clearly text, and thus speech.

19. It is common in computer programming and computer-aided design to consider computer code and data files written in textual form as simultaneously communicating to

humans and computers. Donald E. Knuth, professor emeritus of computer science at Stanford University and author of "The Art of Computer Programming", advised programmers:

"Instead of imagining that our main task is to instruct a computer what to do, let us concentrate rather on explaining to human beings what we want a computer to do." [Knuth 1992]

A design file, such as those illustrated above in paragraphs 17 and 18 is, similarly, a description of a design to a human as well as to a computer. If it is a description of a physical object, a human machinist could use it to manufacture the object just as the object could be fabricated from the verbal description and drawings in a patent.

20. Computer code has long been considered text indistinguishable from any other form of speech in written form. Many books, consisting in substantial part of computer code, have been published and are treated for the purpose of copyright and other intellectual property law like any other literary work. For example the "Numerical Recipes" [Press] series of books presents computer code in a variety of programming languages which implements fundamental algorithms for numerical computation.

Conclusions

21. There is a clear distinction between the design of an artefact, whether expressed in paper drawings, a written description, or a digital geometric model, and an object manufactured from that design.
22. Manufacturing an artefact from a design, however expressed, is a process involving human judgement in selecting materials and the tools used to fabricate parts from it.
23. Additive manufacturing ("3D printing") is one of a variety of tools which can be used to fabricate parts. It is in no way qualitatively different from alternative tools such as milling machines, lathes, drills, saws, etc., all of which can be computer controlled.
24. A digital geometric model of an object is one form of description which can guide its fabrication. As such, it is entirely equivalent to, for example, a dimensioned drawing (blueprint) from which a machinist works.
25. Digital geometric models of objects can be expressed as text which can be printed on paper or read aloud as well as stored and transmitted electronically. Thus they are speech.

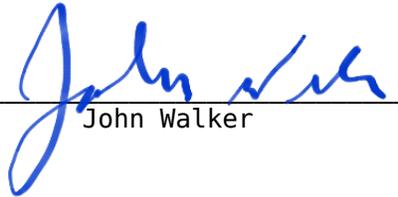
References

- [Knuth 1992] Knuth, Donald E. *Literate Programming*. Stanford, CA: Center for the Study of Language and Information, 1992. ISBN: 978-0-937073-80-3.

[Press] Press, William H. et al. Numerical Recipes.
Cambridge (UK): Cambridge University Press,
(various dates).
Programming language editions:
C++ 978-0-521-88068-8
C 978-0-521-43108-8
Fortran 978-0-521-43064-7
Pascal 978-0-521-37516-0

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on November 22, 2018.



John Walker

EXHIBIT

26

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

DEFENSE DISTRIBUTED and SECOND	§	Case No. 1:18-CV-637-RP
AMENDMENT FOUNDATION, INC.,	§	
	§	
Plaintiffs,	§	
	§	
v.	§	
	§	
GURBIR GREWAL, in his official	§	
capacity as New Jersey Attorney General;	§	
MICHAEL FEUER, in his official	§	
capacity as Los Angeles City Attorney;	§	
ANDREW CUOMO, in his official	§	
capacity as New York Governor;	§	
MATTHEW DENN, in his official	§	
capacity as Attorney General of the State	§	
of Delaware; JOSH SHAPIRO, in his	§	
official capacity as Attorney General of	§	
Pennsylvania; and THOMAS WOLF, in	§	
his official capacity as Pennsylvania	§	
Governor,	§	
	§	
Defendants.		

DECLARATION OF PALOMA HEINDORFF

I, Paloma Heindorff, declare:

1. I am a resident of Texas.
2. I am a custodian of records and Director of Defense Distributed

DEFENSE DISTRIBUTED AND DEFCAD

3. Defense Distributed is a Texas corporation headquartered in Austin, Texas.
4. Defense Distributed is organized and operated for the purpose of defending the civil liberty of popular access to arms guaranteed by the United States Constitution.

To that end, Defense Distributed facilitates global access to, and the collaborative production of, information and knowledge related to the digital manufacturing of arms; and publishes and distributes, at no cost to the public, such information and knowledge on the internet in promotion of the public interest.

5. Defense Distributed has distributed computer-aided design (“CAD”) files and other digital information that can assist efforts to digitally manufacture or produce firearms or firearm components (“digital firearms information”). With respect to a given firearm component, the digital firearms information that Defense Distributed distributes takes the form of stereolithography (.stl) files about the component, Initial Graphics Exchange Specification (.igs) files about the component, SoLiDworks PaRT (.sldprt) files about the component, SketchUp (.skp) files about the component, Standard for the Exchange of Product Data (“STEP”) (.stp) files about the component, diagrams of the component, renderings of the component, “read me” plain text files about the component’s assembly methods, “read me” plain text files about the National Firearms Act and the Undetectable Firearms Act, and/or software licenses. Defense Distributed desires and intends to continue distributing digital firearms information lawfully.

6. Defense Distributed’s distributions have included the sale, giving, providing, mailing, delivering, publishing, circulating, disseminating, presenting, exhibiting, displaying, sharing, advertising, offering, and/or making available of digital firearms information. Defense Distributed desires and intends to continue distributing digital firearms information in these manners lawfully.

7. To accomplish its distribution activities, Defense Distributed maintains a publicly accessible website at www.defcad.org and www.defcad.com (collectively referred to as “DEFCAD”). Posting information on DEFCAD is a primary means by which Defense Distributed accomplishes its distribution of digital firearms information. Defense Distributed desires and intends to continue maintaining DEFCAD lawfully.

DISTRIBUTION OF DIGITAL FIREARMS INFORMATION—ROUND ONE

8. Beginning in 2012, Defense Distributed generated digital firearms information in the form of CAD files that can assist an individual in digitally manufacturing or producing a single-shot firearm known as the “Liberator,” a firearm receiver for AR-15 rifles, and a magazine for AR-15 rifles. Defense Distributed posted this digital firearms information on DEFCAD for free download by the public.

9. The digital firearms files that Defense Distributed published about the “Liberator” are accurately described by docket entry number 36-2 in *Defense Distributed et al. v. United States Department of State et al.*, No. 1:15-372-RP (W.D. Tex.).

10. Some of the digital firearms information that Defense Distributed posted to DEFCAD at this time was originally created by other information content providers and posted on other websites before Defense Distributed posted the information to DEFCAD.

11. The digital firearms information that Defense Distributed posted to DEFCAD at this time was downloaded approximately 100,000 times. News reports documented this. Exhibit A is an exemplary news article that provides proof of this fact.

12. In May 2013, Defense Distributed received a letter dated May 8, 2013, from Glenn Smith, Chief of the Enforcement Division at the State Department Directorate of Defense Trade Controls. Exhibit B is a copy of that letter.

13. The State Department letter warned that the digital firearms information published on DEFCAD is described in the International Traffic in Arms Regulations, 22 C.F.R. Parts 120-130 (“ITAR”), and that Defense Distributed may have released ITAR-controlled technical data without required prior authorization from the State Department. The State Department letter instructed Defense Distributed to remove the digital firearms information from public access.

14. At the time it posted this set of digital firearms information on DEFCAD, Defense Distributed did not know that the government would demand to pre-approve its

speech. Defense Distributed believed, and continues to believe, that its right to distribute digital firearms information on the Internet and otherwise is guaranteed by the United States Constitution. Nevertheless, due to fears of adverse civil and criminal legal action, Defense Distributed promptly complied with the State Department's demands and removed this set of digital firearms information from public access on DEFCAD.

15. But for the State Department's imposition of the prior restraint upon the distribution of the digital firearms information, Defense Distributed would have continued to freely distribute this set of digital firearms information on DEFCAD.

DISTRIBUTION OF DIGITAL FIREARMS INFORMATION—ROUND TWO

16. In 2015, Defense Distributed and the Second Amendment Foundation, later joined by Conn Williamson, filed a lawsuit in the United States District Court for the Western District of Texas against the State Department and several of its officers, styled *Defense Distributed et al. v. United States Department of State et al.*, No. 1:15-372-RP (W.D. Tex.) (hereinafter "*Defense Distributed I*"). As part of this action, among other things, Defense Distributed challenged the constitutionality of the State Department's prior restraint of public speech imposed under the ITAR.

17. In June 2018, the *Defense Distributed I* Plaintiffs entered into a settlement agreement with the State Department. The Settlement Agreement requires, among other things, that the State Department issue a license to the *Defense Distributed I* Plaintiffs that allows them to freely publish digital firearms information. Exhibit C is a copy of the Settlement Agreement.

18. On July 27, 2018, the State Department issued the license to Defense Distributed and the other *Defense Distributed I* Plaintiffs. Exhibit D is a copy of that license.

19. Beginning on July 27, 2018, Defense Distributed published digital firearms information on the Internet at DEFCAD for free download by the public. This set of

digital firearms information consisted of ten subsets of CAD files, including the Liberator CAD files. With the exception of the Liberator CAD files, which were previously posted by Defense Distributed before receiving the State Department's letter, the other CAD files posted at this time were created by persons other than Defense Distributed and had been posted on the internet by persons other than Defense Distributed before Defense Distributed republished them on DEFCAD.

20. The Liberator files that Defense Distributed published to DEFCAD exemplify the kind of digital firearms information that Defense Distributed intends to develop and distribute in the future. The other files that Defense Distributed published to DEFCAD are accurately described by Exhibit I, and they too exemplify the kind of digital firearms information that Defense Distributed intends to distribute in the future.

21. Beginning on July 29, 2018, various state attorney generals filed lawsuits in New Jersey, Pennsylvania, and Washington State to stop Defense Distributed's publication of digital firearms information online. In the course of this litigation, Defense Distributed agreed to take certain measures to block online access to the digital firearms information by persons in New Jersey, Pennsylvania, and Los Angeles. But for the states' unfounded legal actions, Defense Distributed would not have engaged in these access-blocking activities.

22. On July 30, 2018, attorney generals of various states sued the State Department and the *Defense Distributed I* Plaintiffs in *State of Washington et al., v. United States Department of State et al.*, No. 2:18-cv-1115-RSL (W.D. Wash.). In that action, Judge Robert Lasnik issued a temporary restraining order that enjoined the State Department from implementing or enforcing the license and an ITAR regulatory change that the State Department had made for the purpose of complying with the Settlement Agreement.

23. Despite this ruling, Defense Distributed maintains that the Constitution

guarantees its right to distribute the digital firearms information at issue. Nonetheless, out of an abundance of caution and for fear of further prosecution, Defense Distributed ceased posting digital firearms information to DEFCAD for free download by the public.

24. Judge Lasnik issued a preliminary injunction on August 27, 2018. The preliminary injunction reaffirmed the temporary restraining order, enjoining the State Department from implementing the license and the ITAR regulatory change that it had made for the purpose of complying with the Settlement Agreement.

25. During the preliminary injunction proceedings, the State of Washington Attorney General's office, speaking on behalf of all of that case's plaintiffs, and the Department of Justice, speaking on behalf of the State Department, represented to Judge Lasnik that it is legal for Defense Distributed to hand or mail digital firearms information to U.S. persons in the United States. Exhibit E is the transcript of those proceedings.

DISTRIBUTION OF DIGITAL FIREARMS INFORMATION—ROUND THREE

26. After August 27, 2018, in light of the representations that both the state and federal governments made to Judge Lasnik during the preliminary injunction proceedings, Defense Distributed used DEFCAD to advertise and offer digital firearms information for sale to U.S. persons, as defined in the ITAR, inside the United States (i.e., domestic-only sales). Exhibit F is a DEFCAD advertisement that exemplifies these efforts. In advertisements and offers, DEFCAD provided notice that domestic sales of the information were not available to residents of New Jersey, Pennsylvania, and other states involved in the multidistrict litigation (a/k/a states "behind the Blue Wall"). Exhibit G is an exemplary DEFCAD publication that provides such a notice.

27. In conjunction with these advertisements and offers, Defense Distributed sold digital firearms information by using an ecommerce platform on DEFCAD to facilitate the transaction and using the U.S. Postal Service as its means of delivering the information. After customers entered an order using DEFCAD's online ecommerce

platform, and following Defense Distributed's review, Defense Distributed placed purchased information on a USB drive or SD card and mailed the drive or card to domestic-only sales customers via the U.S. Postal Service.

28. On November 2, 2018, Defense Distributed learned that the New Jersey Legislature passed Senate Bill 2465, Section 3(l)(2) of which, if signed into law by the Governor, would make it a crime to, among other things "publish, circulate, disseminate, present, exhibit, display, share, advertise, offer, or make available via the Internet or by any other means" to a person in New Jersey any digital instructions in the form of CAD files or other electronic code or instructions that "may be used" to program a 3D printer to manufacture or produce a firearm, firearm receiver, magazine, or firearm component.

29. Realizing that the New Jersey Governor may sign Senate Bill 2465 at any time, Defense Distributed feared criminal enforcement of the new law against Defense Distributed, its officers, its employees, or its agents. Namely, Defense Distributed feared the commencement of criminal enforcement actions under Section 3(l)(2) if digital firearms information was ever provided to a person in New Jersey, if digital firearms information was ever offered for sale to a person in New Jersey, if digital firearms information was ever advertised for sale to a person in New Jersey, if digital firearms information was presented or exhibited or displayed to a person in New Jersey, and if digital firearms information was otherwise distributed to a person in New Jersey. Based upon this fear, Defense Distributed ceased offering, advertising, selling, or otherwise distributing digital firearms information on DEFCAD. All distributions of digital firearms information via DEFCAD ceased. This involved blocking all public access to DEFCAD and halting all shipments of digital firearms information via the U.S. Postal Service. Exhibit I provides proof of this fact.

30. I saw New Jersey's Governor sign Senate Bill 2465 on November 11, 2018. At that event, New Jersey's Attorney General stated that Defense Distributed was a focus

of the new law. This and other official statements made by the New Jersey Governor and Attorney General confirm Defense Distributed's fear that any further distribution of digital firearms information will likely result in enforcement actions against Defense Distributed, as well as against Defense Distributed's officers, employees, and/or agents.

31. Because of New Jersey's effort to criminalize and otherwise censor the distribution of digital firearms information that "may be used" to program a 3D printer to manufacture or produce a firearm, firearm receiver, magazine, or firearm component, Defense Distributed has incurred and continues to incur the burden of altering its business practices to avoid the risk that the New Jersey Attorney General will prosecute Defense Distributed and/or Defense Distributed's officers, employees, and/or agents for information received or information that is merely viewed by a person in New Jersey.

32. Because of New Jersey's effort to criminalize and otherwise censor the distribution of digital firearms information, Defense Distributed refrains from engaging in the following constitutionally protected activities that it would otherwise conduct lawfully:

- A. Posting digital firearms information on the DEFCAD website for free download by the public;
- B. Selling digital firearms information to persons in New Jersey on the DEFCAD website for shipment on USB drive or SD cards mailed via the U.S. Postal Service;
- C. Advertising its digital firearms information offerings on the DEFCAD website.
- D. Participating in trade shows where Defense Distributed is unable to determine the state of residence of attendees that may view its displays and other advertisements;
- E. Sending advertisements via email lists where Defense Distributed is unable

- to determine the states of residence of the recipients and has no way of knowing in which states recipients will be when they receive emails; and
- F. Participating in any national advertising network, radio communication, televised media, and other media that may advertise and promote Plaintiffs' respective missions.

I declare under penalty of perjury that the foregoing is true and correct.

DATED this 3rd day of December, 2018.



Paloma Heindorff
Director, Defense Distributed

Exhibit A

111,437 views | May 8, 2013, 05:12pm

3D-Printed Gun's Blueprints Downloaded 100,000 Times In Two Days (With Some Help From Kim Dotcom)



Andy Greenberg Forbes Staff

Security

Covering the worlds of data security, privacy and hacker culture.

If gun control advocates hoped to prevent blueprints for the world's first fully 3D-printable gun from spreading online, that horse has now left the barn about a hundred thousand times.

That's the number of downloads of the 3D-printable file for the so-called "Liberator" gun that the high-tech gunsmithing group Defense Distributed has seen in just the last two days, a member of the group tells me. The gun's CAD files have been ten times more popular than any component the group has previously made available, parts that have included the body of an AR-15 and the magazine for an AK-47."This has definitely been our most



Defense Distributed founder Cody Wilson, displaying the world's first fully 3D-printed gun, the "Liberator." Click to enlarge. (Credit: Michael Thad Carter for Forbes)

well-received download," says Haroon Khalid, a developer working with Defense Distributed. "I don't think any of us predicted it would be this much."

Update: The State Department has now [demanded Defense Distributed take down its printable gun files due to possible export control violations](#).

The controversial gun-printing group is hosting those files, which include everything from the gun's trigger to its body to its barrel, on a service that has attracted some controversy of its own: Kim Dotcom's Mega storage site. Although the blueprint is only publicly visible on Defense Distributed's own website Defcad.org, users who click on it are prompted to download the collection of CAD files from Mega.co.nz, which advertises that it encrypts all users' information and has a reputation for resisting government surveillance. **Update:** Mega now says it's [deleting the gun files from its servers](#), and Kim Dotcom has declared the weapon a "serious threat to the security of the community."

Cody Wilson, Defense Distributed's 25-year-old founder, says that the group chose to use Mega mostly because it was fast and free. But he also says he feels a degree of common cause with Kim Dotcom, the ex-hacker chief executive of Mega who [has become a vocal critic of the U.S. government after being indicted for copyright infringement and racketeering in early 2012](#). "We're sympathetic to Kim Dotcom," says Wilson. "There are plenty of services we could have used, but we chose this one. He's down for the struggle."

The most downloads of Defense Distributed's "Liberator," surprisingly, haven't come from the U.S., but from Spain, according to Khalid's count. The U.S. is second, ahead of Brazil, Germany, and the U.K., he says, although he wasn't able to provide absolute download numbers for each country.

YOU MAY ALSO LIKE

Update: Although Spain was initially outpacing the U.S. in downloads, it seems more Americans have now downloaded the file.

The gun's blueprint, of course, may have also already spread far wider than Defense Distributed can measure. It's also been uploaded to the filesharing site the Pirate Bay, where it's quickly become one of the most popular files in the site's 3D-printing category. "This is the first in what will become an avalanche of undetectable, untraceable, easy-to-manufacture weapons that will turn the tables on evil-doers the world over," writes one user with the name DakotaSmith on the site. "Share and enjoy."

It's worth noting that only a fraction of those who download the printable gun file will ever try to actually create one. Defense Distributed used an \$8,000 second-hand Stratasys Dimension SST to print their prototype, a 3D printer that the vast majority of its fans won't have access to.

Nonetheless the "Liberator," which [I first revealed last Friday](#) and then [witnessed being test-fired over the weekend](#), has caused an enormous stir online. Defense Distributed says that it received 540,000 users to its website in the two days since its printable gun was released, and [its video revealing the gun](#) has attracted 2.8 million views on YouTube.

The project has also already immediately inspired a legal backlash. New York congressmen Steve Israel and Chuck Schumer have both called for the renewal of the Undetectable Firearms Act to ban any gun that can't be spotted with a metal detector.

But Defense Distributed's real goal hasn't been to create an undetectable gun so much as an uncensorable, digital one. As the group's founder radical libertarian founder Cody Wilson sees it, firearms can be made into a printable file that blurs the line between gun control and information censorship, blending the First Amendment and the Second and demonstrating how technology can render the government irrelevant.

"Call me crazy, but I see a world where contraband will pass underground through the data cables to be printed in our homes as the drones move overhead," Wilson said [when we first spoke in August of last year](#). "I see a kind of poetry there...I dream of this very weird future and I'd like to be a part of it."

—

Follow me on [Twitter](#), and check out my new book, *[This Machine Kills Secrets: How WikiLeaks, Cypherpunks and Hacktivists Aim To Free The World's Information.](#)*

Related on Forbes:



Gallery: Ten Wild Things You Can 3D Print At Home

10 images

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I'm a technology, privacy, and information security reporter and most recently the author of the book [This Machine Kills Secrets](#), a chronicle of the history and future of infor... MORE

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Exhibit B

it is unlawful to export any defense article or technical data for which a license or written approval is required without first obtaining the required authorization from the DDTC. Please note that disclosing (including oral or visual disclosure) or transferring technical data to a foreign person, whether in the United States or abroad, is considered an export under § 120.17 of the ITAR.

The Department believes Defense Distributed may not have established the proper jurisdiction of the subject technical data. To resolve this matter officially, we request that Defense Distributed submit Commodity Jurisdiction (CJ) determination requests for the following selection of data files available on DEFCAD.org, and any other technical data for which Defense Distributed is unable to determine proper jurisdiction:

1. Defense Distributed Liberator pistol
2. .22 electric
3. 125mm BK-14M high-explosive anti-tank warhead
4. 5.56/.223 muzzle brake
5. Springfield XD-40 tactical slide assembly
6. Sound Moderator – slip on
7. “The Dirty Diane” 1/2-28 to 3/4-16 STP S3600 oil filter silencer adapter
8. 12 gauge to .22 CB sub-caliber insert
9. Voltlock electronic black powder system
10. VZ-58 front sight.

DTCC/END requests that Defense Distributed submit its CJ requests within three weeks of receipt of this letter and notify this office of the final CJ determinations. All CJ requests must be submitted electronically through an online application using the DS-4076 Commodity Jurisdiction Request Form. The form, guidance for submitting CJ requests, and other relevant information such as a copy of the ITAR can be found on DDTC’s website at <http://www.pmdtc.state.gov>.

Until the Department provides Defense Distributed with final CJ determinations, Defense Distributed should treat the above technical data as ITAR-controlled. This means that all such data should be removed from public access immediately. Defense Distributed should also review the remainder of the data made public on its website to

determine whether any additional data may be similarly controlled and proceed according to ITAR requirements.

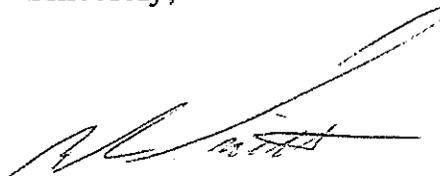
Additionally, DTCC/END requests information about the procedures Defense Distributed follows to determine the classification of its technical data, to include the aforementioned technical data files. We ask that you provide your procedures for determining proper jurisdiction of technical data within 30 days of the date of this letter to Ms. Bridget Van Buren, Compliance Specialist, Enforcement Division, at the address below:

Office of Defense Trade Controls Compliance

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

We appreciate your full cooperation in this matter. Please note our reference number in any future correspondence.

Sincerely,



Glenn E. Smith
Chief, Enforcement Division

Exhibit C

SETTLEMENT AGREEMENT

Defense Distributed (“DD”), Second Amendment Foundation, Inc. (“SAF”), and Conn Williamson (collectively, “Plaintiffs,”) and the United States Department of State (“State”), the Secretary of State, the Directorate of Defense Trade Controls (“DDTC”), the Deputy Assistant Secretary, Defense Trade Controls, and the Director, Office of Defense Trade Controls Policy (collectively, “Defendants”), out of a mutual desire to resolve all of the claims in the case captioned *Defense Distributed, et al. v. Dep’t of State, et al.*, Case No. 15-cv-372-RP (W.D. Tex.) (the “Action”) without the need for further litigation and without any admission of liability, hereby stipulate and agree as follows:

Plaintiffs and Defendants do hereby settle all claims, issues, complaints, or actions described in the case captioned, and any and all other claims, complaints, or issues that have been or could have been asserted by Plaintiffs against Defendants in accordance with the following terms and conditions:

1. *Consideration:* In consideration of Plaintiffs’ agreement to dismiss the claims in the Action with prejudice as described in paragraph 2, below, Defendants agree to the following, in accordance with the definitions set forth in paragraph 12, below:

- (a) Defendants’ commitment to draft and to fully pursue, to the extent authorized by law (including the Administrative Procedure Act), the publication in the Federal Register of a notice of proposed rulemaking and final rule, revising USML Category I to exclude the technical data that is the subject of the Action.
- (b) Defendants’ announcement, while the above-referenced final rule is in development, of a temporary modification, consistent with the International

Traffic in Arms Regulations (ITAR), 22 C.F.R. § 126.2, of USML Category I to exclude the technical data that is the subject of the Action. The announcement will appear on the DDTC website, www.pmdtc.state.gov, on or before July 27, 2018.

- (c) Defendants' issuance of a letter to Plaintiffs on or before July 27, 2018, signed by the Deputy Assistant Secretary for Defense Trade Controls, advising that the Published Files, Ghost Gunner Files, and CAD Files are approved for public release (i.e., unlimited distribution) in any form and are exempt from the export licensing requirements of the ITAR because they satisfy the criteria of 22 C.F.R. § 125.4(b)(13). For the purposes of 22 C.F.R. § 125.4(b)(13) the Department of State is the cognizant U.S. Government department or agency, and the Directorate of Defense Trade Controls has delegated authority to issue this approval.
- (d) Defendants' acknowledgment and agreement that the temporary modification of USML Category I permits any United States person, to include DD's customers and SAF's members, to access, discuss, use, reproduce, or otherwise benefit from the technical data that is the subject of the Action, and that the letter to Plaintiffs permits any such person to access, discuss, use, reproduce or otherwise benefit from the Published Files, Ghost Gunner Files, and CAD Files.
- (e) Payment in the amount of \$39,581.00. This figure is inclusive of any interest and is the only payment that will be made to Plaintiffs or their counsel by Defendants under this Settlement Agreement. Plaintiffs' counsel will provide Defendants'

counsel with all information necessary to effectuate this payment.

The items set forth in subparagraphs (a) through (e) above constitute all relief to be provided in settlement of the Action, including all damages or other monetary relief, equitable relief, declaratory relief, or relief of any form, including but not limited to, attorneys' fees, costs, and/or relief recoverable pursuant to 2 U.S.C. § 1302, 2 U.S.C. § 1311, 2 U.S.C. § 1317, 22 U.S.C. § 6432b(g), 28 U.S.C. § 1920, Fed. R. Civ. P. 54(d), and the Local Rules.

2. *Dismissal with Prejudice:* At the time of the execution of this Settlement Agreement, Plaintiffs agree to have their counsel execute and provide to Defendants' counsel an original Stipulation for Dismissal with Prejudice pursuant to Fed. R. Civ. P. 41(a)(1)(A)(ii) and 41(a)(1)(B). Counsel for Defendants agree to execute the stipulation and file it with the Court in the Action, no sooner than 5 business days after the publication of the announcement described in Paragraph 1(b) of this Settlement Agreement and issuance of the letter described in Paragraph 1(c) of this Settlement Agreement. A copy of the Stipulation for Dismissal with Prejudice is attached hereto.

3. *Release:* Plaintiffs, for themselves and their administrators, heirs, representatives, successors, or assigns, hereby waive, release and forever discharge Defendants, and all of their components, offices or establishments, and any officers, employees, agents, or successors of any such components, offices or establishments, either in their official or

individual capacities, from any and all claims, demands and causes of action of every kind, nature or description, whether currently known or unknown, which Plaintiffs may have had, may now have, or may hereafter discover that were or could have been raised in the Action.

4. *No Admission of Liability*: This Settlement Agreement is not and shall not be construed as an admission by Defendants of the truth of any allegation or the validity of any claim asserted in the Action, or of Defendants' liability therein. Nor is it a concession or an admission of any fault or omission in any act or failure to act. Nor is it a concession or admission as to whether the monetary or equitable relief, attorneys' fees, costs, and expenses sought by Plaintiffs in the Action, are reasonable or appropriate. None of the terms of the Settlement Agreement may be offered or received in evidence or in any way referred to in any civil, criminal, or administrative action other than proceedings permitted by law, if any, that may be necessary to consummate or enforce this Settlement Agreement. The terms of this Settlement Agreement shall not be construed as an admission by Defendants that the consideration to be given hereunder represents the relief that could be recovered after trial. Defendants deny that they engaged in *ultra vires* actions, deny that they violated the First Amendment, Second Amendment, or Fifth Amendment of the United States Constitution, and maintain that all of the actions taken by Defendants with respect to Plaintiffs comply fully with the law, including the United States Constitution.

5. *Merger Clause:* The terms of this Settlement Agreement constitute the entire agreement of Plaintiffs and Defendants entered into in good faith, and no statement, remark, agreement or understanding, oral or written, which is not contained therein, shall be recognized or enforced. Plaintiffs acknowledge and agree that no promise or representation not contained in this Settlement Agreement has been made to them and they acknowledge and represent that this Settlement Agreement contains the entire understanding between Plaintiffs and Defendants and contains all terms and conditions pertaining to the compromise and settlement of the disputes referenced herein. Nor does the Parties' agreement to this Settlement Agreement reflect any agreed-upon purpose other than the desire of the Parties to reach a full and final conclusion of the Action, and to resolve the Action without the time and expense of further litigation.
6. *Amendments:* This Settlement Agreement cannot be modified or amended except by an instrument in writing, agreed to and signed by the Parties, nor shall any provision hereof be waived other than by a written waiver, signed by the Parties.
7. *Binding Successors:* This Settlement Agreement shall be binding upon and inure to the benefit of Plaintiffs and Defendants, and their respective heirs, executors, successors, assigns and personal representatives, including any persons, entities, departments or agencies succeeding to the interests or obligations of the Parties.

8. *Consultation with Counsel:* Plaintiffs acknowledges that they have discussed this Settlement Agreement with their counsel, who has explained these documents to them and that they understand all of the terms and conditions of this Settlement Agreement. Plaintiffs further acknowledge that they have read this Settlement Agreement, understand the contents thereof, and execute this Settlement Agreement of their own free act and deed. The undersigned represent that they are fully authorized to enter into this Settlement Agreement.
9. *Execution:* This Settlement Agreement may be executed in one or more counterparts, each of which shall be deemed an original, and all of which together constitute one and the same instrument, and photographic copies of such signed counterparts may be used in lieu of the original.
10. *Jointly Drafted Agreement:* This Settlement Agreement shall be considered a jointly drafted agreement and shall not be construed against any party as the drafter.
11. *Tax and Other Consequences:* Compliance with all applicable federal, state, and local tax requirements shall be the sole responsibility of Plaintiffs and their counsel. Plaintiffs and Defendants agree that nothing in this Settlement Agreement waives or modifies federal, state, or local law pertaining to taxes, offsets, levies, and liens that may apply to this

Settlement Agreement or the settlement proceeds, and that Plaintiffs are executing this Settlement Agreement without reliance on any representation by Defendants as to the application of any such law.

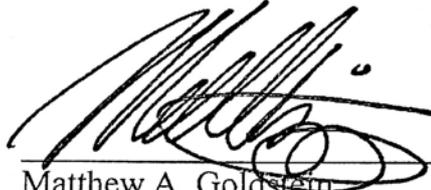
12. *Definitions:* As used in this Settlement Agreement, certain terms are defined as follows:

- The phrase “*Published Files*” means the files described in paragraph 25 of Plaintiffs’ Second Amended Complaint.
- The phrase “*Ghost Gunner Files*” means the files described in paragraph 36 of Plaintiffs’ Second Amended Complaint.
- The phrase “*CAD Files*” means the files described in paragraph 40 of Plaintiffs’ Second Amended Complaint.
- The phrase “*Other Files*” means the files described in paragraphs 44-45 of Plaintiffs’ Second Amended Complaint.
- The phrase “*Military Equipment*” means (1) Drum and other magazines for firearms to .50 caliber (12.7 mm) inclusive with a capacity greater than 50 rounds, regardless of jurisdiction of the firearm, and specially designed parts and components therefor; (2) Parts and components specially designed for conversion of a semi-automatic firearm to a fully automatic firearm; (3) Accessories or attachments specially designed to automatically stabilize aim (other than gun rests) or for automatic targeting, and specially designed parts and components therefor.
- The phrase “*technical data that is the subject of the Action*” means: (1) the Published Files; (2) the Ghost Gunner Files; (3) the CAD Files; and (4) the Other Files insofar as those files regard items exclusively: (a) in Category I(a) of the United States Munitions List (USML), as well as barrels and receivers covered by Category I(g) of the USML that are components of such items; or (b) items.

covered by Category I(h) of the USML solely by reference to Category I(a),
excluding Military Equipment.

Dated: June 29, 2018

Dated: June 29, 2018



Matthew A. Goldstein
Snell & Wilmer LLP
One South Church Ave. Ste. 1500
Tucson, Arizona 85701
Counsel for Plaintiffs

Dated: June 29, 2018



Eric J. Soskin
Stuart J. Robinson
United States Department of Justice
Civil Division, Federal Programs Branch
20 Massachusetts Ave., N.W.
Washington, D.C. 20001
Tel. (202) 353-0533

Counsel for Defendants

Exhibit D



United States Department of State
Bureau of Political-Military Affairs
Directorate of Defense Trade Controls
Washington, D.C. 20522-0112

July 27, 2018

Mr. Cody R. Wilson, Defense Distributed, and Second Amendment Foundation, Inc.
c/o Mr. Matthew A. Goldstein
Snell & Wilmer
One South Church Avenue
Suite 1500
Tucson, AZ 85701-1630

RE: Directorate of Defense Trade Controls Approval of Certain Files for Public Release

Dear Mr. Wilson, Defense Distributed, and Second Amendment Foundation, Inc.:

This letter is provided in accordance with section 1(c) of the Settlement Agreement in the matter of *Defense Distributed, et al., v. U.S. Department of State, et al.*, No. 15-cv-372-RP (W.D. Tx.) (hereinafter referred to as "*Defense Distributed*"). As used in this letter,

- The phrase "Published Files" means the files described in paragraph 25 of Plaintiffs' Second Amended Complaint in *Defense Distributed*.
- The phrase "Ghost Gunner Files" means the files described in paragraph 36 of Plaintiffs' Second Amended Complaint in *Defense Distributed*.
- The phrase "CAD Files" means the files described in paragraph 40 of Plaintiffs' Second Amended Complaint in *Defense Distributed*.

The Department understands that Defense Distributed submitted the Published Files, Ghost Gunner Files, and CAD Files to the Department of Defense's Defense Office of Prepublication and Security Review (DOPSR) in 2014 to request review for approval for public release pursuant to International Traffic in Arms Regulations (ITAR) § 125.4(b)(13). It is our further understanding that DOPSR did not make a determination on the eligibility of these files for release, but instead referred you to the Directorate of Defense Trade Controls (DDTC) regarding public release of these files.

I advise you that for the purposes of ITAR § 125.4(b)(13), the Department of State is a cognizant U.S. government department or agency, and DDTC has authority to issue the requisite approval for public release. To that end, I approve the Published Files, Ghost Gunner Files, and CAD Files for public release (i.e., unlimited distribution). As set forth in ITAR § 125.4(b)(13), technical data approved for public release by the cognizant U.S. government department or agency is not subject to the licensing requirements of the ITAR.

Sincerely,

A handwritten signature in blue ink, consisting of a stylized 'D' followed by a horizontal line that tapers to the right.

Acting Deputy Assistant Secretary for the
Directorate of Defense Trade Controls

Exhibit E

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UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON AT SEATTLE

STATE OF WASHINGTON, et al.,)	C18-1115-RSL
)	
Plaintiffs,)	SEATTLE, WASHINGTON
)	
v.)	August 21, 2018
)	
UNITED STATES DEPARTMENT OF)	MOTION HEARING
STATE, et al.,)	
)	
Defendants.)	

VERBATIM REPORT OF PROCEEDINGS
BEFORE THE HONORABLE ROBERT S. LASNIK
UNITED STATES DISTRICT JUDGE

APPEARANCES:

For the Plaintiffs: Jeffrey G. Rupert
Attorney General's Office
PO Box 40110
Olympia, WA 98504

Jeffrey T. Sprung
Kristin Beneski
Zachary P. Jones
Attorney General's Office
800 5th Avenue
Suite 2000
Seattle, WA 98104

Scott J. Kaplan
Oregon Department of Justice
100 SW Market Street
Portland, OR 97201

1 regulations here are narrowly tailored, and there's a
2 procedure to challenge it with a CJ. And the declaration
3 from Ms. Aguirre indicated that most CJs are granted. By
4 that, I mean you're allowed to export the item.

5 Finally, there are alternative avenues to produce this
6 information. But here, notably, it only applies to Internet
7 posting. They can hand them around domestically. And also
8 there's a wide exception in the statute for general
9 scientific, mathematical or engineering papers.

10 I would note that Judge Pitman's decision relied on a
11 Ninth Circuit case, which we again believe controls, is the
12 *Chi Mak* case, from the Ninth Circuit in 2012, where the Ninth
13 Circuit quoted -- quote says, it repeatedly rejected First
14 Amendment challenges to the AECA, its implementation of
15 regulations in its predecessor statute.

16 So, again, we believe that decides the issue with the
17 First Amendment. But Your Honor only has to reach these
18 issues on the balancing of the equities test for an
19 injunction.

20 Moving on to the balancing of the equities. We believe
21 there's a real and present danger to the public safety. The
22 President seems to agree. And the preliminary injunction, if
23 it were issued, as with temporary restraining orders, will
24 not harm the government. It would put us back to where we
25 were before this all happened. As to the First Amendment

1 part of the process; or, we just wanted to change the
2 50-caliber or less, nonautomatic, and we didn't even think
3 about the 3D printing?

4 MR. MYERS: Your Honor, I think the face of the
5 documents that we've relied on and put before the Court
6 suggests that there's been a year's long effort to revise the
7 United States Munitions List. And as part of that, the
8 judgment has been made that sub-50-caliber nonautomatic
9 firearms ought not be regulated under the AECA and ITAR. And
10 that extends to professional firearms or plastic firearms,
11 provided that they are nonautomatic and sub-50-caliber.

12 To be clear, even if the Court were to grant plaintiffs
13 every ounce of relief that they seek in this case, Defense
14 Distributed could still mail every American citizen in the
15 country the files that are at issue here. And what that gets
16 at, and what I really want to underscore, is the fundamental
17 disconnect between the claims that plaintiffs are asserting
18 here, and the statutory regime at issue.

19 Again, there are domestic prohibitions on undetectable
20 firearms, on firearm possession. Some of those are federal.
21 Some of those are state. And all remain on the books and
22 capable of being enforced. But plaintiffs are trying to rely
23 on the wrong statutes.

24 So let me start by talking about plaintiffs' theory of
25 injury, which is relevant to their claims of both standing

1 the federal government follow their rules in making the
2 modification and sending the letter? And I will deal with
3 those in that technical arena.

4 But a solution to the greater problem is so much better
5 suited to the other two branches of government. And I really
6 hope and wish that the Executive Branch and Congress would
7 face up to this and say, it's a tough issue, but that's why
8 you got into public service to begin with.

9 But thanks very much. Did you have anything else,
10 Mr. Rupert?

11 MR. RUPERT: I do not, Your Honor.

12 THE COURT: I'm going to take the matter under
13 advisement. There is some excellent briefing and issues that
14 I want to take a closer look at. I will definitely get a
15 written decision out by Monday, August 27th. So you'll have
16 it for sure before the expiration of the TRO on the 28th.

17 Okay. Thanks very much, counsel. We are adjourned.

18 (Adjourned.)

19 C E R T I F I C A T E

20

21 I certify that the foregoing is a correct transcript from
22 the record of proceedings in the above-entitled matter.

23

24 /s/ Debbie Zurn

25 DEBBIE ZURN
COURT REPORTER

Exhibit F

INTERNET ARCHIVE <https://defcad.com/> Go JUL AUG OCT
 waybackmachine 272 captures 2 Feb 2011 - 19 Nov 2018 2017 2018 2019 About this capture

DEFCAD

\$280K/\$400K (70%) [DONATE](#)

[SEARCH](#)

[PARTNER](#)

[LOGIN](#)

[SIGN UP](#)

BUY YOUR FILES TODAY. SIGN UP TO SELL.

DISCOVER



Browse a growing library of files from enthusiasts and engineers.

BUY



DEFCAD is a public marketplace.

CONTRIBUTE

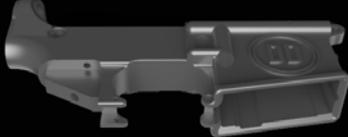
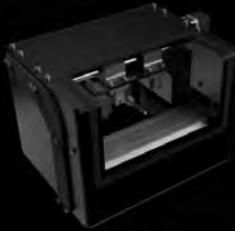


Participate in the active development of your Second Amendment.

[FEATURED](#)

[MOST RECENT](#)

[ALPHABETICAL](#)

 <p>AR-15 <small>DD</small> DEFDIST <small>JUL 27, 2018</small></p> <p>77 3263</p>	 <p>VZ. 58 <small>DD</small> DEFDIST <small>JUL 27, 2018</small></p> <p>8 2152</p>	 <p>AR-10 <small>DD</small> DEFDIST <small>JUL 27, 2018</small></p> <p>13 2547</p>	 <p>LIBERATOR <small>DD</small> DEFDIST <small>JUL 27, 2018</small></p> <p>90 5050</p>
 <p>DD AR-15 80% LOWER <small>DD</small> DEFDIST <small>JUL 27, 2018</small></p> <p>27 3174</p>	 <p>BERETTA 92FS <small>DD</small> DEFDIST <small>JUL 27, 2018</small></p> <p>36 3534</p>	 <p>GHOST GUNNER 2 <small>DD</small> DEFDIST <small>JUL 27, 2018</small></p> <p>18 119</p>	 <p>DPMS 308 80% LOWER <small>DD</small> DEFDIST <small>JUL 27, 2018</small></p> <p>8 98</p>
 <p>RUGER 10/22 <small>DD</small> DEFDIST <small>JUL 27, 2018</small></p> <p>13 2431</p>	 <p>1911 <small>DD</small> DEFDIST <small>JUL 27, 2018</small></p> <p>21 3017</p>		



DEFCAD

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DEFENSE DISTRIBUTED. ALL RIGHTS RESERVED.



Exhibit G

DEF CAD

\$342K/\$400K (86%) [DONATE](#)

[SEARCH](#)

[PARTNER](#)

[LOGIN](#)

[SIGN UP](#)



DD AR-15 80% LOWER

[PURCHASE](#)

 BY DEF DIST



<https://defcad.com/library/0dd85faa-faa6-42b5-8167-52f8f863bfd8/>

Go AUG 23 01

1 capture
23 Sep 2018

About this capture

only available to U.S. Persons, as defined at 22 C.F.R. 120.15. The files are also not available to persons outside the United States or to residents of and persons in the following blue states: State of New Jersey, Commonwealth of Pennsylvania, State of Washington, State of Connecticut, State of Maryland, State of New York, State of Oregon, Commonwealth of Massachusetts, District of Columbia, State of California, State of Colorado, State of Delaware, State of Hawaii, State of Illinois, State of Iowa, State of Minnesota, State of North Carolina, State of Rhode Island, State of Vermont, Commonwealth of Virginia, State of Maine

CREATED: JULY 27, 2018

FILETYPES: SLDprt, STP

CATEGORY: NONE

TAGS: NONE

FILES (1)

TYPE

AR15_80_PERCENT_LOWER.
ZIP

SLDPRT, STP

NO LICENSE

REPORT THIS
CONTENT

COMMENTS (30)



PLEASE LOGIN TO ADD COMMENTS



MAXKULIK

My download link to get ALL the DD files has changed to:
<http://MaxKulik.net/downloads.html>
Happy Printing!

2 DAYS, 12 HOURS



HARDWIRED79

Thanks MaxKulik!

3 DAYS, 9 HOURS



MAXKULIK

I would like to just share again:

The files are downloadable on my personal server here:
<http://MaxKulik.net/DDCAD.zip>

1 WEEK, 4 DAYS



HAMMERHEAD1911

can't download -_-

1 MONTH, 2 WEEKS



VYRD

why i can't download?

1 MONTH, 2 WEEKS



BLACKCELL

find book on new weapons www.DELTAPress.com

1 MONTH, 3 WEEKS



TREND777

Is it not downloadable? Im at Puerto Rico

1 MONTH, 3 WEEKS



MARKHARGRAVE

are these just the mill ones or is the 3D print one out there?

1 MONTH, 3 WEEKS



LOBISON

so we still can not download ?

1 MONTH, 3 WEEKS



NOBACK

Good

1 MONTH, 3 WEEKS

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DEFCAD

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[PRIVACY](#)

[TERMS](#)

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Exhibit H



Paloma Heindorff <paloma@defdist.org>

DEFCAD file shipping

3 messages

Paloma <paloma@defdist.org> Fri, Nov 2, 2018 at 2:11 PM
To: Stephen Sheftall <sales@ghostgunner.net>, Stacie Frost <shipping@ghostgunner.net>, Justin Frost <jrf@ghostgunner.net>

Hi guys, quick note: please halt all shipments of DEFCAD files until further notice.

--

Paloma Heindorff
Director

Defense Distributed

2320 Donley Drive, Unit C
Austin, TX 78758
p: 512.584.8013

www.ghostgunner.net

This e-mail transmission contains confidential information that is the property of the sender and the organization (DEFENSE DISTRIBUTED, INC.) for which the sender represents. If you are not the intended recipient and have by accident received this email, please do not retain, disclose, reproduce or distribute the contents of this e-mail transmission, or take any action in relevance thereon or pursuant thereto. Please notify the sender of the error by responding to the email accordingly in a timely and reasonable fashion otherwise failure to do so may cause legal action to be taken.
Thank you.

Stephen Sheftall <sales@ghostgunner.net> Fri, Nov 2, 2018 at 2:28 PM
To: Paloma <paloma@defdist.org>

Copy that.

Stephen Sheftall
Ghost Gunner Sales

Ghost Gunner

2320 Donley Drive Suite C
Austin, TX 78758
p: 512.584.8013

www.ghostgunner.net

This e-mail transmission contains confidential information that is the property of the sender and the organization (GHOST GUNNER, INC.) for which the sender represents. If you are not the intended recipient and have by accident received this email, please do not retain, disclose,

reproduce or distribute the contents of this e-mail transmission, or take any action in relevance thereon or pursuant thereto. Please notify the sender of the error by responding to the email accordingly in a timely and reasonable fashion otherwise failure to do so may cause legal action to be taken.
Thank you.

[Quoted text hidden]

Justin Frost <jrf@ghostgunner.net>
To: paloma@defdist.org

Fri, Nov 2, 2018 at 2:31 PM

Got it.

[Quoted text hidden]

--

Justin Frost
Ghost Gunner Tech Support

Ghost Gunner

[2320 Donley Drive Suite C](http://2320DonleyDriveSuiteC.com)
[Austin, TX 78758](http://AustinTX78758.com)
p: [737-212-1979](tel:737-212-1979)

www.ghostgunner.net

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Thank you.

Exhibit I

DECLARATION OF CODY WILSON

I, Cody Wilson, declare:

1. I am a citizen of the United States and a resident of Texas.
2. I co-founded and now lead Defense Distributed.
3. Defense Distributed maintains DEFCAD.com
4. Each of the ten files posted by Defense Distributed on July 27, 2018 were already

in the public domain before that date, as follows:

- (1) The AR-15 assembly files were available at the following sites:

Grabcad: <https://grabcad.com/library/ar-15-m16-a1>
CNCguns: <https://www.cncguns.com/downloads.html>

- (2) The VZ. 58 assembly files were available at the following site:

Grabcad: <https://grabcad.com/library/vz-58-rifle-1>

- (3) The AR-10 assembly files were available at the following site:

Grabcad: <https://grabcad.com/library/ar-10-battle-rifle-7-62x51mm-1>

- (4) The Liberator pistol assembly files were available at the following sites:

Grabcad: <https://grabcad.com/library/liberator-guns-full-1>

PirateBay:
https://thepiratebay.org/torrent/8444391/DefDist_Liberator_Pistol

- (5) The Beretta M9 assembly files were available at the following sites:

Grabcad: <https://grabcad.com/library/beretta-92fs>

- (6) The 1911 assembly files were available at the following sites:

Grabcad: <https://grabcad.com/library/colt-m1911-a1-2>
CNCguns: <https://www.cncguns.com/downloads.html>

1000002.1

(7) The 10/22 assembly files were available at the following sites:

Grabcad: <https://grabcad.com/library/ruger-10-22-1>
CNCguns: <https://www.cncguns.com/downloads.html>

(8) The Ghost Gunner 2 assembly files (not ITAR-controlled) were available at the following site:

Ghost Gunner: <https://ghostgunner.net/downloads/>

(9) The 308 80% lower model files were available at the following site:

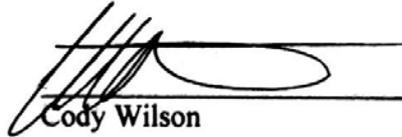
CNCguns: <https://www.cncguns.com/downloads.html>

(10) The AR-15 80% lower model files were available at the following sites:

Grabcad: <https://grabcad.com/library/mil-spec-ar-15-lower>
CNCguns: <https://www.cncguns.com/downloads.html>

I declare under penalty of perjury that the foregoing is true and correct.

This the 15th day of August, 2018.


Cody Wilson

EXHIBIT

27

SUBSCRIBE

BACKCHANNEL 07.10.18 01:29 PM

A LANDMARK LEGAL SHIFT OPENS PANDORA'S BOX FOR DIY GUNS

Cody Wilson makes digital files that let anyone 3-D print untraceable guns. The government tried to stop him. He sued—and won.

BY ANDY GREENBERG

FIVE YEARS AGO, 25-year-old radical libertarian Cody Wilson stood on a remote central Texas gun range and pulled the trigger on the world's first fully 3-D-printed gun. When, to his relief, his plastic invention fired a .380-caliber bullet into a berm of dirt without jamming or exploding in

his hands, he drove back to Austin and uploaded the blueprints for the PUBLISHED pistol to his website, Defcad.com.

He'd launched the site months earlier along with an anarchist video manifesto, declaring that gun control would never be the same in an era when anyone can download and print their own firearm with a few clicks. In the days after that first test-firing, his gun was downloaded more than 100,000 times. Wilson made the decision to go all in on the project, dropping out of law school at the University of Texas, as if to confirm his belief that technology supersedes law.

Cody Wilson, the founder of Defense Distributed, plans to create the world's largest repository of digital gun files. MICHELLE GROSCHOPF

The law caught up. Less than a week later, Wilson received a letter from the US State Department demanding that he take down his printable-gun blueprints or face prosecution for violating federal export controls.

Under an obscure set of US regulations known as the International Trade in Arms Regulations (ITAR), Wilson was accused of exporting weapons without a license, just as if he'd shipped his plastic gun to Mexico rather than put a digital version of it on the internet. He took Defcad.com offline, but his lawyer warned him that he still potentially faced millions of dollars in fines and years in prison simply for having made the file available to overseas downloaders for a few days. "I thought my life was over," Wilson says.

Instead, Wilson has spent the last years on an unlikely project for an anarchist: Not simply defying or skirting the law but taking it to court and changing it. In doing so, he has now not only defeated a legal threat to his own highly controversial gunsmithing project. He may have also unlocked a new era of digital DIY gunmaking that further undermines gun

control across the United States and the world—another step toward
~~Wilson's imagined future where anyone can make a deadly weapon at~~
home with no government oversight.

Two months ago, the Department of Justice quietly offered Wilson a settlement to end a lawsuit he and a group of co-plaintiffs have pursued since 2015 against the United States government. Wilson and his team of lawyers focused their legal argument on a free speech claim: They pointed out that by forbidding Wilson from posting his 3-D-printable data, the State Department was not only violating his right to bear arms but his right to freely share information. By blurring the line between a gun and a digital file, Wilson had also successfully blurred the lines between the Second Amendment and the First.

"If code is speech, the constitutional contradictions are evident," Wilson explained to WIRED when he first launched the lawsuit in 2015. "So what if this code is a gun?"

The Department of Justice's surprising settlement, confirmed in court documents earlier this month, essentially surrenders to that argument. It promises to change the export control rules surrounding any firearm below .50 caliber—with a few exceptions like fully automatic weapons and rare gun designs that use caseless ammunition—and move their regulation to the Commerce Department, which won't try to police technical data about the guns posted on the public internet. In the meantime, it gives Wilson a unique license to publish data about those weapons anywhere he chooses.

"I consider it a truly grand thing," Wilson says. "It will be an irrevocable part of political life that guns are downloadable, and we helped to do that."

Now Wilson is making up for lost time. Later this month, he and the nonprofit he founded, Defense Distributed, are relaunching their website Defcad.com as a repository of firearm blueprints they've been privately

creating and collecting, from the original one-shot 3-D-printable pistol he fired in 2013 to AR-15 frames and more exotic DIY semi-automatic weapons. The relaunched site will be open to user contributions, too; Wilson hopes it will soon serve as a searchable, user-generated database of practically any firearm imaginable.

All of that will be available to anyone anywhere in the world with an uncensored internet connection, to download, alter, remix, and fabricate into lethal weapons with tools like 3-D printers and computer-controlled milling machines. “We’re doing the encyclopedic work of collecting this data and putting it into the commons,” Wilson says. “What’s about to happen is a Cambrian explosion of the digital content related to firearms.” He intends that database, and the inexorable evolution of homemade weapons it helps make possible, to serve as a kind of bulwark

against all future gun control, demonstrating its futility by making access to weapons as ubiquitous as the internet.

Of course, that mission seemed more relevant when Wilson first began dreaming it up, before a political party with no will to rein in America's gun death epidemic held control of Congress, the White House, and likely soon the Supreme Court. But Wilson still sees Defcad as an answer to the resurgent gun control movement that has emerged in the wake of the Parkland, Florida, high school shooting that left 17 students dead in February.

The potential for his new site, if it functions as Wilson hopes, would also go well beyond even the average Trump supporter's taste in gun rights. The culture of homemade, unregulated guns it fosters could make firearms available to even those people who practically every American agrees shouldn't possess them: felons, minors, and the mentally ill. The result could be more cases like that of John Zawahiri, an emotionally disturbed 25-year-old who went on a shooting spree in Santa Monica, California, with a homemade AR-15 in 2015, killing five people, or Kevin Neal, a Northern California man who killed five people with AR-15-style rifles—some of which were homemade—last November.

"This should alarm everyone," says Po Murray, chairwoman of Newtown Action Alliance, a Connecticut-focused gun control group created in the wake of the mass shooting at Sandy Hook Elementary School in 2013. "We're passing laws in Connecticut and other states to make sure these weapons of war aren't getting into the hands of dangerous people. They're working in the opposite direction."

When reporters and critics have repeatedly pointed out those potential consequences of Wilson's work over the last five years, he has argued that he's not seeking to arm criminals or the insane or to cause the deaths of innocents. But nor is he moved enough by those possibilities to give up

what he hopes could be, in a new era of digital fabrication, the winning move in the battle over access to guns.

With his new legal victory and the Pandora's box of DIY weapons it opens, Wilson says he's finally fulfilling that mission. "All this Parkland stuff, the students, all these dreams of 'common sense gun reforms'? No. The internet will serve guns, the gun is downloadable." Wilson says now. "No amount of petitions or die-ins or anything else can change that."

DEFENSE DISTRIBUTED OPERATES out of an unadorned building in a north Austin industrial park, behind two black-mirrored doors marked only with the circled letters "DD" scrawled by someone's finger in the dust. In the machine shop inside, amid piles of aluminum shavings, a linebacker-sized, friendly engineer named Jeff Winkleman is walking me through the painstaking process of turning a gun into a collection of numbers.

Winkleman has placed the lower receiver of an AR-15, the component that serves as the core frame of the rifle, on a granite table that's been calibrated to be perfectly flat to one ten-thousandth of an inch. Then he places a Mitutoyo height gauge—a thin metal probe that slides up and down on a tall metal stand and measures vertical distances—next to it, poking one edge of the frame with its probe to get a baseline reading of its position. "This is where we get down to the nitty gritty," Winkleman says. "Or, as we call it, the gnat's ass."

Winkleman then slowly rotates the gauge's rotary handle to move its probe down to the edge of a tiny hole on the side of the gun's frame. After a couple careful taps, the tool's display reads 0.4775 inches. He has just measured a single line—one of the countless dimensions that define the shape of any of the dozens of component of an AR-15—with four decimal places of accuracy. Winkleman's job at Defense Distributed now is to repeat that process again and again, integrating that number, along with every measurement of every nook, cranny, surface, hole, lip, and ridge of

a rifle, into a CAD model he's assembling on a computer behind him, and then to repeat that obsessively comprehensive model-building for as many guns as possible.

That a digital fabrication company has opted for this absurdly manual process might seem counterintuitive. But Winkleman insists that the analog measurements, while infinitely slower than modern tools like laser scanners, produce a far more accurate model—a kind of gold master for any future replications or alterations of that weapon. "We're trying to set a precedent here," Winkleman says. "When we say something is true, you absolutely know it's true."

One room over, Wilson shows me the most impressive new toy in the group's digitization toolkit, one that arrived just three days earlier: A room-sized analog artifact known as an optical comparator. The device, which he bought used for \$32,000, resembles a kind of massive cartoon X-ray scanner.

Defense Distributed's optical comparator, a room-sized machine the group is using to convert physical guns to collections of digital measurements. MICHELLE GROSKOPF

Wilson places the body of an AR-9 rifle on a pedestal on the right side of the machine. Two mercury lamps project neon green beams of light onto the frame from either side. A lens behind it bends that light within the machine and then projects it onto a 30-inch screen at up to 100X magnification. From that screen's mercury glow, the operator can map out points to calculate the gun's geometry with microscopic fidelity. Wilson flips through higher magnification lenses, then focuses on a series of tiny ridges of the frame until the remnants of their machining look like the brush strokes of Chinese calligraphy. "Zoom in, zoom in, enhance" Wilson jokes.

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Wilson's first controversial innovation was to demonstrate how digital files could be converted to physical, deadly weapons. MICHELLE GROSKOPF

He now sees an opportunity to cripple gun control with the opposite tactic: digitizing as many weapons as possible and making the files available to gunsmiths. MICHELLE GROSKOPF

Turning physical guns into digital files, instead of vice-versa, is a new trick for Defense Distributed. While Wilson's organization first gained notoriety for its invention of the first 3-D printable gun, what it called the Liberator, it has since largely moved past 3-D printing. Most of the company's operations are now focused on its core business: making and selling a consumer-grade computer-controlled milling machine known as the Ghost Gunner, designed to allow its owner to carve gun parts out of far more durable aluminum. In the largest room of Defense Distributed's headquarters, half a dozen millennial staffers with beards and close-cropped hair—all resembling Cody Wilson, in other words—are busy building those mills in an assembly line, each machine capable of skirting all federal gun control to churn out untraceable metal glocks and semiautomatic rifles en masse.

The staff of Defense Distributed: part startup, part advocacy group, part armed insurgency. MICHELLE GROSKOPF

For now, those mills produce only a few different gun frames for firearms, including the AR-15 and 1911 handguns. But Defense Distributed's engineers imagine a future where their milling machine and other digital fabrication tools—such as consumer-grade aluminum-sintering 3-D printers that can print objects in metal—can make practically any digital gun component materialize in someone's garage.

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Most of Defense Distributed's staff work on the group's central source of revenue: building gun-making computer controlled milling machines called the Ghost Gunner

MICHELLE GROSKOPF

A Ghost Gunner can finish an AR-15 lower receiver, the central part of the rifle's frame, in a few hours. Defense Distributed has sold close to 6,000 of the machines.

MICHELLE GROSKOPF

In the meantime, selling Ghost Gunners has been a lucrative business. Defense Distributed has sold roughly 6,000 of the desktop devices to DIY gun enthusiasts across the country, mostly for \$1,675 each, netting millions in profit. The company employs 15 people and is already outgrowing its North Austin headquarters. But Wilson says he's never been interested in money or building a startup for its own sake. He now claims that the entire venture was created with a singular goal: to raise enough money to wage his legal war against the US State Department.

AFTER HIS LAWYERS originally told him in 2013 that his case against the government was hopeless, Wilson fired them and hired two new ones with expertise in export control and both Second and First-Amendment law. Matthew Goldstein, Wilson's lawyer who is focused on ITAR, says he was immediately convinced of the merits of Wilson's position. "This is the case you'd bring out in a law school course as an unconstitutional law," Goldstein says. "It ticks all the check boxes of what violates the First Amendment."

When Wilson's company teamed up with the Second Amendment Foundation and brought their lawsuit to a Texas District court in 2015, they were supported by a collection of amicus briefs from a shockingly broad coalition: Arguments in their favor were submitted by not only the libertarian Cato Institute, the gun-rights-focused Madison Society, and 15

Republican members of Congress but also the Electronic Frontier SUBSCRIBE Foundation and the Reporters Committee for Freedom of the Press.

When the judge in the case nonetheless rejected Defense Distributed's request for a preliminary injunction that would have immediately allowed it to continue publishing gun files, the company appealed, and lost. But as the case proceeded toward a ruling on Defense Distributed's first amendment argument, the government surprised the plaintiffs by suddenly offering them a settlement with essentially everything they wanted. It even pays back \$40,000 of their court costs and paperwork fees. (Wilson says that's still only about 10 percent of the \$400,000 that the plaintiffs spent.)

Goldstein says the settlement may have had as much to do with ITAR reforms begun during the Obama administration as with the gun-friendly Trump administration that took over the case. But he doesn't rule out that a new regime may have helped tip the balance in the plaintiffs' favor. "There's different management at the helm of this agency," Goldstein says. "You can draw your own conclusions." Both the Department of Justice and the State Department declined to comment on the outcome of the case.

With the rule change their win entails, Defense Distributed has removed a legal threat to not only its project but an entire online community of DIY gunmakers. Sites like GrabCAD and FossCad already host hundreds of gun designs, from Defense Distributed's Liberator pistol to printable revolvers and even semiautomatic weapons. "There's a lot of satisfaction in doing things yourself, and it's also a way of expressing support for the Second Amendment," explains one prolific FossCad contributor, a West Virginian serial inventor of 3-D-printable semiautomatics who goes by the pseudonym Derwood. "I'm a conservative. I support all the amendments."

But until now, Derwood and practically every other participant on those platforms risked prosecution for violating export controls, whether they knew it or not. Though enforcement has been rare against anyone less vocal and visible than Wilson, many online gunsmiths have nonetheless obscured their identities for that reason. With the more open and intentional database of gun files that Defcad represents, Wilson believes he can create a collection of files that's both more comprehensive and more refined, with higher accuracy, more detailed models for every component, giving machinists all the data they need to make or remix them. "This is the stuff that's necessary for the creative work to come," Wilson says.

In all of this, Wilson sees history repeating itself: He points to the so-called Crypto Wars of the 1990s. After programmer Philip Zimmermann in 1991 released PGP, the world's first free encryption program that anyone could use to thwart surveillance, he too was threatened with an indictment for violating export restrictions. Encryption software was, at the time, treated as a munition and placed on the same prohibited export control list as guns and missiles. Only after a fellow cryptographer, Daniel Bernstein, sued the government with the same free-speech argument Wilson would use 20 years later did the government drop its investigation of Zimmermann and spare him from prison.

"This is a specter of the old thing again," Wilson says. "What we were actually fighting about in court was a core crypto-war problem." And following that analogy, Wilson argues, his legal win means gun blueprints can now spread as widely as encryption has since that earlier legal fight: After all, encryption has now grown from an underground curiosity to a commodity integrated into apps, browsers, and websites running on billions of computers and phones across the globe.

But Zimmermann takes issue with the analogy—on ethical if not legal grounds. This time, he points out, the First Amendment-protected data that was legally treated as a weapon actually *is* a weapon. "Encryption is

a defense technology with humanitarian uses," Zimmermann says. "Guns are only used for killing."

"Arguing that they're the same because they're both made of bits isn't quite persuasive for me," Zimmermann says. "Bits can kill."

AFTER A TOUR of the machine shop, Wilson leads me away from the industrial roar of its milling machines, out the building's black-mirrored-glass doors and through a grassy patch to its back entrance. Inside is a far quieter scene: A large, high-ceilinged, dimly fluorescent-lit warehouse space filled with half a dozen rows of gray metal shelves, mostly covered in a seemingly random collection of books, from *The Decline and Fall of the Roman Empire* to *Hunger Games*. He proudly points out that it includes the entire catalog of Penguin Classics and the entire Criterion Collection, close to 900 Blu-rays. This, he tells me, will be the library.

And why is Defense Distributed building a library? Wilson, who cites Baudrillard, Foucault, or Nietzsche at least once in practically any conversation, certainly doesn't mind the patina of erudition it lends to what is essentially a modern-day gun-running operation. But as usual, he has an ulterior motive: If he can get this room certified as an actual, official public library, he'll unlock another giant collection of existing firearm data. The US military maintains records of thousands of the specs for thousands of firearms in technical manuals, stored on reels and reels of microfiche cassettes. But only federally approved libraries can access them. By building a library, complete with an actual microfiche viewer in one corner, Wilson is angling to access the US military's entire public archive of gun data, which he eventually hopes to digitize and include on Defcad.com, too.

To exploit a technical loophole that gives him access to military weapons files, Cody Wilson is also building a library. He proudly notes it will include the entire Criterion Collection on Blu-ray.

MICHELLE GROSKOPF

"Ninety percent of the technical data is already out there. This is a huge part of our overall digital intake strategy," Wilson says. "Hipsters will come here and check out movies, independent of its actual purpose, which is a stargate for absorbing ancient army technical materials."

Browsing that movie collection, I nearly trip over something large and hard. I look down and find a granite tombstone with the words AMERICAN GUN CONTROL engraved on it. Wilson explains he has a plan to embed it in the dirt under a tree outside when he gets around to it. "It's maybe a little on the nose, but I think you get where I'm going with it," he says.

Wilson plans to bury this tombstone by his library's entrance. "It's maybe a little on the nose," he admits.

MICHELLE GROSKOPF

Wilson's library will serve a more straightforward purpose, too: In one corner stands a server rack that will host Defcad's website and backend database. He doesn't trust any hosting company to hold his controversial files. And he likes the optics of storing his crown jewels in a library, should any reversal of his legal fortunes result in a raid. "If you want to come get it, you have to attack a library," he says.

On that subject, he has something else to show me. Wilson pulls out a small embroidered badge. It depicts a red, dismembered arm on a white background. The arm's hand grips a curved sword, with blood dripping from it. The symbol, Wilson explains, once flew on a flag above the Goliad Fort in South Texas. In Texas' revolution against Mexico in the 1830s,

Goliad's fort was taken by the Mexican government and became the site of a massacre of 400 American prisoners of war, one that's far less widely remembered than the Alamo.

Wilson recently ordered a full-size flag with the sword-wielding bloody arm. He wants to make it a new symbol for his group. His interest in the icon, he explains, dates back to the 2016 election, when he was convinced Hillary Clinton was set to become the president and lead a massive crackdown on firearms.

The flag of Goliad, which Wilson has adopted as a new symbol for his group. He suggests you interpret it as you will. MICHELLE GROSKOPF

If that happened, as Wilson tells it, he was ready to launch his Defcad repository, regardless of the outcome of his lawsuit, and then defend it in an armed standoff. "I'd call a militia out to defend the server, Bundy-style," Wilson says calmly, in the first overt mention of planned armed violence I've ever heard him make. "Our only option was to build an infrastructure where we had one final suicidal mission, where we dumped everything into the internet," Wilson says. "Goliad became an inspirational thing for me."

Now, of course, everything has changed. But Wilson says the Goliad flag still resonates with him. And what does that bloody arm symbol mean to him now, in the era where Donald Trump is president and the law has surrendered to his will? Wilson declines to say, explaining that he would rather leave the mystery of its abstraction intact and open to interpretation.

But it doesn't take a degree in semiotics to see how the Goliad flag suits Defense Distributed. It reads like the logical escalation of the NRA's "cold

dead hands” slogan of the last century. In fact, it may be the perfect RECEIVED
symbol not just for Defense Distributed’s mission but for the country that
produced it, where firearms result in tens of thousands of deaths a
year—vastly more than any other developed nation in the world—yet
groups like Wilson’s continue to make more progress in undermining gun
control than lawmakers do in advancing it. It’s a flag that represents the
essence of violent extremist ideology: An arm that, long after blood is
spilled, refuses to let go. Instead, it only tightens its grip on its weapon, as
a matter of principle, forever.

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Corrected 7/10/2018 2:30 EST to note that the first 3-D printed gun used .380-caliber ammunition, not .223-caliber.*

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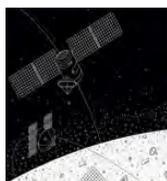
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EXHIBIT

28

Battles, Benjamin

From: Bowers, Todd (ATG) <ToddB@ATG.WA.GOV>
Sent: Thursday, August 2, 2018 8:36 PM
To: Aaron Goldstein; Abigail Wood; Al Gilbert; Andy Saindon; Bart DeLone; Beneski, Kristin (ATG); Battles, Benjamin; Cynthia Hudson; Dana Viola; Eleanor Blume; Elizabeth Wilkins; Eric Haren; Eric Tabor; Henry Kantor; Jacob Campion; Jeff Dunlap; Jennifer Thomson (jthomson@attorneygeneral.gov); Jeremy Feigenbaum; Jerry Coyne; Jimmy Rock; Joanna Lydgate; Jon Miller; Jonathan Goldman; Jones, Zach (ATG); Joseph Rubin; Diamond, Joshua; Kelli Evans; Kim Berger; Kim Massicotte; Laura Stuber; Lauren Sulcove; Mark Beckington; Matt Grove; Maura Murphy Osborne; Michael Field; Nelson Richards; Robyn Bender; Rupert, Jeffrey (ATG); Sam Towell; Scott Kaplan; Sprung, Jeff (ATG); Sripriya Narasimhan; Steven Wu; Williams, Jennah (ATG); Yael Shavit
Subject: FW: State of Washington, et al. v. U.S. Department of State, et al., No. 2:18-cv-1115 (W.D. Wash.)

Apologies for those for whom this will be redundant, but resending as we've just added a number of states. Want to make sure everyone is looped in. Thx.

From: Miller, Jonathan (AGO) <jonathan.miller@state.ma.us>
Sent: Thursday, August 2, 2018 5:29 PM
To: stuart.j.robinson@usdoj.gov
Cc: Sprung, Jeff (ATG) <JeffS2@ATG.WA.GOV>; Bowers, Todd (ATG) <ToddB@ATG.WA.GOV>; Lydgate, Joanna (AGO) <joanna.lydgate@state.ma.us>; Rupert, Jeffrey (ATG) <JeffreyR2@ATG.WA.GOV>; Beneski, Kristin (ATG) <KristinB1@ATG.WA.GOV>; eric.soskin@usdoj.gov
Subject: State of Washington, et al. v. U.S. Department of State, et al., No. 2:18-cv-1115 (W.D. Wash.)

Dear Stuart,

I am writing to follow up your correspondence with Washington's Assistant Attorney General Jeff Sprung dated August 2, 2018.

Following the issuance of a Temporary Restraining Order by the U.S. District Court on Tuesday, the technical data that Defense Distributed had posted on its affiliated websites following its settlement with the Department of State were removed. However, in connection with their removal from the Defense Distributed websites, these files have started to appear on numerous other websites that are easily accessible to the public.

Among the websites on which we have seen these files are: codeisfreespeech.com, fosscad.org, grabcad.com, and free3d.com, and we believe that these items have been posted in a publicly accessible DropBox file, too. Without a doubt, there are other websites that are currently hosting these files, making them available to individuals who cannot lawfully purchase or obtain a firearm in the United States. The Department of State has the authority, and we believe the obligation, to take action to ensure that these data are removed from the internet immediately.

As you know, the distribution, transfer, or offering of access to these technical materials is restricted under Category I of the United States Munitions List (USML) and the International Traffic in Arms Regulations (ITAR). This includes all CAD files or other technical instruction to manufacture three-dimensional (3D) firearms or gun-related parts (including triggers, grips, barrels, receivers, magazines, or munitions) using commercially available 3D printers or computer-numerically-controlled machines. Pursuant to Section 127.1 of ITAR, 22 C.F.R. § 127.1, it is unlawful to grant access to or otherwise disseminate technical data to manufacture or modify any USML Category I defense articles without prior

authorization from the Directorate of Defense Trade Controls. The files previously posted by Defense Distributed remain covered by the USML as a result of the District Court's Temporary Restraining Order.

We ask that the Department of State take immediate steps to ensure compliance with the Arms Export Control Act and ITAR. It is an urgent matter affecting the public safety of all Americans. By no later than 2 p.m. PDT tomorrow (Friday), please advise of what steps the Department of State has taken to address these concerns. Should you have any questions, please do not hesitate to contact me or my colleagues.

Sincerely,
Jonathan B. Miller
Chief, Public Protection and Advocacy Bureau
Office of Massachusetts Attorney General Maura Healey
One Ashburton Place
Boston, MA 02108
617-963-2073 (office)
617-571-5349 (cell)
Jonathan.Miller@state.ma.us

EXHIBIT

29

A.G. Underwood — Part Of Coalition Of 22 AGs — Demands That U.S. State Department Stop Online Spread Of 3-D Printed Gun Plans

In New Letter, AGs Demand Trump Administration Take Immediate Action

Letter Follows Temporary Restraining Order Secured by AG Underwood and Fellow AGs, Blocking Trump Administration from Allowing Distribution of Files

NEW YORK — New York Attorney General Barbara D. Underwood — part of a bipartisan coalition of 22 state attorneys general — today sent [a letter](#) to U.S. Secretary of State Mike Pompeo and U.S. Attorney General Jeff Sessions demanding that the Department of State take immediate action to remove from several websites downloadable plans for 3-D printed guns that were illegally posted online.

“It’s common sense: we shouldn’t be handing criminals the tools to build untraceable, undetectable 3-D printed guns. But that’s what the Trump administration chose to allow – so we took them to court, and we won,” said **Attorney General Underwood**. “The federal government has a fundamental responsibility to enforce the law and protect public safety. The State Department must do its job and act now to stop the spread of these materials.”

[The letter](#) criticizes the Department of State’s failure to mitigate the harms of its settlement with Defense Distributed, an online company that was authorized by the federal government to post plans for 3-D printed guns online. Last week, Attorney General Underwood and a coalition of Attorneys General won a temporary restraining order from a federal judge, blocking the Trump administration from allowing the distribution of these plans.

In the letter, the Attorneys General call on Secretary Pompeo and Attorney General Sessions to take steps to ensure that Defense Distributed’s files are not available to anyone, especially those who pose a threat to public safety.

Since the temporary restraining order was put in place, Defense Distributed removed files for 3-D printed guns posted on its website, but several other websites have since re-posted these files online — and the federal government has taken no apparent action to have them removed.

A multistate coalition of Attorneys General sent a letter last week urging AG Sessions and Secretary Pompeo to withdraw from the settlement with Defense Distributed, writing that it recklessly disregards public safety. AG Sessions and Secretary Pompeo have yet to respond to the concerns and have not indicated any willingness to confront the urgent public safety risk posed by 3-D printed firearms.

The letter was signed by the Attorneys General of Massachusetts, California, Colorado, Connecticut, Delaware, the District of Columbia, Hawaii, Illinois, Iowa, Maine, Maryland, Minnesota, New Jersey, New Mexico, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, Vermont, Virginia, and Washington.

Attorney General's Press Office: (212) 416-8060

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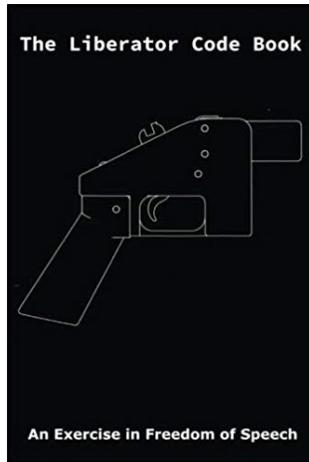
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Paperback – August 1, 2018
by C J Awelow (Author)

1 customer review

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The purpose of this exercise is to give a physical analogy between computer code and books. Code is speech. This is a printed copy of .step files for the



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I like freedom of speech!

August 11, 2018

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4,695 views | Aug 23, 2018, 11:59am

Amazon Removes Free Speech ‘Exercise’ Featuring 3-D Printed Gun Code Book



Michael del Castillo Forbes Staff

Crypto & Blockchain

I cover enterprise adoption of blockchain and cryptocurrency.



TOPSHOT-US-POLITICS-WEAPONS GETTY

Amazon has removed a book from its platform containing little more than computer code.

While details about why Amazon removed the book are limited, [the function of the code](#), to 3-D print a plastic gun that fires real bullets—called The Liberator—appears to be the most likely cause.

What we know for sure about the decision is that the “book was removed for violating our content guidelines,” as an Amazon spokesperson confirmed. But the spokesperson declined to elaborate on which guidelines the book violated.

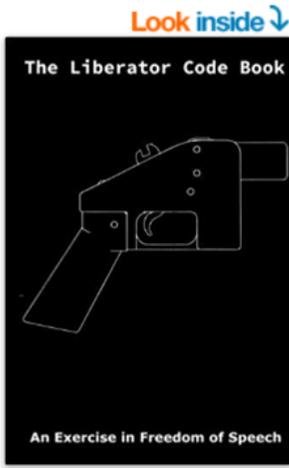
As a U.S district judge in the state of Washington is in the final days of deciding whether to remove an injunction preventing the creator of the code, Cody Wilson, from publishing it online, the removal of the book could have far-reaching consequences.

“The scope of the injunction is to prevent Cody Wilson and Defense Distributed from publishing the files online,” said Ilya Shapiro, a senior fellow in constitutional studies at the Cato Institute. “If the files are available in hard copy or book it is different.”

Included in the Amazon [terms](#) provided by the spokesperson are pornography, offensive content, illegal and infringing content, the use of certain public domain materials and poor customer service experience.

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For his part, Wilson further clarified that the 3-D-printed gun code was “committed to the public domain under an express open source license in 2013” and added that he has “no problems at all” with the book being published on Amazon.



The Liberator Code Book: An Exercise in the Freedom of Speech

Paperback – August 1, 2018
by C J Awelow (Author)

★★★★★ 7 customer reviews

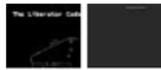
#1 New Release in CAD Graphic Design Guides

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The purpose of this exercise is to give a physical analogy between computer code and books. Code is speech. This is a printed copy of .step files for the Liberator, and not much else. Don't expect a gripping narrative; that's being played out in the news and the courts. Proceeds from this book will be used to fight for free speech and the right to keep and bear arms.



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A screen capture from the now-deleted book order page on Amazon. AMAZON

The \$20 book, titled *The Liberator Code Book: An Exercise in the Freedom of Speech*, received a mere seven reviews on Amazon before being removed from the site. But one of the reviews, written by a “verified user,” describes the potential implications of the book:

“It doesn’t really matter which side you fall on when it comes to guns. The fact that this book exists forces you to think about how far are we willing to go with gun control as it strays into suppression of free speech.”

Published by a C J Awelow, the book follows in a tradition of releasing in book form code deemed dangerous by the U.S. government. In June 1995, MIT Press published a book containing the code written by Phil Zimmermann for PGP email encryption—then considered a munition.

As specifically relates to the Liberator code book, while the software version of Zimmermann’s code was deemed a munition and legally prevented from export for years, the book version was able to freely circulate. Even today, as the software version of the PGP code is one of the most widely used email encryption tools, Amazon’s own website makes the book [available](#) at collector’s prices.

In an interview with *Forbes*, Zimmerman shared his thoughts on Cody Wilson’s code: “I reluctantly concede that he should be able to publish his blueprints. If he

were publishing blueprints for body armor I would enthusiastically endorse him for doing this.”

Offering a less measured stance is Andrew Patrick, media director of the Coalition to Stop Gun Violence. Patrick called 3-D-printed firearms “assassination guns,” that are not covered by either the Second Amendment protection of the right to bear arms or the First Amendment protections of free speech.

“You cannot yell ‘fire’ in a crowded theater because it endangers the general public,” he said. “Undetectable, untraceable 3-D-printed guns are equally—if not more—dangerous.”

Further caution regarding the potential dangers of the 3-D-printable gun files came from Zimmermann himself, who protested nuclear armament in the 1980s and is concerned that legally permitting the proliferation of the files could set a dangerous precedent.

“There’s a tendency for people to try to adhere to a purist set of principles,” said Zimmermann, warning about the potential of files that encode rapidly improving gene editing techniques called [CRISPR](#) to create a disease that can’t be cured.

“If you take the position that anything should be publishable under free speech, then when everybody dies of some exotic manmade virus we can all take deep satisfaction that we adhered to our truest principles of free speech.”

*I report on how blockchain and cryptocurrencies are being adopted by enterprises and the broader business community. My coverage includes the use of cryptocurrencies such as Bitcoin, Ethereum and Ripple, and extends to non-cryptocurrency applications of blockchain in finance... **MORE***

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How To Take Control Of Your Debt



Vanguard BRANDVOICE

There are some aspects of your finances that you can't control — like the stock market, and others you can—like debt. Making a few smart lifestyle decisions and maintaining some discipline can keep it under control.

While debt can be easily abused, it isn't necessarily bad. Borrowing to pay for a home, for example, can be good. You gain equity as you pay down your loan or mortgage. Also, your mortgage interest can be deductible on your income taxes.

On the other hand, relying on credit card debt to sustain your lifestyle is like playing the lottery to fund retirement. The math is overwhelmingly against you.



A budget can help you watch expenses and divert more money to saving or paying off bills. ISTOCK

Do The Math

Credit cards offer instant gratification for people who want something they can't afford. Often bearing interest rates of 15% or more, this kind of debt erodes your

ability to save and costs you dearly over time if you continue to carry a balance.

For example, if you borrowed \$1,000 at an annual interest rate of 15% to buy a new television and made monthly minimum payments, it would take more than 4½ years to pay off the debt. The \$1,000 loan would end up costing you \$1,375 with interest. You also would lose any chance to earn a positive return on the \$1,375 by saving or investing it.

Live With A Budget

You can avoid such bad debt by living below your means. A detailed budget can get you on track and help you stay there. Just as dieters who keep a record of what they eat tend to lose more weight than those who don't, people who monitor their spending habits often have an easier time sticking to a budget.

Make saving a priority. One way to do this is by setting up an automatic direct-deposit plan through your bank or investment company. Ensuring the money never hits your wallet will reduce your temptation to spend it. You should also establish a financial safety net — at least 6 to 12 months' worth of expenses in an account that's easily accessible in an emergency.

A budget can help you watch expenses and divert more money to saving or paying off bills. Pack your lunch instead of eating out. Forgo the \$4 mocha latte supreme and order regular coffee. Keep your car after it's paid off rather than trading it in for the latest model — and a new set of payments. It all adds up.

Gain Control Of Your finances

If you have credit card debt, you can dig yourself out. Find the card with the highest interest rate and pay as much as you can above the minimum payment each month while continuing to make minimum payments on other cards. Once the first card is paid off, divert those payments to the next most expensive card, and so on.

If possible, consolidate your cards under the most favorable interest rate available and pay as much as possible toward your monthly balance. Even a credit card is

OK if you can pay off the balance every month. You get the convenience of using a card but avoid paying interest on products such as groceries, food, entertainment and travel.

If you're in serious trouble, consider debt counseling. Reputable sources such as the National Foundation for Credit Counseling can help consolidate your debt into one monthly payment and negotiate with your creditors for lower interest rates or minimum payments.

In the end, it's all up to you. Stick to your budget and live within your means. Then you can manage your debt and not let it manage you.

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Defense Distributed Takes 3D Gun Plans Offline, But They Can Be Found Here

Posted at 2:38 am on August 1, 2018 by Jennifer Van Laar

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After a federal judge in Washington State granted an injunction temporarily halting a Settlement Agreement between Defense Distributed and the United States Department of State from going into effect, Cody Wilson, founder of Defense Distributed, announced that his site has “gone dark.”



Cody R. Wilson
@Radomysisky

By order of a federal judge in the Western District of Washington, DEFCAD.com is going dark.

9:01 PM - Jul 31, 2018

451 · 513 people are talking about this

Shortly after that, a new site, CodeIsFreeSpeech.com, mirrored Wilson’s DEFCAD.com site. The site, a project of Firearms Policy Coalition, Firearms Policy Foundation, The Calguns Foundation, California Association of Federal Firearms Licensees, and unnamed individuals, was announced with a tweet from FPC.



Firearms Policy
@gunpolicy

We published firearm-related machining info, code -- constitutionally protected speech -- at codeisfreespeech.com. Our statement at: codeisfreespeech.com/statement.html

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- 5 *Heckling Jim Acosta Is as Much an Exercise of the First Amendment as Anything CNN Has Done Recently*



Heckling Jim Acosta Is as Much an Exercise of the First Amendment as Anything CNN Has Done Recently

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Hugh Hewitt says ignore Trump's loathsome behavior and vote GOP

stridentconservative



TRENDING
Conservatives in Trump
World Appear to
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Dan Spencer

The site, according to its homepage, is:

“[A] publicly-available Web site for truthful, non-misleading, non-commercial speech and information that is protected under the United States Constitution. The purpose of this project is to allow people to share knowledge and empower them to exercise their fundamental, individual rights. CodeIsFreeSpeech.com is a project of Firearms Policy Coalition, Firearms Policy Foundation, The Calguns Foundation, California Association of Federal Firearms Licensees, and a number of individuals who are passionate about the Constitution and individual liberties. We wish to thank Cody Wilson and Defense Distributed for their courage, passion, innovation, and inspiration.”

The group’s initial statement reiterates the participants’ position that the CAD files are protected under the First Amendment because they are code, and that computer code has been protected under the First Amendment as speech for decades.

“Our Constitution’s First Amendment secures the right of all people to engage in truthful speech, including by sharing information contained in books, paintings, and files. Indeed, freedom of speech is a bedrock principle of our United States and a cornerstone of our democratic Republic. Through CodeIsFreeSpeech.com, we intend to encourage people to consider new and different aspects of our nation’s marketplace of ideas – even if some government officials disagree with our views or dislike our content – *because information is code, code is free speech, and free speech is freedom.*”



Injunction Granted in State AG's Challenge to 3D Gun Printing Settlement

Jennifer Van Laar



A Mouthful of Fake News: Shark Week Beats CNN in the Ratings

Alex Parker



Making New York New: Now You Can Smoke a Doobie on the Street

Alex Parker



Jim Acosta Accosted; CNN Does Not Stink -- So Says CNN

Alex Parker

In addition to being available on the Code Is Free Speech site, CAD files containing the plans for 3D-printed guns have been available through various online sites throughout the pendency of the *Defense Distributed vs. US State Department* lawsuit and continue to be available.

The continuing availability of the CAD files online creates a gaping hole in the argument that the federal court order is the only thing preventing “irreparable harm” from being visited upon Plaintiffs.

Grab your popcorn and watch how this situation develops, because the groups behind this website are not known for backing down from a fight.

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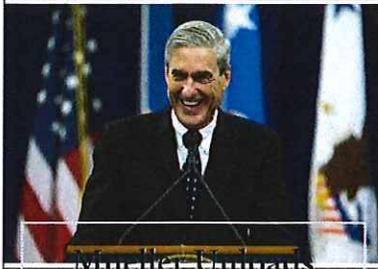
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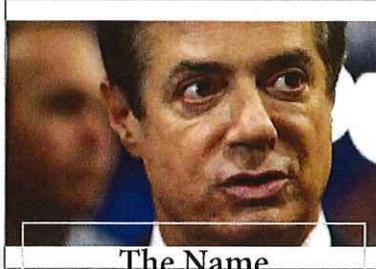
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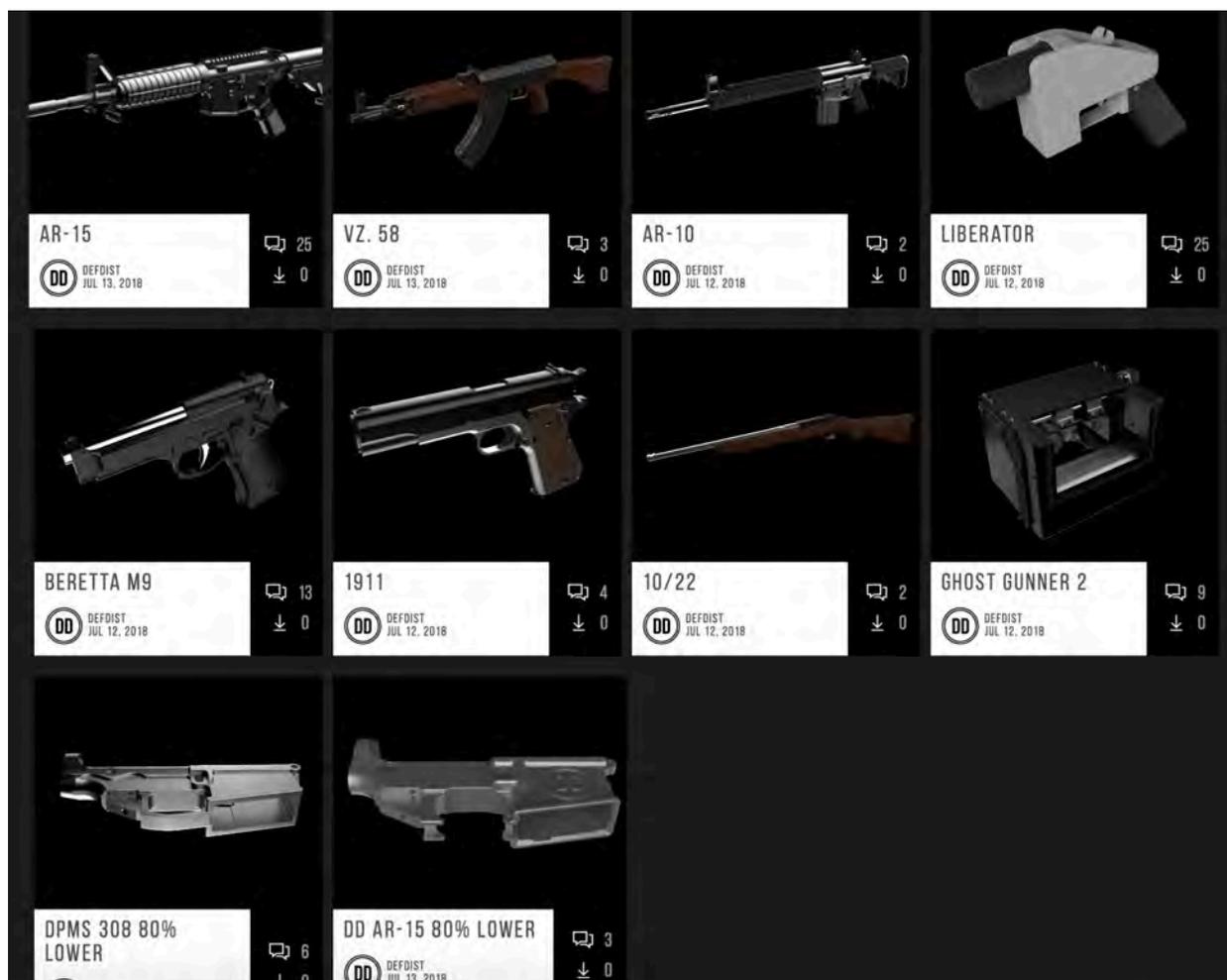
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Appendix 1

DEFCAD File Summary



CNCGuns

The screenshot shows a web browser window with the URL cncguns.com. The browser tabs include "JMT AR15 lower recei...", "CNCGUNSMITHING -...", and "Send an eCard | Win...".

Left Sidebar (Download Options):

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The files below are complete solid models of the AR15/M16 and the 1911 firearms. I made the A2 style AR15 model, and Tom tom_eriksson@hotmail.com made the A1 style AR15 as well as the 1911 model. You can download other files Tom has made [here](#). The files below are for visual reference only.

Complete Firearm E-drawings

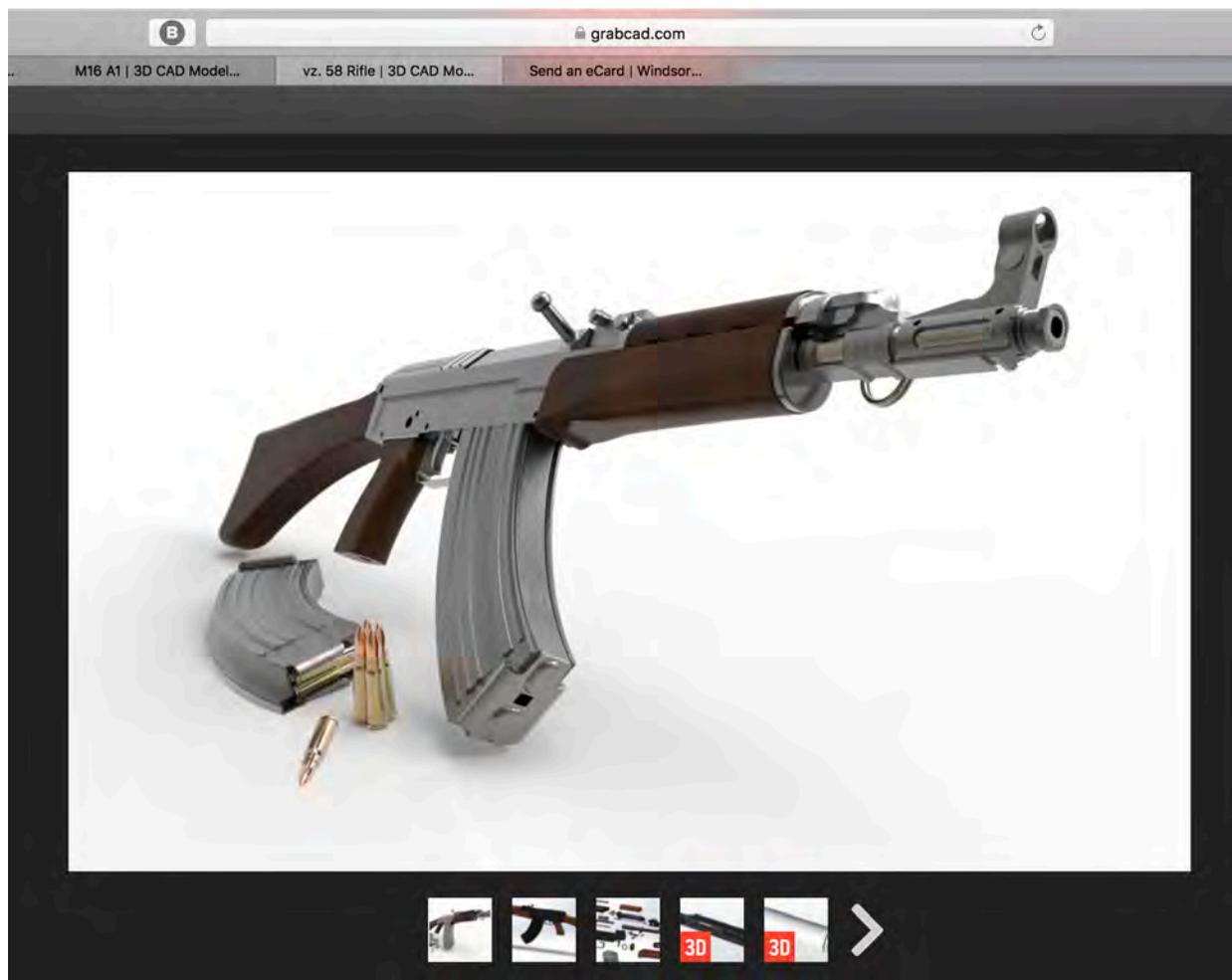
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VZ. 58 Assembly

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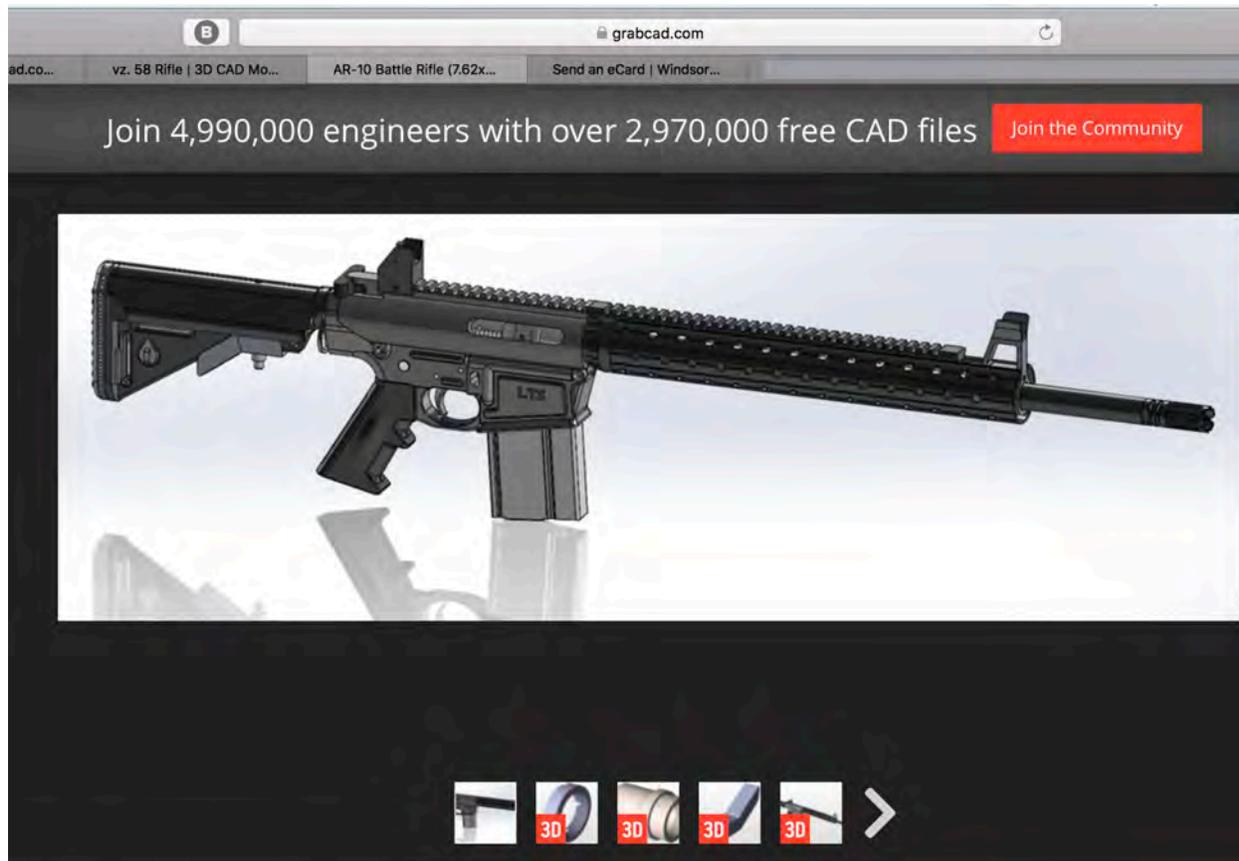
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AR-10 Battle Rifle (7.62x51mm)



Oliver

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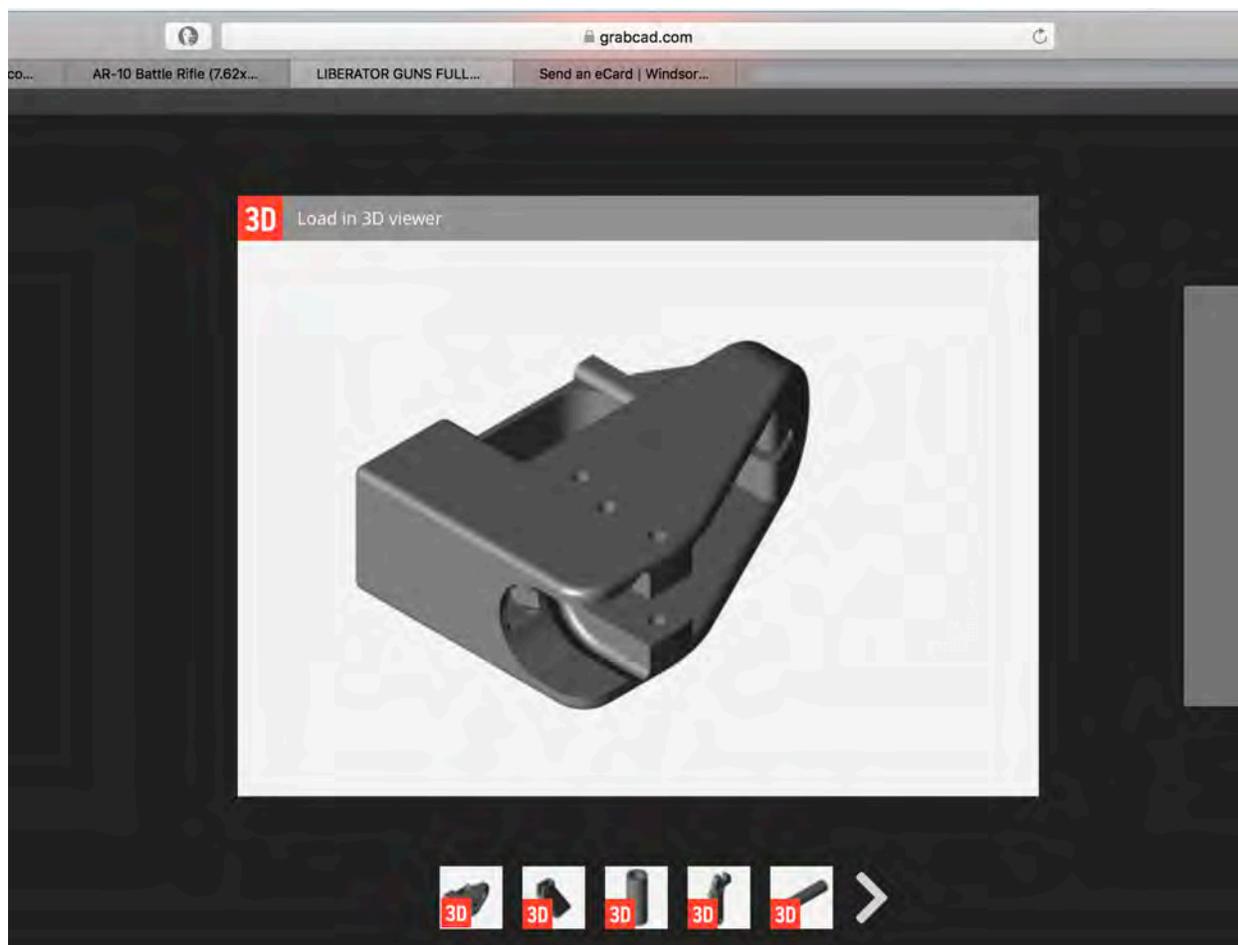
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Liberator Pistol Assembly

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LIBERATOR GUNS FULL

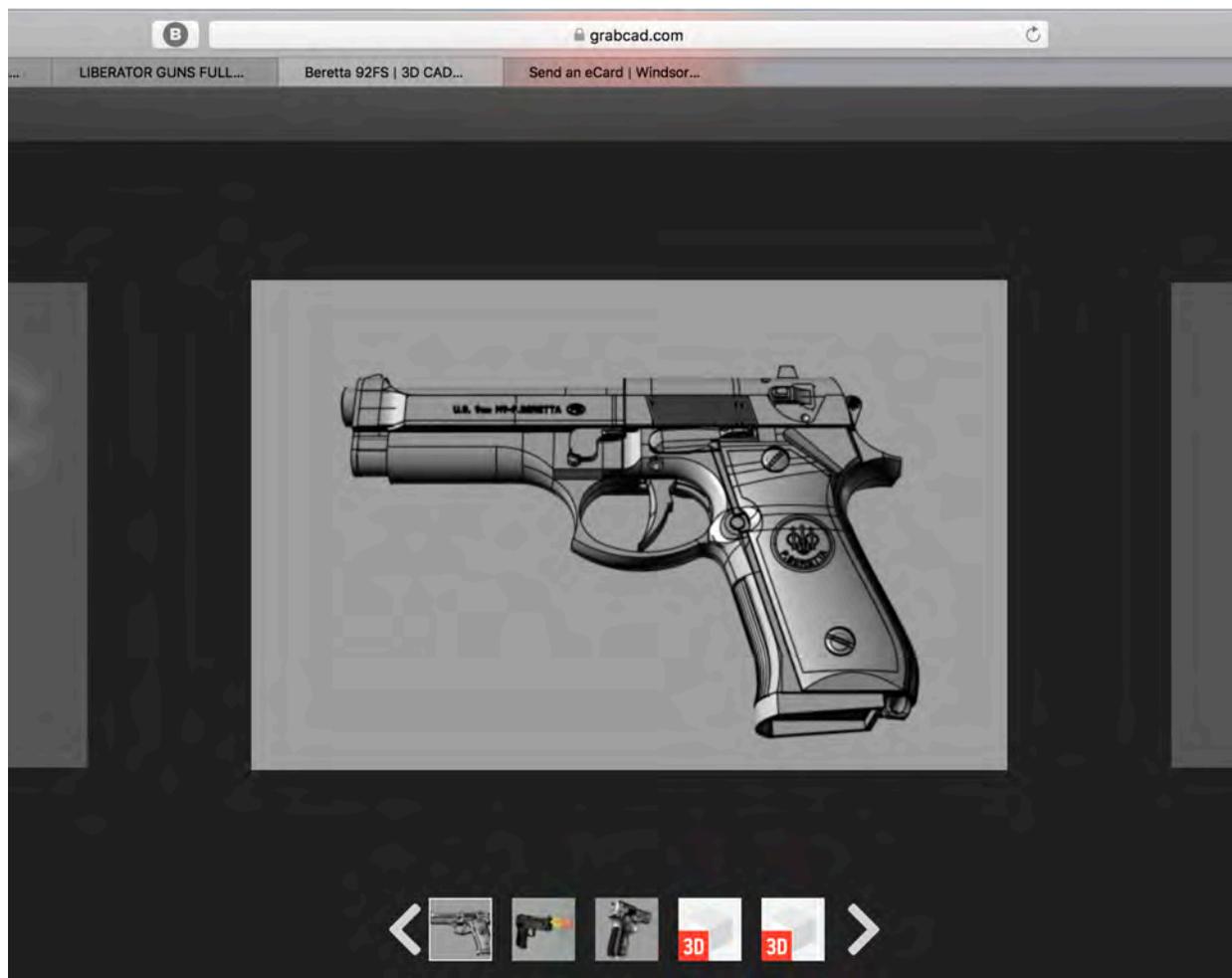
 **Juan Fco**
March 1st, 2015

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Beretta M9 Assembly

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Beretta 92FS



Gorjup Design

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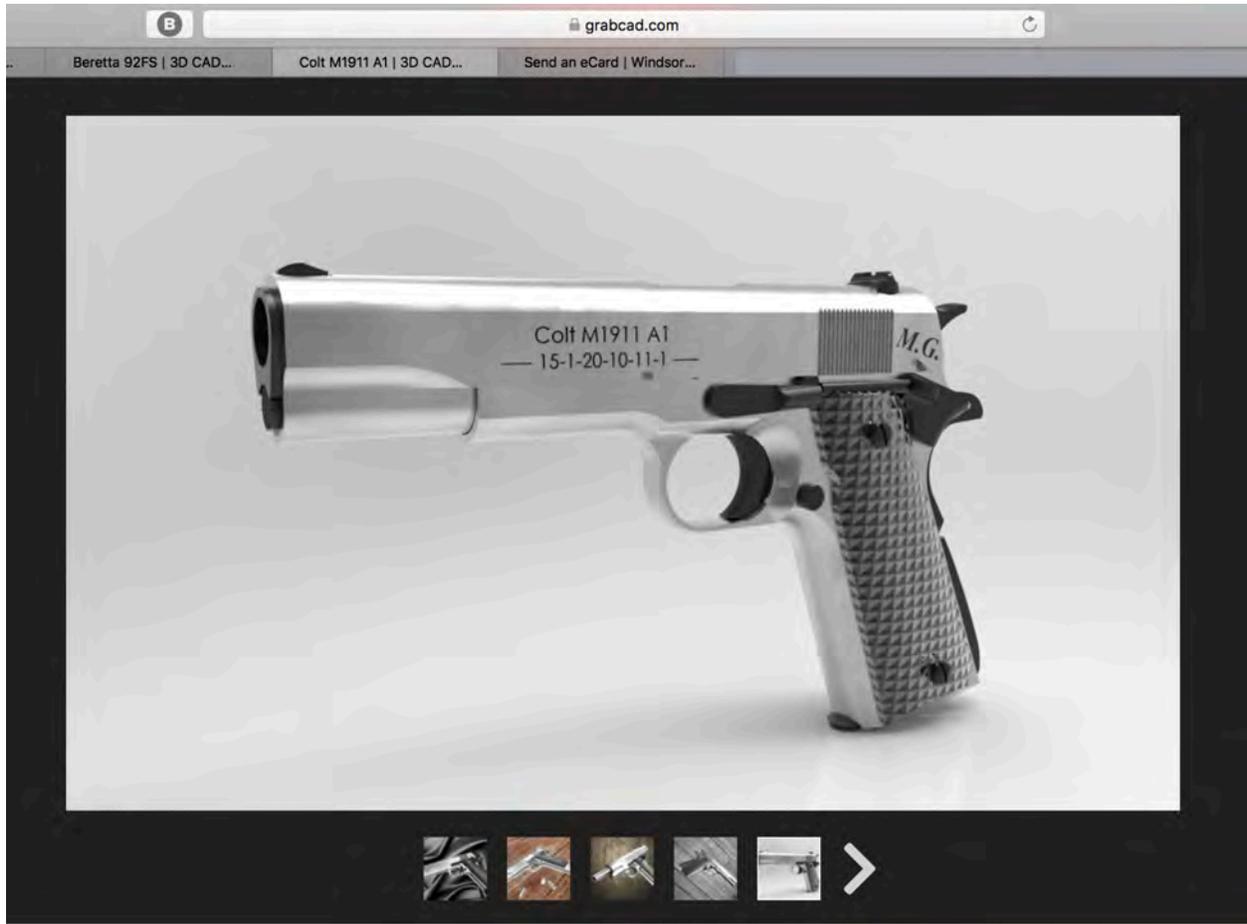
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1911 Assembly

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Colt M1911 A1



Milos Golijanin

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SolidWorks E-drawings

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- AR15 A3 Upper Receiver
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- AR15 A2 De_handle
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- 1911-A1 Frame
- STI Frame
- SIG P228 Frame
- Beretta 92FS/M9 Frame

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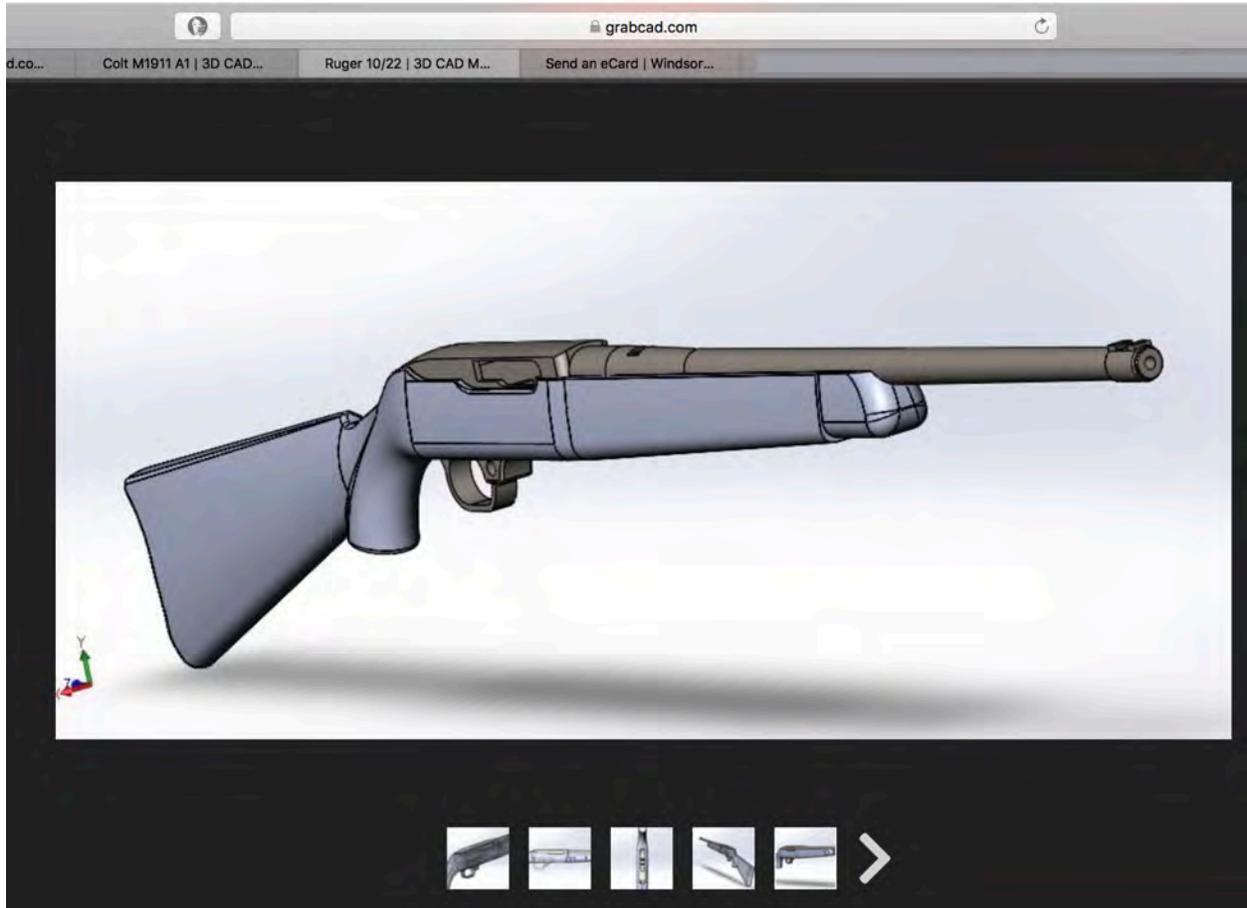
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CNCGuns

The screenshot shows a web browser window with the URL cncguns.com. The browser's address bar and tabs are visible at the top. On the left side, there is a vertical sidebar menu with buttons for different firearm parts: STI FRAME, SIG P228 FRAME, BERETTA 92FS/M9, ROGER 10/22, AR-45 LOWER, and 22 SILENCER. The main content area contains the following text:

Here are the files you can download for free. Currently there are three different types of files. First format is the SolidWorks E-drawings. This file format will allow anybody to open the files no matter what software you have installed. E-drawings is the most user friendly format since you don't have to have any special 3-D modeling (CAD) software to look at the files. The second format is the solid model file in *.igs format. You must have some sort of 3-D modeling (CAD) software to open this file format. If you are planning on doing the machining I have, you will need the *.igs file. But if you just want to open the file to look at it, you can download the E-drawing. And the last type of files you can download are the blueprints. I don't make blueprints of the solid models I make. So if you need a dimension while working on your project, you will have to reference the model. Later on, I hope to make available other files dealing with my projects...including sketches, setup sheets, programs, etc. Tim at dumpsterCNC made the 1911 solidmodel *.iges file. Andy at Helix60@neo.r.com made the VZ58 *.iges file.

My files are free to download, and if you share these files they must remain free!

Download instructions
SolidWorks E-drawings: Select the file you wish to download, click Save. To open the file, simply double click the *.exe file.
Solid Model *.igs File: Select the file you wish to download, click Save. Use your 3-D modeling (CAD) software to open to file after you unzip it.
Blueprints: Select the file you wish to download, click Save. Use Adobe to open the file after you unzip it.

Below the instructions is a PayPal "Donate" button. Underneath is a form titled "SolidWorks E-drawings" with a "Select one..." dropdown menu. Below that is another form titled "Solid Model *.igs Files" with a "Select one..." dropdown menu. The dropdown menu is open, showing a list of items:

- ✓ Select one...
- AR15 Lower Receiver
- AR15 A2 Upper Receiver
- AR15 A3 Upper Receiver
- AR15 A1 De_handle
- AR15 A2 De_handle
- AR10™ Lower Receiver
- AK47 Blank
- 1911-A1 Frame
- 1911 Slide from dumpsterCNC
- STI Frame
- SIG P228 Frame
- Beretta 92FS/M9 Frame
- 10/22 Receiver from dumpsterCNC
- 1911 Grips from dumpsterCNC
- VZ58 Receiver from Andy

There is also a second PayPal "Donate" button at the bottom of the page. The text on the page is partially obscured by the dropdown menu and other elements.

308 80% (AR-10) Lower Model

CNCGuns

Here are the files you can download for free. Currently there are three different types of files. First format is the SolidWorks E-drawings. This file format will allow anybody to open the files no matter what software you have installed. E-drawings is the most user friendly format since you don't have to have any special 3-D modeling (CAD) software to look at the files. The second format is the solid model file in *.igs format. You must have some sort of 3-D modeling (CAD) software to open this file format. If you are planning on doing the machining I have, you will need the *.igs file. But if you just want to open the file to look at it, you can download the E-drawing. And the last type of files you can download are the blueprints. I don't make blueprints of the solid models I make. So if you need a dimension while working on your project, you will have to reference the model. Later on, I hope to make available other files dealing with my projects...including sketches, setup sheets, programs, etc. Tim at dumpsterCNC made the 1911 solidmodel *.iges file. Andy at Helix60@neo.rr.com made the VZ58 *.iges file.

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SolidWorks E-drawings

- Select one...
- AR15 Lower Receiver
- AR15 A2 Upper Receiver
- AR15 A3 Upper Receiver
- AR15 A1 De_handle
- AR15 A2 De_handle
- AR10™ Lower Receiver
- AK47 Blank
- 1911-A1 Frame
- STI Frame
- SIG P228 Frame
- Beretta 92FS/M9 Frame

The files below are complete solid model, and Tom tom_eriksson@hotmail.com download other files Tom has made [here](#) 1911 firearms. I made the A2 style AR15 as well as the 1911 model. You can use it reference only.

Complete Firearm E-drawings

Select one...

I have spent many hours creating these solidmodel files. If you find these files useful and you want to show your support for my website, you can make a donation. All donations will be directed towards keeping this website going and also towards new projects. After every project I complete, I'll upload the files here. So if you want to show your support for this website and to keep these file FREE, you can send a donation through the PayPal link below.

AR-15 80% Lower Model

GrabCAD



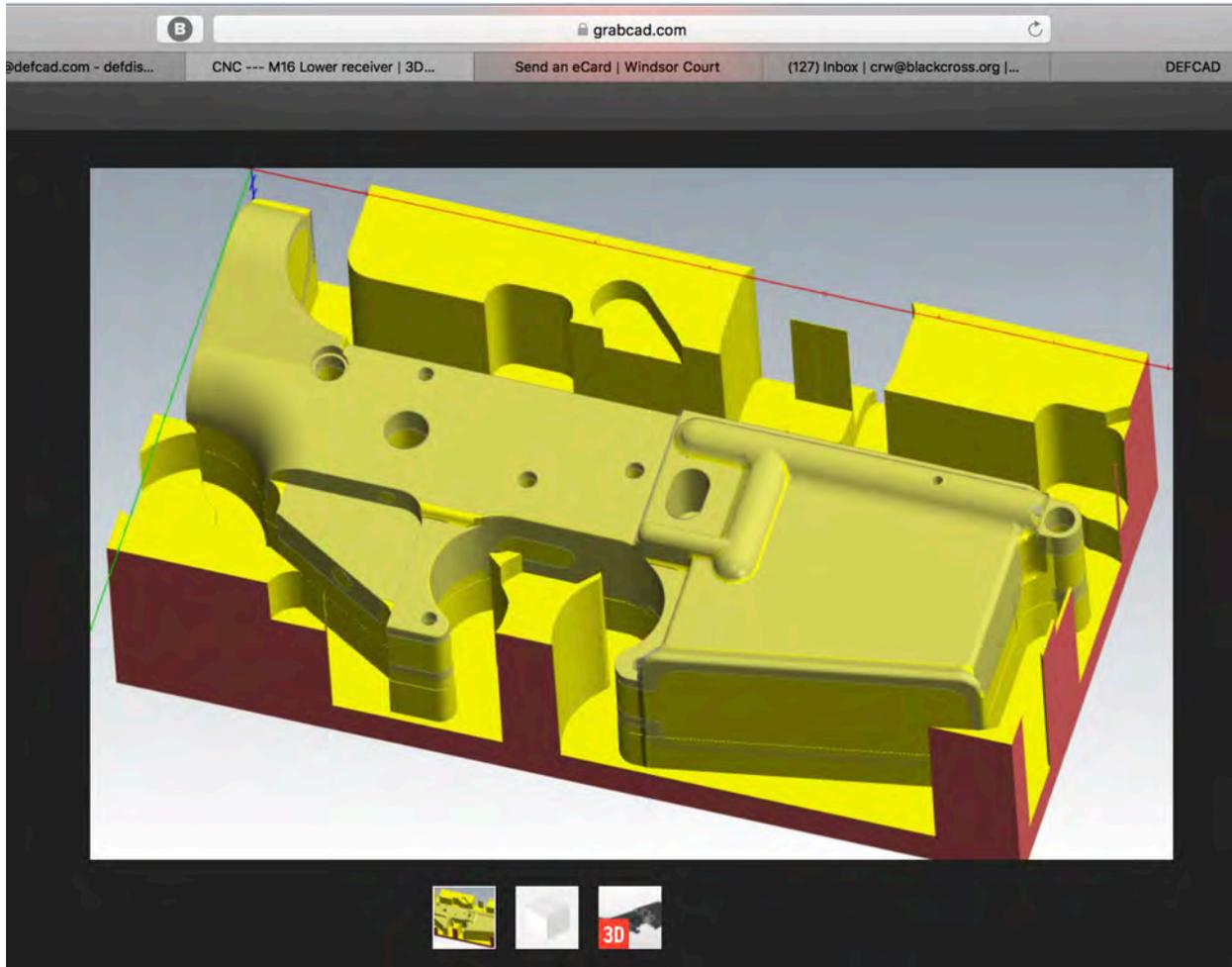
CNCGuns

See Above

Appendix 2

Other Files and Printables

g-code Files (like Ghost Gunner files)



CNC --- M16 Lower receiver



Oliver

April 22nd, 2018

[Download files](#)

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Printable Gun Files And MegaPack

FOSSCAD MEGA PACK v4.8 (Ishikawa) Album

by maduece Apr 14 2016

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FOSSCAD: Gluty AR-15 9mm Pistol

Here we have the Gluty AR-15 9mm Pistol and it works. This firearm is the colloration of 3 designers over the course of a few months. It accepts a Glock generation 3 or 4 magazine. This design is an improvement on the FOSSCAD Shuty AR-15 9mm Pistol version 4.0 MP-1. The Gluty uses all the same parts as the Shuty v4.0 MP-1 except for the lower receiver and magazine release.

FOSSCAD MEGA PACK v4.8 (Ishikawa) Album

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FOSSCAD: Caleb AR-10 Lower Receiver

This is an AR-10 receiver. It will not work with AR-15 uppers. It is DPMS pattern. Bolt hold open has been deleted on this lower receiver, so any AR-15 lower parts kit can be used to build it out. Ensure any parts kit installed has been rated for AR-10 use.



FOSSCAD MEGA PACK v4.8 (Ishikawa) Album

by [maduce](#) Apr 14 2016

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[JamesRPatrick.com](#)

FOSSCAD: PM422 Songbird .22LR Pistol

This is a single-shot, single-action 3d-printed pistol chambered in .22LR. It operates under a principle wherein the frame holds the barrel in compression axially and prevents the barrel layers from separating. This allows the barrel to be smaller in diameter than previous, unsupported designs. 100% printed barrels are not intended to have a long service life.



[JamesRPatrick.com](#)



Computer-aided Design

FOSSCAD does not host any CAD files but the Community does. There are two options for downloading the MegaPack, a torrent and a link for direct download. There is also a photo album with pictures of the new and upgraded items introduced in the latest official release.

OFFICIAL FOSSCAD MEGA PACK V4.8 (ISHIKAWA)

[MegaPack 4.8 \(ZIPPED/1.12GB\) Torrent](#)

[MegaPack 4.8 Direct Download](#)

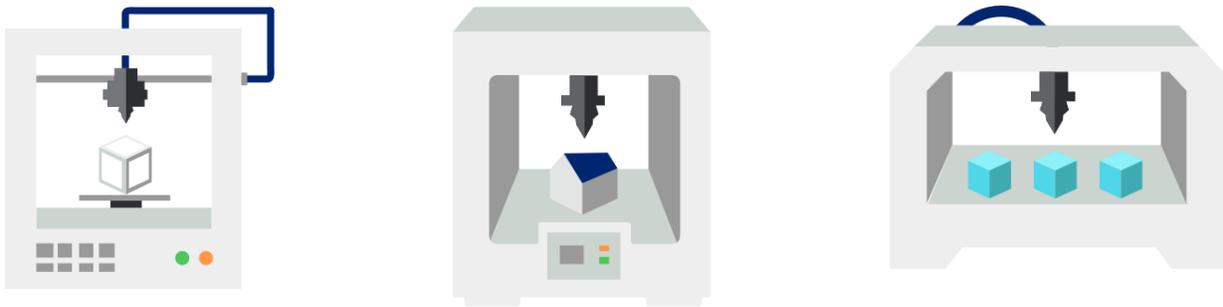
[MegaPack 4.8 Changelog Photo Album](#)

EXHIBIT

34

HOW TO 3D PRINT

Beginner's Guide To 3D Printing



The aim of this guide is to teach you the fundamental concepts of how to 3D print, and provide you with the tools and resources you need to get started and make an informed choice about buying your first 3D printer. You will learn the basic history of 3D printing, the software that powers it, how the hardware works, and other crucial information that will help you get started.

This guide will be updated over time with new content, images, and embedded videos.

We were initially going to package this guide up as an ebook and sell it for a small sum, in order to help fund the running of 3D Insider. However, after much deliberation it was decided by the team here that we would rather give this guide away for free – as in 100% free.

This beginner's guide to 3D printing is our way of giving something useful back to the 3D printing community

Now that the house-keeping is out of the way, let's get on with the guide!

CHAPTERS

1 What is 3D Printing?

2 Uses of 3D Printing

3 Different 3d Printing Processes

4 Getting Started - What You Need To Know

5 Essential Software

6 Essential Hardware



How to Choose a 3D Printer

8 Maintaining Your Printer

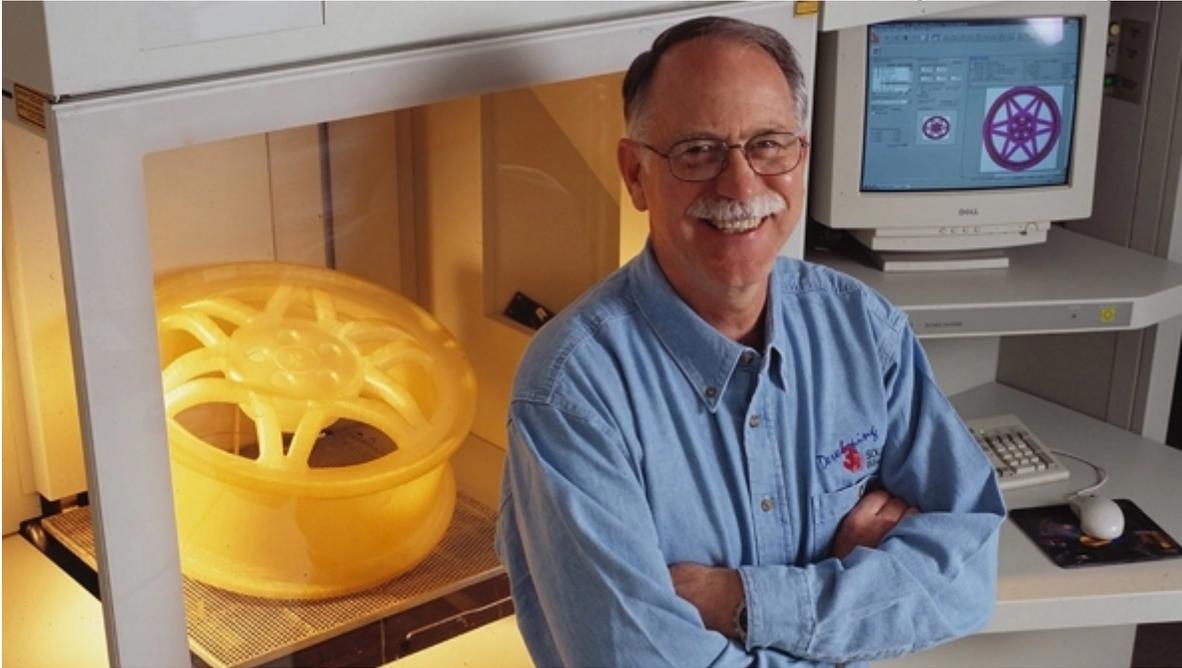
1 Chapter 1 What Is 3D Printing?

3D printing is also known as additive manufacturing, or desktop fabrication. It is a process in which a real, physical object is created based on a 3D design blueprint. 3D printing is an emerging technology that first was introduced in the year 1986; however, it wasn't until the 1990s that it began to draw serious attention from all corners of the technology world.

For many, 3D printing is no less than a technology right out of Star Trek or some parallel universe. The ability to create objects from the ground up is really astonishing for a great number of people.

A Brief History of 3D Printing

It was in 1984 when a process called stereolithography (SLA) was invented by a person named Charles Hull, who later went on to cofound the company 3D Systems. This printing process gave birth to the whole concept of 3D printing, as it enabled the production of a 3D object from a digital design. This allowed the creation of a 3d model from a picture or blueprint, before investments were made in large manufacturing processes by companies.



The very first machine capable of creating 3D objects from computer design was produced by 3D Systems. The machine was named the Stereolithographic Apparatus, as it utilized stereolithography as the process for printing 3D models. Since the development of this machine, rapid developments have occurred in the field of 3D printing.

The vast potential of this technology was realized in the middle and latter stages of the 1990s, when fully-functional organs were produced. The first lab-grown organ was successfully transplanted in young patients who were undergoing urinary bladder augmentation using a 3d-printed synthetic scaffold that was coated with cells from their own body.

This proved that the raw materials for creating objects could range from plastic, to metals, to human cells. The possibilities were endless and the future looked extremely bright for 3D Printing technology. Apart from the SLA process, the onset of selective laser sintering (SLS) in 2006 paved way for mass and on-demand production of industrial parts. In the very same year, a company named Objet introduced a 3D printer that was capable of printing objects using numerous types of raw materials.

The year 2008 saw the first self-replicating printer which was capable of 'producing itself' by printing its own parts and components. This enabled users who had access to such a type of a printer to create more printers for other people, such as friends and family. Later in the same year, major breakthroughs were achieved in prosthetics when a

person successfully walked with a 3D printed prosthetic leg consisting of all parts including the knee, foot and socket created as a part of the same structure without any assembly.

MakerBot Industries, an open source company, started selling DIY kits in 2009 that allowed people to create their own desktop 3D printers. The following years saw a great rise in the number of applications of 3D printing, as the world's first 3D printed aircraft took to the skies above University of Southampton in UK.

3D Printing: How It Works

Contrary to traditional subtractive manufacturing processes that rely on methods of cutting and drilling to carve out objects, an additive manufacturing process like 3D printing works by 'fusing together' layers of powdered material to build an object.

This task is performed by a machine called a 3D printer which, under computer control, can carry out this process with unmatched precision and superior accuracy.

A typical modern 3D printer that creates objects based on the SLS process primarily works in the following manner. Here are some of the components and raw materials to give you an idea of how 3D printing works:

1

LASER SOURCE

A laser is directed from the laser source to solidify and fuse together the molecules of a certain raw material.

2

ELEVATOR

The Elevator is a component of a 3D printer that raises or lowers the platform to lay the layers of the particular object that is being manufactured. Keep in mind that 3D printers create an object layer-by-layer. Thus, the elevator helps in moving the object accordingly.

3

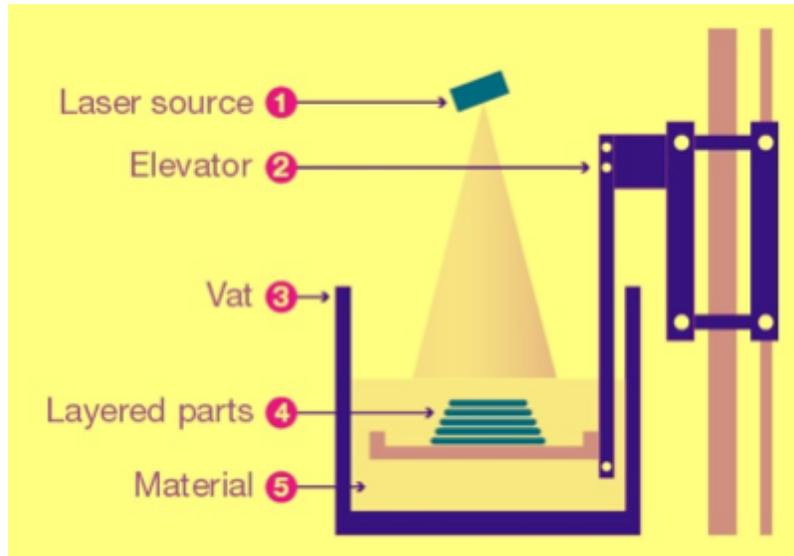
VAT

Think of the Vat as being a reservoir for the raw material.

4

MATERIALS

Today's advanced 3D printers are capable of using one or more types of raw materials for creating objects. The materials that they can use include plastic, metals, resin and polymers.



Applications Of 3D Printing

The rapid growth and improvements in 3D printing technology have enabled many industries to benefit from it. Here are some of the industries that use 3D printing for a variety of purposes:

AEROSPACE

The technology is being used to manufacture complex yet lightweight parts for aircraft and space applications.

ARCHITECTURE

This industry utilizes this technology for structure verification, design review, reverse-structure engineering, and expedited scaled modeling

AUTOMOTIVE

The automotive industry actively uses 3D printing technology for design verification as well as for the development of new engines.

DEFENSE

3D printing technology in the Defense sector is being utilized for making light-weight parts for surveillance equipment

EDUCATION

3D printing provides an excellent method for geometry visualizations and design initiatives at art schools. It is also used in numerous disciplines of study for research purposes.

ENTERTAINMENT

All kinds of prototypes of toys, action figures, games, musical equipment and other things are being manufactured using 3D printers.

HEALTHCARE

The medical field has gained an edge as a result of the advancements in 3D printing. A number of working organs have been created and a lot of research is being carried out. It may not be too long when organs for transplant could be easily 'printed'.

MANUFACTURING

The manufacturing industry employs the use of 3D printing for a variety of purposes, including creating models of products before they are manufactured on a mass scale. It is also used to achieve a faster product development cycle and for design troubleshooting.

This excellent video by Stratasy's will help you understand further the applications of 3D printing:

The Stratasys Fortus 380mc & 450mc FDM 3D Printers



2 Chapter 2 Uses of 3D Printing?

Similar to the ways in which computing was considered to be the hotbed of innovation in the early 1970s, 3D printing is also experiencing an analogous renaissance. 3D printing technology in its early days was limited to industries that could afford the highly expensive 3D printers. However, as the costs began to lower as a result of the developments in the technology, desktop 3D printers have granted access to hobbyists and anyone willing to try out the new technology.

As previously discussed, 3D printing is being used for a number of applications across a many fields, and is also being used extensively for educational purposes. What is it that makes this emerging technology important?

Fundamental Change to Manufacturing Processes

When it comes to the current commercial manufacturing process, assembly lines are utilized to assemble various parts together until the final product takes shape. 3D Printing will have huge implications for the current manufacturing processes.

For example, the use of a 3D printer for manufacturing products at a factory will only require a computer design to be sent to the printer, thus eliminating the need of assembly lines, as the printer will be able to churn out complete products.

As previously mentioned, 3D printing technology falls within the boundaries of additive manufacturing, which is the opposite of subtractive manufacturing processes where objects are 'carved out' using numerous tools. The former, on the other hand, builds the

object layer-by-layer without the use of any particular tools. This enables designers to devise even the most complex of designs without having to worry about how they will actually be created; 3D printers can generally print out complex designs with no problems at all.

3D printing is still in its early stages, and it will take some time for it to develop into something similar to that of the 'replicators' found in the sci-fi series Star Trek. Nonetheless, it has been developing at an exponential rate, and it continues to offer compelling benefits. 3D printing is capable of producing objects with complex internal structures, which would otherwise be almost impossible with traditional methods of construction. Take the example of an adjustable wrench; using traditional manufacturing processes, a number of actions including forging, grinding, milling and the assembly are required just to create an adjustable wrench. On the other hand, 3D printing can create this wrench in a single process.

Fundamental Change to Manufacturing Processes

3D printing has the potential to be greener than traditional methods of manufacturing. 3D printers can be used is for fixing old items, such as cars that have become obsolete (and the manufacturer no longer supplies or creates the spare parts). Due to the unavailability of spare parts for old cars, they are usually recycled or left to be dumped into landfills, thus harming the environment.

Some people have been using 3D printers to create obsolete parts in order to keep their cars running. The same idea can apply on almost any other product out there that can be revived using parts from a 3D printer. The possibilities are truly endless. Even something as simple as a battery cover for a remote control can be created, reducing the need to throw the old remote away.

Localizing Production of Items

3D printing can also be used to localize production of items, resulting in a massive change to supply chains and logistics. Rather than supplying from a single factory outlet, a company will be able to establish much smaller production units all over the areas which they serve, thus minimizing transportation costs. This will be a great advantage to multinational companies that serve at a global level. Smaller batches could be created at strategically-placed locations to effectively cover all the countries while reducing the logistical expenses significantly.

The increased efficiency offered by 3D printing will also pave way for greater customization for consumers. Also, instead of outsourcing, the local production of items will bring back manufacturing to domestic soil. Although such complex economic discussions are beyond the humble authors of this book, we think that the potential for a true “renaissance” of manufacturing in countries such as the United States and United Kingdom is immense ... and all thanks to 3D printing.

Before the 3D printing technology can bring about significant changes to the manufacturing industry, it first has to establish itself as being ready for mass, mainstream manufacturing; with the rates at which the technology is improving, the day may not be far when instead of buying products, people buy design blueprints and print the products using their desktop 3D printers!

3 Chapter 3 Different 3d Printing Processes

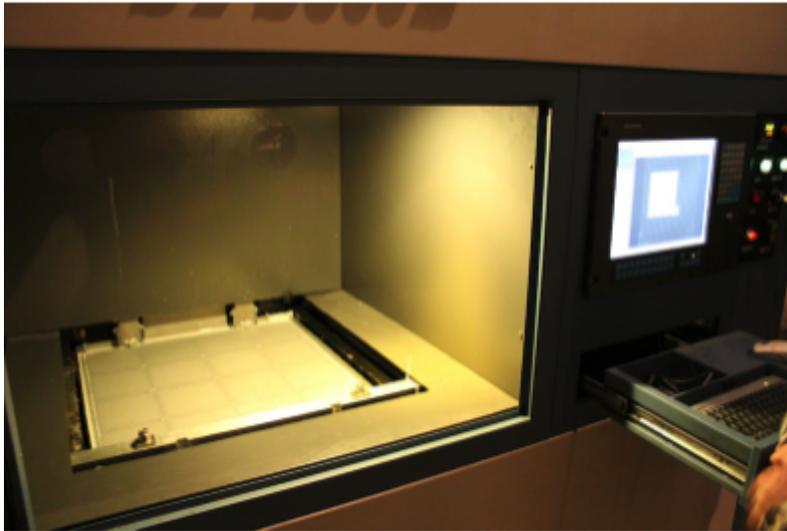
The term 3D printing technically refers to the development of any object from the ground up. This offset of additive manufacturing makes use of different processes to help accomplish this job. Regardless of the process used, the idea behind the creation of objects using 3D printing technology remains the same; starting from the production of a 3D model using computer-aided design (CAD) software to the setting up of the machine. However, the actual process used to create the physical object varies.

There are four different types of 3D printing processes that you are likely to encounter, and they are as follows:

- Stereolithography (SLA)
- Selective Laser Sintering (SLS)
- Fused Deposition Modeling (FDM)
- Multi-Jet Modeling (MJM)

Stereolithography (SLA)

The 3D printing process called stereolithography is generally considered to be the pioneer of all other 3D printing processes. Charles W. Hull, the founder of 3D systems, introduced and patented this process in 1988. This process makes use of a vat of liquid photopolymer resin that is cured by a UV laser. The laser solidifies that resin layer by layer , in order to create the whole object.



Higher-end SLA 3D printer working its magic.

How it Works

An SLA 3D printer starts off with an excess of liquid plastic. Some of this plastic is cured (or hardened) to form a 3D object.

There are four main parts in an SLA printer:

- A printer filled with liquid plastic
- A perforated platform
- A UV laser
- A computer which controls both the laser and the platform

To begin with, a thin layer of the plastic (anywhere between 0.05-0.15mm) is exposed above the platform. The laser 'draws' the pattern of the object over the platform as depicted in the design files. As soon as the laser touches the material, it hardens. This process continues until the whole object has been constructed.

Objects that are created using SLA are generally smooth, while the quality of the object is dependent on the complexity of the SLA machine.

Here's a short video that explains the SLA printing process in greater detail:

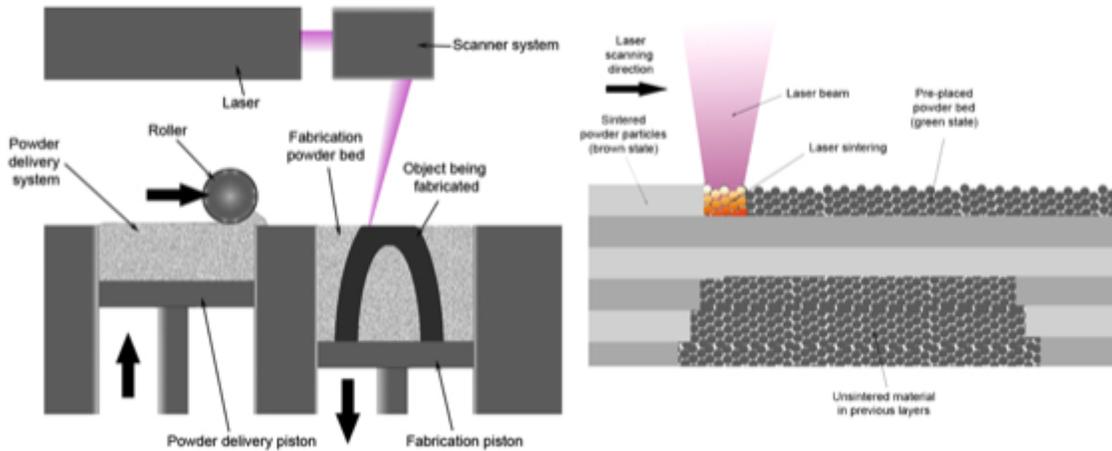
The Stereolithography (SLA) rapid prototyping proc...



Selective Laser Sintering (SLS)

SLS is one of the most commonly used 3D printing technologies. During the SLS printing process, tiny particles of ceramic, glass or plastic are fused together by a high-power laser. The heat from the laser fuses together these particles to form 3D objects.

Carl Deckard, an undergraduate student at the University of Texas, along with his Professor, Joe Beaman, developed and patented this process in the 1980s.



The SLS 3D Printing Process

How it Works

Like all other 3D printing processes, the process of creating an object with an SLS machine begins with designing of a 3D model using CAD software. These files are then converted into .STL format, which is recognizable by 3D printers.

SLS utilizes powder materials, usually plastics like nylon, to print the 3D objects. The laser is controlled by a computer which instructs it to print the appropriate object by tracing a cross-section of the object onto the raw material (powder).

The heat from the laser is equal to, or slightly below, the boiling point of the particles. As soon as the initial layer of the object is formed, the platform of the 3D printer drops by no more than 0.1mm to expose a new layer of the powder. Layer by layer, the object is created and it has to be allowed to cool before being removed from the printer.

This video explains SLS 3D printing in greater detail:

Fused Deposition Modeling (FDM)

The Fused Deposition Modeling printing process is an additive manufacturing technology that is used for the purposes of modeling, prototyping and production applications. This method also works by creating an object layer by layer. However, there are some differences in the way the materials are used by this technology.

Basic guide to FDM 3D printing

How it Works

3D printers that utilize the FDM technology construct an object layer by layer; they heat a thermoplastic material to a semi-liquid state. Two materials are used by FDM to complete the printing; a modeling material and a support material. The former constitutes the final product, while the latter acts as scaffolding.

The raw materials are supplied from the printer's bays and the printer head is designed to move based on X and Y coordinates, controlled by the computer. It only moves vertically (Z-axis) when a layer has been completed.

The benefits offered by FDM make it suitable for use in offices, as it is a clean and easy-to-use method.

Solid Concepts Inc. have put together a great video that explains the FDM process in an easy-to-follow fashion:

Multi-Jet Modeling (MJM)

The principle of working of a 3D printer utilizing multi-jet modeling is starkly similar to that of an ink jet printer. This process is sometimes also referred to as thermojet. It is a type of a rapid prototyping process that can create wax-like plastic models.

How it Works

MJM printers have a head that has dozens of linear nozzles that sprays a colored glue-like substance onto a layer of resin powder. Due to the fact that this technology does not have the same kind of limitations as SLA, it is able to produce exceptionally detailed objects with thickness as fine as 16-microns. However, they aren't as tough as those created using SLA.

Using this method, the printer is able to create a wax-like 3D object layer by layer.

Conclusion

All types of 3D printing processes have a few things in common; they all require a 3D model in .STL format in order for the printer to be able to understand the blueprints it has to develop. All types of 3D printers build objects layer by layer; the major difference lies in the technique they use to solidify the raw materials, as well as the nature of the raw materials themselves.

For instance, SLA utilizes a UV laser to cure the material (which is in liquefied form), whereas, SLS uses a laser to solidify the raw material which is in powdered form. Each of the types offers their own set of benefits for numerous types of applications. Some are clean (and simple!) enough to be used in homes and offices, while some are currently

limited to industrial applications. Nonetheless, the rapid advancements in all 3D printing technologies are bringing them within the reach of technology enthusiasts and home users.

4 Chapter 4 Getting Started – What You Need to Know

Getting started with 3D printing can be baffling, to say the very least. With so many new things to learn, newcomers can find it extremely hard to figure out where they should begin (that's why you bought this eBook, right?!) There are many questions that need to be answered before you actually take the plunge and enter the world of 3D printing.

This chapter will focus on answering the common questions that perplex a novice – such as yourself – when they attempt to understand the complexities of the 3D printing technology.

Do You Really Need a 3D Printer?

Desktop 3D printers can now be purchased at affordable rates. The first and foremost question that needs to be answered is whether you really need to get a 3D printer of your own. There are a great number of online resources that can print models and deliver them to you.

So if you only need to get something printed occasionally, then it would be best to simply send a blueprint of the object to one of these services, and avoid all the hassle completely.

If You Do, Which Printer Should You Buy?

Let's be honest here ... you will probably want to buy a 3D printer of your own – it's one of the most exciting purchases you will ever make! You will need to choose between buying a pre-assembled machine, and getting one that you have to build yourself. Both routes come with their own set of advantages and disadvantages. If you're blessed with do-it-yourself skills and a fair bit of technical knowledge, you may find the latter option more appealing. Building your own 3D printer will also cost you less, but it sure isn't for the faint hearted.

One thing to bear in mind with constructing your own kit set 3D printer is that anything goes wrong with the 3D printer down the track, you'll already have the necessary experience to disassemble it and put it back together again.

However, because this is a guide aimed at beginners, the best, and recommended course of action would be to purchase a desktop 3D printer in the first instance. The cost of 3D printers has reduced significantly over the past few years; however, you should still expect to spend around \$1000-1500 to get a decent desktop 3D printer.

On 3D Insider we have a regularly-updated guide to [3D printers for sale](#). This is the best place to start when it comes to looking for your first 3D printer.

You can always contact the 3D Insider team on 3dprinterplans@gmail.com and we will be more than willing to help you pick your first 3D printer as well.

For your information, we started out with a Solidoodle 3 3D printer. Here's a print we did in action:

The great thing with 3D printing is that the prices of printers are coming down, while at the same time the choice and quality of these same printers is going up.

Before you purchase your own 3D printing we strongly encourage you to get in touch with us at 3dprinterplans@gmail.com (remove the spaces) and we can help you make the right purchase.

Where Can You Get 3D Model Blueprints?

When it comes to the actual design blueprints of the objects, you have two options: you can either get them online ready-to-go, or make your own.

You can find all kinds of models on a website called the Thingiverse. Even though this website is owned by the renowned manufacturers of the Replicator printer, Makerbot, it still contains a decent inventory of blueprints by ordinary users.

If you insist on making your own models (this is the best part!), then proceed to the next question below.

How Can You Make Your Own Models?

There was a time when Computer Aided Design (CAD) software was designed by engineers, for engineers. This software used to be extremely complex (to an extent it still is complex ... but is more manageable now) and no one except those with the proper

training could use CAD software effectively.

CAD software has a steep learning curve. Times have changed, and the latest in CAD software is aimed at general users. The best thing about modern CAD software is that it is not as difficult to learn and use as it was previously; however, the learning curve is still pretty steep, and you would need to dedicate quite a bit of your time and effort to fully grasp all the concepts of 3D printer-ready design using CAD.

In order to learn the basics of CAD designing software, check out Autodesk's 123D Design and Inventor Fusion. Both of these programs are free for limited licences. You can use the free versions of these software tools to design models for printing.

One thing to bear in mind, however, is that the free/limited/student versions of CAD software do not generally allow you to sell your printed objects, or to sell the files you create. As always, you need to do your own due diligence and investigate the licensing for any software you download.

If you plan on 3d printing as a business, then you really do need to invest in a commercial software licence.

We will talk more about software later in the guide.

Can You Simply Scan Real Objects And Print Them?

A lot of people wonder whether it is possible to 'simply scan and print' objects. It is possible, and there are a few companies that create dedicated 3D scanning equipment, such as Go!SCAN 3D. However, the scanned models generally require a lot of tweaking before they can be used to print objects.

This idea is undoubtedly ingenious, but it will take a little time to mature; at present you are still better to create the files "by hand" and then print them from there.

How Should You Go About Printing Downloaded Models?

If you have downloaded model blueprints from websites like Thingiverse, chances are that they will already be in STL format. This format is halfway to becoming a printable file ... so stay tuned for how to turn that STL file into something seriously awesome.

For the printer to be able to manage the design files, they have to be sliced – which means that it has to be transformed into the exact layer-by-layer description of the object, including the temperature, the speed and wall thickness controls. The resulting file is called a G-Code file that can be interpreted by the printer.

You can choose from a number of slicing applications in the market, including free ones such as ReplicatorG, Cura and KISSlicer. We will talk more about slicing software shortly.

How Should You Go About Printing Models That You Created?

Slicing software is an important tool required to create a final, printable file if you used computer-aided design software to create your model, then the software will be able to export it as an STL file. All you would have to do would be to use a slicing software program to transform it into a G Code file.

On the other hand, if you used a 3D program such as Photoshop, Sketchup or any other 3D design program that isn't specifically designed for CAD, then the process of getting the G code file requires several steps.

Once of the first things that need to be done is to see whether the 3D model is genuinely printable or not. In most cases, minor changes will be required, such as patching up of holes and repairing of vertices.

Secondly, the file will need to be converted into an STL before it can be sliced for the printer.

You can use a free, open-source application called Meshlab to perform both the tasks of patching up the model and generating the STL file. You may also want to look into a commercial program called NetFabb that can generate the G Code files as well.

Where Can You Buy the Material?

The printing material (or filament) that is required for the 3D printer comes in two types: PLA and ABS.

PLA is Polylactic Acid, a form of polyester that is made from a variety of natural sources including sugar, corn starch or sugar cane. It is biodegradable and melts at temperatures lower than ABS.

ABS, or Acrylonitrile butadiene styrene is a type of polymer that is oil-based. It is extremely strong and resilient and is commonly used to create children's toys.

You can purchase them in loose forms or as a reel from a wide range of sources. A kilogram of 3.0mm ABS filament reel costs around \$30 on Amazon, which is where we recommend you buy your filament from. Search around to find the best deal and the lowest shipping cost for your location.

Conclusion

As you can see, it is possible to acquire a 3D printer and the material needed to print within a budget of less than \$2000, provided that you use free CAD software and tools. Nonetheless, cost isn't everything! Before you purchase anything, it is important that you carry out a self-check to see whether you have the willpower and the ability to actually learn 3D printing techniques, because the learning curve is steep.

Take your time to learn the hardware (and software) and have fun along the way!

5 Chapter 5 Essential Software

Without the right software, 3D printing would remain a distant dream. While it is true that you need a specialized printer that can create 3D objects, you also need a variety of essential software that can be used to design the actual model and get it into a format that the printer can recognize.

This chapter will discuss the types of computer software you need, as you begin your journey to becoming a 3D printing expert.

Introduction To 3D Printing Software

Unless you're planning to download ready-made blueprints of models from the Internet and use them to print objects, you will need to understand what kind of 3D printing software you need. We had discussed this topic briefly in the previous chapter; we will now discuss 3D printing software in more detail.

The 3D Printing Process

Before we head deeper into discussing 3D printing software, it is a wise idea to briefly discuss the actual 3D printing process from scratch so that you have a clear picture of what exactly you're dealing with.

Step 1: The Idea

First and foremost: you have to decide what you want to make. It can be anything, from a simple decoration item to a complex toy. It is best if you start with simpler projects until you get comfortable with designing more compound objects. When the team at 3D Insider first got a 3D printer, we experimented with very simple objects (such as cubes)

until our abilities improved. Come up with a number of ideas, and be prepared to reject a number of them from a technical feasibility perspective. It's also important to take action at this stage – it can be very tempting to come up with a number of ideas for the next great 3D printed invention, but never get around to designing and making anything. If you're prone to procrastinating your work, then you might want to read this handy guide that covers the best ways to quit procrastinating – you'll find that you get a lot more 3D printing learning and making done after reading it.

Step 2: Design the Model

Here comes the first main step; designing the actual model. After you have decided what you want to make, you should use CAD software (or non-CAD software) that can help you craft the model. Learning to use any particular design software is no easy task; and you should be well prepared for it as well as being willing to learn.

On the 3D Insider [YouTube channel](#) you'll find some great introductory videos, showing you the ropes of common CAD software – in particular Autodesk Inventor.

Step 3: Convert it into STL

It is absolutely necessary that you convert your model into STL format after it has been completed. Most of the CAD software you'll ever encounter comes with built-in features that allow you to export the model as STL. Nonetheless, if you're planning to use a non-CAD design software, such as Google SketchUp, you will need to install a plugin (Cadspar, in this case) in order to be able to tweak and convert the final design.

After you've converted your model into a STL format, you're only half-way across to getting a 3D printable file.

Step 4: Slicing it

The fourth step requires you to 'slice up' the model into layers so the 3D printer can understand how to go about creating the object. This is the last step involving the use of computer software, after which you will get the final G-code file that the printer can recognize.

To sum it all up: You need software to design the model, convert it into STL and to slice up the model to get it ready for the 3D printer.

Computer-Aided Design Software

Computer-aided design (CAD) software has been around for decades. It was initially designed for engineering applications and was so complex that only engineers with the right training could use them.

Since the inception of 3D printing technology, CAD software has been commonly used to create 3D models of objects. One of the main reasons of using CAD software as compared to non-CAD alternatives such as Photoshop is that it enables the designers to export the model as an STL file.

Just so you remember: An STL file is a format that contains information that is required to produce a 3D model on stereolithography printers.

Due to its complex features, CAD software is rather expensive for commercial use, ranging from \$10,000 up to \$100,000 for the best applications out there. This would be, of course, impractical and unaffordable for a home user who is just entering the world of 3D printing.

Fortunately, a lot of free CAD software has been made available, and is almost as good as some of the paid versions out there. Many commercial CAD programs also have free/limited licence versions which allow you to dip your toes in the world of CAD design and 3D printing without spending thousands of dollars.

Regardless of whether it is free or paid, keep in mind that there is a steep learning curve to grasp the basics of CAD software. You will need to put in a lot of effort and time and will also have to exhibit patience before you can master the art of designing using CAD software.

When it comes to 3D printing, you aren't going to get far before the name "AutoDesk Inventor" is bandied about:

AutoDesk Inventor

Autodesk is a big name in the CAD application industry, and provide professional-level paid software. Autodesk Inventor is a powerful CAD application that comes with a wide range of tools for digital prototyping.

This high-end 3D design application can help to build better products faster and thus reduce the development costs. Due to the fact that it is full-fledged, professional CAD software, you will need to spend a considerable amount of time to learn how it works before you can begin to design your models. There is ample documentation available which will help you through this process.

The latest model by Autodesk is Inventor 2015. A trial version can be downloaded before you actually purchase it. You will need a powerful computer with at least 3GHz clock speed for single-core processors or 2GHz for dual core ones. A minimum of 8GB RAM is required; however, for optimal performance, Autodesk recommends 12GB RAM.

These system requirements are intended for heavy designing applications. As a beginner to the world of 3D modeling, you will not be involved in very complex designs and you may be able to run the software on a computer with slightly lower specifications. Download a trial version to see how it works for you. As of April 2014, the DVD and full licence of Autodesk Inventor 2015 is priced at around \$5000.

If you're looking to get started with AutoDesk Inventor then [check out our "how to" videos.](#)

Autodesk 123D

UPDATE: Autodesk 123D is no longer available.

Not all products by Autodesk are paid. Autodesk 123D products include free, yet powerful set of tools for designing 3D models and for getting them in the right format for 3D printing. This suite of hobbyist CAD and 3D modeling tools is based on Autodesk's premium Inventor CAD software and comes built-in with STL support.

While not all applications may be useful for you, the suite contains the following concoction of programs:

- **123D Catch:** This application can create 3D models from a collection of pictures that have been taken at various angles using the concept of photogrammetry.
- **123D Sculpt:** Allows you to manipulate virtual clay into a particular model. This is designed to be used on an iPad
- **123D Make:** Enables creation of LOM-Style solid models.
- **123D Design:** This is the program that you should be most interested in – a simpler version of a CAD design application that can create 3D models.

Google SketchUp Make

Google SketchUp Make is a completely free and easy-to-learn alternate to the complex CAD software out there. It comes with a few simple tools that allow users to create 3D models of houses, decks, home additions and a lot of other things. This is a great tool for those who are new to the world of 3D modeling as it will offer them a user-friendly way of getting to know the complexities of 3D modeling

It is generally used to design objects for Google Maps and Google Earth; however, a lot of people use it to create models for printing. Google SketchUp isn't a full-fledged CAD software and it does not allow exporting an object as an STL file by default; however, there are plugins available such as Cadspar, that can help you add the final finishing touches to your Google SketchUp model before it is exported as an STL file.

If you're serious about using Google SketchUp then you are better off with SketchUp Pro. This software isn't too badly priced at under \$600 – and you can get a [free trial here](#).

Slicing and Printer-Control Software

The model that you design go through two further processes on their way to becoming a finished product, and these two processes are called slicing and sending.

Slicing divides the model into several printable layers and plots the toolpaths for them. The control software then sends these 'instructions' to the printer which then creates an object layer by layer.

3D printers are generally controlled through an onboard control screen, or by a computer through a USB connection. This user interface enables the control software (which can be the slicer software itself) to send the computer code (instructions) to the printer and controls the major parameters such as the speed, flow and the temperature required for each layer.

The Netfabb engine, for example, combines the functionality of both a slicer and control software. That been said, there are pure slicers, pure control software or a combination of both.

Slic3r

Slic3r is an extremely popular tool that has powerful features to convert a digital 3D model into printing instructions for a 3D printer. It is capable of slicing the model into layers and generating the necessary toolpaths as well as calculating the material that needs to be extruded.

The project was launched in 2011 from scratch and has grown to become an application that is supported by almost all of the major 3D printing companies in the whole world.

Due to the fact that Slic3r is just a slicer application, it requires additional software to act as a control application. It comes bundled with the following applications:

- Pronterface
- Repetier-Host
- ReplicatorG

A comprehensive manual can be found at <http://manual.slic3r.org/> for those who are new to the world of 3D printing.

At 3D Insider we have had plenty of experience with Slic3r and its bundled applications – you can always contact us on 3dprinterplans @ gmail.com with any questions you might have.

Skeinforge

Skeinforge is another slicer program that is designed to be used with RapMan and numerous other Fab lab engines. Users can set a number of parameters using this program; this increased functionality makes the learning curve a bit steep and as a new user, you may be better off with simpler tools.

KISSlicer

KISSlicer is a fast and easy to use application that can generate the G Code for a printer from a STL file. The free version of KISSlicer contains all the features that may be required by a hobbyist using a single-head 3D printer. If you require multi-head and multi-model printing, then you may need to opt for the PRO version.

Conclusion

Whichever design application you settle for, remember that you will have to learn quite a few things and the learning curve is pretty steep even for the simplest of programs. You will need a lot of determination and hard work, especially if you're new to 3D designing altogether. Most of the applications generally come bundled with comprehensive documentation that you should read to grasp the basic functions and layout of the controls.

It is best to start off with free software and only invest in paid ones after you feel that you can handle 3D designing and printing.

6 Chapter 6 Essential Hardware

A thorough knowledge of the hardware of a 3D printer is essential if you want to make the most of this exciting new technology. Both the hardware and the software work you deploy work in conjunction ... so having insufficient knowledge of the hardware means you're missing half the equation!

It can be quite difficult to fully understand the hardware of 3D printers; however, the purpose of the main components is not as difficult to comprehend as it may seem initially. This chapter will briefly discuss how a 3D printer works, and will go on to reveal the major components that make up a basic 3D printer.

How A 3D Printer Works

By now you should know that a 3D printer creates objects by adding material layer by layer until the object is completed. A printer consists of a frame and features three axes:

- X-axis (left to right movement)
- Y-axis (front to back movement)
- Z-axis (up and down movement)

A part called an extruder is installed on the X-axis and its function is to feed the material that is used to create an object. The lowest part of the extruder itself is called the extruder head – this is the part where the filament is melted and 'extruded' from a tiny hole that has a diameter of no more than a millimeter.

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The Anatomy of a 3D Printer

You don’t necessarily have to learn about each and every individual part of a 3D printer in order to use it. However, learning about the basic hardware and construction of one can help you if you ever have to troubleshoot a problem (and trust us ... you will have to fix your 3D printer, sooner rather than later!) This knowledge will also be of a great help when you go out to actually buy a printer.

There are various types and methods employed by 3D printers to create objects and we have already discussed them in the previous chapters of this book. In this chapter, our emphasis will be on Fused Deposition Modeling technique that is the most common among desktop 3D printers used at home. This method can be considered to be the same as the ‘glue-gun’ method. The glue-gun method consists of heating up a filament to a point where it melts – this melting filament is then placed in thin layers and the object is created layer-by-layer.

Print Bed

The print bed is the area where the objects are created layer by layer by the printer. Based on the type of filament you are using, the print bed itself may be heated. You can cover a non-heated bed in painter’s tape.

As for heated print beds, it is important to keep the print bed warm during the whole layering process in order to prevent warping. Temperatures between 40 degrees to 110 degrees Celsius are maintained during the entire printing process.

There are some printers that can reach extremely hot temperatures, and extra care should be taken if there are children around. You’ll quickly learn not to touch a warmed-up print bed!

Extruder

The extruder is often considered to be the component from where the plastic filament extrudes. However, this isn’t entirely true; the extruder is a part that is responsible for pulling and feeding the filament to a part called the hot end.

A depiction of the various parts of a hot end. Typically, extruders are integrated within hot ends. In other cases, they may be located away from the hot end from where they push the filament to the hot end through a tube called the Bowden Cable. A printer with a dual extruder can print using two different colors and materials at the same time. This does come at an extra cost because an extra extruder and a hot end is required.

Hot End

The Hot End in a 3D printer comprises of a heater, a temperature sensor and an extrusion tip through which the filament is fed. Just as their name implies, they can get extremely hot and should never be handled directly (we mean this ... don't fiddle around with the hot end if you value your fingers!) There are holes in the nozzle that range in size: between 0.2 mm and 0.8 mm.

The smaller the nozzle of the hot end, the finer the print will be; however, the time taken to print the object will also be greater.

Plastic Filament

While the plastic filament is not a component of the printer itself, it is a consumable that is vital for its operation. Just as you couldn't print on an inkjet without cartridges, you'll be stuffed without your 3D printer filament. There are quite a few types of filaments available for use by 3D printers. The choice is generally limited to two major types when it comes to home 3D printers: ABS and PLA. We will talk about the two types in detail later on in the chapter.

Different Types of Beginner-Friendly Printers

In this section, we will discuss the advantages and disadvantages of each type of 3D printer, along with some other useful information that will help you decide the kind of printer you should choose.

If you will recall, the three types of printers are:

- Fused Deposition Modeling (FDM) Printers
- Stereolithography (SLA) Printers
- Laser Sintering (SLS) Printers

Fused Deposition Modeling (FDM) Printers

Fused Deposition Modeling is probably the most common type of additive manufacturing process, and is used by the majority of desktop 3D printers that you are likely to encounter. Filament is fed into the extruder of FDM printers, where it is heated to a temperature high enough to melt it. This melted filament is then extrudes from the nozzles to create an object each layer at a time.

Advantages of FDM Printers:

- Comparatively, these 3D printers are the cheapest and can be bought between \$1000 and \$5000.
- The filament used by these printers is also affordable.
- They can use a large variety of materials.
- They can be easily maintained and parts can also be replaced conveniently.
- They can print objects quite fast.

Disadvantages of FDM Printers:

- The nozzles can frequently clog
- The supports can be problematic to clean up
- The individual layers can be visible in the end product (striping)

The following materials can be used to create objects using an FDM Printer:

- PLA Plastic
- ABS Plastic
- Wood Filament

Stereolithography (SLA) Printers

Stereolithography is probably the oldest additive manufacturing process. These 3D printers contain a pool of liquid resin which is hardened by a beam of ultra-violet (UV) light. As soon as a layer has been formed, the base moves to allow for the creation of another layer, and thus the process continues until the whole object has been created.

This 3D printing method is ideal for those who want great detail in their final products. The cost of these printers can vary between \$3000 and \$7000.

Advantages of SLA Printers:

- The final products can contain great detail down to 25 microns (this is thinner than a sheet of paper).

- The surface of the objects created using this method is smooth.
- This technique is great for casting and molding as well as for creating models.

Disadvantages of SLA Printers:

- The nozzles can frequently clog
- The use of liquid resin can be quite messy
- The materials that can be used are limited.
- The materials used are more brittle.
- These printers are generally more expensive than FDM printers.
- SLA printers can only use liquid resin.

Selective Laser Sintering (SLS) Printers

The Selective Laser Sintering technique works in remarkably similar ways to that of SLA; however, a powder is used instead of a liquid resin. A laser is used to heat up the powder. Once the object has been created, the rest of the powder can be removed leaving only the solid object.

These printers are currently extremely expensive, and cost over \$50,000. Clearly, this is not going to be a viable choice unless you have just won the lottery! Nonetheless, if you wish to have a model printed using this method, you can use numerous online printing services.

Advantages of SLS Printers:

- They can provide detail down to 16 microns.
- No support structures are required for the object being printed.
- Working mechanical parts can be created without a requirement for any assembly.

Disadvantages of SLS Printers:

- It takes a little effort to remove the powder after an object has been printed.
- Currently there are no desktop models of SLS printers.

The following materials can be used to create objects using an SLS Printer:

- Aluminum
- Nylon Plastic
- Sandstone

- Silver
- Steel

Filament Types – PLA vs. ABS

There are a number of different materials available for use in 3D printers, ranging from numerous metals, wood, plastic to ... wait for it ... chocolate! Yet, when it comes to plastic filaments, the two most common types of plastic filaments are PLA and ABS.

PLA, or Polylactic Acid, is a type of biodegradable plastic with many features that make it desirable for 3D printing. For example, it does not give-off any fumes, nor does it warp as much as ABS does. When it comes to the appearance, it is also quite shiny and products made out of PLA have a sleek appearance. It is harder than ABS, yet more brittle. This does not at all mean that it will break easily – on the contrary, PLA is actually extremely strong, and it is far more likely to snap rather than bend as a result of any deformation.

ABS, or Acrylonitrile Butadiene Styrene, is a plastic made from petroleum-based sources. It has a melting point much higher than PLA. It is quite strong and is often used to create toys such as Lego. Compared to PLA, objects made from this filament are more likely to bend than snap.

This section will discuss in detail the similarities between these two filament types, as well as the major differences between them. We will also go on to talk about difference in filament thickness. The advantages and disadvantages of each filament will also be described to help you choose the ideal material for your projects.

The Common Ground

ABS and PLA are both known as thermoplastics. Whenever they are heated, they become soft and can be molded, returning to solid when cooled. This process can be carried out repeatedly, and these properties are precisely what has made them so popular.

There are a great number of thermoplastics available; only a very few are used for 3D printing purposes. In order for a material to be viable for use in 3D printing, it has to pass three tests:

- Initial Extrusion into Plastic Filament
- Second Extrusion and Trace-binding during 3D Printing
- End Use Application

In order to be able to pass the three tests, a material must be first easily formed into a raw 3D printer feedstock called the plastic filament. These filaments come in a reel.

Secondly, the material should be able to form accurate parts of the products being created using 3D printers.

Last but not least, the properties of the plastic must have desirable characteristics related to its strength, gloss, durability as well as numerous other qualities.

ABS and PLA, as well as numerous other thermoplastics can pass the first test in a breeze. It's just a question of the cost and the time required to turn the base plastic resin into a high quality plastic filament.

Storage

Thermoplastics such as ABS and PLA work best if, before being used (or when being stored for an extended period of time), they are sealed to prevent them from absorbing moisture from the air.

However, this does not imply that the filament will necessarily be spoiled if you let the reel of your filament sit around for a week or so before you use it. Still, extended exposure to the atmosphere can have detrimental effects on the quality of the material as well as the end product.

The filament comes wrapped up in plastic to prevent absorption of moisture. Here is a comparison of the effects of storing ABS and PLA:

ABS – If ABS is exposed to the atmosphere and it absorbs unacceptable amounts of moisture, then it will tend to bubble and gush from the nozzle tip when being used to print an object. This will lead to a reduced visual quality, accuracy, strength and will be more likely to clog the nozzle. By using a source of heat such as a food dehydrator, you can easily dry ABS prior to use.

PLA – PLA reacts in different ways when exposed to moisture. In addition to forming bubbles and gushing from the nozzle during printing process, a slight discoloration and numerous other changes in its properties will also be seen.

At high temperatures, PLA is known to react with water and this can lead to depolymerization. Depolymerization is a process in which a material undergoes decomposition into simpler compounds.

You can also dry PLA using a food dehydrator, but keep in mind that this can lead to a change in the crystallinity ratio of the material and will probably alter extrusion characteristics. Nonetheless, this isn't a major problem for most of the 3D printers out there.

Smell

ABS – When ABS is heated, a notable odor of hot plastic is pretty evident. For some, this is nothing more than a nuisance, while there are some people who do not even notice it. Regardless of whether you notice the smell or not, it is imperative that you ensure proper ventilation of the room where ABS is being used. Also, make sure that the ABS you use is free of contaminants. A reliable extruder also plays an important role as heating the material to the proper temperature goes a long way in controlling the smell.

PLA – Due to the fact that PLA is made from sugar, it gives off a semi-sweet odor equal to that of cooking oil when heated. It definitely won't bring back memories of those delicious home-cooked meals; however, some consider its odour to be better than that given off by ABS.

Part Accuracy

ABS and PLA both have characteristics that allow them to create dimensionally-accurate parts and products. Still, the following points are worth mentioning when it comes to discussing accuracy of parts.

ABS – One of the major challenges involving use of ABS is the upward curling of the surface that is in direct contact with your printer's print bed. By heating up the print bed and by making sure that the bed is clean, flat and smooth, you can really help to eliminate this issue. Some people find it better to apply a number of solutions including ABS/Acetone mixture or simple hair spray onto the print surface prior to printing. At 3D Insider we have experimented with hair spray on the print bed with some success (just remember that hair spray is highly flammable!)

Certain features such as sharp corners usually end up being round. A small fan can be used to cool the area around the nozzle to improve such corners; however, excessive cooling can lead to a reduction in the adhesion between the layers, and may eventually cause the final product to crack.

PLA – PLA warps less than ABS. This is exactly why it can be used to print objects without the need of a heated bed. If cooled actively, PLA can be used to create sharper details including sharp corners without the material cracking or warping. The increased airflow can also assist by strengthening the object by binding the layers strongly together.

General Material Properties

Regardless of how accurate a certain part is made, it must be able to perform its intended functions.

ABS – ABS can take numerous forms and can also be engineered to have various properties. In essence, it is a strong plastic with moderate flexibility. Before colors are added to ABS, it milky-beige. The mild flexibility of the material makes it easy for it to be sanded and machined. Also, it is much easier to recycle as compared to PLA.

Engineers usually prefer ABS due to its high strength, flexibility and machinability.

PLA – The origin of PLA includes sugar-beets, corn and potatoes. This is why PLA is thought of as being more environmental friendly than ABS. It is commonly used to package food and to make containers foodstuff. In its original form, it is transparent but can be colored to varying degrees of opacity and translucency.

It is much stronger than ABS as well as rigid. Objects printed using PLA carry a glossy look and are smooth to the touch. Nonetheless, it is slightly more complicated to work with due to its complex interlocking assembly and pin-joints.

Thickness of the Filament

ABS and PLA filaments come in two different diameters: 1.75 mm and 3 mm

Each printer (each extruder, to be more precise), is designed to work with a certain thickness of filament. You will have to see the specifications of your printer to see which filament you can use with your particular model of 3D printer.

Some printers are designed to use proprietary diameters that may be slightly different from the standard thickness. If you haven't bought a printer yet, then you can choose a printer that supports the standard diameters so that you will have more options when it comes to choosing a plastic filament supplier (more options in terms of color, material, etc).

The diameters of the filaments may vary slightly from one manufacturer to another. However, if a filament is labeled as 3 mm, then it must not exceed that value; it can, however, be slightly less than 3 mm (say, 2.88 mm).

Some filament can also have lumps and neck downs in them that run for a few centimeters. Lumps are those sections where the diameter exceeds the rating. On the other hand, neck-downs are those regions where the diameter is less than what it's supposed to be. Jamming and stripping can result from this; nonetheless, such instances are rare, especially if the filament being used has been manufactured by a reliable company. It's generally advisable to avoid "dirt cheap" filament for this reason.

Conclusion

You should carefully weigh the advantages and disadvantages of each of the materials before you settle for one. Think about what kind of objects you need to print, and what kind of applications they are required to fulfil.

Some say PLA is the best material for beginners to start with, and you may want to try it out to see whether that's true. However, we started with ABS and did not find it overly difficult! You can always switch materials down the lane.

7 Chapter 7 How to Choose A 3D Printer

Gone are the days when 3D printing was limited to prototyping only. Today, 3D printing technology has grown to become quite popular, and continues to do so as the technology improves at consistent rates. It is now capable enough to offer advantages from the initial concept design to the production of the final end product.

If we look just a few years back, the luxury of in-house printing was only limited to a few professional design engineers, while the technology was itself in its emerging stage and limited to a very few design models and prototypes.

The day has come where a great number of hobbyists and creative minds have gotten access to their very own personal 3D printers, empowering them to unleash their creativity to the world. Now people can design their own models and print them at home!

Choosing The Right 3D Printer

When it comes to choosing the right 3D printer for your use, the task can be daunting, to say the very least. The process becomes more complex and intimidating for newcomers to the world of 3D printing.

Regardless of whether you're purchasing a 3D printer for your personal use, for your business or any other reason, this chapter will guide you through various properties and factors that you should look into when searching for a 3D printer.

First, we will begin by answering some of the most common questions asked by people who are new to 3D technology.

What can a personal 3D printer be used for?

Simply put, by having your own 3D printer at home, you can use it as a 'mini-factory' to create almost any 3D object for personal and professional use.

A desktop 3D printer can create objects each layer at a time by heating the filament until it melts. Before the advent of desktop 3D printers, you would have had to acquire the services of 3D printing companies who could print your design models and prototypes. The rapid decrease in the cost of 3D printers have now made them available and in reach of hobbyists and home users alike.

Imagine printing a vase exactly as you want it, or imagine creating your own set of tools – the options are simply unlimited. People also use their 3D printers to print parts to fix their stuff – no need to replace the whole thing if you inadvertently break the handle, just print a part and you'll be good to go!

What Type Of 3D Printing Technology User Are You?

You need to identify your skill level as well as your needs so that you can pinpoint the exact things that you expect from your 3D printer. This is the first step on the way to purchase a 3D printer.

Building from Scratch – A lot of tech-savvy technology enthusiasts attempt to make their own 3D printer from scratch. This requires some exceptional mechanical and programming skills to begin with, so if you have the nous and patience, then by all means, take this route to the 3D printing arena.

3D Printer Kits – Another option to get yourself a working (hopefully!) 3D printer is by getting a 3D printer kit. These kits come with all the necessary parts required to set up a printer. They do, however, require a fair bit of mechanical and programming knowledge

from your part. This is a great way to get to know your machine from inside out so if you ever have to troubleshoot problems, you will have the exact idea of where to look.

Assembled Machine – The easiest and fastest method of getting your hands on a 3D printer is to get an assembled one. Most 3D printing companies now offer ready-made desktop 3D printers. When you purchase a printer, many of them are delivered to you ready to use (even the calibration has been done). This method does cost a little more than the above two routes, but you save yourself a lot of headache and avoid a lot of hassle too.

This chapter will mainly focus on helping you to choose an assembled 3D printer, rather than acting as a guide to build a 3D printer.

Determining Your Application

Concept models help cut down manufacturing costs and save a lot of time too. The printers in use today are made up of a number of materials and offer varying degrees of surface finish, environmental resistance, accuracy, precision, and visual appearance.

During the selection process, it is important to first clearly define the applications where you intend to use your 3D printer. We will be considering all possible applications, including those that are part of a business's manufacturing process.

Concept Models

By creating a concept model, businesses – large or small – can save a lot as the whole process of developing and manufacturing the product is shortened. A right design path is necessary whether you're designing a power tool, an office stationery item, a toy, a shoe or any other product, as a 3D-printed model will allow you to evaluate the design and consider possible alterations to it, if required.

Stakeholders can, with the help of 3D printers, visualize the end product like it would be, before mass production commences.

For such type of concept modeling applications, it is best to desire for the following performance attributes: print speed, part cost and quality of print.

Verification Models

Designers of a product also need to ensure that their final product will function as they want it to. This is where a 3D printer can help by creating a replica of the product.

Verification of models is not only done by large enterprises, but also new start-ups who

may be willing to make certain that their product is up to the specifications before they are sent for mass production.

The accuracy of the model, material characteristics and feature detail resolution are the things to look for in a 3D printer if you plan to print verification models.

3D Printing as a Hobby

If you don't have any plans to use 3D printing technology for business purposes, then you may be considering taking it up as a hobby to try out the new technology. For a person with a creative mind and even the slightest desire for experimenting with things, having a 3D printer at home can be bliss.

So how can you put a 3D printer to good use around the house? Here's how:

Fix Things Around The House – You could create parts for your appliances and devices if they break. Creating the required part using a 3D printer would certainly be cheaper than buying a replacement, not to mention a lot of fun!

Make Toys For The Kids – Interested in testing out your new 3D design skills? You can use your desktop 3D printer to create toys using the same material used by the creators of Lego. There are already a great number of model blueprints online for you to download and print. Kids also enjoy using 3D pens which are a good introduction to 3D printing.

Create Models (of anything!) – You can use 3D printers to create your own collection of models and collectables.

The possibilities are truly endless. Using a desktop 3D printer, you can create almost anything as long as it is made of plastic. For hobby-level 3D printing, you don't need a top-of-the-line printer, and even the cheapest of the printers out there can be great for:

Cheap Prototyping – You can test your skills and prints as much as you want. At around 3 cents per gram, you really cannot get a cheaper solution.

Faster Printing – Don't think that a cheaper 3D printer won't be able to print fast. All you need to do is set your layer height at a higher setting, and you will get fast prints.

Experiments – Who wouldn't want to experiment with their new 3D printer? After all, you learn by doing stuff.

You don't have to worry about damaging your printer by using it excessively. You can try out a lot of new things as you learn more. The Internet is a great place to learn more

about 3D printing and a large number of 3D printing enthusiasts have created discussion forums where they share their experiences and guide each other. 3D printing has given birth to a community of technology enthusiasts.

3D Printers: What To Look For When Comparing Printers

A comparison of 3D printers must be carried out before choosing one that suits your needs

Here are some of the factors that you need to look for when comparing 3D printers:

- Price
- Build Platform Size
- Filament Type
- Reviews
- Customer Service

Price

Price is a major factor that needs to be considered. How much are you willing to spend on your hobby? There are numerous types of 3D printers available, and their cost also varies according to their capabilities.

For instance, FDM printers are comparatively the cheapest desktop printers that you can get. Decent ones start from as low as \$1000. The filament that they use is also quite cheap. Keep in mind that you are new to 3D printing, and you will mess up a few projects (this means wastage of filament!) before you get the basic idea. Be prepared to spend the first 10-20 hours with your printer in a state of constant frustration, as you battle to get decent quality prints. Prepare for plenty of filament wastage too.

This is why you should consider getting a printer that is not only cheap, but also supports a wide variety of affordable filaments.

Before you even begin searching for a printer, set a budget that you can afford to spend on only the printer. Also factor in that you are going to lose a lot of filament at the start, without much to show for it.

Build Platform Size

The build platform is the area also known as the print surface. It is simply a 'breadboard' that has tiny holes which allow the ABS material to grab onto something while it is being printed. The industry standard has shifted towards heated print platforms.

The greater the size of the print area, the larger the size of objects and models that you will be able to print!

Filament Type

The desktop printers currently available can generally only print using two filaments: ABS and PLA. We discussed the different properties of these two materials in great detail in the previous chapter. If you're unsure, it would be wise to go through that chapter once again. Most of the printers will come with interchangeable filament spools, allowing you to use any compatible reel of filaments. This is with the exception of 3D Systems' Cubify Cube. This particular printer requires Cubify-only cartridges.

Unless you plan to buy a Cubify printer, you won't have any problems with the filament type, and you will generally be able to use the material interchangeably. A kilogram of ABS or PLA plastic filament typically costs between \$30 and \$50 depending on its quality.

Keep in mind that the main cost incurred during 3D printing does not lie with the expenses of materials; it is actually the time the printer takes to create a model. Electricity, and your own time, all add up!

Reviews

It is important to read the reviews of the 3D printers that interest you before you actually buy one. A detailed review can help reveal the intricacies of the printer, including any good and bad points that you need to be aware of.

You can always refer to popular review websites such as TopTenReviews.com to carry out a comparative study of the machines.

Consider asking on forums like Reddit or Yahoo Answers to get peoples' honest input into different printer models.

Customer Support

Mainly because you are new to the world of 3D printing, you are likely to experience some problems along the way. Teething problems and 3D printing go hand-in-hand, and are basically inseparable. It is vital that the company you purchase your printer from provides superb customer support. You can learn about them by reading reviews and from their previous customers in discussion forums.

The majority of companies that create and sell 3D printers offer exceptional customer support because they want to encourage the expansion and use of 3D printing technology among the masses.

Performance Attributes of a 3D Printer

After you have looked into the factors discussed in the previous section, you need to divert your attention to some more “technical” matters.

Here are some of the most important features of 3D printers; compare them according to your needs and wants.

Print Speed

The term print speed may mean different things, for instance:

- It may refer to the time required for printing a finite distance in Z-direction on a single print job; or
- It may refer to the time required to print a certain part or a certain part volume.

Regardless of what it is referring to you, a fast 3D printer will help to cut down the running costs in the long run.

Having a 3D printer with a faster speed is also ideal in the sense that you get to see your finished objects sooner!

Part Cost

Part cost is generally expressed in cost/volume, for example, the cost per cubic inch or per cubic centimeter. Printer manufacturers often specify the part cost, and you can also calculate your own estimate based on your STL files; however, this factor should not concern you much unless you’re getting a printer for business purposes.

The idea behind the part cost is based on the amount of material that is used by a 3D printer to create a given set of parts. The lowest costs are associated with powder-based technologies, but those printers are quite expensive to acquire in the first place. We don’t recommend that you worry too much about part cost, unless you are intending to use your printer for commercial purposes.

Accuracy

The additive processes of 3D printers create objects one layer at a time using materials that are changed from one form to another. The change of state of the material may lead to the shrinkage of material and this must be compensated for to ensure that the final product has been made with the maximum possible accuracy.

TL:DR? If your 3D printer isn’t accurate, then you’ll get fed up pretty damn quickly!

3D printers that are powder-based have the least shrink distortion thanks to the binders which they use. This is why the objects created using powder-based 3D printers are highly accurate.

On the other hand, 3D printers that utilize plastic as the raw material use heat, ultra-violet light or a combination of both to correctly process the material. This adds a number of variables which can, and does, affect accuracy of the end product to varying degrees.

The part size and the geometry are among other things that affect the overall accuracy of the products. You will see that some 3D printers offer fine-tuning tools that help improve accuracy for certain geometries. The accuracy claims made by manufacturers are based on the testing of certain parts; the actual results will inevitably vary depending on the part geometry, thus if you feel that your application requires a high level of accuracy, you should consult the manufacturer so that your specific application geometry can be put under consideration.

Material Properties

Each 3D printing technology comes with its unique set of strengths and weaknesses, and each of them should be analyzed when buying a 3D printer. The manufacturer's claims about the available materials must be analyzed in detail as they don't always guarantee optimal performance.

Keep in mind that each type of 3D printing technology is limited to certain materials. This shouldn't concern you as a beginner to the world of 3D printing. Desktop 3D printers are currently only limited to plastics such as ABS and PLA.

Color

When it comes to color 3D printers, they can be divided into three basic categories:

- Printers that can print one color at a time
- Printers that can print a few colors at a time; and,
- Printers that offer full-spectrum prints

3D Systems' ProJet x60 is a full color printer. It cannot be regarded as being a 'desktop' printer due to its large size. It is also expensive at around \$16,580. Realistically, you will be using a single color printer when you first start out.

Which 3D Printer Should You Buy?

On the 3D Printer Plans website, we have developed a unique, interactive guide to the best 3D printers for sale. You can access this interactive table [here](#).

You'll be able to sort printers by price, brand, reviews, and specifications, in order to find the right 3D printer for you!

Here's a screenshot from our interactive table to whet your appetite:

8 Chapter 8 Maintaining Your Printer and Filament

Like every piece of machinery, a 3D printer also requires regular maintenance and care for it to be able to function flawlessly. There are several maintenance tasks that you should perform every now and then, in order to keep your 3D printing machine in the best condition possible.

Similarly, the plastic filament material which you use as the raw material is the bloodline of your printer. Without this filament, you cannot create anything. Also, if the quality of the filament begins to deteriorate, the quality of your final products could be greatly compromised.

This chapter will reveal some of the maintenance practices required to keep a 3D printer in its best condition, and will also talk about techniques and methods of storing the printer filament correctly.

Maintenance Guidelines

A 3D printer that is well-cared for will give you years of flawless service while functioning optimally and delivering better quality prints. The following guidelines will help you keep your precious printer in the best condition possible.

Oil the Rods

The X, Y and Z axes provide movement paths for the extruder head. It is essential that the movement is smooth and unrestricted for the finished product to be created as accurately as possible. This is why you should periodically oil your X, Y and Z rods after cleaning up any residue that you may find on them. In most cases, once a month would suffice.

Tighten the Nuts and Bolts

The mechanism of a 3D printer is designed to move, and this movement can cause the nuts and bolts to become loose overtime. If they get too loose, your printer will start to shake when being used and this will reduce the accuracy considerably. Again, tighten all the nuts and bolts on a monthly basis. Just remember not to over tighten them!

Test and Adjust Belt Tension

There's no harm in testing the belt tension to ensure it is correct. Any deviation from the correct tension will lead to a decrease in print quality. Adjust the tension as required. You can refer to your printer's manual for detailed guidance on tightening belt tension.

Floss the Extruder Gear

With time, some small pieces of plastic may accumulate in the extruder gear and prevent smooth rotation of the gear. Take a pointy object (such as a toothpick) to remove such bits and bobs from the gear's teeth.

Update Your Firmware

Maintenance isn't just limited to the hardware portion of your printer, it also involves the firmware. Keep checking for any available updates for your extruder. Firmware of 3D printers has improved drastically over the past few years, and it will continue to do so.

Keep Your Software Updated

The software that you use to control the printer must also be updated whenever one is available. A lot of bugs and errors may have been removed in the newer versions.

Replace Build Surfaces If Necessary

In order to create perfect, flat builds, you need to make sure that you replace your build surfaces if they become warped.

Those were just a few of the major points you should be especially cautious about. For details on the maintenance schedule of your particular 3D printer model, always refer to the manufacturer's manual.

If all that doesn't work, perhaps you can just "hope for the best" and try to manifest a miracle with your 3D printing!

Things You Must Never Do With Your 3D Printer

Don't Rush

You will definitely be really excited when you have your 3D printer delivered. DON'T RUSH to start using it as quickly as possible. You may mess up something while doing so. The best way is to start off slowly, read the enclosed documentation and proceed one step at a time.

Don't Forget The Hot Nozzle

The nozzle of the extruder has to be hot in order to melt the plastic filament. The temperatures can exceed 150 degrees Celsius. If during printing, you have to re-adjust the bed height, don't forget that the nozzle would be hot – you don't want a small indentation in the printer bed!

Don't Presume That It's Calibrated Correctly

While it is true that printers now come pre-calibrated, things can shift during transportation. Make sure you check the following to ensure everything is as it should be:

- Clearance of Nozzle from Print Bed
- Printer Correctly Configured in Software
- Print Bed Dimensions Properly Loaded in the Software

Remember: measure twice, cut once.

How To Store Printer Filament Correctly

Whether it is wood, ceramic or any other material, most of them will absorb water content to some extent. By definition, absorption is a condition in which something takes in another substance.

When it comes to the most popular plastic filaments used in 3D printing, both ABS and PLA have water-absorbent properties. If allowed to absorb moisture, their quality is drastically reduced.

Small water bubbles will be created within the filaments as a result of the absorption of moisture, and this makes proper storage absolutely necessary. As soon as the filament is heated during the printing process, the bubbles will cause the material to be spewed out rather than being laid down precisely.

PLA cartridges and spools are also known to get brittle if they absorb a lot of water content. A number of people have experienced this after their filament simply snapped while being processed by the extruder.

The only thing you can do to prevent the moisture from being absorbed by the plastic filament is to store them in airtight plastic bags and containers.

You could always opt for custom cases that are especially designed for storing ABS and PLS filament reels and spools. However, there's a cheaper method to keep your feedstock free from moisture:

Get a large airtight plastic bin and place the plastic filament reels in it. Place a bucket of uncooked rice as a desiccant and you will have perfectly dry plastic filaments at your disposal!

A dryer can be used to remove the moisture from ABS; however, you cannot dry out PLA and this is why it should never be allowed to absorb moisture in the first place. Almost all renowned companies ship the plastic filaments in vacuum-sealed packs along with desiccants. Desiccants work best when they are in a closed-system. You should only open the pack when you actually need to use it. After using it, wrap it up in a plastic bag and drop in a few desiccants to absorb any moisture.

Conclusion

Thanks so much for taking the time to read our beginner's guide to 3D printing. You should now have a better idea how 3D printing works, and how to get started buying a printer and you should now know better how to 3D print.

If you enjoyed this blog post then we would love if you could let others know about it. Whether you do so by sharing on Facebook, Twitter or Google Plus (using the links below) or by linking to this page from your own blog or website is up to you.

Remember that the friendly team at 3D Insider are always willing to help you. If you get stuck and want advice on any of the following:

- Printer selection
- Filament choice
- Basic troubleshooting
- Software solutions

Finally, we appreciate any feedback you have about this guide; whether positive or constructive criticism. Just send us an email – 3dprinterplans @ gmail.com (remove the spaces) – and we will get back in touch with you. This guide was written by Joseph Flynt. Please link to the guide so more people can read it.

Remember we will be updating this guide on a regular basis, so check back every so often and see what extra content we have added!

Contents [show]

12 COMMENTS

Mala Guinness



2 years ago

Many thanks for your comprehensive Beginner's Guide to 3D Printing. I do have a better idea now on how 3D printing works.



Brendan

1 year ago

As above thank you for the guide. Do you have a list on any specific printer/s that will be suitable for chocolate printing?



Jonathan Sandoval

1 year ago

This a really great starting point in 3D Printing. I appreciate all the insight. You have done a truly great job. Thank you very much.



Mr.coolnesses

12 months ago

Can you print food? 🍌



Joseph Flynt

 AUTHOR

12 months ago

Yes, but you need a special printer. People are printing chocolate:

<https://3dinsider.com/3d-printing-chocolate/>



Joe Delgadillo

10 months ago

Great introduction. Thanks for putting this together! I want to make a short plastic knife for a food packaging solution. Is there any available free software I can use to accomplish this? Any guidance you can give me to follow up would be greatly appreciated.

Joe



Hekmat
3 months ago

thank you,
that was great. i got a complete idea of 3d printing. it was helpful...



Jasmine hhfbcnrc
2 months ago

I need to know like how that I know that the printer is on and that how to turn it on if anyone knows please tell me thank you so much!



Dr Gavisiddappa R Angadi
1 month ago

Thank you so much ... we would like to use it for educational purpose, kindly permit



Joseph Flynt AUTHOR
1 month ago

As long as you don't publish it online or sell it.



Echo
3 weeks ago

Thank you. This was very helpful!

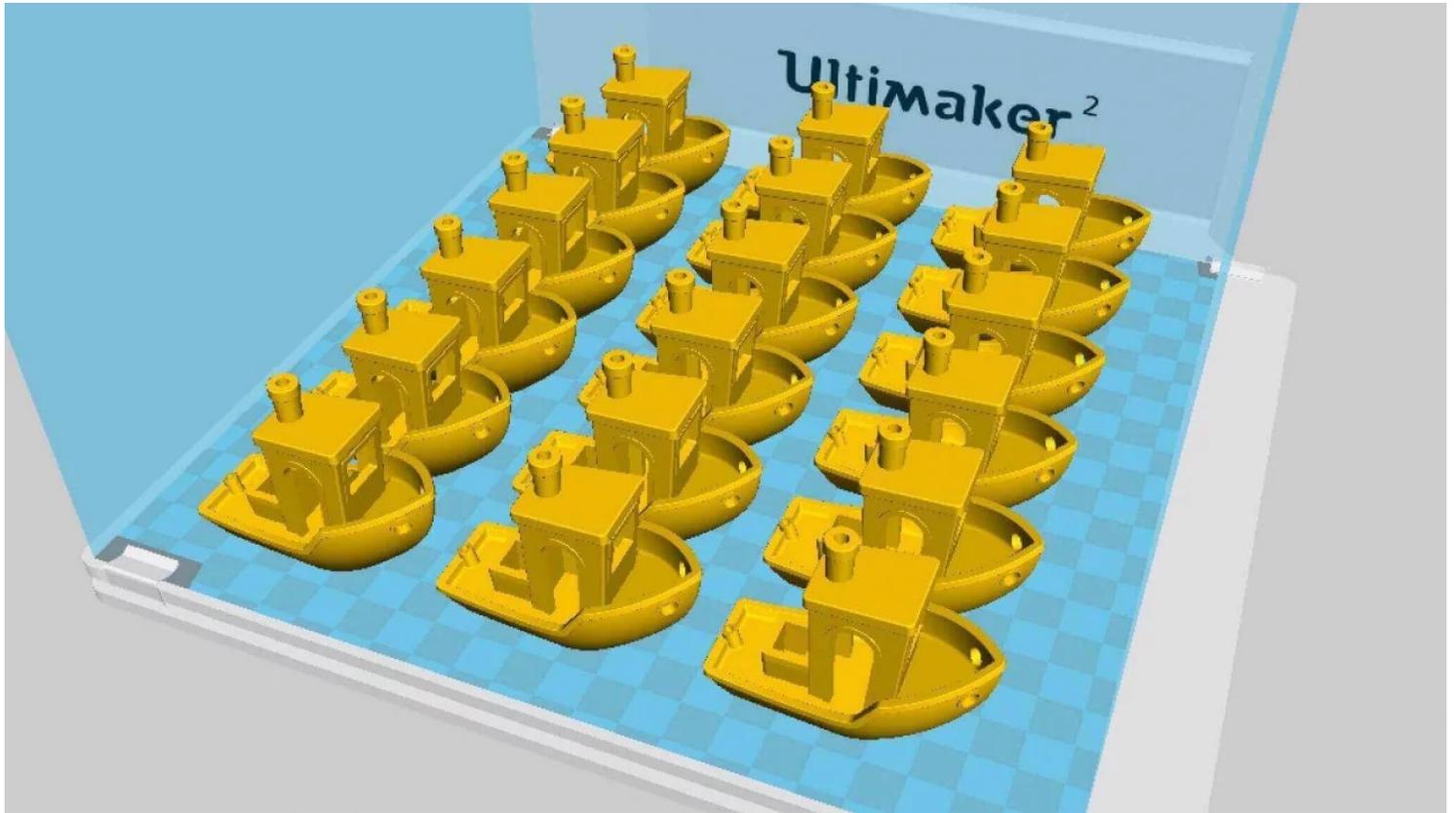


Marcel Geleijnse
2 weeks ago

Wow. That is the most elaborate article on 3D printing i have come across by a large margin. Very well written as well. Very inspiring. Many thanks.

EXHIBIT

35



Tips and Tricks

3D Slicer Settings for Beginners – 8 Things You Need to Know



by All3DP

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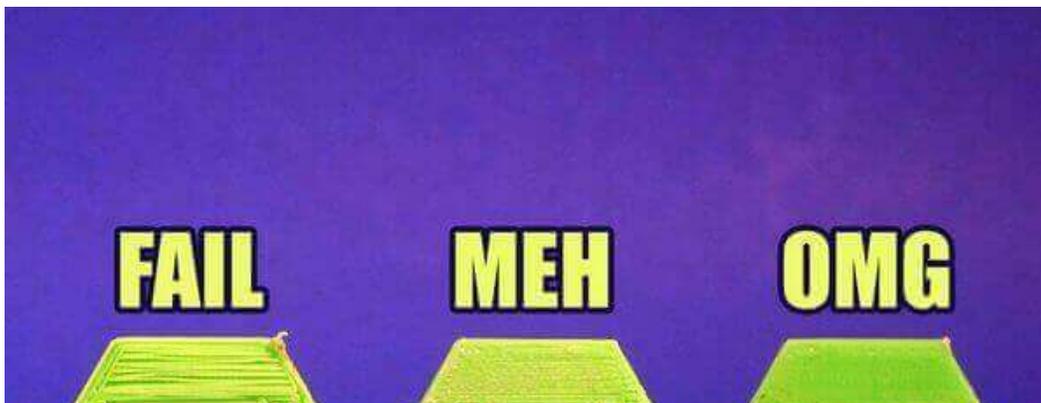
BACK TO TOP ^

Learn about best practices for 3D slicer settings in this guest post from 3D printing community Pinshape. Slice like a champ and get better prints!

Guest Post: This article originally appeared on the [Pinshape Blog](#). Text and images reproduced with kind permission of the team at [Pinshape](#).

Proper 3D slicer settings can mean the difference between a successful print, and a failed print. That's why it's so important to know how slicers work and how each different setting will affect your results.

We understand that the many settings on slicing software can be intimidating, especially for beginner makers. Sometimes even advanced makers make mistakes and end up with failed prints. Just ask Pinshaper & experienced 3D printer, [Zheng3!](#) His picture below illustrates a simple but effective example of the difference that 3D slicer settings can have on a print.



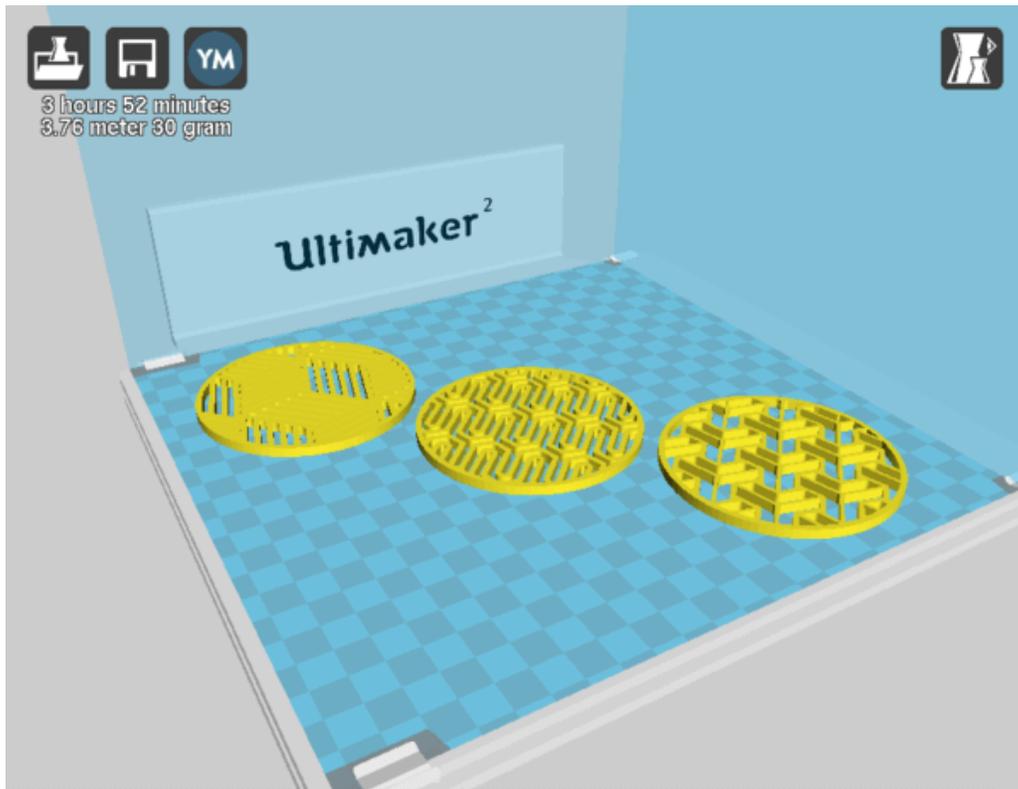
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Part of the problem is that the optimal slicer settings depend on what design you're printing and what material you're using, so there is no "one setting fits all" perfect setting. The big question, then, is: **how do you know what slicer settings to use on which designs & material?**

To break it down, let's go through some of the basic features of a slicer, and talk about how each setting will affect your print. This is more of an introduction to the topic than an in-depth guide.



What Is a 3D Slicer & What Does It Do?

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code file which is sent to your printer. Slicer settings do impact the quality of your print so it's important to have the right software and settings to get you the best quality print possible.

For the examples, we will use Cura (version 15.04.3), a free slicer with similar features to most other slicers.

The basic settings menu in an older version of Cura looks like this:

8 Slicer Settings You Need to Know & How They Work!

1 Layer Height

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that make up your object.

If you're printing something without detail, a thicker layer will get you a faster print but it will be a rougher surface and the individual layers will be more visible. Low resolution printing is good for things like prototyping where details may not be necessary.

If you want to print something with intricate details, you will get the best print with a thinner layer height. Cura recommends settings of .06mm for a high resolution print like this [Tudor Rose Box by Louise Driggers](#)

EDIT: After consulting with a few of our community makers, we found that a layer height of .06mm is not a realistic setting for most FDM printers. Here is what one of our pro makers [Dan Steele](#) recommends for detailed settings:

.4mm nozzle fine = .1mm average=.2mm rough=.34mm

.35mm nozzle fine= ,1mm avg = .2mm rough = .3mm

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or determine this [Spiral Chess Set by DigDaDison](#). This is the layer height we use as our go to in the Pinshape office on our Ultimaker 2.

Larger layers work best for prints that don't have a lot of detail. Cura recommends .2mm for a "low resolution" print with little detail like this [Elephant by le FabShop](#).

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PRO TIP: 3D printing veteran [Chris Halliday](#) recommends changing one setting at a time, keeping track of how each incremental change affects your print!

2. Shell Thickness

Shells refers to the number of times the outer walls of the design are traced by the 3D printer before starting the hollow inner sections of your design. This defines the thickness of the side walls and is one of the biggest factors in the strength of your print. Increasing this number will create thicker walls and improve the strength of the print. It is automatically set to .8 so there shouldn't be any reason to change this for decorative prints. If you print something that will need more durability, or if you're creating a water-tight print like a vase, you may want to increase shell thickness.

3. Retraction

This feature tells the printer to pull the filament back from the nozzle and stop extruding filament when there are discontinuous surfaces in your print, like this one:

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Retraction is usually always enabled, unless your print doesn't have any discontinuous surfaces in it. This setting can sometimes cause filament to get clogged in your nozzle during a print in which case you probably want to disable it. If you find there is too much filament oozing out of the nozzle, leaving your print with a bunch of strings or clumps on the outer edges, then be sure to turn on retraction.

4. Fill Density

Infill refers to the density of the space inside the outer shell of an object. You'll notice this is measured in % instead of mm like the layer height. If an object is printed with 100% infill, it will be completely solid on the inside. The higher the percentage of infill, the stronger and heavier the object will be, and the more time and filament it will take to print. This can get expensive and time consuming if you're printing with 100% infill every time – so keep in mind what you'll be using your print for.

If you're creating an item for display, 10-20% infill is recommended. If you need something that is going to be more functional and sturdy, 75-100% infill is more appropriate. Cura infill creates a grid like pattern inside your object which gives the top layers of your model more support.

One of our community members, [Dan Steele](#) is a fan of more infill than less:

“For infill I have rarely found myself regretting adding to much, and have often been disappointed by adding to little. For something with a large surface area on top I would generally use a minimum of 18% infill. For something I wanted to be mechanically strong I would throw an extra shell in and go up to 40% infill.”

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5. Print Speed

Print speed refers to the speed at which the extruder travels while it lays down filament. Optimal settings depend on what design you're printing, the filament you're using, the printer, and your layer height. Of course, everyone wants to print their object as quickly as possible, but fast print speeds can cause complications and messy looking prints.

For complicated prints, a slower speed will give you a higher quality print. A good starting point that Cura recommends is 50mm/s. You can also play around with speed and see what works best for your printer.

6. Supports

Supports are structures that help hold up 3D objects that don't have enough base material to build off of as they are being printed. Since objects are printed in layers, parts of an object that extend past a 45 degree angle will have nothing for the first layer of filament to build on.

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1. Anything in a "T" shape is safe to print without support because it's a gradual slope which still has enough material beneath it to keep it from drooping. This is another way to think of the **45 Degree Rule**, which states that in general, overhangs with a slope greater than 45 degrees will require supports.
2. Designs that take the form of an "H", where the middle overhang connects to either side is called bridging. Any type of bridge should have supports to prevent drooping or a messy print.
3. Anything with a "T" shaped overhang will need support to avoid drooping.

SUPPORT TYPE

In the drop down menu, there are two types of support you can choose from:

- [Touching Build Plate](#) – this is for designs where the section of the design that needs the support can attach to the build plate like this:

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go in between parts of the design and touch the top of the model.

7. Platform Adhesion Type

These settings will affect how your model sticks to the print bed. Warping at the bottom of a design can be a main culprit for prints not sticking to a print bed, but there are two main settings you can adjust to help with platform adhesion:

- **Raft:** A horizontal grid that goes under the object that acts as a platform to stick to the bed and build from. They can also be useful when printing models with small parts at the bottom of your print, like animal feet. If you do choose to use a raft, it will leave rough edges on the bottom of your print when you remove it.

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- **Brim:** Like a brim of a hat, brims are lines around the bottom of the object which keep the corners of your model down without leaving marks on the bottom of the object. This is a better option if your main objective is to get your model to stick to the print bed. Brims can also be used to stabilize delicate parts of an object that are isolated from the rest of the model like the legs of a table.

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8. Initial layer thickness

This is located in advanced settings in Cura and refers to the thickness of your very first layer on the print bed. If you want a more sturdy base for your print, you can make the initial layer thicker. The default on Cura is .3mm which gives a thick bottom layer that's easy to build on and sticks to the platform well.

What's the difference between initial layer thickness and bottom/top thickness in the basic settings? While the initial layer thickness is the very first layer that goes down, the bottom and top thickness refers to how many mm of solid material will be set down before your infill is created.

These are the basic settings for a slicer program – if you want to get into more advanced territory, there are more settings but these are the main ones a beginner needs to be aware of.

PRO TIP: When venturing into more complicated prints, 3D printing pro [Zheng3](#) has a few steps to add on to Chris Halliday's advice on changing one setting at a time:

1. **Write down all your settings.** Label these settings as a group with a capital letter. e.g. rex_A, rex_B, rex_C. Screenshots of print settings will be handy here.

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4 Different 3D Slicer Programs

If you haven't figured out which slicer program works best with your printer, here's some options on the market to get you started:

Cura (Free)

Cura is made by Ultimaker and is extremely user friendly & fast so it's great for beginners. It is not a proprietary software so it works for multiple different printers. The tradeoff of the ease of use is that you have less control over some of the more detailed settings. There are, however lots of plugin options for you to add if you need any of those extra features. [Download Cura](#)

Slic3r (Free)

This is an open source slicing project started by the [RepRap](#) Community & works on multiple printers. Their focus and design goal is ease of use and maintaining the original design. One unique feature is that it allows you to vary the infill pattern across layers which can increase the strength of your print. The user interface has improved dramatically since they just started and it has positive reviews from most of the community. [Download Slic3r](#)

Simplify3D (\$149 USD)

This is one of the paid slicers on the market — so why should you choose to pay when you have so many other options for free? The main point we've heard from the community is

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GOT IT.

Although there is no free trial version of this software, they do let you return the software within two weeks if you don't like it. If you are a more advanced maker and care about control and speed, the investment might be worth it! [Buy Simplify3D](#)

Makerbot Desktop (Free)

Formerly known as Makerware, the Makerbot slicer software has been rebranded as Makerbot Desktop. The settings are similar to Cura and are very basic and easy to navigate. You can also create custom profiles in this software but there is no user interface for this function so you must use a text editor. Feedback from the community is that it can be very slow compared to alternatives. [You can download this software from the Makerbot website.](#)

PRO TIP: Still need some advice on how to figure out slicers? Here's a great overall tip from a 3D printing expert Richard Horne, compliments of [3D printing for beginners](#):

"Print out lots of 20mm cubes. It's quite a boring object, but it can help ensure you have a well setup and calibrated machine."

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Slic3r is extremely slow compared to cure.

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A comprehensive guide describing the range of post-processing options for FDM printed parts



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Introduction

[FDM 3D printing](#) is best suited for cost effective prototypes produced with short lead time. Layer lines are generally present on FDM prints making post processing an important step if a smooth surface is required. Some post processing methods can also add strength to prints helping to mitigate the anisotropic behavior of FDM parts.

This article will discuss the most common FDM post processing methods.





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Post processed FDM prints (from left to right): Cold welding, gap filling, unprocessed, sanded, polished, painted and epoxy coated.

Curious about the cost and the available material options of FDM?

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Support Removal

Support removal is typically the first stage of post-processing for any 3D printing technologies that require support to accurately produce parts. Support can generally be separated into 2 categories; standard and dissolvable. Unlike the other post-processing methods discussed in this article support removal is a mandatory requirement and does not produce an improved surface finish.

Standard support removal





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Original print with support attached, poor support removal and good support removal (left to right)

Tool kit

- Needle-nose pliers
- Dental pick set

Process: Support material can generally be removed from the print with little effort, and cleaning of support material in hard to reach places (like holes or hollows) can be achieved with dental picks and needle-nose pliers. Well placed support structures, and proper print orientation, can greatly reduce aesthetic impact of support material on the final print.

Pros

- + Does not alter overall geometry of part.
- + Very quick.

Cons

- Does not remove any layer lines, striations, or blemishes on the print surface.
- If support structures leave behind excess material or marks, the accuracy and appearance of the print is diminished.



Tolerances

★★☆☆☆

Speed

★★★★☆

Suitable for

All FDM thermoplastics

Dissolvable support removal

Tool kit

- Solvent-safe container
- Solvent
- Ultrasonic Cleaner (optional)

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Process: Standard dissolvable support materials are removed from a print by placing the print in a bath of the appropriate solvent until the support material dissolves. The support is typically printed in:

93

- HIPS (usually associated with ABS)
- PVA (usually associated with PLA)
- HydroFill

Glass storage containers, like a mason jar, make excellent vessels for dissolving with Limonene. For dissolving in water, any non-porous container will work. For HIPS/ABS prints, a bath in a 1:1 ratio of (R)-(+)-limonene and isopropyl alcohol works very well for rapid support removal. Many other support materials, such as PVA (used with PLA) and HydroFill (PLA and ABS), simply dissolve in plain water.

Pro-tip: Speed up the dissolving time of soluble support material by using an ultrasonic cleaner, and changing the solvent solution once it becomes saturated with dissolved support material. Using a warm (not hot) solvent will also speed up dissolving time if an ultrasonic cleaner is not available.

Pros

- + Allows for complex geometries where standard support removal would be impossible.
- + Results in a smooth surface where support structure is in contact the part.

Cons



- Does not remove any layer lines, striations, or blemishes on the print surface.
- Can result in small divots or holes in the final print if soluble material has leaked onto the object during printing.

Finish	★★★★☆
Tolerances	★★☆☆☆
Speed	★★★★☆
Suitable for	All FDM thermoplastics

186
Shares

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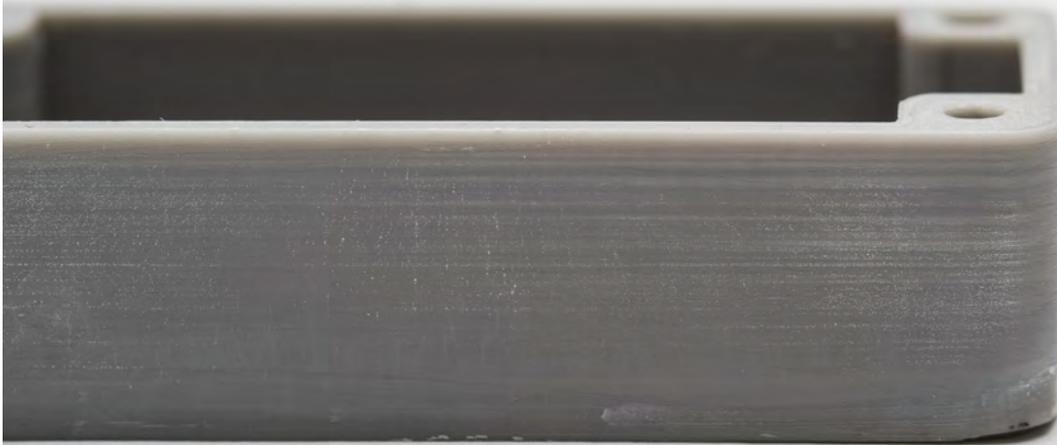


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A sanded grey ABS print

Tool kit

- 150, 220, 400, 600, 1000, and 2000 grit sandpaper
- Tack cloth
- Toothbrush
- Soap
- Face mask

Process: After supports are removed or dissolved, sanding can be done to smooth the part and remove any obvious blemishes, such as blobs or support marks. The starting grit of sandpaper depends on the layer height and print quality; for layer heights of 200 microns and lower, or prints without blemishes, sanding can be started with 150 grit. If obvious blemishes are present, or the object was printed at a layer height of 300 microns or higher, start sanding with 100 grit.

Sanding should proceed up to 2000 grit, following common sanding graduations (one approach is to go from 220 grit to 400 grit, to 600 grit, to 1000 grit and finally 2000 grit). It is recommended to wet sand the print from start to finish, to prevent friction and heat build-up from damaging the part and keep the sandpaper clean. The print should be cleaned with a toothbrush and soapy



Pro-tip: Always sand in small circular motions evenly across the surface of the part. It may be tempting to sand perpendicular to print layers, or even parallel to the print layers, but this can cause “trenches” to form in the part. If the part discolors, or if there are many small scratches from sanding, a heat gun can be used to gently warm the print and soften the surface enough to “relax” some of the defects.

Pros

- + Produces extremely smooth surface finish.
- + Makes additional post-processing (such as painting, polishing, smoothing, and epoxy coating) very simple.

Cons

- Not recommended for prints with 2 or less perimeter shells, as the sanding process can damage the print.
- Difficult for intricate surfaces, and prints with small details.
- Can impact overall accuracy of the the print if sanding is done too aggressively and too much material is removed.

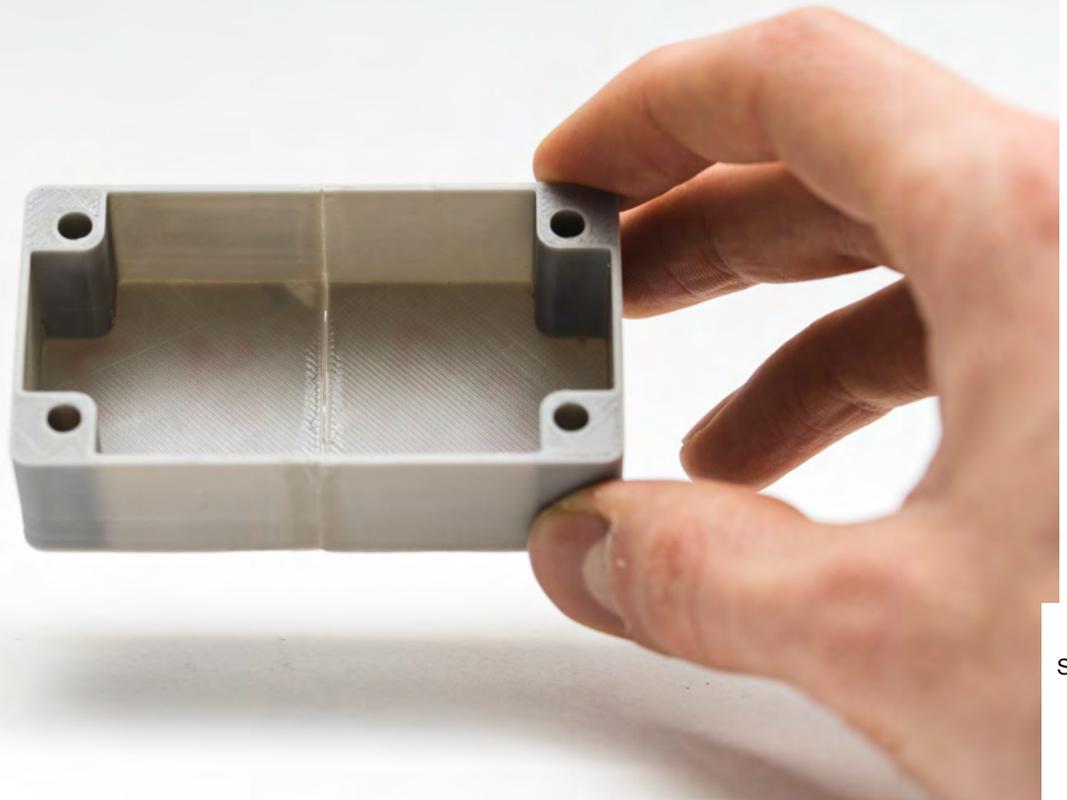
186
Shares

93

Finish	★★★★☆
Tolerances	★★★☆☆
Speed	★★☆☆☆
Suitable for	All FDM thermoplastics

Cold welding





186
Shares

93

Two grey ABS print halves attached together by cold welding

Tool kit

- Acetone
- Foam applicator

Process: When the size of a print exceeds the maximum volume of the printer, the design is often broken down into smaller sections and assembled together after printing. For PLA and other materials, assembly can be done using Bond-O or an appropriate glue (glue selection will depend upon plastic). For ABS, multi-part assemblies can be “welded” together using acetone. The mating surfaces need to be brushed lightly with acetone, and firmly held together, or clamped if possible, until the majority of the acetone evaporates. At this point, the two parts are chemically bonded to one another.





186
Shares

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Pro-tip: Increasing the surface area the acetone contacts will increase the strength of the joint. This can be done by incorporating [interlocking joints](#) into the design.

Pros

- + Acetone will not alter the surface color of the print as much as other glues
- + Once dried, the joint will exhibit the properties of ABS, making further finishing simpler and uniform.

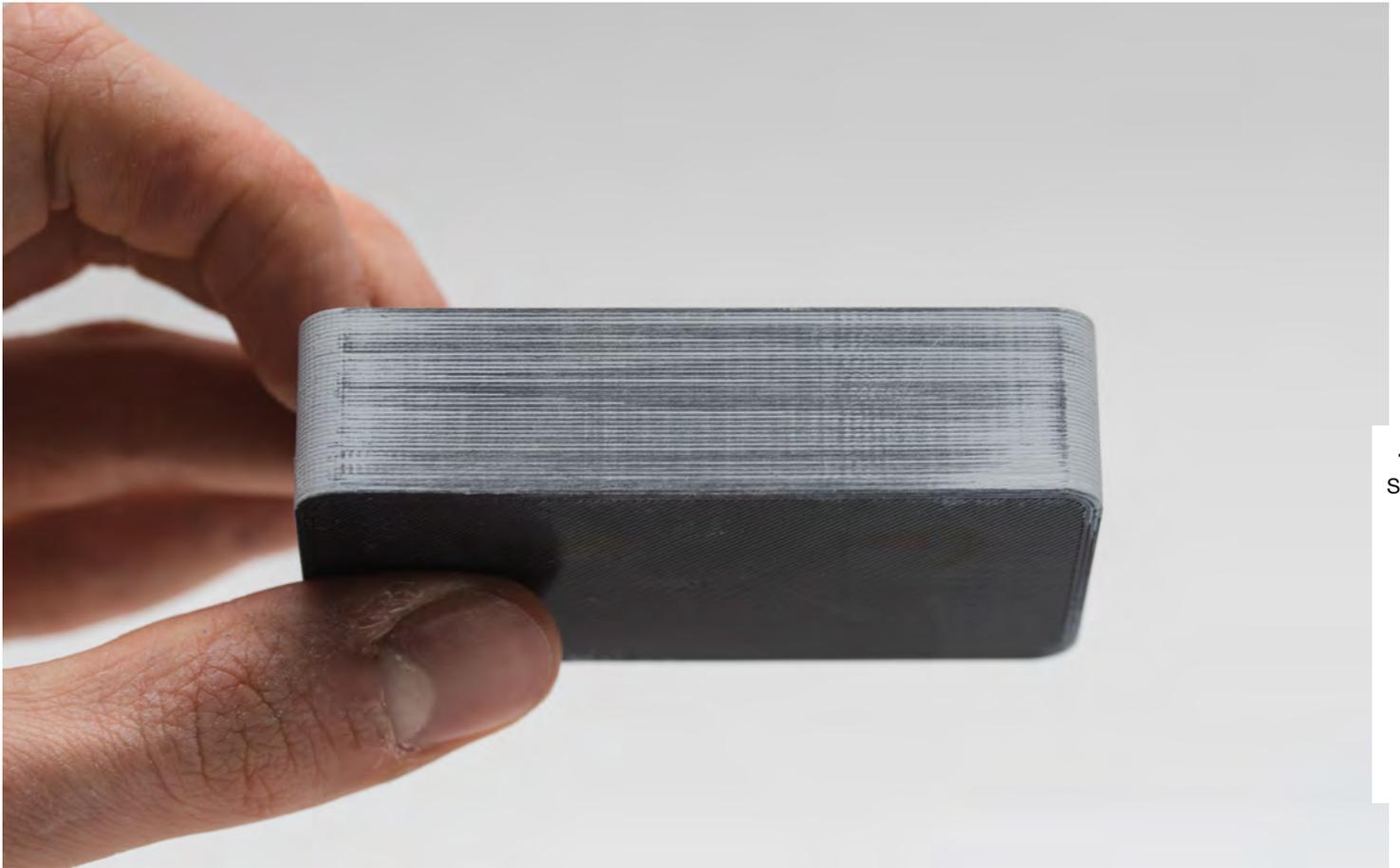
Cons

- The joint formed by “welding” ABS pieces together with acetone is not as strong as a single piece print.
- Excess use of acetone can aggressively dissolve the part, and negatively impact the resulting finish and tolerances.

Finish	★ ★ ☆ ☆ ☆
Tolerances	★ ★ ☆ ☆ ☆
Speed	★ ★ ★ ★ ★



Gap filling



186
Shares

93

A black ABS print coated with gap filler then sanded

Tool kit

- Epoxy resin (only for small voids)
- Autobody filler (for large voids and joining)
- ABS filament & acetone (only for small voids and ABS prints)

Process: After sanding a print, or dissolving soluble supports, it is not uncommon for gaps to emerge on the print. During printing, gaps are formed when layers are incomplete due to toolpath constraints and are often inevitable. Small gaps and voids can easily be filled with epoxy (like XTC-3D), and may not require additional processing. Large gaps, or hollows left from joining a multi-print assembly, can be successfully filled with autobody filler which will require additional sanding once dry. Autobody filler makes an excellent filler, and can easily be sanded and painted once fully cured. It is also very strong, and will not weaken the plastic in the surrounding area; conversely, pieces joined with auto body filler or filled voids tend to be stronger than the native plastic.



Gaps in an ABS print can also be filled by creating a slurry of ABS filament and acetone, which chemically reacts with the ABS print and seeps into any voids in the surface. A ratio of 1 part ABS to 2 parts acetone is recommended, and will not significantly impact the surface finish around the gap if applied properly.

Pro-tip: If gaps are apparent in the print before sanding, fill the spaces with Bond-O or epoxy then sand once dry. This will greatly reduce the total amount of time required to achieve a smooth surface.

Pros

- + Epoxies are easily sanded and primed, making an excellent painting surface.
- + An ABS slurry will be the same color as the print as long as the same filament is used, so there will be no surface discolorations.

Cons

- Autobody filler, or other polyester epoxy, will dry opaquely, resulting in discolored patches on the print.
- Requires additional sanding to achieve a uniform finish.
- Can impact overall accuracy of the the print if sanding is done too aggressively and too much material is removed.

186
Shares

93

Finish	★ ★ ☆ ☆ ☆
Tolerances	★ ★ ★ ☆ ☆
Speed	★ ★ ★ ☆ ☆
Suitable for	All FDM thermoplastics

Polishing

Tool kit

- Plastic polishing compound
- 2000 grit sandpaper
- Tack cloth



- Toothbrush
- Case 3:19-cv-04753-AET-TJB Document 18-41 Filed 02/20/19 Page 14 of 26 PageID: 1725
- Buffing wheel or microfiber cloth

Process: After sanding a print, a plastic polish can be applied to give standard thermoplastics, like ABS and PLA, a mirror-like surface finish. Once the print is sanded up to 2000-grit, wipe excess dust off the print with a tack cloth then clean the print in warm water bath with a toothbrush. Allow the print to dry fully, and buff using a buffing wheel or by hand with a microfibre cloth and plastic polishing compound, such as Blue Rouge. Blue Rogue is a type of jeweller’s polish, designed specifically for plastic and synthetics and produces a long-lasting surface shine. Other plastic polishes, such as those for vehicle headlights, work as well but some may include chemicals that can damage the print material.

Pro-tip: Attach a buffing wheel to a variable speed Dremel (or another rotary tool, like a power drill) for polishing small prints. A bench grinder fitted with a buffing wheel can be used for larger more robust prints, but ensure the print does not stay in one place for too long. This can cause the plastic to melt, due to friction.

186
Shares

Pros

93

- + Polishes the print without the use of any solvents that can warp the print and alter tolerances.
- + Produces a mirror-like finish if properly sanded and polished, which mimics injection molded plastics.
- + Plastic polish and cleaner is highly economical making this method very cost effective for the quality of the finish.

Cons

- Print must be sanded thoroughly before polishing if a mirror-like finish is desired, which can impact tolerances.
- Primer/paint may not adhere to the surface after polishing.

Finish	★★★★★
Tolerances	★★★☆☆
Speed	★★☆☆☆
Suitable for	All FDM thermoplastics



Priming & painting



186
Shares

93

A grey PLA FDM print spray painted black

Tool kit

- Tack cloth
- Toothbrush
- 150, 220, 400 and 600 grit sandpaper
- Aerosol plastic primer
- Topcoat paint
- Buffing sticks
- Polishing paper
- Masking tape (only if multiple colors are to be used)
- Nitrile gloves & appropriate mask

Process: Once the print is properly sanded (only need to go up to 600 grit for painting), the print can be primed. Priming should be done in two coats, using an aerosol primer. An aerosol primer designed for model painting will provide even coverage, and be thin enough to ensure details of the print are not obscured before painting begins. Thick primer, such as what can be purchased at a hardware store, may clump and require significant sanding. Spray the first coat in short quick strokes, approximately 15 - 20 cm away from the part, to avoid pooling of the primer. Allow the



Once priming is complete, painting can begin. Painting can be done with artist acrylic paints and brushes, but the use of an airbrush or aerosol can will provide a smoother surface finish. Spray paint from a hardware store is thicker in viscosity, and more difficult to control, so paints designed specifically for model painting should be used. The primed surface should be buffed and polished (buffing and polishing sticks used by nail salons can be purchased online, and work perfectly for this application) then cleaned using a tack cloth. Paint the model using very light coats; the first few layers will look translucent. Once the paint forms an opaque layer (generally after 2-4 layers), allow the model to sit for 30 minutes so the paint can set. Gently polish the paint layer with the nail sticks, and follow this process for each desired color (polishing between every layer of paint).

Sections of the model can be masked with painter’s tape to preserve the undercoat color if desired. Once all paint layers are complete, remove the masks and polish the paint using polishing paper. Polishing paper, such as 3M’s or Zona’s, can be purchased in different grits and is a relatively new product. It can be purchased as a pack from many online retailers and gives paint, as well as top-coats, a shine that can otherwise not be easily achieved. Apply 1-2 layers of a topcoat to protect the paint, and allow to dry fully. The topcoat should be chosen in accordance with the recommendations of the manufacturer of the paint used. Incompatible topcoat and paint layers can ruin the paint job, so it is very important compatibility is assured here.

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Shares

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Pro-tip: When using aerosol paint, do not shake the can! The goal is to mix the pigment or primer without shaking up the propellant, which will result in bubbles in the spray. Instead, swirl the can for 2-3 minutes; the mixing bead should roll like a marble instead of rattling.

Pros

- + Produces professional results with attention to detail and some practice.
- + Allows for complete flexibility of the visual appearance of the final product, independent of the material/color the object was originally printed in.

Cons

- Paint and primer add bulk to the model, which will alter tolerances and can cause issues if the piece is part of an assembly.
- Acquiring high quality aerosol paint or an airbrush can increase cost.

Finish	★★★★★
Tolerances	★★★☆☆
Speed	★☆☆☆☆



Vapor smoothing



186
Shares

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A smoothed black ABS hemi-sphere print

Tool kit

- Tack cloth
- Solvent-safe sealable container
- Solvent
- Paper towels
- Aluminum foil (or other solvent-proof material)
- Face mask & chemical-resistant gloves

Process: Line the chosen container with paper towels along the bottom, and up the sidewalls if possible. It is critical that the vapor will not compromise the chamber itself, and the chamber can be sealed. Glass and metal containers are recommended. Pour in enough solvent to dampen, but not soak, the paper towels; this should also help the towels adhere to the sidewalls of the container. Acetone is well-known for its abilities to smooth ABS. For PLA, smoothing is possible with different



solvents (THF or MEK work decently) but it is generally more difficult to get a smoothed surface when compared to ABS. When working with any solvent, please check the safety regulations on the chemical and always use appropriate safety precautions. A small “raft” of aluminum foil, or other solvent proof material, should be placed in the middle of the paper towel lined container. Place the print on the raft (with whatever side has been chosen as the bottom resting on the raft), and close the lid of the container. Vapor polishing will take a variable amount of time, so check the print periodically. Heat can be used to increase the speed the polishing occurs at, but care must be taken to prevent the buildup of potentially explosive vapor.

When removing the print from the chamber, try to avoid touching the print at all by leaving the print on the raft, and removing both from the container. Any points where the print has been contacted will have surface imperfections, as the outer shell will be semi-dissolved. Allow the print to fully off-gas any remaining solvent before handling.

NOTE: Many aerosolized and/or atomized solvents are flammable/explosive, and solvent vapor can be harmful to human health. Take extreme care if heating solvents, and always smooth prints/store solvent in a well-ventilated space.

186
Shares

Pros

- + Smooths many small blemishes and diminishes the layer lines present in a print without any additional work.
- + Produces a very smooth “shell” around the exterior of the print.
- + Very quick, and can be done with commonly sourced materials.

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Cons

- Will not “heal” gaps or fully mask layer height.
- Smoothing process “dissolves” the outer shell of the print and therefore this has a heavy impact on tolerances.
- Negatively impacts the strength of the print due to alterations in the properties of the print material.

Finish	★★★★☆
Tolerances	★★☆☆☆
Speed	★★★★☆☆
Suitable for	ABS (sometimes PLA)



Tool kit

- Solvent-safe container
- Solvent
- Eye hook or small screw
- Heavy gauge sculpting or landscaping wire
- Drying rod or rack
- Face mask & chemical-resistant gloves

Process: Ensure that the container to be used is wide enough and deep enough to accommodate the print and the solvent. Fill the container with an appropriate amount of solvent, being careful to minimize any splashing. As with vapor smoothing, acetone should be used for dipping ABS, and MEK or THF can be used to dip PLA. PLA is fairly resistant to solvent smoothing so it may take several attempts to achieve the desired result. Prepare the print for dipping by screwing an eye hook or small screw into an inconspicuous surface of the print. Loop the wire through the eye of the hook, or around the screw, so that the print can be lowered into the bath using the wire. If the wire is too thin of a gauge, it will not be able to counteract the buoyancy of the print and make proper dipping very difficult.

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Shares

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Once the print is prepped, quickly submerge the entire object in the solvent for no more than a few seconds using the wire. Remove the print and hook the wire over a drying rod or rack to allow the solvent to fully evaporate from the surface. The print can be gently shaken after removal to facilitate drying, and ensure no solvent pools in recesses on the surface.

Pro-tip: If once dry, the print has an opaque white-ish color, it can be suspended over the solvent bath for some time to allow the evaporating solvent vapor to slightly dissolve the surface. This will restore the print's color and ensure a shiny outer layer.

Pros

- + Smooths the print surface much quicker than vapor polishing.
- + Produces much less vapor than other methods of solvent polishing, which reduces the safety risks.

Cons

- Very aggressively smooths the surface of the print, so tolerances will not be maintained.
- Too long of a dip can result in complete deformation of the print, and significant alteration to material properties.



Finish	★★★★☆
Tolerances	★☆☆☆☆
Speed	★★★★☆
Suitable for	ABS (sometimes PLA)

Epoxy coating



186
Shares

93

A black ABS print showing half coated with epoxy and half unprocessed

Tool kit

- 2-part epoxy resin (such as XTC-3D)
- Foam brush applicator
- Mixing container
- 1000 grit or higher sandpaper



Apply the first coat of the epoxy using a foam applicator, and try to minimize pooling on any recessed surfaces or details of the print. Once the print has been sufficiently coated, allow the epoxy to fully cure as per manufacturer instructions. A first coat may be sufficient to smooth the print, but for an optimal finish, the print should be lightly sanded with fine sandpaper (1000 grit or higher) to remove any imperfections. Remove any dust with a tack cloth, and apply a second coat of epoxy, following the same procedure.

186
Shares

93

Pros

- + Very thin layer of epoxy will not impact the tolerances of the print all that greatly (unless the print is sanded first).
- + Provides an outer protective “shell” around the print.

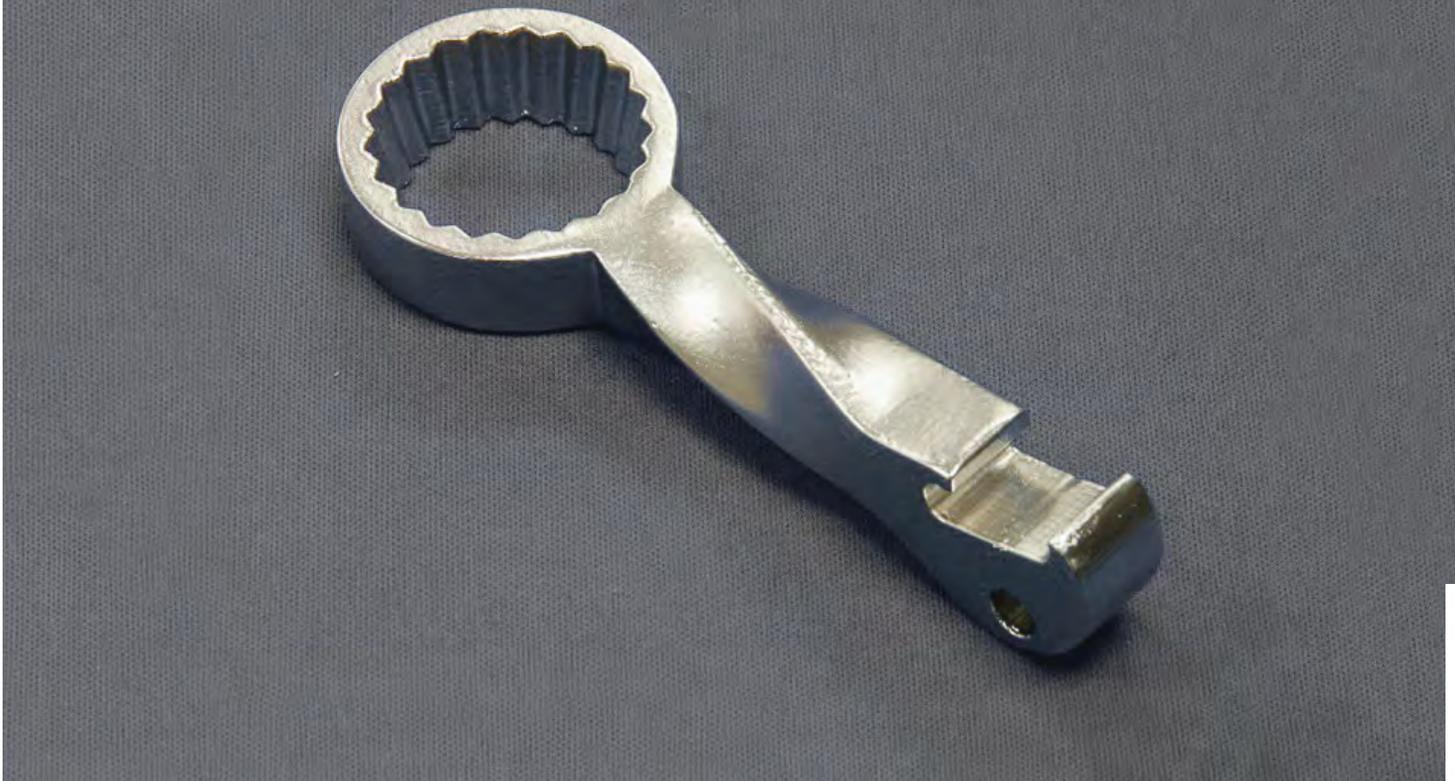
Cons

- Surface layer lines will still be visible, they are just under a “smooth” shell.
- Applying too much epoxy can result in pooling in details of the print and edges, giving the surface a “dripping” look.

Finish	★★★★☆
Tolerances	★☆☆☆☆
Speed	★★★★☆
Suitable for	All FDM thermoplastics



Metal plating



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A nickel plated, FDM printed structural member coated by Repliform using [RepliKote Technology](#).

Tool kit (for home plating)

- Electroforming solution - Electroforming solution can be made by mixing a metal salt with an acid and water, but unless the measurements are exact and the ingredient quality is very high, it is difficult to achieve professional finishes. Buying a premade solution (such as Midas' solutions) will ensure plating issues are not due to the solution.
- Sacrificial anode - The material of the anode must match the metal of the electroforming solution, so if copper sulfate is used in the solution, then a copper anode must be used. Any object made of the plating metal can be used (such as copper wire for copper plating), or a thin strip of the plating metal can be purchased, which is made specifically for electroplating.
- Conductive paint or acetone & graphite - The surface of the print must be conductive for plating to work, which can be achieved with conductive paint or a 1:1 solution of graphite and acetone. The conductive paint will work for any print material, but the acetone graphite solution will only work for ABS.
- Power rectifier - A battery can be used in place of a power rectifier, but a battery is not as efficient and will not produce results as quickly or consistently as a rectifier will. A rectifier is also a safer option, as it can simply be turned off to break the current flow during electroplating.
- Conductive screw or eye-hook
- Non-conductive vessel



- Lead set
- [Case 3:19-cv-04753-AET-TJB Document 18-41 Filed 02/20/19 Page 23 of 26 PageID: 1734](#)
- Non-conductive gloves and protective eyewear - Electroforming solutions are acidic, and can cause eye damage if splashed, so appropriate eyewear is necessary. It can also irritate skin and will conduct charge during electroplating, therefore non-conductive gloves should be used at all times.

Process: Metal-plating can be done using electroplating at home, or a professional shop. Proper metal-plating requires a strong knowledge of materials, and what can be done at home is limited in comparison to what a professional shop can achieve. For superior finishes, and a wider range of plating options including chroming, utilizing a professional shop is the best option. For clarity, the process of electroplating with copper will be described below.

Electroplating at home can be done using copper or nickel as a base plate, to which other metals can then be plated over. It is of critical importance that the print surface is as smooth as possible prior to plating; any irregularities and layer lines will be emphasized after the plating process. Prepare the cleaned and sanded print for plating by coating the plastic with a thin layer of high-quality conductive paint, or a solution of acetone and graphite if the print is ABS. Allow the conductive coating to dry fully, and sand if necessary to ensure a smooth surface. It is of utmost importance to minimize contact with the print at this point or wear gloves, as the oils from skin will affect the plating process.

Insert the screw or eyehook into an inconspicuous surface of the print, and attach to one of the rectifier leads; this will serve as the cathode and must be connected to the negative terminal of the rectifier. Attach the copper anode to the positive terminal of the rectifier using the second power lead, and fill the chosen vessel with enough copper electroforming solution to fully cover the print and copper anode. Insert the anode into the bath and turn on the power rectifier. Once the rectifier is on, insert the print into the bath, ensuring it is not contacting the anode at any point (**Be very careful at this step, as once the print is in the bath, the plating system is electrically live and any contact with the solution or anode/cathode can cause injury**). Set the power rectifier to 1-3 volts, and allow plating to occur until the print is fully coated. The voltage can be increased to increase plating time, but do not exceed 5 volts. Simply power off the rectifier and remove the print once a satisfactory coating has been deposited and dry the print using microfiber towels. Coat the print with a metal lacquer once dry to protect from corrosion.

Pros

- + A plated metal shell increases the strength of the plastic part, which greatly broadens potential applications and uses of the print.
- + The outer metal coating is very thin, so tolerances can be tightly held if the plating is done properly.
- + Produces a beautiful surface finish, which if done properly, will not look like a 3D printed object.



Cons

- Generally, very expensive to plate the prints professionally, and electro-plating at home requires a decent amount of equipment for a professional finish.
- Electroplating at home can cause electrical injury if proper safety procedures are not followed and adhered to.

Finish	★★★★☆
Tolerances	★★★★☆☆
Speed	★★★★☆
Suitable for	All FDM thermoplastics

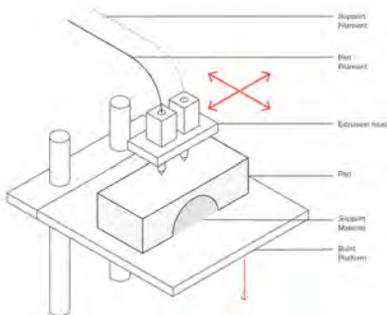
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Written by



Courtney Armstrong

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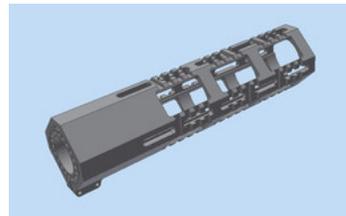


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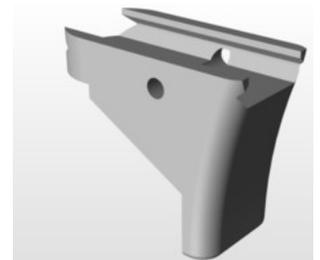


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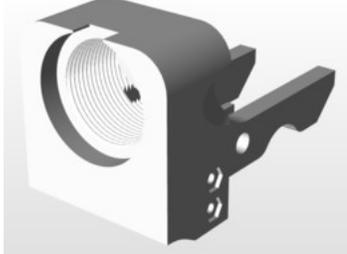
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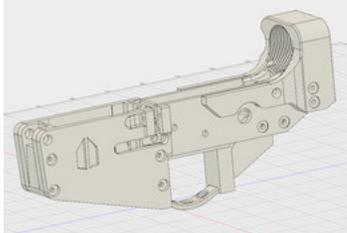


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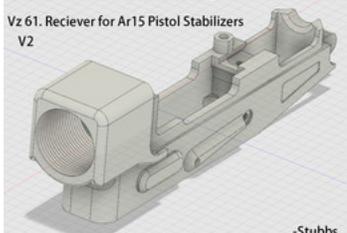


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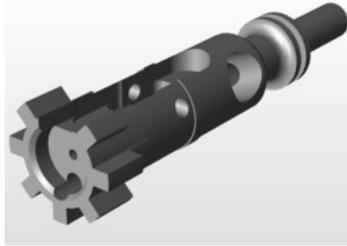
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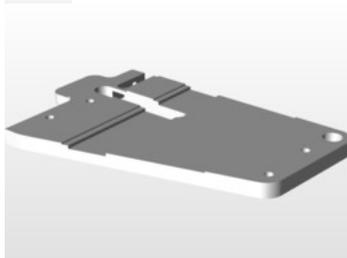


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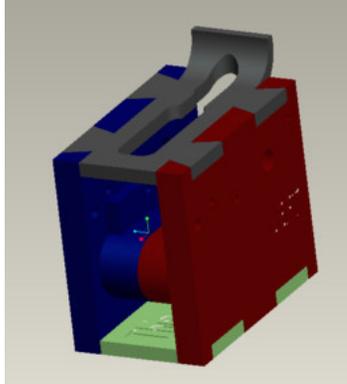


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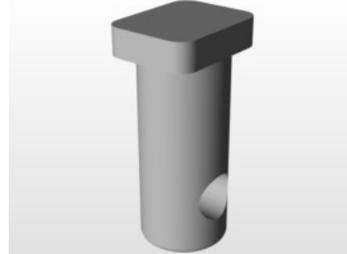


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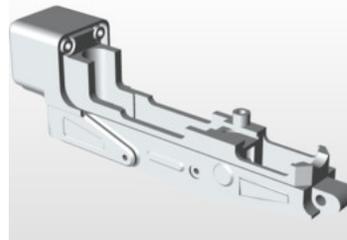


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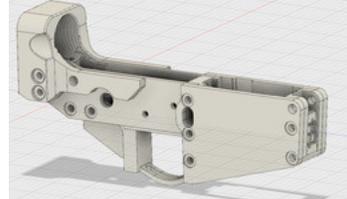


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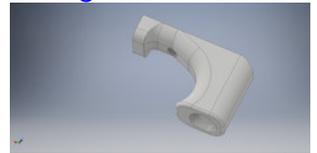


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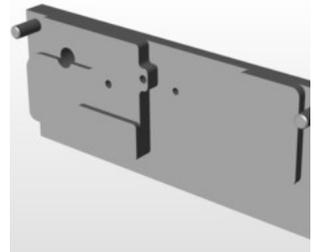


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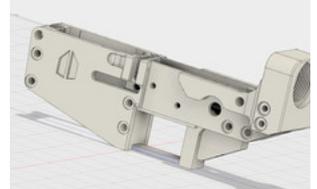


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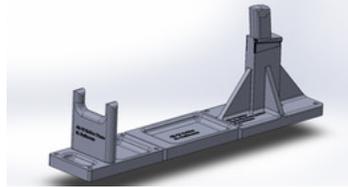


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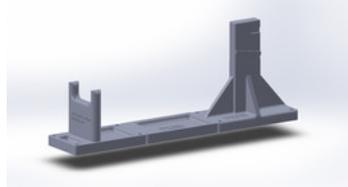
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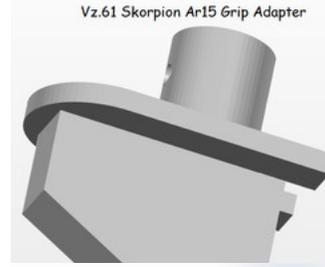
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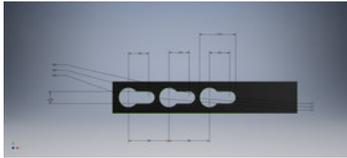
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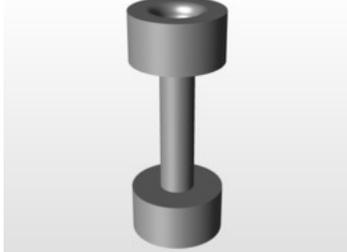
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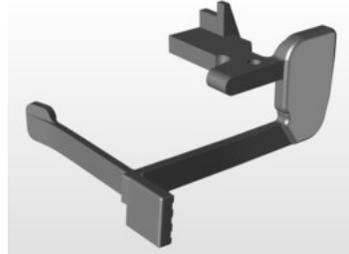


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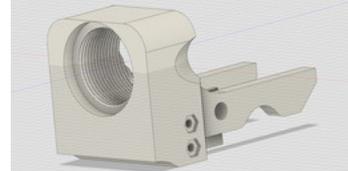


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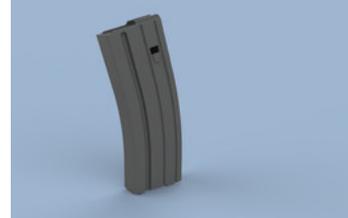


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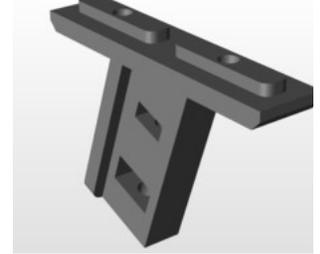
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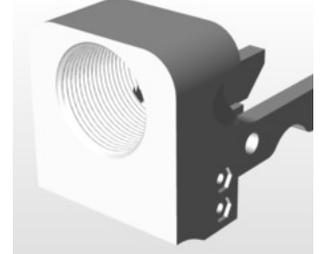


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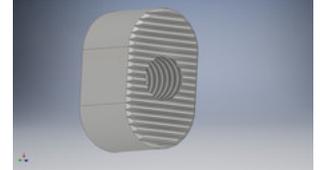


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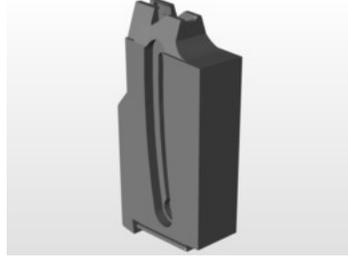


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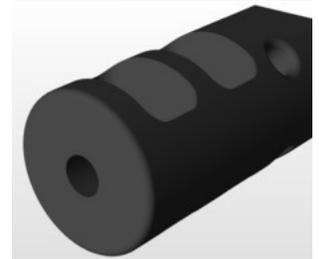
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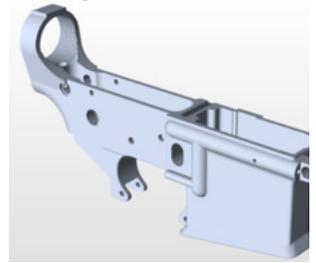


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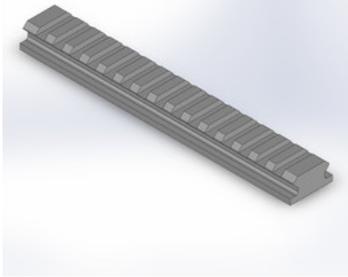


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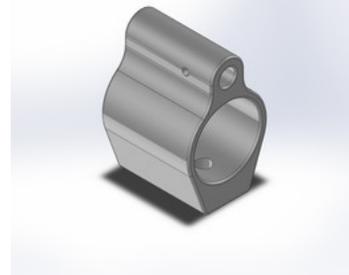


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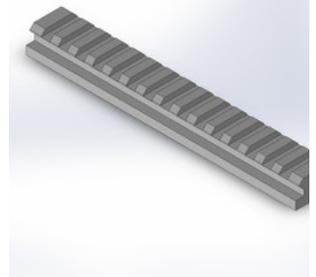


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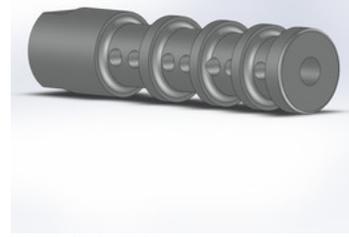


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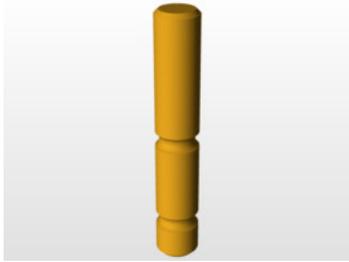
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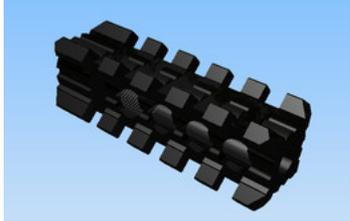


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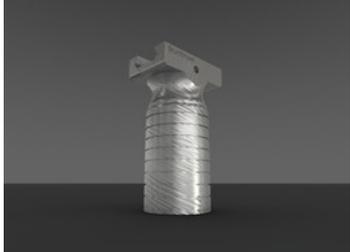


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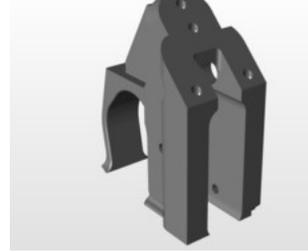


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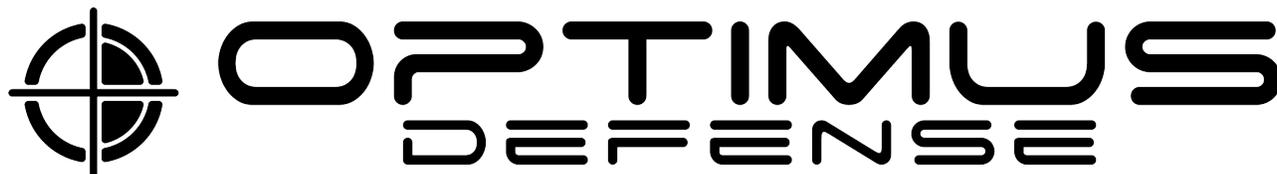
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This drawing has the dimensions for manually machining the final operations (completing and making it a firearm) of the Optimus Defense AR-15 Lower. Drawing is an 8.5x11" sheet size.

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Complete Firearm E-drawings

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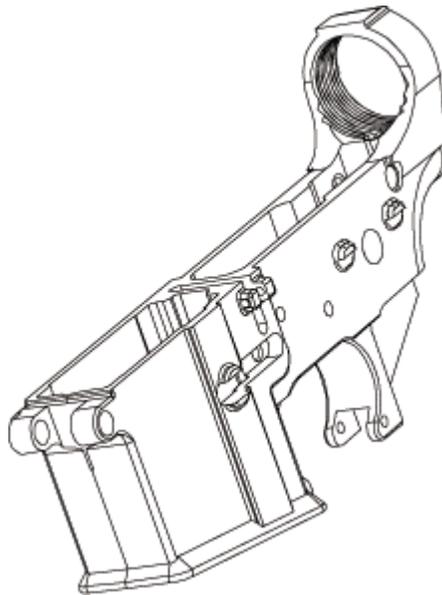
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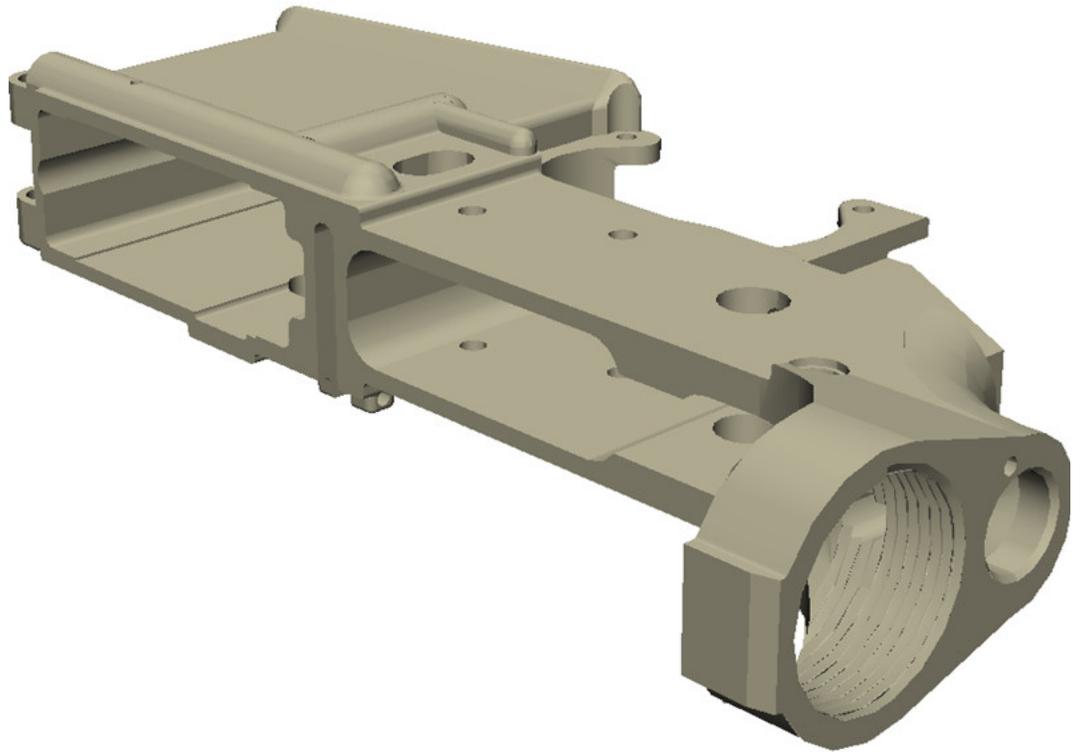
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UNITED STATES ATTORNEY GENERAL
OFFICE OF LEGAL COUNSEL

Department of Justice
Washington, D.C. 20530

MAY 78
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MEMORANDUM TO DR. FRANK PRESS
Science Advisor to the President

Re: Constitutionality Under the First Amendment
of ITAR Restrictions on Public Cryptography

The purpose of this memorandum is to discuss the constitutionality under the First Amendment of restrictions imposed by the International Traffic in Arms Regulation (ITAR), 22 C.F.R. § 121 et seq. (1977), the regulation implementing § 38 of the Arms Export Control Act, 22 U.S.C.A. § 2778 (1977), on dissemination of cryptographic information developed independent of government supervision or support by scientists and mathematicians in the private sector.^{1/} Our discussion is confined to the applicability of the regulation to the speech elements of public cryptography, and does not address the validity of the general regulatory controls over exports of arms and related items. We have undertaken our review of the First Amendment issues raised by the ITAR as an outgrowth of our role in implementing Presidential Directive NSC-24.^{2/}

^{1/} The cryptographic research and development of scientists and mathematicians in the private sector is known as "public cryptography." As you know, the serious concern expressed by the academic community over government controls of public cryptography, see, e.g., 197 Science 1345 (Sept. 30, 1977), led the Senate Select Committee on Intelligence to conduct a recently concluded study of certain aspects of the field.

^{2/} Our research into the First Amendment issues raised by government regulation of public cryptography led tangentially into broader issues of governmental control over dissemination of technical data. Those questions are numerous, complex, and deserving of extensive study, but are beyond the scope of this memorandum.

participation in briefings and symposia) and disclosed to foreign nationals in the United States (including plant visits and participation in briefings and symposia).

Thus ITAR requires licensing of any communication of cryptographic information,^{4/} whether developed by the government or by private researchers, which reaches a foreign national.^{5/}

The standards governing license denial are set out in § 123.05. The Department of State may deny, revoke, suspend or amend a license:

whenever the Department deems such action to be advisable in furtherance of (1) world peace; (2) the security of the United States; (3) the foreign policy of the United States; or (4) whenever the Department has reason to believe that section 414 of the Mutual Security Act of 1954, as amended, or any regulation contained in this subchapter shall have been violated.

Upon any adverse decision, the applicant may present additional information and obtain a review of the case by the

^{4/} The ITAR does exempt from the licensing requirement unclassified technical data available in published form. 22 C.F.R. § 125.11(a). The scope of that exemption is somewhat unclear, although it does appear that the burden of ascertaining the ITAR status of possibly exempt information is on the individual seeking publication. See 22 C.F.R. § 125 n.3. In order to claim the exemption, an "exporter" must comply with certain certification procedures. 22 C.F.R. § 125.22.

^{5/} For example, in one instance the Office of Munitions Control, the office in the State Department which administers the ITAR, refused to issue licenses to a group of scientists preparing to address a conference on space technology in Madrid. The scientists, who had already arrived in Spain, were refused permission to deliver papers at the symposium on the subject of rocket propulsion and re-entry problems of space vehicles. Note, Arms Control-State Department Regulation of Exports of Technical Data Relating to Munitions: Held to Encompass General Knowledge and Experience, 9 N.Y.U. Int'l Law J. 91, 101 (1976).

ITAR Provisions and Statutory Authority

Under the ITAR, exports of articles designated on the United States Munitions List as "arms, ammunition, and implements of war" must be licensed by the Department of State. 22 C.F.R. §§ 123, 125. Cryptographic devices are included on the list, 22 C.F.R. § 121.01, Category XIII, as are related classified and unclassified technical data, Category XVII, Category XVIII. It is this control over the export of unclassified technical data which raises the principal constitutional questions under the ITAR.^{3/}

The broad definition of the term technical data in the ITAR includes:

Any unclassified information that can be used, or be adapted for use, in the design, production, manufacture, repair, overhaul, processing, engineering, development, operation, maintenance, or reconstruction of arms, ammunition and implements of war on the U.S. Munitions List.

22 C.F.R. § 125.01. The definition of the term "export" is equally broad. Under § 125.03 of the ITAR an export of technical data takes place:

Whenever technical data is inter alia, mailed or shipped outside the United States, carried by hand outside the United States, disclosed through visits abroad by American citizens (including

^{3/} Unclassified technical data would generally encompass only privately developed, nongovernmental cryptographic research. It is our understanding that government-sponsored cryptographic research traditionally has been classified. The only unclassified government cryptographic information of which we are aware is the Data Encryption Standard (DES) algorithm. The DES was developed for public use by IBM with National Security Agency assistance and published in the Federal Register by the National Bureau of Standards.

Department. § 123.05(c). No further review is provided.

Nearly all of the present provisions of the ITAR were originally promulgated under § 414 of the Mutual Security Act of 1954 (former 22 U.S.C. § 1934). That statute gave the President broad authority to identify and control the export of arms, ammunition, and implements of war, including related technical data, in the interest of the security and foreign policy of the United States. Congress recently substituted for that statute a new § 38 of the Arms Export Control Act, 22 U.S.C.A. § 2778 (1977), as amended, 22 U.S.C.A. § 2778 (Supp. 3 1977). This statute substitutes the term "defense articles and defense services" for the term "arms, ammunition, and implements of war."^{6/} The President delegated his authority under both statutes to the Secretary of State and Secretary of Defense. Exec. Order No. 11,958, 42 Fed. Reg. 4311 (1977), reprinted in 22 U.S.C.A. § 2778 (Supp. 1 1977); Exec. Order No. 10,973, 3 C.F.R. 493 (Supp. 1964). A willful violation of § 38 of the Arms Export Control Act or any regulation thereunder is punishable by a fine up to \$100,000, imprisonment up to two years, or both. 22 U.S.C.A. § 2778(c).^{7/}

^{6/} The ITAR has not yet been amended to reflect the statutory change. We understand, however, that the Department of State has nearly completed a draft revision of the ITAR. It is our understanding that the revision is not intended to make any major substantive changes in the ITAR, but rather to update and clarify the regulatory language.

^{7/} Although the focus of this memorandum is on the First Amendment issues raised by the ITAR, we feel that one comment about the breadth of the two statutes is in order. It is by no means clear from the language or legislative history of either statute that Congress intended that the President regulate noncommercial dissemination of information, or considered the problems such regulation would engender. We therefore have some doubt whether § 38 of the Arms Export Control Act provides adequate authorization for the broad controls over public cryptography which the ITAR imposes.

The First Amendment Issues

The ITAR requirement of a license as a prerequisite to "exports" of cryptographic information clearly raises First Amendment questions of prior restraint.^{8/} As far as we have been able to determine, the First Amendment implications of the ITAR have received scant judicial attention.

The Ninth Circuit presently has a case under consideration which squarely presents a First Amendment challenge to the ITAR and could serve as a vehicle for the first comprehensive judicial analysis of its constitutionality. In that case, United States v. Edler, No. 76-3370, the defendants, Edler Industries, Inc. and Vernon Edler its president, were charged with exporting without a license technical data and assistance relating to the fabrication of missile components. Although the State Department had denied defendants an export license to provide technical data and assistance to a French aerospace firm, the government alleged that defendants nonetheless delivered data and information to the French during meetings in both France and the United States. Defendants were tried before a jury and found guilty. The trial court, the United States District Court for the Central District of California, did not issue an opinion in the case. On appeal, the defendants contend that the ITAR is both overbroad and establishes an unconstitutional prior restraint. The government's rejoinder to those claims is that the ITAR licensing provisions involve conduct not speech and that any effect upon First Amendment freedoms is merely incidental

^{8/} In addition, the regulatory provisions present questions of overbreadth and vagueness. "Overbreadth" is a First Amendment doctrine invalidating statutes which encompass, in a substantial number of their applications, both protected and unprotected activity. The "vagueness" concept, on the other hand, originally derives from the due process guarantee, and applies where language of a statute is insufficiently clear to provide notice of the activity prohibited. The same statute or regulation may raise overlapping questions under both doctrines.

and therefore valid. We anticipate that the resolution of these issues by the Ninth Circuit may provide substantial guidance as to the First Amendment implications of the ITAR.^{9/}

The only published decision addressing a First Amendment challenge to the ITAR of which we are aware is United States v. Donas-Botto, 363 F.Supp. 191 (E.D. Mich. 1973), aff'd sub nom. United States v. Van Hee, 531 F.2d 352 (6th Cir. 1976). The defendants in that case were charged with conspiracy to export technical data concerning a Munitions List item without first obtaining an export license or written State Department approval. The exports by the defendants both of blueprints and of their technical knowledge concerning an armored amphibious vehicle were alleged to be in violation of § 414 of the Mutual Security Act and the ITAR. In a motion to dismiss the indictments, defendants contended that inclusion of technical knowledge within the statute violated the First Amendment. The trial court disposed of that contention summarily, stating:

[W]hen matters of foreign policy are involved the government has the constitutional authority to prohibit individuals from divulging "technical data" related to implements of war to foreign governments.

363 F. Supp. at 194. The Sixth Circuit upheld the conviction of one of the defendants without reaching any First Amendment questions since none was presented on appeal.^{10/}

The First Amendment analysis of the ITAR in the case thus is limited to a paragraph in the district court's opinion. In reaching the conclusion that the prosecutions did not violate the First Amendment, that court relied upon two Espionage Act decisions, Gorin v. United States, 312 U.S.

^{9/} We understand that the case was argued this past March.

^{10/} The court did agree with the trial judge that the ample scope of the term "technical data" in the ITAR encompassed unwritten technical knowledge. 531 F.2d at 537.

19 (1941), and United States v. Rosenberg, 195 F.2d 583 (2d Cir.), cert. denied, 344 U.S. 838 (1952). While those cases establish that the First Amendment does not bar prosecutions for disclosing national defense information to a foreign country, they by no means resolve the prior restraint question.^{11/}

A decision in a somewhat analogous area, the use of secrecy agreements by government agencies as a means of protecting against the unauthorized disclosure of information by present or former employees, while not directly applicable to the First Amendment questions we confront under the ITAR, is helpful for its discussion of government's power to control the dissemination of government information. That case, United States v. Marchetti, 466 F.2d 1309 (4th Cir.), cert. denied, 409 U.S. 1063 (1972), after remand, Alfred A. Knopf, Inc. v. Colby, 509 F.2d 1362 (4th Cir.), cert. denied, 421 U.S. 992 (1975), involved an action for an injunction brought by the United States to prevent a former CIA agent from publishing certain information he had obtained as a result of his CIA employment. The court held that the particular secrecy agreement was valid and enforceable in spite of Marchetti's First Amendment objections, but observed that:

The First Amendment limits the extent to which the United States, contractually or otherwise, may impose secrecy agreements upon its employees and enforce them with a system of prior censorship. It precludes such restraints with respect to information which is unclassified or officially disclosed.

Id. at 1313. The general principle we derive from the case is that a prior restraint on disclosure of information generated by or obtained from the government is justifiable under the First Amendment only to the extent that the information is properly classified or classifiable.

^{11/} It is not clear from reading the district court's opinion on what First Amendment ground or grounds the defendants based their unsuccessful motion to dismiss.

Our research into areas in which the government has restricted disclosure of nongovernmental information provided little additional guidance. Perhaps the closest analogy to controls over public cryptography are the controls over atomic energy research.^{12/} Under the Atomic Energy Act of 1954, 42 U.S.C. § 2011 et seq. (1970), all atomic energy information, whether developed by the government or by private researchers, is automatically classified at its creation and subjected to strict nondisclosure controls.^{13/} Although neither the Atomic Energy Act nor its accompanying regulations establish formal procedures for prior review of proposed atomic energy publications, the Atomic Energy Commission (whose functions are now divided

^{12/} Atomic energy research is similar in a number of ways to cryptographic research. Development in both fields has been dominated by government. The results of government created or sponsored research in both fields have been automatically classified because of the imminent danger to national security flowing from disclosure. Yet meaningful research in the fields may be done without access to government information. The results of both atomic energy and cryptographic research have significant nongovernmental uses in addition to military use. The principal difference between the fields is that many atomic energy researchers must depend upon the government to obtain the radioactive source materials necessary in their research. Cryptographers, however, need only obtain access to an adequate computer.

^{13/} See Green, Information Control and Atomic Power Development, 21 Law and Contemporary Problems 91 (1956); Newman, Control of Information Related to Atomic Energy, 56 Yale L.J. 769 (1947). The Atomic Energy Act uses the term "Restricted Data" to describe information which the government believes requires protection in the interest of national security. "Restricted data" is defined in 42 U.S.C. § 2014(4). The information control provisions of the Act are set out at 42 U.S.C. §§ 2161-2164.

between the Nuclear Regulatory Commission and the Department of Energy) has been empowered to maintain control over publications through threat of injunction or of heavy criminal penalties, two potent enforcement tools provided under the Act. 42 U.S.C. §§ 2271-2277, 2280. It does not seem, however, that the broad information controls of the Atomic Energy Act have ever been challenged on First Amendment grounds. Our search for judicial decisions in other areas in which the government has imposed controls over the flow of privately generated information was equally unavailing.^{14/}

In assessing the constitutionality of the ITAR restrictions on the speech elements of public cryptography we therefore have turned to Supreme Court decisions enunciating general First Amendment principles. It is well established that prior restraints on publication are permissible only in extremely narrow circumstances and that the burden on the government of sustaining any such restraint is a heavy one. See, e.g., Nebraska Press Association v. Stuart, 427 U.S. 539 (1976); New York Times Co. v. United States, 403 U.S. 713 (1971); Organization for a Better Austin v. Keefe, 402 U.S. 415 (1971); Carroll v. Princess Anne, 393 U.S. 175 (1968); Near v. Minnesota, 283 U.S. 697 (1931). Even in those limited circumstances in which prior restraints have been deemed constitutionally permissible, they have been circumscribed by specific, narrowly drawn standards for deciding whether to prohibit disclosure and by substantial procedural protections. Erznoznik v. City of Jacksonville, 422 U.S. 205 (1975); Blount v. Rizzi, 400 U.S. 410 (1971); Freedman v. Maryland, 380 U.S. 51 (1965); Niemotko v. Maryland,

^{14/} For example, it does not appear that the broad controls over exports of technical data and related information under the Export Administration Act of 1969, 50 U.S.C. App. § 2401 et seq. (1970), and accompanying regulations have been judicially tested on First Amendment grounds. Nor have the provisions of the patent laws restricting patentability of inventions affecting national security, 35 U.S.C. § 181 et seq. (1970), nor governmental restrictions on communications with Rhodesia, 22 U.S.C. § 287c (1970); Exec. Order No. 11,322

340 U.S. 268 (1951); Kunz v. New York, 340 U.S. 290 (1951)
Hague v. C.I.O., 307 U.S. 496 (1939).^{15/}

Even if it is assumed that the government's interest in regulating the flow of cryptographic information is sufficient to justify some form of prior review process, the existing ITAR provisions we think fall short of satisfying the strictures necessary to survive close scrutiny under the First Amendment. There are at least two fundamental flaws in the regulation as it is now drawn: first, the standards governing the issuance or denial of licenses are not sufficiently precise to guard against arbitrary and inconsistent administrative action; second, there is no mechanism established to provide prompt judicial review of State Department decisions barring disclosure. See, e.g., Blount v. Rizzi, supra; Freedman v. Maryland, supra; Hague v. C.I.O., supra. The cases make clear that before any restraint upon protected expression may become final it must be subjected to prompt judicial review in a proceeding in which the government will bear the burden of justifying its decisions. The burden of bringing a judicial proceeding cannot be imposed upon those desiring export licenses in these circumstances. The ITAR as presently written fails to contemplate this requirement.^{16/}

^{15/} In Freedman, 380 U.S. at 58-59, the Court summarized the procedural protections necessary to sustain a scheme of prior review:

1. A valid final restraint may be imposed only upon a judicial determination;
2. The administrator of a licensing scheme must act within a specified brief period of time;
3. The administrator must be required either to issue a license or go to court to seek a restraint;
4. Any restraint imposed in advance of a final judicial determination on the merits must be limited to preservation of the status quo for the shortest period compatible with sound judicial resolution;
5. The licensing scheme must assure a prompt final judicial decision reviewing any interim and possibly erroneous denial of a license.

^{16/} The government's argument to the Ninth Circuit in Edler, that the impact of the ITAR upon protected communications is merely incidental, and that the ITAR should be viewed as

(Cont. on p. 11)

For these reasons it is our conclusion that the present ITAR licensing scheme does not meet constitutional standards. There remains the more difficult question whether a licensing scheme covering either exports of or even purely domestic publications of cryptographic information might be devised consistent with the First Amendment. Recent Supreme Court decisions certainly suggest that the showing necessary to sustain a prior restraint on protected expression is an onerous one. The Court held in the Pentagon Papers case that the government's allegations of grave danger to the national security provided an insufficient foundation for enjoining disclosure by the Washington Post and the New York Times of classified documents concerning United States activities in Vietnam. New York Times Co. v. United States, supra.^{17/} The Court also invalidated prior restraints when justified by such strong interests as the right to fair trial, Nebraska Press Ass'n, supra, and the right of a homeowner to privacy, Organization for a Better Austin v. Keefe, supra. Such decisions raise a question whether a

16/ (Cont.)

a regulation of conduct not speech, deserves note. According to that argument, the less rigorous constitutional standard of United States v. O'Brien, 391 U.S. 367 (1968), would govern the validity of the ITAR. Although that may be true with respect to certain portions of the ITAR, even a cursory reading of the technical data provisions reveals that those portions of the ITAR are directed at communication. A more stringent constitutional analysis than the O'Brien test is therefore mandated.

17/ The Pentagon Papers case produced a total of ten opinions from the Court, a per curiam and nine separate opinions. All but Justices Black and Douglas appeared willing to accept prior restraints on the basis of danger to the national security in some circumstances. There was, however, no agreement among the Justices on the appropriate standard. Justice Brennan stated his view that a prior restraint on publication was justified only upon:

"proof that publication must inevitably, directly, and immediately cause the occurrence of an event kindred to imperiling the safety of a transport already at sea. . . ."

(Cont. on p. 12)

generalized claim of threat to national security from publication of cryptographic information would constitute an adequate basis for establishing a prior restraint. Nonetheless, it is important to keep in mind that the Court has consistently rejected the proposition that prior restraints can never be employed. See, e.g., Nebraska Press Ass'n, *supra* at 570. For example, at least where properly classified government information is involved, a prior review requirement may be permissible. United States v. Marchetti, *supra*.

In evaluating the conflicting First Amendment and national security interests presented by prior restraints on public cryptography, we have focused on the basic values which the First Amendment guarantees. At the core of the First Amendment is the right of individuals freely to express political opinions and beliefs and to criticize the operations of government. See, e.g., Landmark Communications v. Virginia, 46 U.S.L.W. 4389, 4392 (May 1, 1978); Buckley v. Valeo, 424 U.S. 1, 14 (1976); Mills v. Alabama, 384 U.S. 214, 218 (1966). Adoption of the Amendment reflected a "profound national commitment to the principle that debate on public issues should be uninhibited, robust, and wide-open," New York Times v. Sullivan, 376 U.S. 254, 270 (1964), and was intended in part to prevent use of seditious libel laws to stifle discussion of information embarrassing to the government. New York Times Co. v. United States, *supra* at 724 (concurring opinion of Mr. Justice Douglas).

Prior restraints pose special and very serious threats to open discussion of questions of public interest. "If it can be said that a threat of criminal or civil sanctions after publication 'chills' speech, prior restraint 'freezes' it at least for the time." Nebraska Press Ass'n, *supra* at 559.

17/ (Cont.)

403 U.S. at 726-27. Justice Stewart, with whom Justice White concurred, suggested that a prior restraint would be permissible only if disclosure would "surely result in direct, immediate and irreparable damage to our Nation or its people." *Id.* at 730. Several other Justices declined, given the facts and procedural posture of the case, to formulate a standard.

Since views on governmental operations or decisions often must be aired promptly to have any real effect, even a temporary delay in communication may have the effect of severely diluting "uninhibited, robust, and wide-open" debate. And protection of any governmental interest may usually be accomplished by less restrictive means. One avenue generally available to the government, and cited by Supreme Court as the most appropriate antedote, is to counter public disclosures or criticisms with publication of its own views. See, e.g., Whitney v. California, 274 U.S. 357, 375 (1927) (concurring opinion of Mr. Justice Brandeis).

The effect of a prior restraint on cryptographic information, however, differs significantly from classic restraints on political speech. Cryptography is a highly specialized field with an audience limited to a fairly select group of scientists and mathematicians. The concepts and techniques which public cryptographers seek to express in connection with their research would not appear to have the same topical content as ideas about political, economic or social issues. A temporary delay in communicating the results of or ideas about cryptographic research therefore would probably not deprive the subsequent publication of its full impact.

Cryptographic information is, moreover, a category of matter "which is both vital and vulnerable to an almost unique degree."^{18/} Once cryptographic information is disclosed, the damage to the government's interest in protecting

^{18/} New York Times Co. v. United States, 403 U.S. 713, 736 n. 7 quoting H.R. Rep. No. 1895, 81st Cong., 2d Sess., 1 (1950). That report pertains to the bill which became 18 U.S.C. § 798, the criminal statute prohibiting disclosure of information concerning the cryptographic systems and communications intelligence activities of the United States. Section 798 does not reach disclosure of information published by public cryptographers, as its coverage is restricted to classified information. Classified information by definition is information in which the government has some proprietary interest. See § 1(b) of the May 3, 1978 draft of the Executive Order on national security proposed to replace Executive Order 11,652; cf. 22 C.F.R. § 125.02.

national security is done and may not be cured. Publication of cryptographic information thus may present the rare situation in which "more speech" is not an alternative remedy to silence.^{19/} See Whitney v. California, supra at 376 (concurring opinion of Mr. Justice Brandeis).

Given the highly specialized nature of cryptographic information and its potential for seriously and irremediably impairing the national security, it is our opinion that a licensing scheme requiring prepublication submission of cryptographic information might overcome the strong constitutional presumption against prior restraints. Any such scheme must, as we have said, provide clear, narrowly defined standards and procedural safeguards to prevent abuse.

While a detailed discussion of the specific provisions and procedures of a valid scheme of prior review of cryptographic information or of its practical and political feasibility is beyond the scope of this memorandum, some

^{19/} In stressing the differences between cryptographic information and other forms of expression we do not mean to imply that the protections of the First Amendment are not applicable to cryptographic information or that they are confined to the exposition of ideas. See Winters v. New York, 333 U.S. 507, 510 (1948). We recognize that the scope of the amendment is broad. It encompasses, for example, purely commercial speech, Virginia State Board of Pharmacy v. Virginia Citizens Consumer Council, Inc. 425 U.S. 748 (1976), and communicative conduct, Cohen v. California 403 U.S. 15 (1971). We believe, however, that the extent of First Amendment protection may vary depending upon the nature of communication at issue. It is established in the area of commercial speech that greater governmental regulation may be tolerated due to the special attributes of that form of speech. Virginia State Board of Pharmacy v. Virginia Citizens Consumer Council, supra at 770-71 and n.24. Speech in the labor context also presents special First Amendment considerations. See, e.g., N.L.R.B. v. Gissel Packing Co., 395 U.S. 575 (1969). And obscene communications have received specialized treatment from the courts. See, e.g., Roth v. United States, 354 U.S. 476 (1957).

general observations are in order. First, we wish to emphasize our doubts that the executive branch may validly provide for licensing or prior review of exports of cryptographic information without more explicit Congressional authorization. The scope of the existing delegation of authority from Congress to the President, as we note above, is somewhat unclear. Before imposing a prior restraint on exports of public cryptographic information, we believe that a more clear cut indication of Congressional judgment concerning the need for such a measure is in order. See United States v. Robel, 389 U.S. 248, 269 (1967) (concurring opinion of Mr. Justice Brennan); cf. Yakus v. United States, 321 U.S. 414 (1944). Some of first
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Second, further Congressional authorization would obviously be necessary in order to extend governmental controls to domestic as well as foreign disclosures of public cryptographic information. Such an extension might well be necessary to protect valuable cryptographic information effectively. Indeed, limiting controls to exports while permitting unregulated domestic publication of cryptographic research would appear to undermine substantially the government's position that disclosure of cryptographic information presents a serious and irremediable threat to national security.^{20/}

^{20/} A question which would arise from complete governmental control over cryptographic information is whether the government would be required under the Fifth Amendment to pay just compensation for the ideas it had effectively "condemned." For example, the patent and invention provisions of the Atomic Energy Act require the government to pay for patents which it revokes or declares to be affected with the public interest. 42 U.S.C. §§ 2181-2190. A cryptographic algorithm, however, would not appear to be a patentable process. See Gottschalk v. Benson, 409 U.S. 63 (1972). And it is unresolved whether copyright protection is available for computer software. See Nimmer on Copyright, § 13.1 (Supp. 1976). We are therefore uncertain as to the status of cryptographic ideas under the Fifth Amendment.

Third, no final restraint on disclosure may be imposed without a judicial determination. We recognize that a requirement of judicial review presents substantial problems. The proof necessary in order to demonstrate to a judge that highly technical cryptographic information must be withheld from publication because of the overriding danger to national security might be burdensome and might itself endanger the secrecy of that information. It is our opinion, however, that any system which failed to impose the burden on government of seeking judicial review would not be constitutional.^{21/} See, e.g., Blount v. Rizzi, *supra*.

Finally, any scheme for prior review of cryptographic information should define as narrowly and precisely as possible both the class of information which the government must review to identify serious threats to the national security and the class of information which the government must withhold.^{22/} The scheme clearly should exempt from a

^{21/} The threat to national security posed by a judicial review procedure could be reduced substantially by conducting the review in camera. See Alfred A. Knopf, Inc. v. Colby, 509 F.2d 1362 (4th Cir.), *cert. denied*, 421 U.S. 992 (1975); *cf.* 5 U.S.C. 552(a)(4)(B) (Supp. 1975) (in camera review provision of the Freedom of Information Act). The Supreme Court, in any event, has been unimpressed by arguments that disclosure of sensitive national security information to a court raises such serious problems of public dissemination that exemption from constitutional requirements is appropriate. See United States v. U.S. District Court, 407 U.S. 297 (1972).

^{22/} In other words, we assume that the information submitted under the scheme would not be coextensive with the information withheld. We note, however, that the authority of the government to require prepublication submission of information which is neither classified nor classifiable is unsettled. That issue is posed in the suit recently filed by the Department of Justice in the United States District Court for the Eastern District of Virginia against former CIA employee Frank Snepp for breach of his secrecy agreement. United States v. Snepp, Civil Action No. 78-92-A.

submission requirement any information, such as that which is publicly available or which poses no substantial security threat, that the government has no legitimate interest in keeping secret.^{23/} Failure to draft provisions narrowly might well invite overbreadth challenges for inclusion of protected communication. See, e.g., NAACP v. Alabama, 357 U.S. 449 (1958). And a precisely drawn scheme is also necessary to avoid objections of vagueness. See, e.g., Smith v. Goguen, 415 U.S. 566 (1974).^{24/}

In conclusion, it is our view that the existing provisions of the ITAR are unconstitutional insofar as they establish a prior restraint on disclosure of cryptographic ideas and information developed by scientists and mathematicians in the private sector. We believe, however, that a prepublication review requirement for cryptographic information might meet First Amendment standards if it provided necessary procedural safeguards and precisely drawn guidelines.



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^{23/} As we noted above, at n.4, supra, the present ITAR provisions attempt to exempt publicly available information. But the scope of that exemption and the procedures for invoking it, particularly with respect to oral communications, are somewhat clear.

^{24/} Although we mention questions of overbreadth and vagueness raised by the technical data provisions of the ITAR previously in this memorandum, we have not attempted to identify and analyze particular problems for several reasons. First, our opinion that a prior restraint on public cryptography might survive First Amendment scrutiny is a limited one and does not purport to apply to the many other types of technical data covered by the ITAR. Second, we believe that public cryptography presents special considerations warranting separate treatment from other forms of technical data, and that a precise and narrow regulation or statute limited to cryptography would be more likely to receive considered judicial attention. Finally, we are uncertain whether the present legislative authority for the technical data provisions of the ITAR is adequate.

EXHIBIT

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Constitutionality of the Proposed Revision of the International Traffic in Arms Regulations

Proposed revision of the "technical data" provision of the International Traffic in Arms Regulations (ITAR) redefines and narrows the class of transactions that are subject to a licensing requirement under the Arms Export Control Act of 1976, in an attempt to avoid imposing a prior restraint on speech protected by the First Amendment; however, even as revised the ITAR can have a number of constitutionally impermissible applications.

The licensing requirement in the ITAR may constitutionally be applied to transactions involving arrangements entered into by exporters to assist foreign enterprises in the acquisition or use of technology; it may also be applied to transactions involving the dissemination of technical data for the purpose of promoting the sale of technical data or items on the Munitions List, since the prior restraint doctrine has only limited applicability to "commercial speech." However, insofar as it could be applied to persons who have no connection with any foreign enterprise, who disseminate technical data in circumstances in which there is no more than a belief or a reasonable basis for believing that the data might be taken abroad by foreign nationals and used there in the manufacture of arms, the licensing requirement is presumptively unconstitutional as a prior restraint on speech protected by the First Amendment.

It is not certain whether a court would find that the revised ITAR are so substantially overbroad as to be void and unenforceable in all their applications, or decide to save the regulations through a narrowing construction. The best legal solution is for the Department of State, not the courts, to narrow the ITAR so as to make it less likely that they will apply to protected speech in constitutionally impermissible circumstances.

July 1, 1981

MEMORANDUM OPINION FOR THE OFFICE OF MUNITIONS CONTROL, DEPARTMENT OF STATE

The views of this Office have been requested concerning the constitutionality of a proposed revision of the "technical data" provisions of the International Traffic in Arms Regulations (ITAR). 45 Fed. Reg. 83,970 (December 19, 1980). On the basis of the analysis set forth below, we conclude that from a constitutional standpoint, the revised ITAR is a significant improvement over the prior version, but that even as revised, it can have a number of unconstitutional applications. We recommend that the proposed revision be modified to minimize or eliminate the number of impermissible applications. Our views are set forth in more detail below.

I. Background

The ITAR are promulgated pursuant to the Arms Export Control Act of 1976 (the Act). 22 U.S.C. § 2778. The Act authorizes the President “to control the import and export of defense articles and defense services and to provide foreign policy guidance to persons of the United States involved in the export and import of such articles and services” and to “designate those items which shall be considered as defense articles and defense services . . . and to promulgate regulations for the import and export of such articles and services.” § 2778(a). Items so designated are placed on the United States Munitions List. Every person engaging in the business of “manufacturing, exporting, or importing” designated defense articles or services must register with the Office of Munitions Control. § 2778(b). No such articles or services may be exported or imported without a license issued in accordance with regulations promulgated under the Act. § 2778(b)(2). Violation of the statute or the regulations promulgated thereunder is a criminal offense. Pursuant to its authority to regulate the export of “defense articles and services,” the Office of Munitions Control has traditionally undertaken to regulate the export of technical *information* relating to the manufacture or use of items on the Munitions List. The “technical data” provisions are the embodiment of that undertaking.

The proposed revision defines technical data to include unclassified information not in the public domain and relating directly to, *inter alia*, the performance of defense services; training in the operation or use of a defense article; and design, production, or manufacture of such an article.¹ In general, the relevant provisions require the issuance of a license for the export of any unclassified technical data. A license is not, however, required for the export of unclassified technical data included within certain specified categories of exemption. Among those categories are exports of data published or generally available to the public,² exports in furtherance of a manufacturing license agreed to by

¹ Under § 121.315, “technical data” means

- (a) Unclassified information not in the public domain relating directly to:
 - (1) The design, production, manufacture, processing, engineering, development, operation, or reconstruction of an article; or
 - (2) Training in the operation, use, overhaul, repair or maintenance of an article; or
 - (3) The performance of a defense service (see § 121.32);
- (b) Classified information relating to defense articles or defense services, and
- (c) Information covered by a patent secrecy order

45 Fed. Reg. 83,976 (1980)

² The ITAR exempts technical data if they “are published or otherwise generally available to the public”.

- (i) Through sales at newsstands and bookstores;
- (n) Through subscription, unrestricted purchase, or without cost;
- (ni) Through second class mailing privileges granted by the U.S. Government; or,
- (iv) Are freely available at public libraries.

45 Fed. Reg. 83,985 (1980)

the State Department, and exports related to firearms not in excess of caliber .50. Most importantly for present purposes, the revised provisions exempt technical data which:

consists of information which is not designed or intended to be used, or which could not reasonably be expected to be used, in direct application in the design, production, manufacture, repair . . . of defense articles (for example, general mathematical, engineering, or statistical information not purporting to have or not reasonably expected to be given direct application to defense articles.) An advisory opinion may be sought in case of doubt as to whether technical data is exempt under this category.

45 Fed. Reg. 83,985 (1980).

With reference to technical data, the proposed revision defines the term "export" to include both the sending, transmitting, or removal of technical data from the United States, and the transfer of such data to a foreign national when the transferor knows or has reason to know that the transferred data will be sent, transmitted, or taken out of the United States. Disclosure to a foreign national of technical data relating to "significant military equipment," whether in the United States or abroad, is also an "export." Finally, the proposed revision expressly provides that an "export" occurs when (1) technical data are disclosed to a foreign national abroad or (2) technical data are disclosed to a foreign national in the United States when the transferor knows or has reason to know that the disclosed technical data will be disclosed outside the United States.

II. Discussion

The constitutionality of the ITAR was considered and questioned in a memorandum prepared by this Office in 1978 at the request of Dr. Frank Press, Science Advisor to the President. See Memorandum of May 11, 1978, for Dr. Frank Press, Science Advisor to the President, from John M. Harmon, Assistant Attorney General, Office of Legal Counsel entitled "Constitutionality Under the First Amendment of ITAR Restrictions on Public Cryptography." On their face, the previous regulations appeared to establish a general administrative rule that required persons subject to United States jurisdiction to apply to the Department of State for a license before communicating technical data to foreign nationals. The regulations were drafted in such a way that this rule could have been applied not only to persons who undertook to transmit technical data during the sale of arms or technical services abroad, but also to virtually any person involved in a presentation or discussion, here or abroad, in which technical data could reach a foreign national. In all such circumstances, anyone who proposed to

discuss or transmit technical data was, under the ITAR, an “exporter”; and he was therefore required by the ITAR to apply in advance for an administrative license, unless the technical data in question fell within the limited exemptions from regulation.

In the memorandum to Dr. Press, this Office concluded that the ITAR cast such a broad regulatory net that it subjected a substantial range of constitutionally protected speech to the control of the Department of State. Because this control was exercised through a system of administrative licensing—a system of “prior restraint”—we concluded that the relevant regulations were presumptively unconstitutional. We also concluded, however, with particular reference to cryptographic information, that the constitutional difficulties presented by this system of prior restraint might be overcome without limiting the range of transactions to which the ITR purported to apply. The difficulties might be overcome if: (1) the standards governing the issuance or denial of an administrative license were defined more precisely to guard against arbitrary and inconsistent administrative action; and (2) a procedural mechanism was established to impose on the government the burden of obtaining prompt judicial review of any State Department decision barring the communication of cryptographic information.

The present proposal for revision of the ITAR does not attempt to satisfy the second condition described in the previous memorandum. It does, however, redefine the class of transactions that are subject to the licensing requirement. It is therefore necessary to determine whether the redefinition of coverage is sufficiently responsive to the constitutional objections raised by our previous opinion concerning the issue of prior restraint to require a different conclusion. If the redefinition of coverage ensures that the licensing requirement can no longer apply to speech that is constitutionally protected against prior restraint, the concerns expressed in our previous opinion will no longer be relevant to the constitutional analysis. On the other hand, if the redefinition does not significantly contract the coverage, the prior restraint doctrine must be taken into account. We adhere to the positions regarding constitutional limits in this area articulated in the memorandum to Dr. Press. If the revised technical data provisions are drafted so broadly that they impinge on speech that is protected against prior restraint, they are presumptively unconstitutional in their application to the speech. Moreover, if their overbreadth is substantial, they may be void and unenforceable in all their applications, although we cannot fully assess that possibility without examining the constitutional status of the entire range of transactions to which they may apply.

The revised technical data provisions may apply to three general categories of transactions: (1) transactions involving the direct transmission of technical data by an exporter to a foreign enterprise under a contract or other arrangement entered into by the exporter for the

purpose of assisting the foreign enterprise in the acquisition of use of technology; (2) transactions involving the dissemination of technical data for the purpose of promoting or proposing the sale of technical data of items on the Munitions List; and (3) transactions in which an “exporter” who is not otherwise connected or concerned with any foreign enterprise transmits technical data knowing, or having reason to know, that the data may be taken abroad and used by someone there in the manufacture or use of arms.

We have concluded that the application of the revised technical data provisions to transactions in the first two categories described above will not violate the First Amendment prohibition against prior restraint. However, the application of these provisions to transactions in the third category will raise serious constitutional questions. Our ultimate conclusions about the constitutionality of the technical data provisions are set forth, together with our recommendations for revision, in section III below.

(1) *Transactions involving arrangements entered into by exporters to assist foreign enterprises in the acquisition or use of technology.* At its core, the ITAR is designed to control United States firms and individuals who undertake to assist foreign enterprises in the acquisition and use of arms. The purpose of the technical data provisions is to extend that control to transactions in which assistance takes the form of technical advice. Perhaps the most common example of a transaction of that kind is a straightforward commercial arrangement in which an American firm agrees to provide technical information or advice to a foreign firm engaged in the manufacture of an item or items on the Munitions List.³

The leading case involving the constitutionality of the ITAR arose in precisely that context. See *United States v. Edler Industries, Inc.*, 579 F.2d 516 (9th Cir. 1978). In *Edler*, an American firm specializing in aerospace technology, Edler Industries, agreed to provide a French firm with technical assistance and data relating to a tape wrapping program. The Office of Munitions Control denied Edler’s application for export licenses on the ground that exportation of the information in question would violate United States policy as established by the Act. During the pendency of the license applications, and after the denial, Edler proceeded to perform the contract and transmitted the information to the French firm. Edler was then prosecuted under the Act. Edler defended on the ground, among others, that the transmission of technical information under the contract with the French firm was constitutionally protected “speech” and that the government could not require such “speech” to be licensed in advance. The trial court rejected that contention and Edler was convicted.

³ We can imagine more exotic examples that would proceed upon essentially the same legal footing, e.g., a transaction in which an American agent (an “industrial spy”) transmits sensitive technical information to his foreign principal.

On appeal, the Ninth Circuit upheld Edler's defense in part. The court concluded that the definition of "technical data" then appearing in 22 CFR § 125.01 (1977) should be interpreted narrowly in light of the applicable constitutional limitations, § 1934 of the Act,⁴ and the relevant legislative history. Under the Act, the regulations should be construed to bar "only the exportation of technical data significantly and directly related to specific articles on the Munitions List." *Id.* at 521. Moreover, if the information in question "could have both peaceful and military applications," the regulations should be construed to apply only in cases in which the defendant knew or had reason to know that the information was "intended for the prohibited use." *Id.* That construction was necessary "to avoid serious interference with the interchange of scientific and technological information." *Id.* If the regulations and the statute were construed to apply only in the case of knowledge or reason to know of an intended prohibited use, they would not "interfere with constitutionally protected speech." *Id.* They would merely control "the conduct of assisting foreign enterprises to obtain military equipment and related technical expertise," and for that reason they would not impose an unconstitutional prior restraint on speech. *Id.* Finally, although the district court had correctly rejected certain elements of the defendant's First Amendment defense, it had adopted an impermissibly broad construction of the regulations, and therefore the case was ordered retried in accordance with the narrower construction.

On the facts presented, the essential holding of *Edler*—that the previous ITAR could be applied constitutionally to an exporter who had agreed to assist a foreign firm in the development of a new technology, having reason to know that the foreign firm intended to use the technology to manufacture items on the Munitions List—was consistent with the traditional principles the courts have applied in the interpretation of the First Amendment. Indeed, the novelty of *Edler* lay not in that holding, but in the defendant's claim that the transmission of technical information under the agreement with the French firm was constitutionally protected "speech." The courts have consistently held that whenever speech is an "integral part" of a larger transaction involving conduct that the government is otherwise empowered to prohibit or regulate, the First Amendment does not immunize that speech; nor does it bar prior restraint. *See, e.g., Ohralik v. Ohio State Bar Assn.*, 436 U.S. 447, 456 (1978), and cases cited therein; *Giboney v. Empire Storage & Ice Co.*, 336 U.S. 490 (1949). That principle comes into play in a number of contexts: most importantly, where speech is joined with conduct by an agreement or special relationship between

⁴This provision was repealed in 1976 and replaced by the current provision, 22 U.S.C. § 2778. For purposes of the interpretation adopted by the *Edler* court, however, the changes in § 1934 are not material.

the speaker and the actor. For example, under the law of conspiracy, when one individual enters into an agreement with another to rob a bank or to restrain trade and provides the other with the information which facilitates that action, neither the agreement nor the transmission of the information is constitutionally protected. *See id.*

To be sure, there is a doctrinal difficulty in applying this traditional analysis to international transactions of the kind involved in *Edler*. When the defendant in *Edler* agreed to assist the French firm in the development and use of sensitive technology, it was not undertaking to aid that firm in conduct that was itself illicit or unauthorized as a matter of domestic law. Our nation has a compelling interest in suppressing the development and use of sensitive technologies abroad, but it has no general power to “outlaw” the development of technology by foreign enterprises or to require them to apply here for a license before making or using arms. As a matter of domestic law, the government’s only recourse is to control persons subject to United States jurisdiction who would undertake to aid and abet those foreign endeavors.

We believe that the absence of a direct domestic prohibition against the foreign conduct in question here—the foreign manufacture or use of items on the Munitions List—does not create a constitutional barrier to domestic regulation of persons who combine with foreign enterprises to assist them in the development and use of sensitive technology. Even though such assistance may take the form of technical advice, it is, in the *Edler* context, an integral part of conduct that the government has a compelling interest in suppressing by appropriate means. As the *Edler* court held, such assistance is not constitutionally protected speech; and it is not protected by the constitutional prohibition against prior restraint.

We have one further observation concerning the *Edler* case. *Edler* held that the licensing requirement of the previous ITAR could be enforced where: (1) the foreign recipient of technical data intended to use it in the manufacture or use of items on the Munitions List; and (2) the exporter had “reason to know” of that intention. Given the nature of the transaction that was involved in *Edler*, those requirements imposed what the Ninth Circuit considered to be necessary limitations on the power of the government to license the transmission of sensitive technical information under international contracts and combinations.⁵

⁵There is room to doubt whether the concise and somewhat ambiguous language adopted by the *Edler* court in the statement of the applicable rule, *see* 579 F.2d at 521, completely captures the relevant constitutional standard. The *Edler* rule presupposes that the foreign enterprise intends to use technical data in the manufacture or use of arms, and it suggests that the licensing requirement can be enforced only where the exporter has reason to know of that intention. But a respectable argument can be made that the constitutional power of the government to license persons who combine with foreign enterprises to assist directly in the development of sensitive technology abroad is not limited to cases in which the foreign enterprise has a present intention of using that technology in the manufacture of arms. The present intention of the foreign actor is constitutionally relevant, of course, but the actual source of the danger is the technical capacity that his action creates. That capacity is created on

Continued

They should be read in that context. We believe they cannot be read as implicitly authorizing the imposition of a general licensing requirement in every circumstance in which a speaker may have known or had reason to know that his speech could be used for a dangerous purpose by someone abroad. Beyond the *Edler* context—a context in which “speech” is joined with dangerous conduct by an actual agreement or combination between speaker and actor—constitutional principles far more favorable to the speaker come into play. We will discuss those principles in part (3) below.

(2) *Transactions involving the dissemination of technical data for the purpose of promoting or proposing the sale of technical data or items on the munitions list.* In this section, we consider the dissemination of technical data for the purpose of promoting or proposing the sale of technical data or items on the Munitions List.⁶ The Supreme Court has given special consideration to promotional materials in a series of recent decisions. Under the rubric of “commercial speech,” information that proposes or promotes a commercial transaction has been accorded some constitutional protection. See *Virginia State Bd. of Pharmacy v. Virginia Citizens Consumer Counsel, Inc.*, 425 U.S. 748 (1976); *Friedman v. Rogers*, 440 U.S. 1 (1979); *Central Hudson Gas v. Public Service Comm’n*, 447 U.S. 557 (1980); *Linmark Associates, Inc. v. Willingboro*, 431 U.S. 85 (1977). Commercial speech is protected because it “assists consumers and furthers the societal interest in the fullest possible dissemination of information.” See *Central Hudson Gas, supra*, at 561–62. At the same time, it has been suggested by the Court that commercial speech is in some circumstances entitled to a “lower level” of protection than that accorded to other forms of protected speech. The courts have said that a “lower level” of protection is justified because “commercial speakers have extensive knowledge of both the market and their products” and are thus “well situated to evaluate the accuracy of their messages and the lawfulness of the underlying activity,” and because “commercial speech, the offspring of economic self-interest, is a hardy breed of expression that is not ‘particularly susceptible to being crushed by overbroad regulation.’” *Id.* at 564 n.6 (citation omitted). These factors have led the Supreme Court to conclude that the govern-

foreign soil, beyond the legislative jurisdiction of the United States, and our government may have no adequate means of controlling its subsequent use in a way that will protect against a change of circumstance or intention. Accordingly, one could argue that our nation has a substantial interest in suppressing the creation of foreign capacity in the first instance, whatever the present intentions of the foreign enterprise may be; and if a United States technical expert, knowing of the potential danger, combines with the foreign enterprise to create that capacity, that is arguably enough. An analogous principle is operative in the law of espionage. The transmission of sensitive information by a domestic agent to his foreign principal is not constitutionally protected even where the purpose of the transaction is merely to benefit the foreign power, not to injure the United States. As the Supreme Court noted in the leading case, the status of foreign governments may change; no advantage can be given to them without creating a potential for injury to us. See *Gorn v. United States*, 312 U.S. 19, 30 (1941).

⁶We are advised by the Federal Bureau of Investigation that technical data are sometimes disseminated in international conferences or meetings for the purpose of promoting the sale of sensitive technology.

ment may ban false or misleading commercial speech, *see Friedman v. Rogers, supra*, at 13, 15–16, and, in at least some contexts, commercial speech relating to illegal activity, *Pittsburgh Press Co. v. Pittsburgh Comm'n on Human Relations*, 413 U.S. 376, 388 (1973). Similar considerations have led the Court to suggest in dicta that the ordinary First Amendment prohibitions against overbreadth and prior restraint may not be fully applicable to commercial speech. *See Virginia State Bd. of Pharmacy, supra*, at 772 n.24.

For purposes of the present discussion, we need not determine whether the prior restraint doctrine is inapplicable to all commercial speech in all circumstances. In the present context, we believe that a licensing requirement for promotional speech that contains technical data would probably be held constitutional. There are four reasons for this conclusion. First, the governmental interest in preventing the development of military equipment by foreign countries is a significant one. That interest may justify prior restraint against the promotion of foreign technical sales in the same way that the national interest in truth and fair dealing justifies prior restraint against false and deceptive promotions in the ordinary commercial context. *See Donaldson v. Read Magazine*, 333 U.S. 178, 189–91 (1948); *FTC v. Standard Education Society*, 302 U.S. 112 (1937). Second, a licensing requirement for promotional materials containing technical data will not delay the transmission of information that the public has a strong interest in receiving immediately. In that respect, technical promotions are unlike political speech, for the public will not generally suffer if technical data are suppressed during a licensing period. *Compare New York Times v. United States, supra*. Third, the protection accorded to commercial speech is largely designed to protect the rights of listeners and consumers. *See Virginia State Bd., supra*. Those rights are not directly implicated here. Foreign enterprises engaged in the manufacture or use of arms abroad generally have no right under the Constitution to receive information from persons in this country. Finally, the Court has indicated that deference to the political branches is most appropriate in the area of military affairs. *Cf. Rostker v. Goldberg*, 453 U.S. 57 (1981); *Brown v. Glines*, 444 U.S. 348 (1980).⁷ On the basis of these factors, and the intimation in *Virginia State Bd.* that the strong presumption against prior restraints may not be fully operable in the commercial context, we believe that the courts would, in general, uphold a licensing requirement for promotional speech that contains technical data.

Whether the “commercial speech” doctrine has any other bearing upon the constitutionality of the technical data provisions is not entirely

⁷ Because Congress' determinations are of special importance here, it would be useful to obtain clear and specific legislative authority for the technical data regulations. In addition, it may be advisable to provide remedies other than criminal penalties for violation of the ITAR provisions, such as civil sanctions.

clear. The Court has given little guidance concerning the meaning of the operative term. In *Ohralik v. Ohio State Bar Ass'n*, 436 U.S. 447, 455–456 (1978), the Court indicated that “commercial speech” is “speech proposing a commercial transaction.” See also *Virginia Pharmacy Board*, *supra*. In *Central Hudson Gas*, by contrast, the Court described “commercial speech” as “expression related solely to the economic interests of the speaker and its audience.” 447 U.S. at 561. This characterization prompted a separate opinion from Justice Stevens, joined by Justice Brennan, suggesting that such a definition was far too broad: “Neither a labor leader’s exhortation to strike, nor an economist’s dissertation on the money supply, should receive any lesser protection because the subject matter concerns only the economic interests of the audience. Nor should the economic motivation of a speaker qualify his constitutional protection; even Shakespeare may have been motivated by the prospect of pecuniary reward.” *Id.* at 579–80.

The contours of the “commercial speech” concept are suggested by the facts of the cases that have recognized the commercial speech doctrine. As we have said, speech that promotes a commercial transaction falls within the category. See *id.* (advertisements promoting purchase of utility services and sales of electricity); *Virginia State Bd.*, *supra* (advertisements for pharmaceutical products); *Linmark Associates*, *supra* (advertisements for real estate); *Friedman v. Rogers*, *supra* (use of trade name by optometrists). Thus far, the characterization as “commercial speech” has been largely confined to speech that merely promotes the sale or purchase of a product or service; in no case has it been applied to nonpromotional material simply because the speaker or writer is motivated by an economic interest, or because he is selling the information for a profit. We do not believe that the Court would hold that the transmission of technical data is “commercial speech” merely because the exporter charges a fee for its disclosure. Such a holding would prove far too much. It would sweep a broad range of fully protected expression into the commercial speech category. Writers of all varieties—political, literary, scientific, philosophical—often charge a fee for the books or articles they produce. There is no authority for the proposition that, simply by virtue of the fact that the documents are transferred for a fee, they are not protected by the First Amendment.

On the other hand, as we have suggested, the dissemination of technical data for the purpose of promoting the sale of a defense article or service would appear to be “commercial speech,” and the constitutional barriers to prior restraints may well have a diminished applicability to the dissemination of technical data in that context. As applied to such speech, the ITAR may well be constitutional, given the substantial governmental interest in suppressing the technical data and the qualified nature of the First Amendment protection that is accorded to promotional materials.

(3) *Transactions in which an exporter, unconnected with any foreign enterprise, disseminates technical data knowing or having reason to know that the data may be taken abroad and used there in the manufacture or use of arms.* Read in light of the relevant exemptions and definitions, the revised technical data provisions can be applied to any person who proposes to disseminate technical data in circumstances in which he knows or has reason to know that the information will be transmitted or taken abroad and used in the manufacture or use of arms. This coverage is so broad that the revised provisions could be applied in a number of factual settings to persons who are not directly connected or concerned in any way with any foreign conduct carrying dangerous potential for the United States. They could be applied, for example, to communications of unclassified information by a technical lecturer at a university or to the conversation of a United States engineer who meets with foreign friends at home to discuss matters of theoretical interest.

On the basis of the *Edler* decision, we believe that the technical data provisions may be applied constitutionally to persons or firms who combine (with the requisite *scienter*) with foreign enterprises to assist them in the development of sensitive technological capacities. In the absence of special circumstances,⁸ however, there is a critical constitutional difference between direct and immediate involvement in potentially dangerous foreign conduct, as in *Edler*, and the speech of the lecturer or the engineer in the examples given above. The difference is a factual one—the difference between conspiracy and assembly, incitement and informing—but it is no less important for constitutional purposes. See *Whitney v. California*, 274 U.S. 357, 376–77 (1927) (Brandeis, J., concurring). On the far side of that critical line, speech is not protected when it is brigaded with conduct; on the near side, it is at least arguably protected. Speech does not lose its protected character solely because the circumstances of the case give rise to a reasonable fear that persons other than the speaker may be moved or enabled by the speech to do dangerous things at remote times and places. See *Brandenburg v. Ohio*, 395 U.S. 444 (1969).⁹ Finally, if speech is arguably protected by the First Amendment, it may not be subjected to prior restraint except in the most extraordinary cases. Prior restraint against arguably protected speech is presumptively unconstitutional. See *Pittsburgh Press Co. v. Pittsburgh Comm'n on Human Relations*, *supra*.

⁸Special circumstances would include a grave and immediate threat to national security, as where important military information is being communicated to an adversary for current use against the United States. See *New York Times v. United States*, 403 U.S. 713 (1971).

⁹In *Brandenburg*, the Court held that speech would not be protected if it was both “directed to inciting or producing imminent lawless action” and “likely to incite or produce such action.” 395 U.S. at 447. The “directed to inciting” language at least arguably requires a showing of intent. Accordingly, when intent is absent, speech is—again at least arguably—protected by the First Amendment and may not, therefore, be suppressed by means of a prior restraint. A different conclusion may be appropriate, however, if very grave harm would definitely result from the disclosure. See *New York Times v. United States*, *supra*.

In accordance with these principles, we conclude that, in general, the revised technical data provisions cannot constitutionally be applied to the dissemination of technical data by persons having no direct connection with foreign conduct in settings in which there is no more than belief or a reasonable basis for believing (1) that a foreign national may take the technical data abroad and (2) that the data could be used by someone there in the manufacture or use of items on the Munitions List.¹⁰ In the absence of special circumstances that would justify prior restraint, such speech is arguably protected and, as a general rule, cannot be subjected constitutionally to the revised licensing requirement.

III. Conclusion and Recommendation

We have concluded that the revised technical data provisions can have constitutional and unconstitutional applications. As a matter of constitutional doctrine, that conclusion would require a court to consider whether the provisions are so substantially overbroad that they are void and unenforceable in all their applications. *See Broadrick v. Oklahoma*, 413 U.S. 601 (1973). For the present, however, we will forgo that inquiry in favor of three more pragmatic considerations.

First, *Edler* itself demonstrates that the problems presented by facial overbreadth do not necessarily prevent the enforcement of a licensing requirement in cases in which such a requirement can otherwise be constitutionally enforced. The *Edler* court saw its task as one of saving a necessary system of regulation, and it therefore chose to “construe” the statute and the applicable regulations narrowly to avoid the overbreadth problem and to preserve the possibility of enforcing the system against a criminal defendant (*Edler*) whose “speech” may not have been constitutionally protected. That approach was consistent with the approach that the Supreme Court itself has taken in some First Amendment cases. *See Civil Service Commission v. Letter Carriers*, 413 U.S. 548 (1972). It is an approach that may be taken when new cases arise under the revised technical data provisions.

Second, there is no absolute guarantee that other courts will be as concerned with saving the regulations as the *Edler* court was. The decision whether to enforce the overbreadth doctrine or to save the regulation through narrow “construction” is in part a matter of judicial discretion; and we cannot exclude the possibility that a court would

¹⁰ As *Edler* suggests, a different conclusion may be appropriate if the data have only military applications, or if the defendant knows such an application is intended. Even in such contexts, however, there may be situations in which the First Amendment bars a prior restraint consider, for example, a lecture on technical data having exclusively military uses when nationals of American allies are in the audience. We do not, however, conclude that the ITAR is unconstitutional with respect to all transactions falling within this category; we merely suggest it has a number of unconstitutional applications.

hold the technical data provisions substantially overbroad, and therefore void.

For obvious reasons, the best legal solution for the overbreadth problem is for the Department of State, not the courts, to narrow the regulations. In our judgment, the regulations should be narrowed to make it less likely that they will apply, or be seen to apply, to protected speech falling within the general category described in part 3 of section II above. We would respectfully recommend that an effort be undertaken along that line.¹¹

THEODORE B. OLSON
Assistant Attorney General
Office of Legal Counsel

¹¹We also recommend the legislative changes referred to in note 7, *supra*.

EXHIBIT

44

Constitutionality of Proposed Revisions of the Export Administration Regulations

Proposed revisions of the Export Administration Regulations dealing with the export of technical data to foreign nationals apply a prior restraint, in the form of a licensing requirement, to a wide variety of speech protected by the First Amendment. There is thus a considerable likelihood that in their current form the regulations would be invalidated as unconstitutionally overbroad. The regulations would also be vulnerable to constitutional attack on grounds of vagueness. If the regulations were cast not as a licensing scheme but as a form of subsequent punishment, they could cover a far broader range of conduct.

A licensing system is likely to be held constitutional only if it applies narrowly to exports which are likely to produce grave harm under the test set forth in *New York Times Co. v. United States*, 403, U.S. 713 (1971).

July 28, 1981

MEMORANDUM OPINION FOR THE DIRECTOR, CAPITAL GOODS PRODUCTION MATERIALS DIVISION, DEPARTMENT OF COMMERCE

This will respond to your request for the views of this Office on the constitutional issues raised by your draft revision of Part 379 of the Export Administration Regulations. Those regulations clarify the circumstances in which a license is required for the export of technical data to foreign nationals. We believe that the regulations, as currently drafted, have a number of unconstitutional applications, and that they should therefore be substantially revised in order to meet the constitutional objections. In the discussion below, we offer a general statement of our reasoning, together with some suggestions for possible revision.

I. Background

The general purpose of the regulations is to require a license before the "export" of "technical data," subject to two exceptions discussed below. Under the regulations, technical data is defined as "information and know-how of any kind that can be used, or adapted for use, in the design, production, manufacture, repair, overhaul, processing, engineering, development, operation, maintenance, or reconstruction of commodities." The term "commodity" encompasses a wide range of articles compiled on the Commodities Control List. Many of the articles fall generally in the broad category of "high technology" items, including,

but not limited to, items subject to direct use for military purposes. However, the definition of commodities also embraces items with only indirect military application. An “export” is defined as an actual shipment or transmission of technical data out of the United States; any release of technical data in the United States with knowledge or intent that the data will be shipped or transmitted from the United States to a foreign country; and any release of technical data of United States origin in a foreign country.

Under the regulations, a critical distinction is made between “basic research”—research “directed toward an increase in knowledge”—and “applied research”—research “directed toward the practical application of knowledge.” In addition, “development” is defined as the systematic use of knowledge directed toward the design and production of useful prototypes, materials, devices, systems, methods, or processes.

The regulations grant a general license for two broad categories of technical data. The first category provides a general license applicable to all destinations and includes three subcategories, of which the first consists of data “made generally available to the public” through release at conferences that are open to the public in the sense that the general public or a range of qualified participants is eligible to attend. This license appears designed to cover conferences in which the information will not be closely held because of the generally open nature of the proceedings. The second subcategory consists of exports resulting from “basic [scientific] research,” but “applied research” is specifically excluded from this license. The third consists of data “released through formalized classroom instruction . . . at commercial, academic, government or private institutions,” provided that the instruction does not give access to applied research or development activities.

The second broad category provides a general license to a limited number of countries for two subcategories of technical data. The first consists of data in such forms as manuals or instruction books, provided that they are sent as part of a transaction directly related to commodities licensed for export and that they are not directly related to the production of commodities wholly or in part. The second subcategory includes technical data supporting a bid, lease, or offer to sell.

For all other exports of technical data, a license is required.

II. Discussion

The Export Administration Regulations represent an effort to serve the legitimate interests of the United States in controlling the dissemination of information to foreign countries, especially when the result of such dissemination may be the development of military equipment. The courts, however, have been almost invariably unwilling to uphold licensing schemes that require government approval before particular information may be disclosed. Such schemes amount to “prior re-

straints,” which are presumed invalid and subject to an exceptional burden of justification. See *New York Times Co. v. United States*, 403 U.S. 713 (1971). The courts have never held that the technical and scientific materials involved here—which, to be sure, do not contain political speech—are entitled to less than full protection under the First Amendment. In order to ensure that the regulations at issue here will survive judicial scrutiny under the First Amendment, we believe that it will be necessary to revise them and thus to guarantee that the legitimate interests that they attempt to promote will in fact be served if the regulations are challenged in court.

In a recent memorandum, this Office commented on the constitutional issues raised by a revision of the “technical data” provisions of the International Traffic in Arms Regulations (ITAR). See Memorandum Opinion of July 1, 1981, from Theodore B. Olson, Assistant Attorney General, Office of Legal Counsel, for the Office of Munitions Control, Department of State.* In that memorandum, we divided the technical data provisions of the ITAR into three general categories, applying a separate First Amendment analysis to each. The first category included transactions involving arrangements entered into by exporters to assist foreign enterprises in the acquisition or use of technology. Following the decision in *United States v. Edler Industries, Inc.*, 579 F.2d 516 (9th Cir. 1978), we concluded that technical data exported during the course of such transactions fell into the same general category as communications made during the course of a criminal conspiracy. The courts treat such communications not as speech protected from prior restraint, but as an integral part of conduct that the government has a right to prevent. See *Ohralik v. Ohio State Bar Ass’n*, 436 U.S. 447, 456 (1978), and cases cited. We concluded, therefore, that technical data transmitted during the course of such transactions could constitutionally be subjected to a licensing requirement.

The second category consisted of technical data divulged for the purpose of promoting or proposing the sale of technical data or items on the munitions list. We concluded that this form of “commercial speech” would probably not be held subject to the prior restraint doctrine in light of the lower level of protection sometimes accorded to that speech and the substantial government interests at stake. See *Central Hudson Gas & Elec. v. Public Service Comm’n*, 447 U.S. 557 (1980).

The third category consisted of technical data disseminated by an exporter who is unconnected with any foreign enterprise, but who knows or has reason to know that the data may be taken abroad and used there in the manufacture or use of arms. Speech in this category, we concluded, would generally be protected from prior restraint. The

* Note: The July 1, 1981, Memorandum Opinion is reprinted in this volume, at p. 206, *supra*. Ed.

Court has made clear that the First Amendment protects the right of Americans to communicate with foreigners, even if the foreigners are citizens of adversaries of the United States. *See Lamont v. Postmaster General*, 381 U.S. 301 (1965); *see also Kleindienst v. Mandel*, 408 U.S. 753 (1972).¹ The Court has also made clear that a prior restraint can be imposed only in the most compelling circumstances. *See New York Times Co. v. United States*, 403 U.S. 713 (1971). In the absence of such circumstances—such as a grave and immediate threat to national security, as where important military information is being communicated to an adversary for current use against the United States—speech falling in this category is protected from prior restraint. *See id.*

We believe that this general framework is the proper one from which to analyze the restrictions at issue here. Applying that framework, it is apparent that the revised regulations apply a prior restraint, in the form of a licensing requirement, to a wide variety of protected speech falling in the third category described in our memorandum on the ITAR. For example, scientists and researchers must obtain a license for exports of technical data resulting from applied research. The results of such research are, however, entitled to full protection under the First Amendment. Similarly, the regulations subject university instruction to a licensing requirement if the instruction includes applied research or development activities. This requirement applies a prior restraint to protected speech and is thus impermissible except in the most compelling circumstances. For example, we do not believe that the courts would uphold a requirement that a professor obtain a license before “releasing” information to foreign students simply because the information may be used in the overhaul of certain kinds of computer chips. The same considerations suggest that an American scientist could not be barred in advance from informing his colleagues, some of whom are foreign nationals, of the results of an experiment that could help produce some other high technology item. Other examples could readily be imagined. In more general terms, the regulations cover a wide variety of speech that is constitutionally protected. We believe that they should therefore be substantially narrowed. Indeed, the range of impermissible applications is sufficiently great, and the number of permissible applications so comparatively small, that there is a considerable likelihood that in their current form the regulations would be invalidated as substantially overbroad under *Broaderick v. Oklahoma*, 413 U.S. 601 (1973).

We note in addition that the regulations are vulnerable to claims of vagueness in two critical respects. First, the distinction between “applied research” and “basic research” seems to be too thin to support the

¹ The Court has apparently not authoritatively determined whether and to what extent Americans have First Amendment rights while travelling abroad. *See Haig v. Agee*, 453 U.S. 280 (1981) (assuming such rights *arguendo*).

conclusion that “applied research” can in all contexts be subjected to the licensing requirement. Second, the definition of an export as a “release of technical data . . . with knowledge or intent that the data will be . . . transmitted from the United States to a foreign country” is highly ambiguous. In order to be subject to the licensing requirement, must the speaker know with a high degree of certainty that the data will be so transmitted? Or, as we have been told informally, is it sufficient if he knows that foreign nationals are among his audience? If the first interpretation is adopted, the regulations will of course be substantially more narrow.

While we are not at this stage prepared to describe in detail what materials may, consistent with the First Amendment, be covered by the regulations, we would like to conclude with some general observations. First, the legal difficulties in this context arise largely because of the profound constitutional hostility to prior restraints. If the regulations were cast, not as a licensing scheme, but as a form of subsequent punishment, they could cover a far broader range of conduct. Under *Brandenburg v. Ohio*, 395 U.S. 444, 447 (1969), the government may punish speech that is both “directed to inciting or producing imminent lawless action” and “likely to . . . produce such action” (footnote omitted). Similar considerations may justify subsequent punishment for the export of technical data in circumstances in which the exporter knows or intends that the result will likely be harmful to the national security interests of the United States. In order to implement such a scheme of subsequent punishment, persons planning to “export” might be given an opportunity, but not required, to seek advice from the Secretary of Commerce as to whether the particular disclosure is prohibited by law.

Second, if a licensing system is to be retained, the constitutional prohibition against prior restraint suggests that it may be applied only to exports that are very likely to produce grave harm. See *New York Times Co. v. United States*, *supra*. Under this rationale it may be permissible to require a license before a person may disclose (with the requisite *scienter*) technical data having direct military applications to an adversary of the United States. Apart from this limited category, we believe that the prior restraint doctrine bars a licensing requirement.

As noted above, these comments are directed to the current version of your regulations. We will be pleased to provide further comments or assistance with respect to any future revisions.

THEODORE B. OLSON
Assistant Attorney General
Office of Legal Counsel

EXHIBIT

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U.S. Department of Justice
Office of Legal Counsel

Office of the
Deputy Assistant Attorney General

Washington, D.C. 20530

JUL 5 - 1984

MEMORANDUM FOR DAVIS R. ROBINSON
LEGAL ADVISER
DEPARTMENT OF STATE

Re: Revised Proposed International Traffic in
Arms Regulations (ITAR)

This responds to a memorandum of June 5, 1984, from Mr. Cummings of your Office, requesting the views of this Office on a proposed revision of the International Traffic in Arms Regulations (ITAR), recently prepared by the Department of State (hereinafter "current draft"). This Office has previously provided extensive comments on an earlier proposed revision of the ITAR (hereinafter "prior draft"). 1/ See Memorandum for William B. Robinson, Office of Munitions Control, Department of State, from Theodore B. Olson, Assistant Attorney General, Office of Legal Counsel (July 1, 1981) (hereinafter "1981 ITAR

1/ This Office first addressed constitutional issues related to the ITAR in 1978 in a memorandum for Dr. Frank Press, the Science Adviser to President Carter. That opinion considered the constitutionality of the restrictions on the dissemination of cryptographic information developed by scientists and mathematicians in the private sector independent of government supervision or support. We concluded that the ITAR's prohibition of disclosure of these "public" cryptographic ideas and information amounted to an unconstitutional prior restraint. See Memorandum for Dr. Frank Press, Science Adviser to the President, from John M. Harmon, Assistant Attorney General, Office of Legal Counsel (May 11, 1978) (attached).

Memorandum"). 2/ For reasons set forth in detail below, we believe that the current draft is an improvement over the prior draft, but that the application of the ITAR to a significant class of conduct continues to raise serious constitutional questions, which should be resolved prior to promulgation of the revised ITAR.

I. BACKGROUND

In our 1981 memorandum, we discussed primarily the restrictions on, and the exemptions allowed for, the "export" of "technical data." Under the ITAR, the "export" of "technical data" is subject to a licensing requirement unless it falls within one of the exemptions. We concluded that the prior draft of the ITAR had a number of unconstitutional applications, specifically with regard to transactions in which an exporter, unconnected with any foreign enterprise, disseminated technical data knowing or having reason to know that the data may be taken abroad and used there in the manufacture or use of arms. We noted that the coverage of the technical data provisions was so broad that they

could be applied in a number of factual settings to persons who are not directly connected or concerned in any way with any foreign conduct carrying dangerous potential for the United States. They could be applied, for example, to communications of unclassified information by a technical

2/ In 1981, we also issued an opinion which addressed the constitutionality of proposed regulations under the Export Administration Act (EAA) regarding the export of technical data relating to items on the Department of Commerce's Commodities Control List. These regulations proposed generally the same definitions, prohibitions, and licensing requirements with respect to technical data associated with commodities as the ITAR proposed for technical data associated with munitions. We concluded that the proposed EAA regulations also amounted to an unconstitutional prior restraint on the disclosure of a wide variety of protected speech. See Memorandum for Henry D. Mitman, Director, Capital Goods Production Materials Divisions, Department of Commerce, from Theodore B. Olson, Assistant Attorney General, Office of Legal Counsel (July 28, 1981) (attached).

lecturer at a university or to the conversation of a United States engineer who meets with foreign friends at home to discuss matters of theoretical interest.

1981 ITAR Memorandum at 13.

Relying on the decision in United States v. Edler Industries, Inc., 579 F.2d 516 (9th Cir. 1978), we concluded in 1981 that the technical data provisions could be constitutionally applied to persons or firms who assisted foreign enterprises in the development of sensitive technological capacities. We also concluded, however, that in the absence of special circumstances, such as a grave and immediate threat to national security, the difference between direct and immediate involvement in potentially dangerous conduct, such as in the Edler case, and the speech of a lecturer or engineer in the hypothetical posed above, could be critical for constitutional purposes. Thus, the technical data provisions could not constitutionally be applied to the dissemination of technical data by persons having no direct connection with foreign conduct in settings in which there is no more than a belief or a reasonable basis for believing: (1) that a foreign national may take technical data abroad; and (2) that the data could be used by someone there in the manufacture or use of items on the controlled munitions list. In the absence of special circumstances that would justify a prior restraint on such speech, the speech was presumptively protected and therefore could not constitutionally be subjected to a licensing requirement.

The 1981 ITAR Memorandum did not purport to determine the constitutionality of all possible applications of the ITAR. We merely advised that there were a number of unconstitutional applications which would make the regulations overbroad. We suggested that the regulations be narrowed to make it less likely that they would apply, or might be thought by a court to apply, to protected speech.

II. SUBSEQUENT LEGAL DEVELOPMENTS

Since we wrote our 1981 ITAR Memorandum, the Supreme Court has decided two commercial speech cases. In both cases, the Court has continued the extent of protection of commercial speech recognized in the earlier cases, upon which our previous memorandum relied. The details of the two more recent cases are not relevant to our analysis here, but it is

important to note that, in our judgment, the constitutional principles upon which we relied remain intact. 3/

III. DISCUSSION

The current draft of the ITAR circulated by your Office was apparently intended to remedy the constitutional defects

3/ In Metromedia, Inc. v. San Diego, 453 U.S. 490 (1981) (plurality opinion), the Court considered a city ordinance which permitted onsite commercial advertising but prohibited offsite commercial advertising and noncommercial advertising with limited exceptions. The plurality opinion concluded that the ordinance was constitutional as applied to commercial speech because it satisfied the standards of Central Hudson Gas & Electric Corp. v. Public Service Comm'n, 447 U.S. 557 (1981), upon which we relied in our prior opinion. The substantial government interests in improved traffic safety and appearance of the city were directly served by the ordinance, which was no broader than necessary to accomplish those ends. (The ban was invalidated as applied to noncommercial speech, however, because the Government's asserted interests were insufficient to justify the ban, given that commercial advertising was permitted.) In Bolger v. Youngs Drug Products Corp., 103 S. Ct. 2875 (1983), the Court struck down a federal statute which prohibited unsolicited mailing of contraceptive advertisements. The Court held that the statute was an unconstitutional restriction on commercial speech because the Government's interests in shielding recipients from unwanted mail which they might find offensive and aiding parents in controlling the information which their children received about birth control were insufficient to overcome the protection afforded to speech that was truthful and related to activity protected from unwanted state interference and also to important social issues. City of Los Angeles v. Taxpayers for Vincent, No. 82-975, 52 U.S.L.W. 4594 (U.S. May 15, 1984), is a sort of sequel to Metromedia, although it is not a commercial speech case. In Taxpayers, the Court upheld a city ordinance which prohibited the posting of signs on public property. The Court held that the content-neutral prohibition was justified by the city's substantial esthetic interests, even as applied to signs which carried political messages. Of course, the ordinance was directed against--and prohibited--only the use of the signs. Speech itself was not regulated and could be continued to be conveyed on public property by a speaker or distributor of leaflets.

existing in the prior draft. The summary of the current draft notes that the list of exemptions from the licensing requirement of the ITAR was one of the provisions which received the most comments and that concerns were expressed about the relationship between that licensing requirement and the First Amendment. The summary states that the revision "seeks to reflect these concerns, and certain new exemptions are provided." Prior draft at p. 10. We have examined the new exemptions as well as the revised definitions of "export" and "technical data," and we offer the following comments. For convenience, the relevant provisions of the prior and current drafts are set out in full as an appendix to this opinion.

A. "EXPORT"

The definition of export with regard to technical data has been changed. ^{4/} The prior draft described four general ways in which technical data could be exported:

- (1) sending, transmitting, or taking defense articles and defense services, including technical data, out of the United States in any manner, see § 121.34(a)(1);
- (2) the disclosure to a foreign national of technical data relating to significant military equipment in the United States; see § 121.34(b), first sentence ^{5/};

^{4/} The definitions of export in the current draft with regard to "defense articles" and "defense services" seem to be substantively unchanged from the prior draft, at least for purposes of constitutional evaluation. These provisions were not within the scope of our 1981 ITAR Memorandum, and they are not relevant here.

^{5/} This sentence describes a narrower category than category (4), see p. 6, infra, because it applies only to technical data relating to significant military equipment, not all technical data, but this category is also broader than category (4) because, as applied to technical data relating to significant military equipment, this provision does not require that the transferor know or have reason to know that the technical data will be disclosed outside the United States.

(3) the disclosure of technical data to a foreign national abroad, see id., second sentence 6/; and

(4) the disclosure of technical data to a foreign national in the United States when the transferor knows or has reason to know that the disclosed technical data will be disclosed outside the United States, see id., third sentence. 7/

Travel abroad by a U.S. national or permanent resident with personal knowledge of technical data was excluded from the definition of export. See id., fourth sentence.

Under the current draft, these four categories appear to be consolidated into two:

(1) sending or taking technical data outside the United States in any manner except for travel by a person with personal knowledge of technical data, see § 121.20(c); and

(2) disclosing or transferring technical data to a foreign person, whether in the United States or abroad, unless an exemption is applicable. See § 121.20(d).

It appears to us that the first category of export under both the prior and current drafts is substantively identical, although in slightly different form. Under the prior draft, travel abroad was also exempted, although the exemption was contained in the subsection relating to disclosure and did not specifically refer to sending or taking technical data out of the United States.

The difference between the two drafts is that the second, third, and fourth categories of exports in the prior draft have

6/ As drafted, the first sentence of § 121.34(b) referred also to disclosures of technical data relating to significant military equipment abroad. Given that this second sentence refers to disclosure of any technical data abroad, the reference in the first sentence to disclosure abroad of technical data relating to significant military equipment seems superfluous.

7/ This provision seems duplicative of § 121.34(a)(2), which refers to the transfer of technical data to a foreign national in the United States in circumstances in which the transferor knows or has reason to know that the technical data will be sent, transmitted, or taken out of the United States.

been condensed into the second category in the current draft. On its face, and without regard to the exemptions, the scope of coverage of the current draft is broader because it applies to all disclosures and transfers of technical data to a foreign person in the United States and abroad, unless exempted, whereas the prior draft seemed to require that the transferor know or have reason to know that technical data other than that relating to significant military equipment would be disclosed outside the United States. Thus, whether the coverage of the current draft is narrower for constitutional purposes than the prior draft depends on the scope of the exemptions provided in the current draft. We examine those exemptions in detail below, although we will discuss the definition of "technical data" first in order to complete the background for our inquiry.

B. "TECHNICAL DATA"

Both the prior and the current drafts describe generally three types of technical data. Two are substantially identical:

(1) classified information relating to defense articles and defense services, see § 121.315(b) (prior draft) and § 121.30(a) (current draft); and

(2) information covered by a patent secrecy order, see § 121.315(c) (prior draft), or an invention secrecy order, see § 121.30(b) (current draft).

The third category is described in the prior draft as "unclassified information not in the public domain relating directly to" various categories of information. See § 121.315(a). The current draft is phrased in terms of "information which is not classified pursuant to U.S. laws and regulations and which is directly related to" generally the same kinds of information. See § 121.30(c). Essentially, this information relates to the "design, engineering, development, production, processing, manufacture, operation, overhaul, repair, maintenance, or reconstruction of defense articles." The current draft specifically includes "information which advances the state of the art of articles on the U.S. Munitions List." See § 121.30(c). 8/

8/ The prior draft differs by referring to information which is related to "training" in the operation, use, overhaul, repair, or maintenance of an article. This difference does not appear to be a substantive change. The prior draft also included "performance of a defense service" within the definition of technical data. Performance of a defense service is now specifically covered in § 121.18.

Two changes have been made in the definition of technical data in the current draft, which specifically excludes information in the "public domain" and "general mathematical and engineering information which is only and [sic] indirectly useful in the defense field." Information in the public domain is defined to include information which is published and generally accessible or available to the public at newsstands and bookstores, through certain subscriptions, through certain mailing privileges, and at public libraries. In the prior draft, these same types of information were exempt by general exemptions from the licensing requirement, rather than through exclusions from the definition of technical data. See § 125.11(a)(1) and (10). Thus, although the definitions of technical data in the prior and current drafts differ because of the exclusion in the current draft of information in the public domain and general mathematical or engineering information, we do not believe that this difference amounts to a substantive change in the coverage of the regulations. If the scope of the application of the licensing scheme under the current draft is narrower, it would be only if the scope of the exemptions were broader. We turn therefore to an examination of the exemptions.

C. EXEMPTIONS

The prior draft contained ten exemptions. The current draft contains thirteen. Of the ten exemptions provided in the prior draft, the first related to technical data which was published or otherwise generally available to the public. The last related to "information which was not designed or intended to be used, or which could not reasonably be expected to be used, in direct application in the design, production, [etc.], of defense articles (for example, general mathematical, engineering, or statistical information not purporting to have or not reasonably expected to be given direct application to defense articles)." As noted above, these categories of information are generally covered in the current draft by exclusions from the definition of technical data. Thus, there are eight exemptions contained in the prior draft which must be compared to the current draft, and four additional exemptions provided in the current draft to examine.

Six of the exemptions appear to be substantively identical to, if not verbatim repetitions from, the prior draft. These provisions are identified in the footnote below and are not

relevant to our discussion. 9/ The two remaining exemptions contained in the prior draft have been narrowed in the current

<u>9/ Category of Exemption</u>	<u>Prior Draft</u>	<u>Current Draft</u>
Export in furtherance of a manufacturing license or technical assistance agreement approved by the Department of State.	§ 125.11(a)(3)	§ 125.4(b)(2)
Export in furtherance of a contract between the exporter and the U.S. Government which provides for the export of certain technical data.	§ 125.11(a)(4)	§ 125.4(b)(3)
Export of manuals and aids relating to lawfully exported articles to the same recipient.	§ 125.11(a)(5)	§ 125.4(b)(5)
Export of additional copies or certain revised copies of technical data previously exported or authorized to be exported to the same recipient.	§ 125.11(a)(6)	§ 125.4(b)(4)
Export of data relating to firearms and ammunition not in excess of .50 caliber.	§ 125.11(a)(7)	§ 125.4(b)(6)
Export of data directly relating to classified information previously exported to the same recipient.	§ 125.11(a)(9)	§ 125.4(b)(8)

draft. The revision does not appear to raise any constitutional issues. 10/

The current draft contains five new exemptions. (For convenience, we will refer to these five exemptions by the subsection number of § 125.4(b) of the current draft.) Two of the exemptions, subsections (1) and (11), do not alleviate the effect of the licensing requirement as a prior restraint on the export of technical data as defined in the regulations. Subsection (1) exempts information which relates to defense articles but does not qualify as technical data pursuant to the definition in § 121.30. Because we are concerned in this memorandum only with information which is defined as technical data and subject to export restrictions because of that definition, subsection (1), although useful for purposes of clarity,

10/ The prior draft contained an exemption, § 125.11(a)(2), for information approved for public release by any U.S. Government department or agency having authority to classify information and material which did not disclose details relating to articles on the munitions list. The corresponding provision in the current draft, § 125.4(b)(13), exempts information approved for public release by the federal department or agency which originated or developed the information. We understand that the purpose of this change was to make clear that only the department or agency which generated the information could confer the exemption for export by prior approval of the information for public release. This change was designed to prevent a situation in which the action by one agency of releasing to the public information of another agency, even if not authorized to do so, would have the consequence of not only putting that information into the public domain but also triggering the exemption and thereby allowing export of that information without a license. We must caution, however, that we are not sure that this revision will have the intended effect. If the information is publicly released by any agency of the Government, we do not know how that information could be "recaptured" by the Government. Once the information is in the public domain, we cannot conceive of circumstances in which its export could be constitutionally restricted.

The second change relates to technical data which is being returned to the original source of import. In the prior draft, the exemption applied to all technical data. See § 125.11(a)(8). The current draft is limited to information which is not classified technical data. See § 125.4(b)(7). We understand that the purpose of this change is to withdraw the exemption allowed under the prior version for the export of classified information without a license.

does not affect our consideration of the scope of the prohibition of the export of technical data without a license or without an exemption from the licensing requirement.

Subsection (11) exempts the export of technical data pursuant to an arrangement with the Department of Defense or NASA which requires such exports if the exporter has been granted an exemption in writing from the licensing provisions by the Office of Munitions Control. In our view, the requirement of obtaining an exemption in writing is no different for purposes of First Amendment analysis from the requirement of obtaining the license itself. Both operate as a prior restraint, and both can be subject to the discretion of the executive officer from whom each must be sought. ^{11/} We do not believe, therefore, that this exemption significantly affects the scope of the licensing requirement under the ITAR.

Two of the new exemptions do provide greater freedom from prior restraint on the export of technical data, although they apply only in narrow factual circumstances. Subsection (9) exempts an export by a U.S. corporation to a U.S. person employed by that corporation overseas, subject to two conditions: that the information must be used solely by U.S. persons and the U.S. person must be directly employed by the U.S. corporation and not by a foreign subsidiary. The exemption is further subject to the limitations found in § 125.1(b) of the current draft, which precludes use of the license for export of technical data for foreign production purposes or technical assistance unless approved in advance by the Department of State.

Subsection (12) exempts any exports specifically exempted under Part 126 of the subchapter of the ITAR, which includes shipments by or for federal agencies, certain exemptions for unclassified technical data exported to and for use in Canada, and certain exports under the foreign military sales program. With the exception of the exemption for exports to Canada, these exemptions do not significantly narrow the scope of the licensing requirement as applied to private persons.

By expanding the exemptions to the licensing requirement, these two exemptions, subsections (9) and (12), do improve the constitutional status of the ITAR, which, as our prior

^{11/} We understand from Mr. Cummings that this written consent may actually take the form of a license or, for reasons relating to customs or possibly other laws, it may take the form of a letter granting consent.

opinion concluded, suffered from overbreadth because of the number of unconstitutional applications which we believed the ITAR to have. To the extent that the exemptions are expanded, the overbreadth is reduced. Our concern, however, is that neither of these exemptions addresses the specific examples of unconstitutional prior restraint identified in our prior opinion, that is, "communications of unclassified information by a technical lecturer at a university or to the conversation of a United States engineer who meets with foreign friends at home to discuss matters of theoretical interest." See 1981 ITAR Memorandum at 13.

The remaining exemption, subsection (10), appears to be an effort to address these types of situations, although this exemption is also insufficient to eliminate the licensing requirement in the two specific factual settings posed in the hypothetical above, as well as other situations which may be easily suggested. Subsection (10) exempts disclosure of unclassified information by U.S. corporations or academic institutions to foreign persons who are their bona fide and full time regular employees 12/ if an employee's permanent abode is in the United States; an employee is not a national of a country to which exports are specifically prohibited by the ITAR 13/; and the corporation or institution informs that employee in writing that the technical data may not be transferred to other foreign persons without the written

12/ As we understand from Mr. Cummings, this exemption was intended to be exercised by the employment office of the corporation or the university, which would have the responsibility for informing its employees of the extent of their rights to disclosure to other employees without the prior written consent of the Office of Munitions Control.

13/ Pursuant to § 126.1 of the current draft, these countries are: Albania, Bulgaria, Cuba, Czechoslovakia, East Germany, Estonia, Hungary, Kampuchea, Latvia, Lithuania, North Korea, Outer Mongolia, Poland, Rumania, the Soviet Union, Vietnam, and any other country or area with respect to which the United States maintains an arms embargo or "whenever an export would not otherwise be in furtherance of world peace and the security and foreign policy of the United States." We assume that these other countries are publicly announced, from time to time, according to some objective criteria, so that their identity and the basis for the prohibition of exports to that country may be known to potential exporters.

consent of the Office of Munitions Control. Under this subsection, an exemption would be provided for full time, regular employees of a single corporation or university to discuss technical data among themselves. What is not exempt, however, without the prior written consent of the Office of Munitions Control, is a disclosure of the information by an employee of a corporation or university to a foreign national who is a part-time or temporary employee of that corporation or university; a full time employee of another corporation or university; another professional person attending a conference or a seminar at the corporation or university; a student; or a friend.

We recognize the attempt made to address the concerns raised in our prior opinion, and, as we stated with regard to the new exemptions provided in subsections (9) and (12), to the extent that subsection (10) constricts the area of application of the licensing requirement, the additional exemption reduces the area of potential unconstitutional application of that requirement. We have identified, however, a number of circumstances in which the prior written consent of the Office of Munitions Control would be required for disclosure of the technical data. As noted above, with regard to subsection (11), which requires the written consent of that Office for export of certain technical data pursuant to an arrangement with the Department of Defense or NASA, we do not believe that there is a constitutionally significant distinction between the requirement of obtaining prior written consent and obtaining a license. See note 11, supra. In some of these circumstances, as well as others, we believe that the ITAR may still be read to operate as a prior restraint on the speech of "persons having no direct connection with foreign conduct in settings in which there is no more than belief or a reasonable basis for believing (1) that a foreign national may take the technical data abroad and (2) that the data could be used by someone there in the manufacture or use of items on the Munitions List." 1981 ITAR Memorandum at 14. As we concluded in that memorandum, "[i]n the absence of special circumstances that would justify prior restraint, such speech is arguably protected and, as a general rule, cannot be subjected constitutionally to the . . . licensing requirement." Id.

We are aware of the case law interpreting 22 U.S.C. § 2778, the statutory authority for the ITAR, which requires a specific intent willfully to export particular goods on the Munitions List without a license. See, e.g., United States v. Hernandez, 662 F.2d 289, 292 (5th Cir. 1981) ("statute's requirement of willfulness connote[s] a voluntary and intentional violation

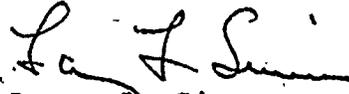
of a known legal duty," that is, "that the defendant knew that he was unlawfully exporting weapons on the Munitions List"); United States v. Beck, 615 F.2d 441, 449-50 (7th Cir. 1980) (conviction requires "proof that the defendants (1) exported or attempted to export (2) goods on the United States Munitions List (3) without first having obtained a license for the export (4) willfully"); and United States v. Wieschenberg, 604 F.2d 326, 331 (5th Cir. 1979) (to sustain a conviction for conspiracy to violate the statute, "government must prove that the defendants agreed to and specifically intended to export without a license particular property that is restricted by the Munitions List"). It may be that the standard of knowledge and intent that is imposed by these cases with regard to the export of defense articles might, as applied to technical data, be sufficient to broaden, in effect, the scope of the exemption under subsection (10) to the extent consistent with the constitutional standard articulated in our previous memorandum and reaffirmed here.

We remain of the opinion, however, that on their face, the ITAR still present some areas of potentially unconstitutional application, and, moreover, that we cannot be certain whether existing case law would be sufficient to narrow the range of application to a constitutionally sufficient extent. In any event, as we advised in our 1981 Memorandum with regard to the overbreadth present in the prior draft, we believe that "the best legal solution . . . is for the Department of State, not the courts, to narrow the regulations." See 1981 ITAR Memorandum at 15.

IV. CONCLUSION

We have carefully examined the definitions of "export" and of "technical data," as well as the exemptions provided from the licensing requirement, under the current draft of the ITAR, and we believe that the scope of the exemptions is broader, and the coverage of the licensing requirement therefore narrower, in at least three specific areas of importance to private persons: exports by disclosures to certain employees of U.S. corporations overseas (subsection (9)); certain exports to Canada (subsection (12)); and exports by disclosure of technical data by U.S. corporations and academic institutions to foreign nationals who are their full time, regular employees, subject to certain conditions (subsection (10)). Notwithstanding these additional exemptions, however, we have identified certain areas which still appear to us to

present sensitive constitutional issues. As we previously recommended, this remaining overbreadth should be eliminated by more narrowly drafted regulations.



Larry L. Simms
Deputy Assistant Attorney General
Office of Legal Counsel

Attachments:

Appendix of regulations
Memorandum of May 11, 1978, for Dr. Frank Press
Memorandum of July 28, 1981, for Henry D. Mitman

EXHIBIT

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1997 REPORT ON THE AVAILABILITY OF BOMBMAKING INFORMATION

PREPARED BY THE UNITED STATES DEPARTMENT OF JUSTICE
AS REQUIRED BY SECTION 709(a) IF THE
ANTITERRORISM AND EFFECTIVE DEATH PENALTY ACT OF 1996

SUBMITTED TO:

THE UNITED STATES HOUSE OF REPRESENTATIVES
AND THE UNITED STATES SENATE

APRIL 1997

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INTRODUCTION AND SUMMARY

In section 709(a) of the Antiterrorism and Effective Death Penalty Act of 1996 ["the AEDPA"], Pub. L. No. 104-132, 110 Stat. 1214, 1297 (1996), Congress provided that, in consultation with such other officials and individuals as she considers appropriate, the Attorney General shall conduct a study concerning --

(1) the extent to which there is available to the public material in any medium (including print, electronic, or film)

that provides instruction on how to make bombs, destructive devices, or weapons of mass destruction;

- (2) the extent to which information gained from such material has been used in incidents of domestic or international terrorism;
- (3) the likelihood that such information may be used in future incidents of terrorism;
- (4) the application of Federal laws in effect on the date of enactment of this Act to such material;
- (5) the need and utility, if any, for additional laws relating to such material; and
- (6) an assessment of the extent to which the first amendment protects such material and its private and commercial distribution.

Section 709(b) of the AEDPA, in turn, requires the Attorney General to submit to the Congress a report containing the results of the study, and to make that report available to the public.

Following enactment of the AEDPA, a committee was established within the Department of Justice ["the DOJ Committee"], comprised of departmental attorneys as well as law enforcement officials of the Federal Bureau of Investigation and the Treasury Department's Bureau of Alcohol, Tobacco and Firearms. The committee members divided responsibility for undertaking the tasks mandated by section 709. Some members canvassed reference sources, including the Internet, to determine the facility with which information relating to the manufacture of bombs, destructive devices and other weapons of mass destruction could be obtained. Criminal investigators reviewed their files to determine the extent to which such published information was likely to have been used by persons known to have manufactured bombs and destructive devices for criminal purposes. And legal experts within the Department of Justice reviewed extant federal criminal law and judicial precedent to assess the extent to which the dissemination of bombmaking information is now restricted by federal law, and the extent to which it may be restricted, consistent with constitutional principles. This Report summarizes the results of these efforts.

As explained in this Report, the DOJ committee has determined that anyone interested in manufacturing a bomb, dangerous weapon, or a weapon of mass destruction can easily obtain detailed instructions from readily accessible sources, such as legitimate reference books, the so-called underground press, and the Internet. Circumstantial evidence suggests that, in a number of crimes involving the employment of such weapons and devices, defendants have relied upon such material in manufacturing and using such items. Law enforcement agencies believe that, because the availability of bombmaking information is becoming increasingly widespread (over the Internet and from other sources), such published instructions will continue to play a significant role in aiding those intent upon committing future acts of terrorism and violence.

While current federal laws -- such as those prohibiting conspiracy, solicitation, aiding and abetting, providing material support for terrorist activities, and unlawfully furthering civil disorders -- may, in some instances, proscribe the dissemination of bombmaking information, no extant federal statute provides a satisfactory basis for prosecution in certain classes of cases that Senators Feinstein and Biden have identified as particularly troublesome. Senator Feinstein introduced legislation during the last Congress in an attempt to fill this gap. The Department of Justice agrees that it would be appropriate and beneficial to adopt further legislation to address this problem directly, if that can be accomplished in a manner that does not

impermissibly restrict the wholly legitimate publication and teaching of such information, or otherwise violate the First Amendment.

The First Amendment would impose substantial constraints on any attempt to proscribe indiscriminately the dissemination of bombmaking information. The government generally may not, except in rare circumstances, punish persons either for advocating lawless action or for disseminating truthful information -- including information that would be dangerous if used -- that such persons have obtained lawfully. However, the constitutional analysis is quite different where the government punishes speech that is an integral part of a transaction involving conduct the government otherwise is empowered to prohibit; such "speech acts" -- for instance, many cases of inchoate crimes such as aiding and abetting and conspiracy -- may be proscribed without much, if any, concern about the First Amendment, since it is merely incidental that such "conduct" takes the form of speech.

Accordingly, we have concluded that Senator Feinstein's proposal can withstand constitutional muster in most, if not all, of its possible applications, if such legislation is slightly modified in several respects that we propose at the conclusion of this Report. As modified, the proposed legislation would be likely to maximize the ability of the Federal Government -- consistent with free speech protections -- to reach cases where an individual disseminates information on how to manufacture or use explosives or weapons of mass destruction either (i) with the intent that the information be used to facilitate criminal conduct, or (ii) with the knowledge that a particular recipient of the information intends to use it in furtherance of criminal activity.

BACKGROUND

In order fully to understand the issues we have been asked to address, it is helpful first to describe the legislative proceedings that prompted enactment of section 709 of the AEDPA.

On May 11, 1995, less than one month after the Oklahoma City terrorist bombing, in testimony before the Subcommittee on Terrorism, Technology and Government Information of the Senate Judiciary Committee, Deputy Assistant Attorney General Robert Litt, of the Justice Department's Criminal Division, explained that "how to" guides for the manufacture of explosives are readily available on the Internet, in bookstores and even in public libraries¹. To illustrate the point, he observed that, according to a news article, only hours after the Oklahoma City bombing, someone posted on the Internet directions -- including a diagram -- explaining how to construct a bomb of the type that was used in that tragic act of terrorism. Another Internet posting offered not only information concerning how to build bombs, but also instructions as to how the device used in the Oklahoma City bombing could have been improved.

Mr. Litt explained that "expansion of the scope of federal criminal laws dealing with the violent, terrorist activity will permit the Department of Justice to prosecute those who engage in efforts to assist violence and terrorism over the Internet." Mr. Litt observed, however, that despite the dangers posed by the dissemination of such information and the callous disregard of human life shown by those who are responsible for such action, the First Amendment imposes significant constraints on the ability of the federal government to proscribe and penalize such activity.

On June 5, 1995, Senator Feinstein proposed an amendment to a bill (S. 735) that later became the AEDPA. 141 Cong. Rec. S7682 (daily ed. June 5, 1995). The purpose of the amendment was to address the problem of the increasingly widespread "distribution of bombmaking information for criminal purposes." *Id.* Following some debate in the Senate, Senator Feinstein's amendment was slightly modified, and the full Senate unanimously approved it by voice vote. *Id.* at S7686. The Senate passed S. 735 on June 7, 1995. 141

Cong. Rec. S7857 (daily ed.). As passed by the Senate, the Feinstein amendment would have amended 18 U.S.C. § 842 to add a new prohibition:

It shall be unlawful for any person to teach or demonstrate the making of explosive materials, or to distribute by any means information pertaining to, in whole or in part, the manufacture of explosive materials, if the person intends or knows, that such explosive materials or information will likely be used for, or in furtherance of, an activity that constitutes a Federal criminal offense or a criminal purpose affecting interstate commerce.

Id. at S7875. In conference committee, this prohibition ["the Feinstein Amendment"] was removed from the bill and was replaced with section 709 of the AEDPA -- the requirement for the Attorney General's study and report, quoted above. 142 Cong. Rec. H3336 (daily ed. Apr. 15, 1996). Senator Biden then moved to recommit the conference report to the conference committee with instructions to the Senate managers to insist on insertion of the Feinstein Amendment. 142 Cong. Rec. S3448 (daily ed. Apr. 17, 1996). Senator Hatch moved to table Senator Biden's motion, and Senator Hatch's motion was agreed to by a vote of 51 to 48. Id. at S3450.

Two months later, Senator Feinstein revived her proposal, and the Senate unanimously agreed to include it as an amendment to a bill that later became the National Defense Authorization Act for Fiscal Year 1997. 142 Cong. Rec. S7271-74 (daily ed. June 28, 1996). Once again, however, the Feinstein Amendment was removed in conference. 142 Cong. Rec. H9303 (daily ed. July 30, 1996).

I.

THE PUBLIC AVAILABILITY OF INFORMATION ON THE MANUFACTURE OF BOMBS, DESTRUCTIVE DEVICES, AND WEAPONS OF MASS DESTRUCTION

The first question that section 709 required the Attorney General to study concerns the availability of instructional information describing the fabrication of explosives, destructive devices and other weapons of mass destruction. Our study confirms that any member of the public who desires such information can readily obtain it.

A. Books, Pamphlets and Other Printed Material. Most strikingly, a cursory search of the holdings of the Library of Congress located at least 50 publications substantially devoted to such information, all readily available to any member of the public interested in reading them and copying their contents. The titles of a number of these publications are indicative of their contents.² They include:

-- Guerrilla's Arsenal: Advanced Techniques For Making Explosives and Time- delay Bombs (Paladin Press, 1994);

-- The Anarchist Arsenal (Harber, 1992);

-- Deadly Brew: Advanced Improvised Explosives (Paladin Press, 1987);

-- The Anarchist's Handbook (J. Flores, 1995);

-- Improvised Explosives: How To Make Your Own (Paladin Press, 1985); and

-- Ragnar's Guide to Home and Recreational Use of High Explosives (Paladin Press, 1988).

Other texts, intended for military training, agricultural and engineering use, contain information equally useful to individuals bent upon constructing bombs and other dangerous weapons. Publications in this category include:

-- Explosives In Roadworks: User's Guide (Assoc. of Australian State Road Authorities, 1982);

-- Explosives and Blasting Procedures Manual (U.S. Bureau of Mines, 1982);

-- Military Chemical and Biological Agents: Chemical and Toxicological Properties (Telford Press, 1987);
and

-- Clearing Land Of Rocks for Agricultural and Other Purposes (Institute of Makers of Explosives, 1918).

Another collection of some 48 different "underground publications" dealing with bombmaking, contained in the library of the FBI Explosives Unit, reflects a similar diversity of such published material. All of this literature was easily obtainable from commercial sources.

The ready accessibility of such literature is further illustrated by reference to a single page in a recent 70-page catalog of Delta Press, Ltd., of El Dorado, Arizona, captioned "Homemade Explosives." Among the texts featured on that page are Improvised Shape Charges, Two Component High Explosive Mixtures, Improvised Radio Detonation Techniques, and the Anarchists Handbook Series. Another page, captioned "poisons," advertises The Poisoner's Handbook, which it touts as "a complete handbook of poisons, both natural and manmade," including poisonous gases, lethal drugs, poisonous explosive compounds and a "list of sources and some additional chemistry." A number of the titles featured in this publication are commonly featured, along with firearms publications, at local gun shows.

With respect to weapons of mass destruction, there are a number of readily available books, pamphlets, and other printed materials that purport to provide information relating to the manufacture, design and fabrication of nuclear devices. The Department is aware of many publications that claim to provide some fundamentals necessary for the understanding of nuclear weapons, e.g., physics, design, manufacture, or fabrication. They include:

-- The Curve of Binding Energy (J. McPhee, 1974);

-- U.S. Nuclear Weapons: The Secret History (C. Hansen, 1966); and

-- The Swords of Armageddon (C. Hansen, 1986).³

Stories of crimes contained in popular literature and magazines also constitute a rich source of bombmaking information. For example, the August 1993 edition of Reader's Digest contains an account of efforts by law enforcement officers to track down the killer of United States Court of Appeals Judge Robert S. Vance and attorney Robert Robinson. That article contained a detailed description of the explosive devices used by the bomber in committing the murders, including such information as the size of the pipe bombs, how the bombs were constructed, and what type of smokeless powder was used in their construction.⁴ According to the Arson and Explosives Division of the Bureau of Alcohol, Tobacco and Firearms, in a bombing case originating in Topeka, Kansas, the devices were patterned after the bomb used to

kill Judge Vance. Upon questioning, the suspect admitted to investigators that he constructed the bomb based on information contained in the Reader's Digest article.

B. The Internet. Bombmaking information is literally at the fingertips of anyone with access to a home computer equipped with a modem.⁵ To demonstrate such availability, a member of the DOJ Committee accessed a single website on the World Wide Web and obtained the titles to over 110 different bombmaking texts, including "Calcium Carbide Bomb," "Jug Bomb," "How To Make a CO2 Bomb," "Cherry Bomb," "Mail Grenade," and "Chemical Fire Bottle." The user could access and print the text of each of the listed titles.⁶

One of the texts, captioned "Nifty Things That Go Boom," appears to be a computer adaptation of The Terrorist's Handbook (purportedly edited at Michigan State University). The publication contains chapters that describe and address the procurement (legal and otherwise) of necessary explosives, chemicals and other ingredients, the preparation of chemicals, techniques for transforming such substances into bombs and explosives, and the manufacture of fuses and other ignition systems.

Another of the accessed texts purports to consist of the "Bomb Excerpts" from Anarchy Cookbook. This text explains in minute detail how to construct dozens of different types of bombs and explosive devices, including fertilizer bombs, dynamite and other explosives made with chemicals and other substances that "can be bought at Kmart, and various hardware supply shops." The text also details the ways that such devices can be employed following their fabrication. For example, discussing the use of a bomb constructed from a CO2 cartridge and black powder, it explains:

Insert a fuse. . . . Now, light it and run like hell! It does wonders for a row of mailboxes (like the ones in apartment complexes), a car (place under the gas tank), a picture window (place on window sill), a phone booth (place right under the phone), or any other devious place. This thing throws shrapnel, and can make quite a mess!

Similarly, after explaining how to build a thermite bomb, the manual explains:

Now when you see your victim's car, pour a fifty-cent sized pile onto his hood, stick the [magnesium] ribbon in it, and light it with a blow torch. Now chuckle as you watch it burn through the hood, the block, and axle, and the pavement. BE CAREFUL! The ideal mixtures can vaporize CARBON STEEL! Another idea is to use thermite to get into pay phone and cash boxes. HAVE FUN!

And, in discussing how to construct a thermite letter bomb using an insulated, padded mailing envelope, the author explains that, when the detonating "explosive is torn or even squeezed hard it will ignite the powdered magnesium . . . and then it will burn the mild thermite. If the thermite didn't blow up, it would at least burn the fuck out of your enemy (it does wonders on human flesh!)."⁷

Our review of material accessible on the Internet also reveals the frequent use of "Usenet" newsgroups to facilitate the exchange of information concerning the fabrication and use of explosives and other dangerous

weapons. For example, on August 28, 1996, one participant of a Usenet newsgroup inquired whether anyone had a recipe for C-4 and detonation techniques. The following day, someone responded to the inquiry by posting a detailed formula, explaining that "[t]he production of C-4 is probably beyond what can [be] done in the kitchen, but here is something to get you started." On August 16, 1996, another Usenet participant complained that he had "recently attempted to follow the recipe [for an explosive] posted earlier . . . and nearly blew my arms off!" This prompted the following response:

So what do you want, sympathy? Let me clue you in here. Actually building any of this stuff is illegal, immoral, anti-social, and just plain wrong. But then, so are a lot of other fun things. The point is, if you do it, and you blow yourself up, it's your own fault. So quit sniveling. [N]ext time, don't cook at home.

C. Summary. It is readily apparent from our cursory examination that anyone interested in manufacturing a bomb, dangerous weapon or weapon of mass destruction can easily obtain detailed instructions for fabricating and using such a device. Available sources include not only publications from the so-called underground press but also manuals written for legitimate purposes, such as military, agricultural, industrial and engineering purposes. Such information is also readily available to anyone with access to a home computer equipped with a modem.

II. THE EXTENT TO WHICH PUBLISHED BOMBMAKING INFORMATION HAS FACILITATED THE MANUFACTURE AND USE OF EXPLOSIVES IN ACTS OF TERRORISM AND OTHER CRIMINAL ACTIVITY

Recent law enforcement experience demonstrates that persons who attempt or plan acts of terrorism often possess literature that describes the construction of explosive devices and other weapons of mass destruction (including biological weapons). Although in some cases there is no hard evidence demonstrating that such individuals actually employed such information in furtherance of their crimes, possession of such information often is strong circumstantial evidence from which such usage can be inferred.

During the execution of a search warrant at the Rex, Georgia residence of Walter Leroy Moody, Jr., the convicted bombing murderer of Judge Robert S. Vance and attorney Robert Robinson, investigators discovered a copy of the Anarchist's Cookbook.

In November 1995, Oklahoma residents Ray and Cecilia Lampley, along with one John "J.D." Baird, began construction of an ammonium nitrate bomb, utilizing a manual for the making of "Homemade C-4," a military plastic explosive. The group intended to destroy either the Jewish Anti-Defamation League building in Houston, Texas, or the Southern Poverty Law Center in Birmingham, Alabama. Following the recipe from the manual, the Lampleys "cooked" the ammonium nitrate, and obtained accelerants, such as nitromethane and powdered aluminum. Additionally, Ray Lampley learned that he needed an initial detonating charge to properly detonate the "homemade C-4," and attempted to make a triacetone triperoxide detonator utilizing instructions from Ragnar's Big Book of Explosives. When the three co-conspirators were arrested by the FBI, law enforcement agents recovered the Anarchist's Cookbook and Homemade Weapons, in addition to the "homemade C-4" text, from the Lampley residence.⁸

Following the February 26, 1993, terrorist bombing of the World Trade Center in New York City, investigators discovered bombmaking manuals in the possession of individuals connected with that crime. Although it is believed that those individuals brought those particular manuals into the United States from a foreign country, the manuals had been copied from books written and printed in the United States and available for purchase from publishers like Paladin Press. The presence of these manuals suggests that the conspirators consulted them in effecting their deadly terrorist scheme.

Between January 1994 and January 1996, a string of some 18 bank robberies occurred across the Midwest. The robberies were committed by individuals brandishing automatic weapons, wearing disguises, and using hoax-bomb devices, apparently to delay pursuit and investigation. Following the arrests of two individuals linked to the series of robberies, investigators conducted searches of safehouses and other locations used by the defendants. Execution of the search warrants resulted in the discovery of numerous weapons, explosives, grenades, and components for manufacturing improvised explosive devices. Additionally, the investigators discovered a library of literature describing neo-guerrilla techniques, including the manufacture and use of explosives.

Beginning in 1991, four members of the "Patriots Council," a Minnesota tax protest group, began to develop a castor-bean derivative known as "ricin," which is one of the most toxic known substances. The members involved learned the process of manufacturing ricin from a mail-order pamphlet. The group planned to suspend the substance in a toxic gel capable of transmission through a skin barrier, and then to place the impregnated gel on doorknobs, handles, and steering wheels. They were considering whether to target IRS agents, U.S. Marshals, or local sheriffs for ricin attacks when the FBI arrested them.⁹

In 1993, Thomas Lavy attempted to cross the Canadian border carrying 130 grams of ricin -- an amount that, if administered in individual doses, would be sufficient to kill over 32,000 people -- as well as four guns and \$89,000 in cash. Canadian officials returned Lavy to the United States because of the amount of cash he was carrying. A search of Lavy's cabin by law enforcement officers revealed that he possessed mail-order books, such as The Poisoner's Handbook, Silent Death, and Get Even: The Complete Book of Dirty Tricks, which, among other things, describe how to make and use ricin. Lavy committed suicide before he could be tried.

To the Department's knowledge, no devices producing a nuclear yield have been constructed based on published bombmaking information. However, the Department is aware of approximately 117 threats since 1970 involving detonations of nuclear devices. Approximately half of these nuclear extortion threats have been accompanied by sketches, information, or descriptive phrases gleaned from information in the public domain, including technical reference materials and fictional nuclear "thrillers."

In addition to the incidents recounted above, reported federal cases involving murder, bombing, arson, and related crimes, reflect the use of bombmaking manuals by defendants and the frequent seizure of such texts during the criminal investigation of such activities. See, e.g., United States v. Prevatte, 66 F.3d 840, 841 (7th Cir. 1995) (bombmaker read Anarchist's Cookbook); United States v. Johnson, 9 F.3d 506, 510 (6th Cir. 1993) (search of bombmaker's residence revealed presence of books on explosive devices), cert. denied, 512 U.S. 1212 (1994); United States v. Talbott, 902 F.2d 1129, 1131 (4th Cir. 1990) (execution of search warrant at residence of bombmaker revealed presence of books on bombmaking); United States v. Michael, 894 F.2d 1457, 1459 (5th Cir. 1990) (bombmaker bought books at gun shows to determine how to make bombs, booby traps and silencers); United States v. Levasseur, 816 F.2d 37, 41 (2d Cir. 1987) (execution of search warrant at bomber's residence revealed presence of bombmaking instructions); United States v. Arocena, 778 F.2d

943, 947 (2d Cir. 1985) (members of "Omega 7" group, who conducted terrorist bombings in New York metropolitan area, possessed bombmaking manuals), cert. denied, 475 U.S. 1053 (1986); United States v. Williams, 775 F.2d 1295, 1298 (5th Cir. 1985) (bomb murderer used Marine Corps training manual to construct "mouse trap" bomb), cert. denied, 475 U.S. 1089 (1986); United States v. Bergner, 800 F. Supp. 659, 663 (N.D. Ind. 1992) (bomber consulted Anarchist's Cookbook and other bombmaking texts available at police academy library).

Finally, information furnished by the Bureau of Alcohol, Tobacco and Firearms reveals that such literature is frequently used by individuals bent upon making bombs for criminal purposes. ATF statistics reflect that, between 1985 and June 1996, the investigations of at least 30 bombings and four attempted bombings resulted in the recovery of bombmaking literature that the suspects had obtained from the Internet. Most recently, on August 6, 1996, ATF investigators participated in the investigation of two North Attleboro, Massachusetts, juveniles, aged 11 and 14, who were injured while attempting to make an improvised explosive device. The youths had retrieved from the Internet information on how to make napalm, and were badly burned when a mixture being heated on a kitchen stove ignited.¹⁰

In sum, it is fair to conclude from scenarios such as those we have described that the availability of bombmaking literature may play a significant role in aiding those intent on using explosives and other weapons of mass destruction for criminal purposes, including acts of terrorism. Moreover, the availability of this information might contribute to youthful experimentation with explosive devices, which could result in serious injury.

III. THE LIKELIHOOD THAT PUBLISHED BOMBMAKING INFORMATION WILL CONTINUE TO BE USED TO FACILITATE ACTS OF TERRORISM AND OTHER CRIMINAL ACTIVITY

It is, of course, impossible to prognosticate with any measure of certainty the extent to which persons wishing to engage in acts of terrorism and other criminal activity will rely upon printed and computer-based information instructing them how to manufacture bombs, other dangerous weapons, and weapons of mass destruction. A statistical survey conducted by the FBI concerning bombing incidents occurring in the United States shows that between 1984 and 1994, the frequency of such incidents has increased almost four-fold. The study, however, did not attempt to correlate the trend with the increased availability of bombmaking information. Therefore, we have no empirical data on what percentage, if any, of the recent increase in the number of bombings is attributable to the increased availability of bombmaking information. However, based upon the recent experiences recounted above, both the FBI and ATF expect that because the availability of such information is becoming increasingly widespread, such bombmaking instructions will continue to play a significant role in aiding those intent upon committing future acts of terrorism and violence.

IV. APPLICABILITY OF CURRENT FEDERAL LAW TO THE PUBLICATION AND DISSEMINATION OF BOMBMAKING INFORMATION

Presently there are four basic ways in which dissemination of bombmaking information could be punished under federal criminal law, depending on the circumstances of the case.¹¹ The first three bases for culpability -- federal statutes prohibiting (i) conspiracy, (ii) solicitation, and (iii) aiding and abetting -- do not single out information concerning bombmaking for special treatment. The fourth basis for culpability -- 18 U.S.C. § 231 -- is directed specifically at the "teaching or demonstrating" of techniques related to the use or manufacture of firearms and explosives.¹²

A. Conspiracy. A conspiracy to use an explosive to commit "any felony which may be prosecuted in a court of the United States," 18 U.S.C. § 844(h), is explicitly proscribed under 18 U.S.C. § 844(m); and a conspiracy to commit any offense defined in Chapter 40 of Title 18, U.S. Code -- entitled "Importation, Manufacture, Distribution, and Storage of Explosive Materials" -- is prohibited by 18 U.S.C. § 844(n). In addition, the general federal criminal conspiracy statute, 18 U.S.C. § 371 -- which prohibits conspiring "to commit any offense against the United States" -- makes it unlawful to conspire to commit other federal crimes involving explosives. A person may not, as part of a conspiracy to commit an independently defined criminal offense, transmit information to a coconspirator concerning how to make or use explosive devices.¹³ Indeed, such transmission of information could be an overt act in support of a conspiracy.¹⁴

In order to prove that a person disseminating bombmaking information did so as part of a conspiracy to commit a substantive offense, the government need not prove that the substantive offense occurred; however, the government must show, at the very least, that the disseminator (i) knew of the intended unlawful use of the information and (ii) agreed with other conspirators that an offense would be committed.¹⁵ And, as a general matter, the requisite agreement cannot be proved simply by demonstrating that a person has provided a product to another person knowing that the product would be used in the commission of a crime, where the provider of the product is indifferent to its subsequent use.¹⁶ "[A] conspiracy requires agreement, and there is a difference between knowing that something will occur [by virtue of one's sale of a product] -- even as an absolute certainty -- and agreeing to bring that same 'something' about." United States v. Lechuga, 994 F.2d 346, 362 (7th Cir.) (Cudahy, J., concurring in pertinent part), cert. denied, 510 U.S. 982 (1993). It follows that "an isolated sale is not the same thing as enlisting in the venture." United States v. Blankenship, 970 F.2d 283, 287 (7th Cir. 1992).¹⁷

B. Solicitation. The federal criminal solicitation statute, 18 U.S.C. § 373, provides in pertinent part:

Whoever, with intent that another person engage in conduct constituting a felony that has as an element the use,
attempted use, or threatened use of physical force against property or against the person of another in violation
of the laws of the United States, and under circumstances strongly corroborative of that intent, solicits, commands,
induces, or otherwise endeavors to persuade such other person to engage in such conduct, shall be imprisoned not
more than one-half the maximum term of imprisonment or (notwithstanding section 3571) fined not more than one-half
of the maximum fine prescribed for the punishment of the crime solicited, or both; or if the crime solicited is punishable
by life imprisonment or death, shall be imprisoned for not more than twenty years.

Id. § 373(a). Solicitation proscribed by this statute often will take the form of speech, including written speech.¹⁸ Indeed, Congress intended that the statutory phrase "otherwise endeavors to persuade" be construed broadly to cover any situation "where a person seriously seeks to persuade another person to engage in criminal conduct." *United States v. Buckalew*, 859 F.2d 1052, 1054 (1st Cir. 1988) (Breyer, J.) (quoting S. Rep. No. 307, 97th Cong., 1st Sess. 183-84 (1982)) (emphasis added). In the prototypical solicitation case, the "persuasion" is accompanied by some form of inducement, such as a money payment, or a threat. Such a case raises no First Amendment issues, for reasons we explain infra at 35-38.¹⁹ However, insofar as Congress also intended § 373 to cover cases of "persuasion" taking the form of mere advocacy or urging of unlawful action -- without any threat or inducement -- many such cases could be subject to significant First Amendment constraints under the Brandenburg doctrine. See infra at 29-30 (discussing Brandenburg v. Ohio, 395 U.S. 444 (1969)).²⁰ Therefore, for purposes of this discussion, we will assume that § 373 would be used principally in the case of "persuasion" accompanied by an inducement (e.g., murder for hire²¹) or an explicit or implicit threat or "command" (e.g., an organized crime boss "asking" an associate to commit a crime).

In such cases, the solicitation itself would not likely be in the form of a transmission of bombmaking information. However, as part of a solicitation scheme, it is conceivable that the solicitor would transmit such information so as to facilitate the crime being solicited. Indeed, such facilitation could provide circumstances that "strongly corroborate" a solicitor's improper intent, thereby satisfying § 373's scienter requirement: Congress indicated that it would be "highly probative" of improper intent if the solicitor "acquired . . . information suited for use by the person solicited in the commission of the offense, or made other apparent preparations for the commission of the offense by the person solicited." S. Rep. No. 307, 97th Cong., 1st Sess. 183 (1982).

Although § 373 does not require either actual agreement (like conspiracy), nor that the crime be committed (like aiding and abetting), it nonetheless could provide a means of addressing dissemination of bombmaking information in only a limited set of cases. For one thing, the statute requires more than mere dissemination of information: there must be some solicitation, command, inducement or other endeavor to persuade. (And the First Amendment might exclude cases of "persuasion" absent any threat, command or inducement.) More importantly, the government must prove "circumstances strongly corroborative" of the solicitor's intent that another person engage in conduct constituting a felony.

C. Aiding and Abetting. Two different "aiding and abetting" statutes might have some application in cases where bombmaking information is disseminated: (i) the general federal aiding and abetting statute, 18 U.S.C. § 2, and (ii) section 323 of the AEDPA, which concerns provision of material support or resources for use in certain crimes of terrorism.

1. 18 U.S.C. § 2. In 1909 Congress enacted what is now 18 U.S.C. § 2, a general aiding and abetting statute applicable to all federal criminal offenses. That statute in essence provides that "those who provide knowing aid to persons committing federal crimes, with the intent to facilitate the crime, are themselves committing the crime." Central Bank of Denver, N.A. v. First Interstate Bank of Denver, N.A., 511 U.S. 164, 181 (1994) (citing Nye & Nissen v. United States, 336 U.S. 613, 619 (1949)).²² Not infrequently, aiding and abetting can take the form of speech, including providing instructions on how to commit a crime to a particular person or to a discrete audience.²³ Section 2 nonetheless is somewhat ineffectual as a tool to address dissemination of information on how to manufacture explosives, for three reasons.

First, there is some question whether aiding and abetting culpability ever can rest solely on the basis of general publication of instructions on how to commit a crime, or undifferentiated sale to the public of a product that some purchaser is likely to use for unlawful ends, or whether, at a minimum, the person supplying the aid must know that a particular recipient thereof will use it in commission of a crime.²⁴

Second, even assuming that aiding and abetting could under some circumstances be established by virtue of a publisher's knowledge that unknown recipients of generally published information would use it to commit crimes, § 2 requires that the accomplice have engaged in intentional wrongdoing, rather than mere recklessness. Central Bank of Denver, 511 U.S. at 190. That is to say, the aider must not only know that her assistance will be in the service of a crime; she also must share in the criminal intent. The defendant must "participate in [the venture] as in something that he wishes to bring about, that he seek by his action to make it succeed." Nye & Nissen, 336 U.S. at 619 (quoting United States v. Peoni, 100 F.2d 401, 402 (2d Cir. 1938)).²⁵ As Judge Hand explained in the seminal Peoni case, the intent standard for criminal aiding and abetting is not the same as the "natural consequences of one's act" test that is the touchstone for "intent" in the civil tort context; criminal intent to aid the crime has "nothing whatever to do with the probability that the forbidden result [will] follow upon the accessory's conduct." Peoni, 100 F.2d at 402. Rather, the aider must have a "purposive attitude" toward the commission of the offense. Id.²⁶

Finally, under the plain terms of § 2, the underlying offense must in fact be committed (though the government need not prove by whom it was committed); section 2 merely makes aiders and abettors culpable for their principals' commission of an offense.²⁷ There is no federal statute generally proscribing an attempt to aid and abet a federal offense (though the Model Penal Code recommended that such a prohibition be codified).²⁸ Therefore, if a crime has not been committed, the general federal aiding and abetting statute cannot be invoked.

2. AEDPA Section 323. Section 323 of the AEDPA, 110 Stat. at 1255 (to be codified as amended section 2339A(a) of Title 18) makes it unlawful to provide "material support or resources" to another person, "knowing or intending that they are to be used in preparation for, or in carrying out," various federal offenses relating to terrorism, or in preparation for, or in carrying out, the concealment from the commission of any such violation. Id. (to be codified at 18 U.S.C. § 2339A(a)).²⁹ Notably, the statute defines the term "material support or resources" to include, inter alia, "training, . . . and other physical assets." Id. (to be codified at 18 U.S.C. § 2339A(b)).³⁰

Section 323 essentially is a prohibition on certain forms of knowing or intentional facilitation of particular terrorist crimes. In two respects, it is broader in scope than the general aiding and abetting statute. First, the facilitator can be culpable even if the underlying offense is not in fact committed. Second, the scienter provision is a bit broader than the "intent" requirement in 18 U.S.C. § 2. Under AEDPA section 323, specific intent to facilitate the underlying offense is not necessary:³¹ the person providing the support or resources can be culpable so long as he "know[s]" that the resources provided "are to be used" to prepare for or commit a specified offense. In effect, however, this "knowledge" provision will rarely be of use to a prosecutor, because where -- as in section 323 -- the element of "knowledge" refers to a possible future result of a defendant's conduct, typically the government must prove that the defendant was "aware that that result is practically certain to follow from his conduct." United States v. Bailey, 444 U.S. 394, 404 (1980) (emphasis added) (quoting United States v. United States Gypsum Co., 438 U.S. 422, 445 (1978) (internal citation omitted)).³²

Furthermore, whatever the scope of the "knowledge" provision, the use of section 323 to address distribution of bombmaking information might nonetheless be limited, for two other reasons. First, section 323 covers facilitation of only certain enumerated crimes. Seesupra note 29. Second, it is not clear whether courts would find that information on how to manufacture or use explosives is "material support or resources." In the case of an actual physical demonstration of the techniques in question, or a one-to-one sale of printed information to someone who purports to be planning a crime, transfer of such information might constitute "training." Otherwise, it is open to question whether a manual on explosives would constitute a "physical asset[]" under § 2339A.³³

D. 18 U.S.C. § 231(a)(1). For the most part, the federal statutes discussed in the previous sections are not directed at dissemination of information, as such. Instead, they are general prohibitions on conduct that can, in particular cases, be violated by providing information to another person.

By contrast, 18 U.S.C. § 231(a)(1) -- like the proposed Feinstein Amendment -- arguably could be characterized as a prohibition on certain forms of speech. Section 231(a)(1) provides that:

Whoever teaches or demonstrates to any other person the use, application, or making of any firearm or explosive or incendiary device, or technique capable of causing injury or death to persons, knowing or having reason to know or intending that the same will be unlawfully employed for use in, or in furtherance of, a civil disorder which may in any way or degree obstruct, delay, or adversely affect commerce or the movement of any article or commodity in commerce or the conduct or performance of any federally protected function . . . [s]hall be fined under this title or imprisoned not more than five years, or both.

"Civil disorder," in turn, is defined as "any public disturbance involving acts of violence by assemblages of three or more persons, which causes an immediate danger of or results in damage or injury to the property or person of any other individual." 18 U.S.C. § 232(1).

This prohibition applies, not to all forms of speech that could cause a civil disorder, but solely to a discrete type of conduct involving expression -- namely, the "teach[ing]" or "demonstrat[ion]" of the use, application, or making of any firearm or explosive or incendiary device, or technique capable of causing injury or death to persons.³⁴

It appears that this statute has been used sparingly; there are only two reported decisions involving it.³⁵ In those two cases, the courts of appeals narrowly construed the scienter provisions of § 231(a)(1) so as to avoid serious constitutional questions. National Mobilization Comm. to End the War in Viet Nam v. Foran, 411 F.2d 934 (7th Cir. 1969); United States v. Featherston, 461 F.2d 1119 (5th Cir.), cert. denied, 409 U.S. 991 (1972). In both cases, the persons charged under § 231(a)(1) were alleged to have instructed discrete groups of students on techniques of violence, with the intent that such techniques would be used in furtherance of civil disorders. The defendants nonetheless complained that the statute was impermissibly vague or overbroad, because its plain terms are not limited to cases of bad intent. Read literally, § 231(a)(1) also could be construed to prohibit well-intentioned persons from teaching techniques of self-defense and sporting activities where such persons have a "reason to know" that some pupils might put the skills they acquire to

unlawful use. The defendants in Foran and Featherston argued that this apparent reach of § 231(a)(1) rendered the statute facially invalid under the First Amendment.

In order to avoid the substantial constitutional questions raised by the "reason to know" language, both courts of appeals construed the scienter element of § 231(a)(1) narrowly. The Seventh Circuit, somewhat cryptically, concluded that "[t]he requirement of intent of course `narrows the scope of the enactment by exempting innocent or inadvertent conduct from its proscription." Foran, 411 F.2d at 937 (citation omitted). The Fifth Circuit, relying upon the Supreme Court's narrowing construction of similar language in an espionage statute, held that proof of "bad faith" is required under § 231(a)(1). Featherston, 461 F.2d at 1121 (quoting Gorin v. United States, 312 U.S. 19, 27-28 (1941)). The court concluded that "the statute does not cover mere inadvertent conduct. It requires those prosecuted to have acted with intent or knowledge that the information disseminated would be used in furtherance of a civil disorder." Id. at 1122 (emphasis added).

The potential use of § 231(a)(1) to reach cases involving dissemination of bombmaking information is limited in three ways. First, as construed in Featherston and Foran, § 231(a)(1) can apply only where the person doing the teaching or demonstrating either (i) intends that the information will be used in furtherance of a civil disorder or (ii) "knows" that the information will be so used. As explained supra at 21, as a practical matter the "or knows" prong will rarely be useful: since the knowledge in question is of a possible future result of a defendant's conduct, the government must prove that the defendant was "aware `that that result is practically certain to follow from his conduct." Bailey, 444 U.S. at 404 (citations omitted) (emphasis added).³⁶ Accordingly, the vast majority of cases in which § 231(a)(1) could successfully be invoked will involve defendants who intend that their teaching be used to facilitate or assist in a civil disorder.

Second, it is questionable whether the operative verbs -- "teaches or demonstrates" -- could be read to cover an arms-length sale of a manual to an anonymous or unknown customer. Finally, the intended or known use of the information conveyed must be "in, or in furtherance of, a civil disorder which may in any way or degree obstruct, delay, or adversely affect commerce or the movement of any article or commodity in commerce or the conduct or performance of any federally protected function." And a "civil disorder" requires a public disturbance involving violence by assemblages of three or more persons. Section 231(a)(1) would not, therefore, apply to uses of the information by merely one or two felons.

V. THE NEED FOR ADDITIONAL LAWS RELATING TO THE DISSEMINATION OF BOMBMAKING INFORMATION

During the Senate debate on the Feinstein Amendment, Senators Feinstein and Biden identified two sets of circumstances in which the dissemination of bombmaking information ideally should be prohibited:

- (i) where the person disseminating the information intends that it be used for unlawful ends;³⁷ and

(ii) where the person disseminating the information has good reason to know that a particular potential recipient thereof plans to use that information to engage in unlawful activities.³⁸

On the other hand, Senator Feinstein made it plain that she did not wish to prohibit the "legitimate" publication of information about explosives contained in, for instance, the Encyclopedia Britannica (despite the fact that such information certainly could be used by persons who wished to commit violent crimes);³⁹ and Senator Hatch indicated that any prohibition that is enacted should be drafted carefully, so as not to subject to criminal sanctions, for example, legitimate explosives manufacturers who teach customers and other persons how to manufacture, and make legitimate use of, explosives.⁴⁰

The Department of Justice agrees that it would be salutary if the federal criminal law prohibited dissemination of bombmaking information in the two circumstances described above, while still permitting the "legitimate" publication of information about explosives in the manner described by Senators Feinstein and Hatch. As the discussion in Part IV demonstrates, however, the present federal criminal code is less than completely effective in accomplishing these objectives:

1. Federal law would in certain cases prohibit or punish the dissemination of bombmaking information where the person disseminating the information intends that it be used for unlawful ends. For example:

-- If the disseminator enters into an agreement with another person to commit a federal crime, dissemination of bombmaking information as a means of furthering that crime would be an overt act in furtherance of a conspiracy. Similarly, if the disseminator solicits another person to commit a federal crime of violence -- for example, by offering a reward for its commission -- conveyance of the bombmaking information would be evidence "strongly corroborating" an improper intent, thereby satisfying the scienter requirement of 18 U.S.C. § 373.

-- If the disseminator provides the information to a particular person with the specific purpose of assisting the recipient in the commission of a federal crime, and if the recipient thereafter does commit such an offense, the disseminator would be culpable for aiding and abetting that offense. And, even if the offense is not in fact committed, the disseminator might still be culpable for a violation of AEDPA section 323, provided (i) that the offense that he intended to advance was one of those enumerated in the statute; and (ii) a court finds that bombmaking information can be considered "material support or resources."

-- If the disseminator provides the information to a person or persons in order to prepare for or further a "civil disorder," he will have violated 18 U.S.C. § 231(a)(1), assuming that provision of such information constitutes the "teach[ing] or demonstrat[ion]" of the making of explosives or incendiary devices.

However, except where the particular requirements of AEDPA section 323 or 18 U.S.C. § 231(a)(1) are met, federal law presently does not provide a ground for prosecution where a disseminator of bombmaking information does not conspire with or solicit another to commit a federal crime, but nevertheless intends to aid the recipients of the information in commission of such criminal conduct, and where no federal crime is in fact committed. Further, federal law does not presently reach the person who disseminates bombmaking information intending that it be used to aid the commission of a state or local criminal offense, notwithstanding the utilization of interstate or foreign commerce to achieve such dissemination and notwithstanding the actual or potential impact of the underlying violation on such commerce.

2. If a disseminator of bombmaking information does not have the specific purpose of facilitating a crime, but nonetheless is aware that (i) an enumerated terrorist crime or (ii) a "civil disorder" were practically certain to follow from dissemination of the information to a particular person or persons, then the disseminator might be culpable under AEDPA section 323, or 18 U.S.C. § 231(a)(1), respectively. However, absent such a high degree of "knowledge" of the facilitation of future crimes, current federal law generally would not prohibit or punish the dissemination of bombmaking information in the case where the disseminator does not have the specific purpose of facilitating a crime but nevertheless knows that a particular recipient thereof intends to use it for unlawful ends.

In sum, current federal law does not specifically address certain classes of cases that Senators Feinstein and Biden identified. Accordingly, the Department of Justice agrees with those Senators that it would be appropriate and beneficial to adopt further legislation to address this problem directly, in a manner that does not impermissibly restrict the wholly legitimate publication and teaching of such information, or otherwise violate the First Amendment.

VI. CONSTITUTIONALITY OF RESTRICTING OR PENALIZING THE PUBLICATION OR DISSEMINATION OF BOMBMAKING INFORMATION

Before identifying what further steps Congress can take to address this problem, it is necessary to discuss whether and to what extent the First Amendment limits the government's power to impose criminal culpability on persons publishing or disseminating bombmaking information. In this regard, it should be noted that in Rice v. Paladin Enterprises, Inc., 940 F. Supp. 836 (D. Md. 1996), appeal docketed, No. 96-2412 (4th Cir.), a district court recently held that the First Amendment substantially protects the right of persons to publish such information, regardless of the publishers' intent.

The defendant in that case, publisher Paladin Enterprises, Inc., has (for many years) offered for public sale (principally through a mail-order catalogue) a book entitled Hit Man, which describes in great detail specific methods and techniques of, and strategies for, murder for hire. James Perry ordered and received Hit Man from Paladin. Thereafter, Perry followed a number of instructions in Hit Man in planning, executing, and attempting to hide the evidence of, his contract killing of three people in Montgomery County, Maryland. Perry was convicted of murder, after which the survivors of the victims sued Paladin in federal court for wrongful death, alleging that Paladin had aided and abetted the murders by selling Hit Man to Perry. Paladin moved for summary judgment on the ground that the First Amendment barred recovery. For the purposes of the motion, the parties stipulated the following:

1. Paladin had no contact with Perry (or the person who hired him to commit the murders) other than to

sell him Hit Man

and another book. Paladin had no "specific knowledge" that Perry planned to commit a crime, or that he had been

retained to kill anyone. 940 F. Supp. at 839.

2. In planning, committing, and concealing his crimes, Perry followed certain descriptions and instructions in Hit Man,

including: (a) Hit Man's recommendation that a "beginner" hit man use an AR-7 rifle; (b) Hit Man's instructions on how

to disassemble the AR-7; (c) Hit Man's detailed instructions on how to drill out the serial number on the rifle; (d) Hit

Man's detailed instructions on how to create a silencer to use on an AR-7; (e) Hit Man's detailed instructions on how to

murder victims from close range; and (f) Hit Man's detailed instructions on how to file the AR-7 so that it would not be

traceable. Id. at 839-40.⁴¹

3. Paladin engaged in a marketing strategy intended to maximize sales to the public, including sales to the following targeted

audiences: authors who desire information for the purpose of writing books about crime and criminals; law enforcement

officers and agencies who desire information concerning the means and methods of committing crimes; persons who

enjoy reading accounts of crimes and the means of committing them for purposes of entertainment; persons who

fantasize about committing crimes but do not thereafter commit them; criminologists and others who study criminal

methods and mentality; and "criminals and would-be criminals who desire information and instructions on how to commit

crimes." In particular, the parties stipulated that "[i]n publishing, marketing, advertising and distributing Hit Man . . . ,

Paladin intended and had knowledge that their publications would be used, upon receipt, by criminals and would-be

criminals to plan and execute the crime of murder for hire, in the manner set forth in the publications." Id. at 840.⁴²

The district court granted Paladin summary judgment. The court seemed to rely upon two distinct rationales for its decision: First, the court concluded that the State of Maryland has not "extend[ed] the tort of aiding and abetting to the circumstances of this case," and that "[a] federal court sitting in diversity cannot create new causes of action." Id. at 842. Accordingly, the court seemed to conclude that plaintiffs had failed to state a claim under Maryland tort law. Id. Second, the court held that, even if an aiding and abetting tort theory were cognizable, Paladin's publication and dissemination of the book was entitled to constitutional protection, and "the First Amendment acts as a bar to liability in the instant case," id. at 843, despite defendants' stipulation that they "intended and had knowledge that their publications would be used, upon receipt, by criminals and would-be criminals to plan and execute the crime of murder for hire, in the manner set forth in the publications." See also id. at 843-49 (First Amendment analysis).

This recent decision suggests that it is necessary to consider carefully the First Amendment questions that a statute like the Feinstein Amendment would raise.⁴³

A. First Amendment Principles

Other than the cursory analysis in the Featherston and Foran cases, discussed *supra* at 22-23, and the district court's recent decision in Rice v. Paladin, discussed *supra* at 27-28, there is little in the way of judicial analysis directly addressing the First Amendment questions that a statute like the Feinstein Amendment would raise.⁴⁴ However, the courts have substantially addressed the scope of the Free Speech Clause in three related factual contexts that serve to put the constitutional question in perspective: (i) where the government seeks to restrict the advocacy of unlawful action; (ii) where the government (or a private party using tort law) seeks to restrict or punish the general disclosure or publication of lawfully obtained information; and (iii) where the government punishes conveyance of information as part of a "speech act," such as speech that aids and abets another person's commission of a crime.

1. Advocacy of Unlawful Action. In the landmark case of Brandenburg v. Ohio, 395 U.S. 444 (1969) (*per curiam*), the Supreme Court held that "the constitutional guarantees of free speech and free press do not permit a State to forbid or proscribe advocacy of the use of force or of law violation except where such advocacy is directed to inciting or producing imminent lawless actions and is likely to incite or produce that action." *Id.* at 447 (footnote omitted). This test, in other words, requires both an intent and a likelihood that the expression in question -- "advocacy of the use of force or of law violation" -- will incite or produce imminent unlawful action.

A few years later, the Court made clear how demanding the Brandenburg test is. In Hess v. Indiana, 414 U.S. 105 (1973) (*per curiam*), the defendant was arrested for loudly stating, at an anti-war rally, "We'll take the fucking street later." The Court held that Brandenburg prohibited the State from punishing this alleged advocacy of illegality, principally because the defendant's statement "amounted to nothing more than advocacy of illegal action at some indefinite future time." *Id.* at 108. Furthermore, the Court reasoned that "[s]ince the uncontroverted evidence showed that Hess' statement was not directed to any person or group of persons, it cannot be said that he was advocating, in the normal sense, any action." *Id.* at 108-09.

In light of these precedents,⁴⁵ it is doubtful that general publication of written materials advocating illegality can ever be proscribed under the Brandenburg test.⁴⁶ Many of the bombmaking manuals discussed by Congress and identified in this Report could plausibly be said to advocate -- either explicitly or implicitly -- the illegal use of explosives and other weapons. Insofar as publication of such manuals were criminalized on account of those manuals' advocacy of unlawful conduct, such a prohibition almost certainly could not pass constitutional muster.⁴⁷

2. Disclosure or Publication of Lawfully Obtained Information. The Brandenburg test, by its terms, applies to advocacy of unlawful conduct. But the government's principal concern with respect to bombmaking manuals is not their advocacy, but the instructional information they contain. That information is (at least for the most part) a matter of public record. As demonstrated elsewhere in this Report, anyone interested in manufacturing a bomb, dangerous weapon or weapon of mass destruction can easily obtain detailed instructions for manufacturing and using such a device, both from legitimate publications and from so-called "underground" publications. And, presumably, most if not all of the writers and publishers of such

publications do not obtain the information unlawfully, or from classified sources. The First Amendment imposes significant constraints on the ability of the government to restrict publication of such information.

Although the Supreme Court has been careful never to hold categorically that publication of lawfully obtained truthful information "is automatically constitutionally protected," The Florida Star v. B.J.F., 491 U.S. 524, 541 (1989), nonetheless the Court has, on several occasions, held that "the government may not generally restrict individuals from disclosing information that lawfully comes into their hands in the absence of a `state interest of the highest order.'" United States v. Aguilar, 115 S. Ct. 2357, 2365 (1995) (quoting Smith v. Daily Mail Pub. Co., 443 U.S. 97, 103 (1979)). See also Butterworth v. Smith, 494 U.S. 624, 632 (1990). And even if the state has such an interest, "punishment may lawfully be imposed, if at all, only when narrowly tailored to a state interest of the highest order." Florida Star, 491 U.S. at 541.⁴⁸

We can assume that there is a "state interest of the highest order" in keeping information on how to make explosives out of the hands of persons who want -- or who would be likely -- to use that information in furtherance of violent crime.⁴⁹ What is more, it is "foreseeable," in the tort-law sense, that some readers will use such information for unlawful ends if the information is made publicly available. As explained in Part II of this Report, strong circumstantial evidence demonstrates that persons bent upon committing acts of terrorism often rely upon literature for guidance in the construction of explosive devices and other weapons of mass destruction. Therefore, chances are that even "legitimate" publication of bombmaking information -- such as that found in government-issued manuals and in encyclopedias -- will facilitate some degree of unlawful conduct.

Nevertheless, even where it is foreseeable that widely disseminated information will be used unlawfully, or in a negligent and dangerous manner, courts uniformly have found that the Constitution prohibits imposing culpability or civil liability for distributing or publishing that information. For example, a number of courts have held that the First Amendment prohibits imposing tort liability on publishers, producers and broadcasters for the foreseeable consequences of their speech where viewers or readers mimicked unlawful or dangerous conduct that had been depicted or described, even if the standards for tortious negligence or recklessness were otherwise satisfied.⁵⁰ Similarly, a number of courts have held that the First Amendment bars recovery for allegedly foreseeable injuries suffered by persons who were following "how-to" instructions.⁵¹ In a third, related category of cases, courts have held that the Constitution does not permit imposition of criminal penalties or civil liability for written or visual depictions

-- including depictions of "factual" events -- that are likely to alter (or that have in fact changed) persons' attitudes such that those persons are more likely to engage in criminal, dangerous or otherwise undesirable behavior.⁵²

Florida Star explicitly leaves open the possibility that, in rare circumstances, the First Amendment might not bar sanctions for the publication of true, lawfully obtained information.⁵³ Nevertheless, such an exception almost certainly would not be recognized where, as here, the information is already in the public domain. The Court's stringent First Amendment test for restrictions on publication of lawfully obtained information, in other words, almost certainly would not permit the government to proscribe the publication or widespread dissemination of bombmaking manuals. Where similar or equivalent information is widely available elsewhere, the Court has been unwilling to find that a restriction on publication of that information is "narrowly tailored" to address a state interest: no "meaningful public interest" can be served by further restriction under such circumstances. Florida Star, 491 U.S. at 535. "[O]nce the truthful information [is]

"publicly revealed" or "in the public domain," its dissemination cannot constitutionally be restrained. Id. (quoting Smith, 443 U.S. at 103 (internal citation omitted)). See also id. at 539 (one critical problem with the rape-shield statute at issue in Florida Star was that it punished publication of rape victims' identities "regardless of whether the identity of the victim is already known throughout the community").⁵⁴ Congress presumably would not be willing to ban the publication and teaching of all information concerning the manufacture of explosives -- including, for example, information exchanged among professional explosives manufacturers, or contained in the Encyclopedia Britannica and in government manuals. See supra at 24. As long as this is the case, it is hard to imagine that the First Amendment would permit culpability or liability for publication of other bombmaking manuals that have a propensity to be misused by some unknown, unidentified segment of the readership, since sources of the same information inevitably will remain in the public domain, readily available to persons who wish to manufacture and use explosives.

3. "Speech Acts," such as Aiding and Abetting. On the other hand, the constitutional analysis is radically different where the publication or expression of information is "brigaded with action,"⁵⁵ in the form of what are commonly called "speech acts." If the speech in question is an integral part of a transaction involving conduct the government otherwise is empowered to prohibit, such "speech acts" typically may be proscribed without much, if any, concern about the First Amendment, since it is merely incidental that such "conduct" takes the form of speech. "[I]t has never been deemed an abridgement of freedom of speech or press to make a course of conduct illegal merely because the conduct was in part initiated, evidenced, or carried out by means of language, either spoken, written, or printed." Ohralik v. Ohio State Bar Ass'n, 436 U.S. 447, 456 (1978) (quoting Giboney v. Empire Storage & Ice Co., 336 U.S. 490, 502 (1949)). For example, as the Court in Ohralik explained, there are "numerous examples" of communications -- including communications that convey information -- that are subjected to economic or commercial regulation without implicating the First Amendment, such as: exchange of securities information; corporate proxy statements; exchange of information among competitors; and employers' threats of retaliation for employees' labor activities. Id. (citations omitted).⁵⁶

Similarly, many inchoate crimes often or always are effected through speech "acts." Such crimes include conspiracy, facilitation, solicitation, bribery, coercion, blackmail, and aiding and abetting.⁵⁷ Punishing speech -- including the dissemination of information -- when it takes the form of such criminal conduct typically does not even raise a First Amendment question. As Justice (then-Judge) Kennedy explained, "where speech becomes an integral part of the crime, a First Amendment defense is foreclosed even if the prosecution rests on words alone." United States v. Freeman, 761 F.2d 549, 552 (9th Cir. 1985), cert. denied, 476 U.S. 1120 (1986).⁵⁸

In particular, "[t]hat 'aiding and abetting' of an illegal act may be carried out through speech is no bar to its illegality." National Org. for Women v. Operation Rescue, 37 F.3d 646, 656 (D.C. Cir. 1994).⁵⁹ What is more, aiding and abetting a crime often consists of providing factual information to another person. The role of a lookout at a burglary is to inform confederates that someone is coming. An accomplice of a bank robbery might abet the operation by telling the principal the combination of a safe, or how to evade detection. The First Amendment is simply inapposite in such cases.⁶⁰ Nor is the situation necessarily different where the information conveyed is already publicly available. For example, there may be many lawful -- and constitutionally protected -- circumstances in which a person (say, a professor of architecture) may provide the blueprint of a bank to other persons (say, architecture students); but if such blueprints are transferred for the purpose of assisting others in a bank robbery, and if that robbery occurs, the person providing the information is subject to accomplice culpability, even if he obtained the blueprint from a

textbook, from city hall, or from the newspaper. See also United States v. Edler Industries, Inc., 579 F.2d 516, 521 (9th Cir. 1978) (though the dissemination and export of technological information on how to manufacture military equipment otherwise might generally be protected by the First Amendment, there is no constitutional protection for export of such information as part of "the conduct of assisting foreign enterprises to obtain military equipment"); Constitutionality of the Proposed Revision of the International Traffic in Arms Regulations, 5 Op. O.L.C. 202, 206-09 (1981) (discussing Edler Industries).

In a number of cases, persons have been convicted of aiding and abetting violations of the tax laws by providing explicit instructions to a discrete group of listeners on techniques for avoiding disclosure of tax liability. See supra notes 23-24. Defendants in such cases often have invoked the First Amendment; but that constitutional guarantee has rarely, if ever, been a bar to accomplice culpability. The courts correctly have rejected defendants' reliance on Brandenburg; and, in particular, have refused to accept defendants' arguments that the "imminence" requirements of the Brandenburg test apply to such aiding and abetting cases. If a defendant has aided and abetted a crime through the dissemination of information -- rather than simply by urging or "advocating" that the crime be committed -- then the government should not need to demonstrate that the speech was intended or likely to "incite" imminent unlawful conduct. The reasons the strict requirements of the Brandenburg test must be applied to cases of advocacy are that (i) abstract advocacy of unlawful conduct usually is closely aligned with (or sometimes part of) political and ideological speech entitled to the strongest constitutional solicitude; and (ii) the danger the speech will in fact lead to unlawful behavior often is remote and speculative. These concerns are rarely, if ever, implicated, in cases involving conduct constituting intentional and material aid to the criminal conduct of particular persons. It follows that the question of whether criminal conduct is "imminent" is relevant for constitutional purposes only where, as in Brandenburg itself, the government attempts to restrict advocacy, as such. But the tax-avoidance aiding and abetting cases are not subject to Brandenburg because culpability in such cases is premised, not on defendants' "advocacy" of criminal conduct, but on defendants' successful efforts to assist others by detailing to them the means of accomplishing the crimes.⁶¹

If it were otherwise -- that is, if the Brandenburg test applied to crimes implemented through the use of informative speech -- there would, for example, be no way for the government to prohibit the aiding and abetting of a crime that is intended to occur weeks or months after its planning. But in fact, if someone in October teaches another person how to cheat on their tax forms to be filed the following April, the person doing the teaching nonetheless can be culpable of aiding and abetting tax fraud. "The fact that the aider and abettor's counsel and encouragement is not acted upon for long periods of time does not break the actual connection between the commission of the crime and the advice to commit it." United States v. Barnett, 667 F.2d 835, 841 (9th Cir. 1982).

Just as advocacy of unlawful conduct is entitled to greater constitutional protection than the act of using speech to aid and abet such conduct, Brandenburg itself recognizes another, related distinction that is of equal significance for present purposes. As we explained above, the Court in Brandenburg held that the First Amendment renders invalid statutes that "forbid or proscribe advocacy of the use of force or of law violation except where such advocacy is directed to inciting or producing imminent lawless action and is likely to incite or produce such action." 395 U.S. at 447. Immediately after stating this constitutional requirement, however, the Court drew a sharp distinction between "the mere abstract teaching . . . of the moral propriety or even moral necessity for a resort to force and violence" and "preparing a group for violent action and steeling it to such action." Id. at 448 (quoting Noto v. United States, 367 U.S. 290, 297-98 (1961)).

As the Court made plain in Noto and in related cases, the latter category of conduct -- "preparing a group

for violent action and steeling it to such action" -- is not entitled to First Amendment protection, even though advocacy ("the mere abstract teaching . . . of the moral propriety") of such violence is protected. Indeed, even Justice Douglas -- in the course of urging strong constitutional protection for the advocacy of illegality -- freely acknowledged that "[t]he freedom to speak is not absolute; the teaching of methods of terror . . . should be beyond the pale." Dennis v. United States, 341 U.S. 494, 581 (1951) (Douglas, J., dissenting) (emphasis added).

The distinction recognized in Brandenburg between advocacy of, and preparation for, unlawful conduct, was exemplified in Scales v. United States, 367 U.S. 203 (1961), a case in which the Court carefully distinguished between the teaching of abstract doctrine -- punishment of which is subject to substantial constitutional constraints -- and the teaching of the techniques of unlawful conduct, which can much more easily be proscribed. Id. at 233-34. As to the former, the Court has developed the Brandenburg test, which asks whether the danger is intended, likely and "imminent." But the constraints of the First Amendment do not apply when the "teaching" goes "beyond the theory itself" to "an explanation of `basic strategy.'" Scales, 367 U.S. at 244. At that point, the teaching -- if it is done with the purpose of preparing a group for unlawful action -- is not much different than the information conveyed in a typical aiding and abetting case; accordingly, the Brandenburg protections should largely be inapposite. See Yates v. United States, 354 U.S. 298, 331-33 (1957) ("systematic teaching" in classes to "develop in the members of [a] group a readiness to engage [in unlawful conduct] at the crucial time," could be punished, even if that conduct was to occur only "when the time was ripe").⁶²

This critical distinction -- between advocacy of unlawful conduct, on the one hand, and "instructions" for unlawful conduct, on the other -- was recognized by Professor Thomas Emerson in his seminal treatise on the First Amendment:

[C]onduct that amounts to "advice" or "persuasion" [sh]ould be protected; conduct that moves into the area of "instructions" or "preparations" [sh]ould not. The essential task would be to distinguish between simply conveying an idea to another person, which idea he may later act upon, and actually participating with him in the performance of an illegal act. It is true that the distinction does not offer automatic solutions and that courts could easily disagree on any particular set of facts. But this process of decision making is related to the nature of "expression" and the functions and operations of a system of freedom of expression. It is therefore a rational method of approaching the problem.

Thomas Emerson, The System of the Freedom of Expression 75 (1970).⁶³

B. Application of First Amendment Principles to Dissemination of Bombmaking Information

Having reviewed the role of the First Amendment in these three related contexts, we now can address specifically the circumstances under which Senators Feinstein and Biden would seek to proscribe dissemination of bombmaking information.

1. Dissemination with the "Intent" to Facilitate Unlawful Conduct. The Feinstein Amendment would make it unlawful, inter alia, for any person to "teach or demonstrate" the making of explosive materials, or to distribute by any means information pertaining to, in whole or in part, the manufacture of explosive materials, where the person "intend[ed]" that such information would be used for, or in furtherance of, an activity that "constitutes a Federal criminal offense or a criminal purpose affecting interstate commerce." In light of the foregoing discussion in Part VI-A, two things about the constitutionality of this "intent" prohibition are clear:

First, the First Amendment almost certainly would require that the "intent" scienter provision in such a statute be construed to mean an actual, conscious purpose to bring about the specified result. "Intent" may not be construed as "constructive intent," as in the civil tort context; that is to say, "intent" could not constitutionally be inferred solely by virtue of the fact that criminal offenses were a foreseeable result -- a "natural consequence" -- of the general distribution of bombmaking information. Anyone who teaches or publishes bombmaking information -- including those who do so for wholly legitimate reasons, such as explosives manufacturers, the military, and encyclopedia publishers -- could foresee that some unknown recipient of the teaching or information will use it for unlawful ends; but the First Amendment would not permit culpability on that basis. See supra at 30-34. Instead, an "intent" element must be construed to reach only the person who disseminates the information for the purpose of facilitating criminal conduct.⁶⁴

Second, a prosecution relying upon an "intent" requirement plainly would be constitutional where the teacher intends that a particular student -- or a discrete group of students -- use the information for criminal conduct. Indeed, if there is such an intent, and a receiver of the information thereafter does use that information to commit a crime, the person who assisted him by showing him how to do so would be culpable as an aider and abettor, and the First Amendment would not bar such accomplice culpability. See supra at 36-39. The constitutional analysis should be the same, as in the Featherston case, where the teacher intends that particular students use the information for unlawful ends, but the crime is never committed (such as when the scheme is foiled by detection). This would be, in essence, a form of "attempted aiding and abetting." Although presently there is no general federal statute prohibiting "attempted aiding and abetting," see supra at 20, that is not because of any constitutional bar: application of such a statute to the provision of information would not transgress the First Amendment. Therefore, a statute like the Feinstein Amendment could constitutionally be applied to a case where the person supplying the critical training or information has the intent thereby to assist a particular recipient thereof in unlawful activity, whether or not the crime eventually occurs.⁶⁵ As the Court emphasized in Brandenburg and in earlier cases, the Constitution does not protect the conduct of "preparing a group for violent action" by teaching the techniques of unlawful conduct. See Noto; Scales; Dennis, 341 U.S. at 581 (Douglas, J., dissenting); Emerson, System of Freedom, supra, at 75; Greenawalt, Speech, Crime, supra note 20, at 244-45.⁶⁶

The more difficult question is whether criminal culpability can attach to general publication of explosives information, when the writer, publisher or seller of the information has the purpose of generally assisting unknown and unidentified readers in the commission of crimes. This is, in essence, the situation alleged in the recent Rice v. Paladin case. See supra at 27-28. To be sure, such a "generalized" attempt to aid crime through publication is "not the same as preparing a group for violent action." Noto, 367 U.S. at 298. The "joint participation" in a crime that is the hallmark of conspiracy or aiding and abetting is absent here: the speech is not, in any direct sense, "brigaded with action." What is more, the danger to the public in such a case is not necessarily greater than that caused by the same exact publication that is made solely for permissible purposes. The constitutional question is, therefore, more difficult than in the case of intentional concerted action discussed above.

There are few, if any, cases directly on point.⁶⁷ However, in Haig v. Agee, 453 U.S. 280 (1981), the Court suggested that otherwise privileged publication of information can lose its First Amendment protection when the publisher has an impermissible motive. In Agee, a former CIA employee had his passport revoked as a result of his campaign to publish the names of (and otherwise publicly identify) intelligence agents working in foreign countries, a course of conduct that undermined intelligence operations and endangered agents. In the context of this serious threat to American national security, the Court held that the First Amendment did not protect Agee's publication of the agents' names. In so ruling, the Court stressed the following:

Agee's disclosures, among other things, have the declared purpose of obstructing intelligence operations and the recruiting of intelligence personnel. They are clearly not protected by the Constitution. The mere fact that Agee is also engaged in criticism of the Government does not render his conduct beyond the reach of the law.

Id. at 308-09 (emphasis added). The Court did not indicate whether Agee's bad intent was, in and of itself, sufficient to strip his speech of its constitutional protection. In particular, the Court had no occasion to determine whether the First Amendment analysis would be the same if the information Agee published was already in the public domain and/or if the government's interests were not as significant as the protection of intelligence sources.

Nonetheless, in the absence of contrary authority, this passage in Haig v. Agee supports the argument that the government may punish publication of dangerous instructional information where that publication is motivated by a desire to facilitate the unlawful use of explosives.⁶⁸ At the very least, publication with such an improper intent should not be constitutionally protected where it is foreseeable that the publication will be used for criminal purposes; and the Brandenburg requirement that the facilitated crime be "imminent" should be of little, if any, relevance.⁶⁹ Accordingly, we believe that the district court in Rice v. Paladin, seesupra at 27-28, erred insofar as it concluded that Brandenburg bars liability for dissemination of bombmaking information regardless of the publisher's intent. See also infra note 71.

Having said that, we should note that where there is no concerted action between the publisher and any particular recipient of the information, there might be a significant problem in proving that the person publishing the information has done so with an impermissible purpose. Most publishers of the bombmaking materials in question will argue that their publication is well-intentioned. For example, in Rice, the publisher of Hit Man has asserted that its intended audience includes: authors who desire information for the purpose of writing books about crime and criminals; law enforcement officers and agencies who desire information concerning the means and methods of committing crimes; persons who enjoy reading accounts of crimes and the means of committing them for purposes of entertainment; persons who fantasize about committing crimes but do not thereafter commit them; and criminologists and others who study criminal methods and mentality. See supra at 28.

Nevertheless, proof of improper intent might be possible in certain types of cases. In many cases the manuals themselves might have "the declared purpose," Agee, 453 U.S. at 309, of facilitating crime. Although, under Brandenburg, culpability cannot attach merely because the manuals advocate unlawful action, such advocacy could constitutionally be used as probative evidence that the disseminator of accompanying information on the techniques of bombmaking intended by such dissemination to facilitate criminal conduct. See supra note 47. What is more, if a publisher of such communications engages in a marketing strategy intended to maximize sales to, inter alia, "criminals and would-be criminals who desire

information and instructions on how to commit crimes," as the publisher of Hit Man allegedly did, and if that publisher's economic success evidently depends upon stimulating a high volume of unlawful use of his product -- i.e., the publisher's fortunes substantially rise or fall depending on the degree to which his product facilitates unlawful conduct -- there might be sufficient evidence of improper intent. See Direct Sales, 319 U.S. at 712-13 (where seller of dangerous drugs -- which could be used both for proper and improper purposes -- engaged in marketing strategy to stimulate sales to would-be criminals, and where seller had a "stake in the venture," it was permissible to infer intent to assist criminal operation). As Justice Holmes explained in a related context, it is fair to assume that items are "designed for" unlawful use where they are "offered for sale in such a mode as purposely to attract purchasers who wanted them for the unlawful [use]." Danovitz v. United States, 281 U.S. 389, 397 (1930).

Finally, if, as Senator Feinstein believed, some of the information contained in the bombmaking manuals has no use other than to facilitate unlawful conduct,⁷⁰ that fact, too, would be evidence of an intent to facilitate crime (at least with respect to that particular information). Publishers of such information undoubtedly would argue that such information has uses other than to facilitate unlawful conduct -- such as to educate law enforcement officials and would-be murder-mystery writers, and simply to entertain persons who enjoy reading accounts of the workings of the criminal mind. Seesupra at 28 (describing claims made by publisher of Hit Man). But that assertion would only raise, rather than resolve, the critical question of fact regarding a publisher's intent; it would remain an issue for the trier of fact to determine whether one of the publisher's purposes was to facilitate criminal conduct.

We acknowledge that in many cases, there may be a broad and diverse audience for such communications, including persons who would not use the information as a blueprint for crime, and the communications might have substantial value other than to facilitate crimes. In such cases, courts might agree that "a strict rule about finding intent is especially important, lest a jury convict because of outrage over the facts someone has chosen to disclose. A person should not be punished for encouraging a general crime like murder by publicly disclosing facts unless the prosecution's evidence leaves no possible doubt that his purpose has been to aid or cause that criminal result." Greenawalt, Speech, Crime, supra note 20, at 273. But where such a purpose is proved beyond a reasonable doubt, as it would have to be in a criminal case, the First Amendment should be no bar to culpability.⁷¹

2. Dissemination with the "Knowledge" that a Particular Recipient of the Information Intends to Use It in Furtherance of Unlawful Conduct. The Feinstein Amendment also would have made it unlawful, inter alia, for any person to "teach or demonstrate" the making of explosive materials, or to distribute by any means information pertaining to, in whole or in part, the manufacture of explosive materials, if the person "knows" that such information will be used for, or in furtherance of, "an activity that constitutes a Federal criminal offense or a criminal purpose affecting interstate commerce." As Senator Biden explained, this "knowledge" provision was intended to address the case where the person disseminating the information has evidence that a particular potential recipient plans to use that information to engage in unlawful activities -- for example, when the person requesting the information expressly indicates that he plans to use the information to learn how to commit violent crimes. See supra note 38.

It is questionable whether the statutory scienter requirement ("knows") in the Feinstein Amendment would suffice to cover such a situation. As explained above, supra at 21 & note 32, where a statutory element of "knowledge" refers to a possible future result of a defendant's conduct, the government typically must prove that the defendant was "aware that that result is practically certain to follow from his conduct." United States v. Bailey, 444 U.S. 394, 404 (1980) (citations omitted). Thus, even where someone expressly states

that he desires to purchase a product in order to plan a crime, it might be difficult to persuade the trier of fact that it was "practically certain" that the crime would be committed (particularly if, as it turned out, the crime was not in fact committed). It would, therefore, be helpful to identify a more carefully tailored mens rea requirement in order to address Senator Biden's hypothetical situation.

The scenario Senator Biden describes brings to mind other types of "facilitation" statutes, such as state statutes making it a crime to "provide" a person with "means or opportunity" to commit a crime, "believing it probable that he is rendering aid to a person who intends to commit a [crime]." N.Y. Penal Law § 115.05 (McKinney 1996).⁷² Such statutes, however, are of general applicability: they do not single out a particular form of facilitation, such as facilitation involving conveyance of information, for especially harsh treatment. And what is more, conviction under such statutes -- as under the federal aiding and abetting statute, 18 U.S.C. § 2 -- requires that the facilitation actually result in the commission of a crime.⁷³

A closer analogy, therefore, might be another section of the AEDPA itself. Section 706 of the AEDPA makes it a felony to "knowingly transfer[] any explosive materials, knowing or having reasonable cause to believe that such explosive materials will be used to commit a crime of violence . . . or drug trafficking crime." 110 Stat. at 1295-96 (to be codified at 18 U.S.C. § 844(o)).⁷⁴ The "reasonable cause to believe that [the item] will be used [for the unlawful purpose]" standard would seem to address directly the case where the recipient of the product indicates an intent to use it to commit or to facilitate a crime. The constitutional question then becomes whether such a standard can be used where the item being transferred is not "explosive materials," as in AEDPA section 706, but instead information on how to manufacture or use such materials.

There is little case law directly on point. As Professor Greenawalt points out, however, this case is not quite as easy from a First Amendment perspective as "attempted aiding and abetting," which can constitutionally be proscribed because it requires a specific purpose to actually assist in the commission of the crime:

It is only a minor impairment of freedom to tell people they cannot provide information they want to be used for a crime. It is somewhat more serious to tell them that, even if they have no such purpose, they must keep their mouths shut. A speaker may conceivably think a communication has significant value for the listener beyond the listener's immediate purpose, but, even if the speaker does not think that, perhaps a recognition of the speaker's autonomy should include allowing him ordinarily to say what he believes to be true to his acquaintances, regardless of the use he thinks they plan to make of it.

A further argument against such liability is the problem of determining facts accurately and the effect of the resulting uncertainty on people who speak. If people become aware that they can be treated as criminal for providing information they believe will aid a crime, they may hesitate to give information when they think there is some modest chance of criminal use, not trusting that prosecutors and jurors will always be discerning about

perceptions of relevant probabilities.

The implications for free speech are serious enough to warrant careful attention to the problem of communications that facilitate.

Greenawalt, Speech, Crime, supra note 20, at 86-87.

There are two principal reasons why a "facilitation through speech" prohibition without an "intent" requirement would raise serious First Amendment problems. First, such a facilitation prohibition would be directed specifically and uniquely at facilitation effected by way of conveying information. In other words, it would not prohibit facilitation, as such, but only a speech-related subset of such conduct. "The text of the First Amendment makes clear that the Constitution presumes that attempts to regulate speech are more dangerous than attempts to regulate conduct." 44 Liquormart, Inc. v. Rhode Island, 116 S. Ct. 1495, 1512 (1996) (plurality opinion). The constitutionality of the prohibition therefore is not as clear as it would be if "facilitation through speech" were just one form -- i.e., one application -- of a generally applicable facilitation statute that did not refer specifically to speech. See Cohen v. Cowles Media Co., 501 U.S. 663, 669-71 (1991) (whereas First Amendment is not implicated by application of "generally applicable laws" to violations involving speech or the press, there is a greater constitutional problem where, as in Florida Star, the "State itself define[s] the content of publications that would trigger liability").

Second, as explained above, supra at 30-34, the First Amendment traditionally has been understood to prohibit the use of the criminal or tort law to punish the dissemination of lawfully obtained factual information absent an impermissible purpose for such dissemination; and this is so even where such publication has a "propensity" to be misused by someone in a criminal or tortious manner. Yet that is, in a sense, precisely what a facilitation prohibition would do in Senator Biden's scenario: it would punish distribution of lawfully obtained information because the disseminator had reason to believe that such distribution would result in some harm.

Although the matter is far from certain, in the end we think these First Amendment concerns can be overcome, and that such a facilitation prohibition could be constitutional, if drafted narrowly. To be sure, the prohibition would be "speech-specific." But, as with respect to 18 U.S.C. § 231(a)(1), see supra at 21-23, Congress would be singling out "teaching" and "informational" facilitation of crime not because of any hostility to speech itself, but because those are the forms of facilitation that are the most apparent threats to safety not already addressed by accomplice and conspiracy prohibitions and by the facilitation prohibitions found in sections 323 and 706 of the AEDPA. Congress arguably would simply be filling in a statutory gap, rather than expressing a general hostility to any particular viewpoint. Accordingly, the constitutional problems should be minimized. See Edler Industries, 579 F.2d at 520-22 (whereas First Amendment would prohibit export restrictions dealing with general "interchange of scientific and technological information," it is constitutional to restrict such export where the exporter knows or has reason to know that the recipient of the information will use it to produce or operate munitions). See also Constitutionality of the Proposed Revision of the International Traffic in Arms Regulations, 5 Op. O.L.C. 202, 207-08 (1981).

Furthermore, such a prohibition could be, in constitutionally significant respects, less problematic than a statute or tort that punishes speech having a propensity to be misused by some unknown recipient. In the latter type of tort and criminal cases, the practical effect of a penalty would be to deter altogether the dissemination of the information, since there is always a chance that some reader, listener or viewer will turn

the information to bad use, and the only way to avoid this risk is to cease speaking altogether. Indeed, even where there would in fact be only a slim likelihood that the information would be misused, a jury might be expected to find the requisite degree of "recklessness," particularly if -- as is likely in such cases -- the jury is hostile to the message conveyed in the information and does not believe that it serves any social utility to distribute such information. The risk of such an outcome effectively could chill the "legitimate" dissemination of bombmaking information even if there is but a slight risk of its misuse.⁷⁵ By contrast, a facilitation prohibition tailored to particular recipients who are likely to make criminal use of the information would not have such a broad chilling effect on such speech. The person conveying the information would be required only to withhold its distribution to particular persons who pose an apparent risk, and otherwise would be able to continue general publication, distribution or sales. In other words, such a prohibition would only restrict or deter certain particular transactions, but would not impede general publication.

In drafting a constitutional facilitation statute, we think the safest strategy would be to address Senator Biden's scenario directly -- for example, by barring dissemination of bomb-making information to a particular person, where the disseminator knows that such person intends to use the information for an unlawful purpose. Under such a statute, the requisite "knowledge" would not be of a future event, but instead, of someone else's present intent. Therefore, the government would not be required to prove that the disseminator was "practically certain" of the recipient's intent. See supra at 21 (discussing "practical certainty" standard for "knowledge" of future events). Instead, it should suffice to prove that the person providing the information was aware of a "high probability" that the recipient had an intent to use the information to commit a crime. See, e.g., Barnes v. United States, 412 U.S. 837, 845 (1973); Turner v. United States, 396 U.S. 398, 416 & n.29 (1970); Leary v. United States, 395 U.S. 6, 46 n.93 (1969).⁷⁶ That "knowledge" typically should be found where, as in the cases hypothesized by Senator Biden, the recipient clearly indicates to the disseminator a desire to use the information for criminal purposes.⁷⁷

Alternatively, Congress could decide to track the language of section 706 of the AEDPA, such as the following:

It shall be unlawful for any person to teach or demonstrate to any particular person the making of explosive materials,
 or to distribute to any particular person, by any means, information pertaining to, in whole or in part, the manufacture of
 explosive materials, with reasonable cause to believe that such particular person will use such teaching, demonstration
 or information for, or in furtherance of, an activity that constitutes a Federal criminal offense or a criminal offense
 affecting interstate commerce.

That formulation would almost certainly cover the case where the recipient of the information expressly indicates an intent to use such information to commit or to facilitate a crime, and would likely be constitutional as applied to such a case. However, such a "reasonable cause to believe" standard might also deter widespread, general publication of such information where a publisher is aware that certain suspicious persons are in the "audience."⁷⁸ Because of this risk of chilling substantial publication of such information to persons who will not use it unlawfully, such a statute would run a greater risk of constitutional invalidation than a statute (such as that described above) that is more narrowly tailored to the particular hypothetical described by Senator Biden.⁷⁹

C. Proposed Modification of the Feinstein Amendment

For the reasons discussed in the preceding sections, the Feinstein Amendment would be more likely to reach all of the fact situations that Senators Feinstein and Biden wished to address, and would be more likely to pass constitutional muster in most or all of its applications, if it were modified to read as follows:

It shall be unlawful for any person --

(a) to teach or demonstrate the making or use of an explosive, a destructive device, or a weapon of mass destruction, or to

distribute by any means information pertaining to, in whole or in part, the manufacture or use of such an explosive, device or

weapon, intending that such teaching, demonstration or information be used for, or in furtherance of, an activity that

constitutes a Federal criminal offense or a State or local criminal offense affecting interstate commerce,⁸⁰ or

(b) to teach or demonstrate to any particular person the making or use of an explosive, a destructive device, or a weapon of

mass destruction, or to distribute to any particular person, by any means, information pertaining to, in whole or in part, the

manufacture or use of such an explosive, device or weapon, knowing that such particular person intends to use such

teaching, demonstration or information for, or in furtherance of, an activity that constitutes a Federal criminal offense or State

or local criminal offense affecting interstate commerce.

For purposes of this section, the term "explosive" has the meaning set out in 18 U.S.C. § 844(j). The term "destructive

device" has the meaning set out in 18 U.S.C. § 921(a)(4). The term "weapon of mass destruction" has the meaning set out in

18 U.S.C.A. § 2332a(c)(2).

The principal differences between this proposal and the Feinstein Amendment itself are the following:

1. The Feinstein Amendment could be construed to impose culpability if the person disseminating the information has reason to know that some unidentified, unspecified recipient thereof will use the information for an unlawful purpose, or if such an outcome is the "natural consequence" of publication of the information. Because that construction could cover virtually all public dissemination of such information, it would raise serious constitutional questions. The alternative formulation specifies that the person who disseminates the information must either have the specific purpose of facilitating criminal conduct, or must have knowledge that a particular recipient intends to make improper use of the material. This should, for example, address Senator Biden's example of a sale of a bombmaking manual to a purchaser who has requested it for the express purpose of using such information to accomplish an unlawful end. In such a case, a well-intentioned distributor of the information will be prohibited from providing the information to the requesting party, but may otherwise freely offer the item for sale.

2. Under the Feinstein Amendment, it would be unclear whether criminal culpability would attach where

someone disseminates dangerous information about explosives with a conscious purpose of facilitating unlawful conduct by unknown recipients of the information. The alternative formulation would make clear that dissemination with such a specific purpose would be proscribed. While the constitutionality of particular applications of such a prohibition might be somewhat uncertain (depending on whether the evidence truly demonstrates the improper intent beyond a reasonable doubt), we believe that the "intent" prohibition would be facially constitutional.⁸¹

3. The alternative formulation would make clear that the "intent" or "knowledge" element refers to the use made of the information that the person disseminates. Accordingly, it does not include the Feinstein Amendment's language regarding "such explosive materials," because that phrase did not have a clear referent: the prohibition should involve dissemination or teaching of information, not dissemination of the explosive materials themselves (which is independently addressed elsewhere in Title 18 and in the AEDPA).

4. The alternative formulation would broaden the Feinstein Amendment to bring within its ambit teaching and information concerning not only explosives (as defined in 18 U.S.C. § 844(j)), but also all destructive devices (as defined in 18 U.S.C. § 921(a)(4)) and other weapons of mass destruction (as defined in 18 U.S.C.A. § 2332a(c)(2)).

5. The alternative formulation would broaden the Feinstein Amendment to cover information about the "use" of explosives, in addition to the manufacture thereof. In the wrong hands, information on how to use explosives (such as the information in Hit Man that was used to commit a multiple homicide, discussed in Rice v. Paladin) can be every bit as dangerous as information on how to create such explosives.

6. For purposes of clarification and simplicity, the alternative formulation refers to a "State or local criminal offense affecting interstate commerce," rather than to a "criminal purpose affecting interstate commerce." It is unclear how a "criminal purpose" could "affect" interstate commerce.

ENDNOTES:

¹ See Statement of Robert S. Litt, Deputy Assistant Attorney General, Criminal Division, U.S. Department of Justice, in Mayhem Manuals and the Internet: Hearings Before the Subcomm. on Terrorism, Technology and Government Information of the Senate Comm. on the Judiciary, 104th Cong., 1st Sess. (1995).

² The DOJ Committee considered carefully the question whether the inclusion in this Report of titles of, and illustrative excerpts from, bombmaking texts would enhance the availability of such information to persons bent upon fabricating bombs and other destructive devices. The Committee concluded that such information already is so readily available to such individuals that its publication in a Report to Congress will create no additional risk. Nevertheless, except as specifically noted, the mention of any particular source of bombmaking information in this Report should not be taken as validation or acknowledgement of the accuracy or value of that information.

³ See also infra note 54 (discussing publication by various periodicals, including the Progressive, of articles describing technical processes of thermonuclear weapons).

⁴ See "Hunt for a Mad Bomber," Reader's Digest 77, 79 (August 1993).

⁵ Much of the information available in print pertaining to nuclear weapons also can be found on the Internet. A number of websites, for example, have included compilations of nuclear weapons information gleaned from literature elsewhere in the public domain.

⁶ The list, captioned "Bombs: All About Things that Go Boom," includes a warning that the compiler does "not endorse, nor check for

the safety, or validity of these bomb making procedures. Makers of these devices take all responsibility. . . . [A]ll of these devices do or can pose a risk to the creators and other individuals." The compiler further suggests that "[f]or [the reader's] safety please read the recipes carefully two and three times over before attempting."

It is important to note that, even if a user of the World Wide Web does not know the specific location of a website containing bombmaking information, such data can easily be located with a search engine.

⁷ In a colloquy during the Senate's consideration of the Feinstein Amendment, *see supra* at 3-4, Senators Biden and Feinstein described similar material that members of their staffs had obtained over the Internet. Senator Biden referred to one item that instructed readers how to manufacture a "baby food bomb" from shotgun shells and "other materials that can be obtained by anyone" that are so "powerful that they can destroy a car." 142 Cong. Rec. S3448 (daily ed. Apr. 17, 1996) (statement of Sen. Biden). Senator Feinstein observed that The Terrorist's Handbook is available by mail order and on the Internet. She observed that this book begins by stating that "[w]hether you are planning to blow up the World Trade Center, or merely explode a few small devices on the White House lawn, the 'Terrorist's Handbook' is an invaluable guide to having a good time." It then goes on to explain, among other things, how to steal the chemicals necessary for making an explosive from a college laboratory. 142 Cong. Rec. S7272 (daily ed. June 28, 1996) (statement of Sen. Feinstein).

⁸ All three defendants were convicted by jury on April 24, 1996, on charges that included conspiracy to make a destructive device to be used to destroy a building used in interstate commerce.

⁹ In 1995, all four members were subsequently tried, convicted and sentenced for violating 18 U.S.C. § 175 (unlawful possession of biological weapons). Although the Patriot Council members only possessed 0.7 grams of ricin, this minute amount constitutes more than 100 lethal doses.

We note that, on November 1, 1995, a senior official of the FBI, testifying before the Senate Permanent Subcommittee on Investigations, apprised the Subcommittee members of the ricin plot, including the use by the conspirators of a publicly available instruction manual describing manufacture of the toxic poison. *See* Statement of John P. O'Neill, Chief, Counterterrorism Section, FBI, in Global Proliferation of Weapons of Mass Destruction: Hearings Before the Permanent Subcomm. on Investigations of the Senate Comm. on Governmental Affairs, 104th Cong., 1st Sess. 236 (1995). Another senior FBI official furnished identical information to the House Subcommittee on Military Research and Development. *See* Statement of Robert M. Blitzer, Chief, Domestic Terrorism/Planning Section, FBI, in Chemical-Biological Defense Program and Response to Urban Terrorism: Hearings Before the Subcomm. on Military Research and Development of the House Comm. on National Security, published at 1996 WL 7136609 (Mar. 12, 1996).

¹⁰ *See also* Department of the Treasury, Bureau of Alcohol, Tobacco and Firearms, Arson and Explosives -- Incidents Report 1994, at 41-51 (1995).

¹¹ This Report deals almost exclusively with the ability of the government to prohibit or restrict the dissemination by private persons of bombmaking information that has not been classified. The Report does not discuss in any detail the separate, broader authority of the government to impose "reasonable restrictions" on its own employees' activities to ensure that those employees do not disclose classified information belonging to the government itself. *See generally* Snepp v. United States, 444 U.S. 507 (1980).

¹² With respect to information concerning atomic weapons in particular, there is another restriction in federal law that also should be mentioned. The Atomic Energy Act imposes certain restrictions on the dissemination of "Restricted Data," which is defined to include, *inter alia*, "all data concerning design, manufacture, or utilization of atomic weapons," 42 U.S.C. § 2014(y)(1), unless such information has been expressly "declassified or removed from the Restricted Data category," *id.* In particular, it is unlawful to communicate, transmit or disclose such "Restricted Data" to any person either (i) with intent to injure the United States or with intent to secure an advantage to any foreign nation, 42 U.S.C. § 2274(a), or (ii) with "reason to believe such data will be utilized to injure the United States or to secure an advantage to any foreign nation," *id.* § 2274(b). In addition, the Attorney General may apply to a court for an injunction prohibiting impermissible dissemination of such Restricted Data by persons who are "about to engage" in such conduct. 42 U.S.C. § 2280.

Insofar as Restricted Data includes simply information produced by or for the government -- such as the government's self-generated, classified information -- the extent to which the government may prohibit dissemination of such data by those who are granted access to it is a matter outside the principal scope of this Report. *See supra* note 11; *infra* note 44. However, there is a serious

question whether Restricted Data also includes information developed or compiled by private citizens who have not had access to classified government documents. See generally Mary M. Cheh, The Progressive Case and the Atomic Energy Act: Waking to the Dangers of Government Information Controls, 48 Geo. Wash. L. Rev. 163, 180-88 (1980). The position of the Department of Energy is that such "privately generated" information concerning nuclear weapon design can be Restricted Data subject to the statutory restrictions on dissemination, see 62 Fed. Reg. 2252, 2254, 2261 (Jan. 15, 1997) (proposing new 10 C.F.R. § 1045.21, which would make this point explicitly); and the only court to opine on the matter has confirmed this statutory construction, see United States v. Progressive, Inc., 467 F. Supp. 990, 998-1000 (W.D. Wis.), rehearing denied, 486 F. Supp. 5 (W.D. Wis.), appeal dismissed, 610 F.2d 819 (7th Cir. 1979). Insofar as the Restricted Data provisions do encompass certain privately generated information concerning nuclear weapons, see 62 Fed. Reg. at 2253-54 (discussing the types of information that the Department of Energy presently considers Restricted Data), the Atomic Energy Act would provide another statutory means of limiting the dissemination of such forms of bombmaking information. However, because Senator Feinstein's initiative in the last Congress was not directed specifically to information about such nuclear weapons, we will limit our discussion of Restricted Data to this footnote, except to note the following: As discussed infra at 30-34 & note 54, any attempt by the government to restrict or punish the dissemination of Restricted Data that was already in the public domain would run up against significant First Amendment constraints, absent an intent by the disseminator to injure the United States or to secure an advantage to any foreign nation.

¹³ Cf., e.g., United States v. Rowlee, 899 F.2d 1275, 1278 (2d Cir.) (defendant properly convicted of conspiracy to defraud United States based on having provided instruction and assistance to others in avoiding income tax liability), cert. denied, 498 U.S. 828 (1990); United States v. Daly, 756 F.2d 1076, 1081-82 (5th Cir. 1985) (defendant properly convicted of conspiracy to defraud United States based on having disseminated information to members of church on how to file tax returns so as to hamper IRS investigation).

¹⁴ See, e.g., United States v. Donner, 497 F.2d 184, 192 (7th Cir. 1972) (speech, including otherwise constitutionally protected speech, can constitute overt act in furtherance of conspiracy), cert. denied, 419 U.S. 1047 (1974).

¹⁵ See generally Direct Sales Co. v. United States, 319 U.S. 703 (1943); United States v. Falcone, 311 U.S. 205 (1940); United States v. Pinckney, 85 F.3d 4, 8 (2d Cir. 1996).

¹⁶ See Direct Sales; Falcone; United States v. Blankenship, 970 F.2d 283 (7th Cir. 1992).

¹⁷ See also Lechuga, 994 F.2d at 349-50 (opinion for four judges of 11-member en banc panel); id. at 362-63 (opinion of three other judges, concurring on this point). However, where the commodity in question has an "inherent capacity" to be used unlawfully, and where the provider of the product has a stake in the success of the illegal venture for which that product is used, a regular course of conduct involving such sales may support proof of a conspiracy. Direct Sales, 319 U.S. at 711-13.

¹⁸ See, e.g., United States v. McNeill, 887 F.2d 448, 450-52 (3d Cir. 1989), cert. denied, 493 U.S. 1087 (1990).

¹⁹ Similarly, the First Amendment does not protect an offer to engage in an unlawful transaction or activity. See, e.g., Village of Hoffman Estates v. Flipside, Hoffman Estates, Inc., 455 U.S. 489, 496 (1982); Pittsburgh Press Co. v. Pittsburgh Comm'n on Human Relations, 413 U.S. 376, 388 (1973); Braun v. Soldier of Fortune Magazine, Inc., 968 F.2d 1110, 1116-21 (11th Cir. 1992), cert. denied, 506 U.S. 1071 (1993); Norwood v. Soldier of Fortune Magazine, Inc., 651 F. Supp. 1397, 1398-1402 (W.D. Ark. 1987).

²⁰ See District of Columbia v. Garcia, 335 A.2d 217, 224 (D.C.) (distinguishing between constitutionally protected advocacy and "the act of enticing or importuning on a personal basis for personal benefit or gain"), cert. denied, 423 U.S. 894 (1975). See also People v. Rubin, 158 Cal. Rptr. 488, 491 (Cal. Ct. App. 1979) (discussing distinction between "general advocacy of crime" and solicitation of crime accompanied by "offer of reward"), cert. denied, 449 U.S. 821 (1980). Professor Kent Greenawalt has argued that the Brandenburg requirements (such as the requirement of "imminent" criminal conduct) should be relaxed in the case of private, nonideological solicitations to crime, even where there is no inducement or threat, but only persuasion. Kent Greenawalt, Speech, Crime, and the Uses of Language 261-65 (1989). While this argument has some force, we are not aware that any court has yet endorsed it.

²¹ See, e.g., United States v. Razo-Leora, 961 F.2d 1140, 1147 (5th Cir. 1992).

²² Subsection 2(a) reads: "Whoever commits an offense against the United States or aids, abets, counsels, commands, induces or procures its commission is punishable as a principal." This statute does not create a distinct federal offense; rather, it merely abolishes

the common-law distinction between principals and accessories. United States v. Superior Growers Supply, Inc., 982 F.2d 173, 177-78 (6th Cir. 1992).

²³ See, e.g., United States v. Kelley, 769 F.2d 215, 216-17 (4th Cir. 1985) (defendant aided and abetted tax fraud by instructing others on how to prepare false forms); United States v. Buttorff, 572 F.2d 619, 623 (8th Cir.) (same), cert. denied, 437 U.S. 906 (1978).

²⁴ The law is unsettled on the question of how much contact, or "proximity," is required between the principals and the accomplice -- that is to say, to what extent the accomplice must "know" who it is he is aiding. In a series of cases similar to those cited supra note 23, courts have found that defendants could be held culpable for aiding and abetting tax-code violations merely by virtue of having provided instruction on unlawful tax-fraud techniques to a discrete group of listeners who had indicated a specific interest in violating the law. See also, e.g., United States v. Rowlee, 899 F.2d 1275 (2d Cir.), cert. denied, 498 U.S. 828 (1990); United States v. Freeman, 761 F.2d 549 (9th Cir. 1985), cert. denied, 476 U.S. 1120 (1986); United States v. Daly, 756 F.2d 1076 (5th Cir. 1985); United States v. Moss, 604 F.2d 569 (8th Cir. 1979), cert. denied, 444 U.S. 1071 (1980). manufacture phencyclidine. The facts alleged in the search warrant established that Barnett provided essential information for the specific purpose of assisting Hensley in the commission of a crime.

A harder question is whether aiding and abetting can be established with even less direct connection between the aider and the principals. In Buttorff, the court of appeals held that the aiding and abetting "joint participation" test was satisfied by virtue of tax-evasion instructions that defendants had provided at "large public gatherings," presumably to persons whom they did not personally meet. 572 F.2d at 622-23. United States v. Barnett, 667 F.2d 835 (9th Cir. 1982), suggests that this same theory of aiding and abetting could be applied to written instructions sent by mail to a customer whom the publisher had never met. In that case, the defendant allegedly advertised in a magazine that it was making available for mail-order purchase a catalog of instructions for manufacture of phencyclidine, and sent such instructions -- along with the name of a "reliable" chemical supplier -- to a person who submitted the required \$10 purchase price. Id. at 840. In the context of determining whether there was probable cause for a warrant to search the seller's premises, the court held that these allegations were sufficient to allege that the publisher had aided and abetted the recipient's manufacture of phencyclidine. The court reasoned that:

[I]t is unnecessary for the government to show that Barnett [the seller of the instructions] ever met with Hensley [the buyer] in order to prove that he aided and abetted him in his attempt to manufacture phencyclidine. The facts alleged in the search warrant established that Barnett provided essential information for the specific purpose of assisting Hensley in the commission of a crime.

Id. at 843. (The opinion does not indicate whether the "facts alleged" in the search warrant included more than what is described above.)

By contrast, part of the aiding-and-abetting rationale in Buttorff and Barnett may have been implicitly questioned in Superior Growers. In that case, the Sixth Circuit held that an indictment had not adequately charged conspiracy to aid and abet marijuana possession against proprietors of a garden-supply store. The indictment alleged, inter alia, that the defendants "occasionally provided information and advice on how to grow marijuana to various customers"; but there was no allegation that any particular customer in fact used such advice to commit a crime. The court held that the "providing information" allegation "ultimately falls short" of alleging the requisite intent to aid and abet, "because it does not state that the publications or information were given with defendants' knowledge that a particular customer was planning to grow marijuana, and with defendants' intent to assist that customer in the endeavor." 982 F.2d at 178. According to the court, in other words, it was insufficient for the government merely to demonstrate that the proprietors intended to aid and abet their customers; it was essential to prove that the proprietors had knowledge that their customers were manufacturing marijuana "or intended to manufacture marijuana." Id. at 175.

²⁵ This standard applies even where the federal crime being assisted involves the unlawful use of explosives. See, e.g., United States v. Hewitt, 663 F.2d 1381, 1385 (11th Cir. 1981) (describing elements of aiding and abetting a violation of 18 U.S.C. § 844(h)).

²⁶ Judge Hand's view of the intent required for criminal aiding and abetting was not shared by all courts, some of which argued that it was sufficient that the aider and abettor knew of the purpose of the principal -- i.e., that the crime was a natural consequence of the assistance. The classic statement of this position is found in Backun v. United States, 112 F.2d 635, 636-37 (4th Cir. 1940). The Supreme Court, in Nye & Nissen, nominally resolved the debate by adopting Judge Hand's view. But see United States v. Ortega, 44 F.3d 505, 508 (7th Cir. 1995) (defendant could be culpable of aiding and abetting even in the absence of evidence that he wanted the

unlawful act to succeed, if defendant "rendered assistance that he believed would (whether or not he cared that it would) make the principal's success more likely"); United States v. Zafiro, 945 F.2d 881, 887-88 (7th Cir. 1991) (dicta) (aiding and abetting should be established even absent intent to assist illegal activity, if abettor "knowingly provides essential assistance" that cannot readily be obtained from other sources), *aff'd* on other grounds, 506 U.S. 534 (1993).

²⁷ See, e.g., Superior Growers, 982 F.2d at 177-78; United States v. Campa, 679 F.2d 1006, 1013 (1st Cir. 1982).

²⁸ See United States v. Giovannetti, 919 F.2d 1223, 1227 (7th Cir. 1990) (citing American Law Institute, Model Penal Code § 2.06(3) (a)(ii)). Although attempted aiding and abetting is not a crime, the converse is not true: it is unlawful to aid and abet an attempted crime, provided the underlying attempt is itself an unlawful act.

²⁹ The substantive crimes that may not be "support[ed]" under section 323 are: 18 U.S.C. §§ 32, 37, 81, 175, 351, 831, 842(m) and (n), 844(f) and (i), 956, 1114, 1116, 1203, 1361, 1362, 1363, 1366, 1751, 2155, 2156, 2280, 2281, 2332, 2332a, 2332b, and 2340A, and 49 U.S.C. § 46502.

³⁰ The full definition of "material support or resources" is: "currency or other financial securities, financial services, lodging, training, safehouses, false documentation or identification, communications equipment, facilities, weapons, lethal substances, explosives, personnel, transportation, and other physical assets, except medicine or religious materials." *Id.*

³¹ See H.R. Conf. Rep. No. 482, 103d Cong., 2d Sess. 232 (1994) (noting that, under the original version of 18 U.S.C. § 2339A, it would not be necessary to prove that the facilitator had a "specific intent to commit the underlying action").

³² Accord Model Penal Code § 2.02(2)(b)(ii) (Official Draft and Revised Comments, 1985); *id.*, Explanatory Note on § 2.02, at 236-37 n.13; United States v. Meling, 47 F.3d 1546, 1558 (9th Cir.), *cert. denied*, 116 S. Ct. 130 (1995); United States v. Powell, 929 F.2d 724, 726, 728 (D.C. Cir. 1991). The government need not prove that the defendant had this level of knowledge with respect to all of the particular details of the future result, such as the identity of those who are harmed. Meling, 47 F.3d at 1558. Thus, under section 323, for example, if a defendant was virtually certain that particular recipients would in fact use the provided resources to commit a terrorist crime, it would be immaterial whether the defendant knew precisely when or where the criminal conduct would occur.

³³ Insofar as it can be argued that Congress intended that "training" be considered a "physical asset" for purposes of the statute, a strong argument could be made that a book containing the substance of such "training" also should be considered a "physical asset." But it is unclear whether a court would adopt this reasoning with respect to a book containing information otherwise readily available in the public domain.

³⁴ It is notable that Congress did not prohibit all knowing or intentional facilitation of civil disorders -- it focused principally on such facilitation accomplished by way of teaching or demonstration. Teaching was not Congress's sole focus, however: Subsection 231(a) (2) makes it unlawful to "transport[] or manufacture[] for transportation in commerce any firearm, or explosive or incendiary device, knowing or having reason to know or intending that the same will be used unlawfully in furtherance of a civil disorder." It appears that Congress simply addressed those forms of facilitation -- teaching (§ 231(a)(1)) and the transport of weapons (§ 231(a)(2)) -- that were the most apparent threats to civil order not already addressed adequately by accomplice and conspiracy prohibitions.

³⁵ In addition, the United States Attorney for the District of Arizona recently brought an indictment under § 231(a)(1) against six members of the "Viper" Militia who allegedly had been engaged in, or had conspired to engage in, substantial and detailed training of others in the means by which explosives could be used in civil disorders. United States v. Nelson, et al., Cr-96-280-PHX-EHC (D. Ariz.). In December 1996, all six defendants admitted their guilt. Three defendants pled guilty to a substantive violation of § 231(a)(1), and three others pled guilty to conspiracy to violate § 231(a)(1).

³⁶ Although this is a demanding standard, nonetheless a person teaching the use of explosives cannot avoid culpability by deliberately ignoring facts that would lead him to be aware that the recipient of the teaching is "practically certain" to use it in furtherance of a civil disorder. See generally 1 E. Devitt, C. Blackmar, M. Wolff & K. O'Malley, Federal Jury Practice and Instructions § 17.09 (4th ed. 1992).

³⁷ See, e.g., 141 Cong. Rec. S7685 (daily ed. June 5, 1995) (statement of Sen. Feinstein); 142 Cong. Rec. S7273 (daily ed. June 28, 1996) (statement of Sen. Feinstein). See also 141 Cong. Rec. S7684-85 (daily ed. June 5, 1996) (statement of Sen. Hatch) (agreeing to

inclusion of "intent" requirement in Feinstein Amendment).

³⁸ See, e.g., 141 Cong. Rec. S7685 (daily ed. June 5, 1995) (statement of Sen. Biden) (describing situation where information is sent to a particular person who has expressly indicated that he desires such information so that he can make unlawful use of it); 142 Cong. Rec. S3449 (daily ed. Apr. 17, 1996) (statement of Sen. Biden) (same); 142 Cong. Rec. S7274 (daily ed. June 28, 1996) (statement of Sen. Biden) (same).

³⁹ 141 Cong. Rec. S7683 (daily ed. June 5, 1995) (statement of Sen. Feinstein).

⁴⁰ Id. at S7684-85 (statement of Sen. Hatch); see also *id.* at S7685 (statement of Sen. Biden) (agreeing with Senator Hatch that explosives manufacturers should not be subject to culpability simply because there is a chance that some persons who receive information from the manufacturers might use that information for unlawful purposes). Senator Hatch apparently was concerned about whether the statute would deter manufacturers from providing lessons on the manufacture and use of explosives. But it should be noted that the Feinstein Amendment would only have restricted the dissemination of information concerning the "making" or "manufacture" of explosive materials, and not the use of such materials.

⁴¹ In addition, Perry followed instructional references from Hit Man in planning and executing the murders, including information about: how to solicit and obtain prospective clients in need of murder-for-hire services; requesting up-front money for expenses; registering at a motel in the vicinity of the crime, paying with cash and using a fake license tag number; committing the murders at the victims' home; how to make the crime scene look like a burglary; cleaning up and carrying away the ejected shells; breaking down the gun and discarding the pieces along the roadside after the murders; and using a rental car with a stolen tag. *Id.* at 840.

⁴² As explained *infra* note 71, there was some dispute between the parties as to the meaning of this "intent" stipulation, and the court's resolution of that dispute affected its ultimate constitutional analysis.

⁴³ As we explain *infra* at 39 n.62, 43, 44-45 n.71, we think that the district court's First Amendment analysis in *Rice* is, in some respects, open to question. Plaintiffs have appealed the district court decision to the United States Court of Appeals for the Fourth Circuit. *Rice v. Paladin Enterprises, Inc.*, No. 96-2412.

⁴⁴ The Feinstein Amendment was addressed to the dissemination by private persons of bombmaking information that has not been classified. Accordingly, our discussion of the First Amendment is limited to situations in which the government seeks to restrict the dissemination of such privately generated, unclassified information. This Report does not discuss in any detail the constitutionality of governmental restrictions on its own employees' activities to ensure that those employees do not disclose classified information belonging to the government itself. See *supra* note 11. As the Supreme Court explained in *Snepp v. United States*, 444 U.S. 507, 509 n.3 (1980), such restrictions on employee conduct generally will not violate the First Amendment so long as they are a "reasonable means" of protecting the government's "compelling interest in protecting . . . the secrecy of information important to our national security." See also, e.g., *United States v. Morison*, 844 F.2d 1057 (4th Cir.), *cert. denied*, 488 U.S. 908 (1988); *McGehee v. Casey*, 718 F.2d 1137 (D.C. Cir. 1983).

⁴⁵ See also *NAACP v. Claiborne Hardware, Inc.*, 458 U.S. 886, 927-28 (1982).

⁴⁶ See *High Oil Times, Inc. v. Busbee*, 456 F. Supp. 1035, 1040 (N.D. Ga. 1978) (no instance in which the written word alone has ever met the *Brandenburg* test), *aff'd*, 621 F.2d 141 (5th Cir. 1980). See also *Herceg v. Hustler Magazine, Inc.*, 814 F.2d 1017, 1023 (5th Cir. 1987) (questioning, but not deciding, whether the *Brandenburg* test could ever be satisfied by written materials), *cert. denied*, 485 U.S. 959 (1988). In the early days of the Supreme Court's First Amendment jurisprudence, by contrast, the Court repeatedly held that the Constitution did not protect published, written advocacy of unlawful conduct. See, e.g., *Fox v. Washington*, 236 U.S. 273 (1915); *Schenck v. United States*, 249 U.S. 47 (1919); *Frohwerk v. United States*, 249 U.S. 204 (1919); *Abrams v. United States*, 250 U.S. 616 (1919); *Gitlow v. New York*, 268 U.S. 652 (1925). The reasoning of these cases does not in any significant sense survive *Brandenburg*. See *Brandenburg*, 395 U.S. at 449 (expressly overruling *Whitney v. California*, 274 U.S. 357 (1927)).

⁴⁷ The First Amendment would not, however, prohibit the evidentiary use of such advocacy to demonstrate a disseminator's intent in conveying bombmaking information. See *Wisconsin v. Mitchell*, 508 U.S. 476, 489 (1993). Therefore, insofar as criminal culpability for dissemination of such information depends upon the distributors' intent -- for example, upon whether a disseminator of bombmaking manuals had the conscious purpose of helping others to use the information to engage in unlawful conduct, see *infra* at

40-44 -- the substance of the advocacy in such manuals could be used as material evidence of such intent.

⁴⁸ On occasion, the Court has indicated that this demanding standard applies only to information concerning "a matter of public significance." See, e.g., Florida Star, 491 U.S. at 533 (quoting Smith, 443 U.S. at 103). See also Dun & Bradstreet, Inc. v. Greenmoss Builders, Inc., 472 U.S. 749, 759-61 (1985) (plurality opinion) (speech on matters of "purely private concern" entitled to less First Amendment protection in defamation cases); id. at 764 (Burger, C.J., concurring in pertinent part); id. at 773-74 (White, J., concurring in pertinent part). But see Florida Star, 491 U.S. at 541 (omitting the "matter of public significance" standard in the Court's ultimate holding, quoted in the text above). However, even if speech of "purely private concern" is entitled to a lesser degree of protection, the Court in Florida Star was willing to conclude that the identity of a rape victim is a "matter of public significance." If that is so, it is safe to assume the Court would find that information on how to construct explosives likewise concerns a "matter of public significance."

⁴⁹ In Florida Star, the Court noted that the state's interest in "the physical safety of [rape] victims, who may be targeted for retaliation if their names become known to their assailants," was a "highly significant" interest. 491 U.S. at 537. Presumably, the governmental interest in preventing the havoc caused by explosive-related crimes is at least as, if not more, significant.

⁵⁰ See, e.g., Herceg v. Hustler Magazine, Inc., 814 F.2d 1017 (5th Cir. 1987) (First Amendment bars liability against magazine where reader accidentally committed suicide while attempting technique of autoerotic asphyxiation described therein), cert. denied, 485 U.S. 959 (1988); Yakubowicz v. Paramount Pictures Corp., 536 N.E.2d 1067 (Mass. 1989) (First Amendment bars liability against producer of motion picture where viewers killed a youth while allegedly imitating the violence depicted therein); DeFilippo v. NBC, Inc., 446 A.2d 1036 (R.I. 1982) (First Amendment bars liability against television network where viewer accidentally committed suicide while attempting hanging stunt he saw on the "Tonight Show"); Olivia N. v. NBC, Inc., 126 Cal. App. 3d 488 (Cal. Ct. App. 1981) (First Amendment bars liability against television network where viewers raped a minor with a bottle while allegedly imitating such a rape depicted in television drama). See generally Greenawalt, Speech, Crime, supra note 20, at 284-85 (1989):

Certain artistic depictions and portrayals may lead some members of the audience to commit crimes, and that possibility exists in connection with work that undeniably constitutes expression as well as work whose status is more arguable. Sex and violence, and particularly violent sex, are the main subjects of concern. . . . These asserted connections are plainly an inadequate basis for holding the communicators criminally liable for the crimes that may be committed after exposure to the communication. In any real instance, the most that can be said is that the communicator disregarded a risk that what he said would cause criminal behavior, a risk of which he was aware or should have been aware. Given the extreme difficulty of estimating that in any particular instance the person who receives the communication, or even one of an audience of millions, will commit a crime as a consequence, demonstrating a substantial and unjustifiable risk of the sort needed to establish recklessness or negligence would be very hard. In any event, the First Amendment would preclude liability on those theories because courts and jurors should not be in the business of assessing the unjustifiability of risks by engaging in ad hoc weighing of the expressive value of a particular program or communication against the dangers it creates. . . . The dangers of interference with forms of expression are grave enough also to bar civil recovery when victims of crimes by consumers sue those responsible for communications on a theory of reckless or negligent causation. For example, if a viewer "acts out" a violent scene from a television drama, the victim cannot recover against the company that has shown the program. . . . If portrayals in literature, movies, television, photography, and the fine arts may ever be forbidden or made the subject of civil liability because of a propensity to

cause crimes, the great danger of a particular sort of communication must be powerfully shown, and the proscribed communications must be very clearly defined.

⁵¹ See, e.g., Smith v. Linn, 563 A.2d 123 (Pa. Super. Ct. 1989) (First Amendment barred liability against publisher of diet book after reader died as result of following diet), aff'd mem., 587 A.2d 309 (Pa. 1991); Alm v. Van Nostrand Reinhold Co., 480 N.E.2d 1263 (Ill. App. Ct. 1985) (First Amendment barred liability against publisher of "how-to" book where reader had been injured while following instructions therein); Walt Disney Productions, Inc. v. Shannon, 276 S.E.2d 580 (Ga. 1981) (First Amendment barred liability against producer and broadcaster of television program where child sustained injuries while seeking to reproduce a sound effect demonstrated for children on "Mickey Mouse Club"). Cf. Winter v. G.P. Putnam's Sons, 938 F.2d 1033 (9th Cir. 1991) ("[g]uided by the First Amendment and the values embodied therein," id. at 1036, court held that mere negligence could not form the basis of liability against book publisher where mushroom enthusiasts became ill from eating mushrooms that the book had described as safe to eat).

⁵² See, e.g., American Booksellers Ass'n v. Hudnut, 771 F.2d 323, 328-29 (7th Cir. 1985) (statute permitting civil liability against producers of depictions of sexually explicit subordination of women is unconstitutional, even accepting the premises that "[m]en who see women depicted as subordinate are more likely to treat them so" and that people are likely to "act in accordance with the images and patterns" they find in such expression), aff'd mem., 475 U.S. 1001 (1986); Video Software Dealers Ass'n v. Webster, 968 F.2d 684 (8th Cir. 1992) (invalidating on constitutional grounds state statute prohibiting the sale or rental to minors of videos "depicting violence"); Eclipse Enterprises v. Gulotta, 942 F. Supp. 801 (E.D.N.Y. 1996) (invalidating on constitutional grounds local law criminalizing sale to minors of trading cards depicting a "heinous crime, an element of a heinous crime, or a heinous criminal"); Zamora v. CBS, 480 F. Supp. 199 (S.D. Fla. 1979) (First Amendment bars liability against television networks to recover damages where television violence allegedly caused viewer to become addicted and desensitized to violent behavior, resulting in his killing an 83-year-old woman). See also Watters v. TSR, Inc., 715 F. Supp. 819 (W.D. Ky. 1989) (First Amendment bars liability against manufacturer of "Dungeons and Dragons" game for failure to warn, where "mentally fragile" person committed suicide after having become consumed with the role-playing nature and fantasy of the game), aff'd on other grounds, 904 F.2d 378 (6th Cir. 1990). Cf. Winters v. New York, 333 U.S. 507, 519 (1948) (invalidating as unconstitutionally vague a criminal law that had been construed to prohibit circulation of publications depicting violence that "influence generally persons to commit crimes of violence against the person").

The results of the First Amendment analysis do not change if these cases are alternatively viewed as involving implied advocacy of undesirable or unlawful conduct. For example, in Kingsley Int'l Pictures Corp. v. Regents of the Univ. of New York, 360 U.S. 684 (1959), the State refused to grant a license for exhibition of the film "Lady Chatterley's Lover," because that film allegedly "present[s] . . . adultery as a desirable, acceptable and proper pattern of behavior." Id. at 685. The Court characterized the State as having "prevent[ed] the exhibition of a motion picture because that picture advocates an idea -- that adultery under certain circumstances may be proper behavior." Id. at 688. Even ten years prior to Brandenburg, the Court held that the Constitution "protects advocacy of the opinion that adultery may sometimes be proper, no less than advocacy of socialism or the single tax." Id. at 689.

⁵³ 491 U.S. at 541. For example, although Florida Star strongly suggests that the government cannot impose "categorical prohibitions," id. at 539, on the dissemination of a prescribed type of information -- without regard to scienter, the reasonableness of the disclosure, the efficacy of the restriction, and the manner in which the State otherwise can prevent the information's disclosure -- the Court nevertheless implied in Florida Star that the First Amendment might permit liability under the common law tort of invasion of privacy for dissemination of true, lawfully obtained information, where the government has not facilitated the disclosure of the information, the information had not previously been publicized, a reasonable person would find the disclosure of the information "highly offensive," and some scienter requirement is satisfied. Id. at 538-40.

⁵⁴ See also Oklahoma Pub. Co. v. District Court, 430 U.S. 308, 311-12 (1977) (per curiam); Nebraska Press Ass'n v. Stuart, 427 U.S. 539, 595-96 (1976) (Brennan, J., concurring):

Much of the information that the Nebraska courts enjoined petitioners from publishing was already in the public domain, having been revealed in open court proceedings or through public documents. Our prior cases have foreclosed any serious contention that further disclosure of such information can be suppressed before publication or even punished after publication.

An infamous case in which this principle was put to the test involved the prior restraint imposed upon publication by the periodical

the Progressive of an article describing technical processes of thermonuclear weapons. See United States v. Progressive, Inc., 467 F. Supp. 990 (W.D. Wis.), rehearing denied, 486 F. Supp. 5 (W.D. Wis.), appeal dismissed, 610 F.2d 819 (7th Cir. 1979). While there is, to this day, substantial debate about whether the prior restraint violated the First Amendment, the district judge in that case acknowledged that such a restraint could be imposed, if at all, only because significant and dangerous information in the article was not "in the public realm." 467 F. Supp. at 993, 999. "[N]owhere in the public domain is there a correct description of the type of design used in United States thermonuclear weapons." Id. at 999. (The information at issue in that case had been classified as "Restricted Data," id. at 998, although the author of the article had not had access to any classified documents. See supra note 12 (discussing "Restricted Data" under the Atomic Energy Act).) The magazine moved for rehearing on the ground that the information was in fact in the public domain; but the district court once more found that the article "contains a comprehensive description of radiation coupling, along with [two] other . . . key concepts, that is not found in the public realm." 486 F. Supp. at 9. The plain import of the district court's decisions is that the prior restraint could not be imposed if the critical information were, in fact, "in the public realm." The government seemed to concede this point: During pendency of the Progressive's appeal of the prior restraint, the substance of the article was published in other journals, see L.A. Powe, Jr., The H-Bomb Injunction, 61 U. Colo. L. Rev. 55, 70 (1990), at which time the government moved for dismissal of the appeal, see 610 F.2d 819. Thereafter, the Progressive published the article, and the government never attempted to prosecute anyone for publication of the information after such information was in the public domain.

⁵⁵ Brandenburg, 395 U.S. at 456 (Douglas, J., concurring).

⁵⁶ A related principle is that generally applicable common-law causes of action typically will not offend the First Amendment in cases where they are applied to expressive conduct such as publication or broadcast. See, e.g., Cohen v. Cowles Media Co., 501 U.S. 663 (1991) (First Amendment does not bar liability for breach of contract where defendant newspaper published confidential source's name); Zacchini v. Scripps-Howard Broadcasting Co., 433 U.S. 562 (1977) (First Amendment does not bar liability for tort of unlawful appropriation of "right to publicity" where television station broadcast "human cannonball" act in its entirety). However, it should be noted that the First Amendment does impose significant limits on the use of a "generally applicable" cause of action where an element of that cause of action inevitably (or almost always) depends on the communicative impact of speech or expression. See, e.g., Hustler Magazine, Inc. v. Falwell, 485 U.S. 46 (1988) (First Amendment generally does not permit liability, under the generally applicable tort of intentional infliction of emotional distress, for publication of a parody of a public figure). See also Cohen, 501 U.S. at 671 (distinguishing Hustler).

⁵⁷ See generally Greenawalt, Speech, Crime, supra note 20.

⁵⁸ Accord United States v. Mendelsohn, 896 F.2d 1183, 1186 (9th Cir. 1990) ("No first amendment defense need be permitted when words are more than mere advocacy, `so close in time and purpose to a substantive evil as to become part of the crime itself.") (citation omitted); United States v. Barnett, 667 F.2d 835, 842 (9th Cir. 1982) ("The first amendment does not provide a defense to a criminal charge simply because the actor uses words to carry out his illegal purpose. Crimes . . . frequently involve the use of speech as part of the criminal transaction."). This rationale applies, for instance, to conspiracies and other unlawful agreements. See Brown v. Hartlage, 456 U.S. 45, 55 (1982): "The fact that . . . an [unlawful] agreement necessarily takes the form of words does not confer upon it, or upon the underlying conduct, the constitutional immunities that the First Amendment extends to speech." See also United States v. Rowlee, 899 F.2d 1275, 1278 (2d Cir.) (First Amendment does not protect speech acts constituting an illegal conspiracy), cert. denied, 498 U.S. 828 (1990); United States v. Fleschner, 98 F.3d 155, 158-59 (4th Cir. 1996) (First Amendment does not protect speech acts in furtherance of an illegal conspiracy).

⁵⁹ Accord Barnett, 667 F.2d at 842-43; United States v. Buttorff, 572 F.2d 619, 623-24 (8th Cir.), cert. denied, 437 U.S. 906 (1978).

⁶⁰ See Greenawalt, Speech, Crime, supra note 20, at 85:

Much more commonly than people commit noncommunicative crimes "purely" by communication, they cooperate, by talking, in the commission of crimes that involve noncommunicative acts. . . . The reasons of ordinary penal policy for covering communicative efforts

to carry out ordinary crimes are obvious, and the criminal law sensibly draws no distinction between communicative and other acts.

Although assertions of fact generally fall within a principle of freedom of speech, what these sorts of factual statements

contribute to

the general understanding of listeners is minimal, and the justifications from free speech that apply to speakers do not reach communications that are simply means to get a crime successfully committed. The relevance of free speech is so slight in respect

to such highly specific information related to an immediate practical purpose that it can be disregarded here.

⁶¹ For cases recognizing this distinction, see, e.g., United States v. Johnson, 952 F.2d 565, 578 n.13 (1st Cir. 1991), cert. denied, 506 U.S. 816 (1992); Rowlee, 899 F.2d at 1279-80; Freeman, 761 F.2d at 552; Buttorff, 572 F.2d at 624 (defendants went "beyond mere advocacy": they "explained how to avoid withholding"); People v. Bohmer, 120 Cal. Rptr. 136, 144 n.1 (Cal. Ct. App.), cert. denied, 423 U.S. 990 (1975). See also Greenawalt, Speech, Crime, supra note 20, at 247 n.13. In Freeman, for example, Justice (then Judge) Kennedy concluded that, because some of the counts of the indictment arguably were premised on the defendant's abstract advocacy of tax evasion, a Brandenburg-like jury instruction was appropriate for such counts. Id. at 551-52. But where the defendant directly counseled someone on how to file false tax returns, "a First Amendment defense is foreclosed even if the prosecution rests on words alone." Id. at 552. Conversely, advocacy of unlawful conduct is entitled to the protection of the Brandenburg test, which cannot be circumvented merely by labeling such advocacy as "aiding and abetting." See, e.g., Gay Lesbian Bisexual Alliance v. Sessions, 917 F. Supp. 1548, 1556 (M.D. Ala. 1996). See also Bond v. Floyd, 385 U.S. 116, 133 (1966). In this regard, it is worth noting that the general federal aiding and abetting statute -- 18 U.S.C. § 2 -- punishes as a principal whoever "counsels" a federal offense. See supra note 22. We are not aware of any modern case in which culpability under § 2 was premised solely on "counseling" in the form of encouragement (or advocating that a crime be committed), without any actual aid or assistance to the principal. Insofar as § 2 were construed to permit culpability in such a "pure" advocacy situation, it is likely -- at least absent special circumstances, such as implicit coercion or a fiduciary relationship between the pertinent parties -- that the prosecution would be required to satisfy the Brandenburg standards. See also supra note 20.

⁶² The district court in Rice v. Paladin, see supra at 27-28, thus erred in concluding that the Brandenburg standard applies to speech "which advocates or teaches lawless activity." 940 F. Supp. at 845 (emphasis added). As we explain in the text, the constitutional analysis can differ quite a bit depending on whether a case involves the "advocacy" or the "teaching" of lawless activity.

⁶³ As Professor Emerson suggests, there may not always be a bright line between "advising" a group of persons that they should engage in criminal conduct and "teaching" that same group specific techniques that the teacher intends for the group to use in such crimes: in particular factual circumstances, these are likely to be two points on a fluid continuum of conduct. Whether a particular instance of teaching will fall outside the Brandenburg protections for advocacy likely will depend on the "explicitness and concreteness" of the teaching. Scales, 367 U.S. at 253. Teaching "in the abstract" the philosophical or political beliefs of a certain author is constitutionally protected, see id. at 252 n.27; while, on the other end of the scale, instruction on how to use a pencil to kill a person in the case of an uprising, see id. at 250-51, is not protected (at least insofar as the teacher intends for the students to make use of such a technique). Somewhere in the middle are cases having aspects both of advocacy and of "teaching." For instance, exhorting a crowd of young men to "avoid the draft by feigning insanity (or burning your draft cards)" in some sense "teaches" the audience a method of unlawful conduct; but it does not really provide the audience any information it does not already know, and thus probably should more appropriately be viewed as a form of advocacy entitled to some constitutional solicitude (albeit not as much as that to which "pure" advocacy is entitled).

⁶⁴ See also Gorin v. United States, 312 U.S. 19, 27-28 (1941) (in order to avoid a serious constitutional question, Court construes "intent" requirement in espionage statute dealing with dissemination of information to "require[] those prosecuted to have acted in bad faith") (emphasis added).

⁶⁵ Perhaps the First Amendment would impose a requirement that there be some realistic risk that the crime will occur. For example, if the information is conveyed to persons who would not under any circumstances use it for unlawful ends, the threat of danger is so remote that the speech arguably should not be punished regardless of bad intent. Courts might find, for example, that culpability can attach only where the defendant both intended and had reason to believe that the information would or could be unlawfully used. Cf. United States v. Dworken, 855 F.2d 12, 19 & n.6 (1st Cir. 1988).

⁶⁶ It is important once again to distinguish training with bad intent from advocacy with bad intent. Though a purpose to facilitate a crime is sufficient to permit punishment of the former, such a bad purpose is necessary but not sufficient when it comes to restrictions on pure advocacy; in the latter case, Brandenburg imposes the additional requirements (i) that the speech be directed to inciting imminent crime, and (ii) that such imminent wrongdoing is likely to occur, in fact.

⁶⁷ For example, the cases where a private party has sought to impose tort liability on the basis of "negligent" or "reckless" publication or broadcast, see supra at 31-33 & notes 50-53, have not involved situations where the publisher or broadcaster had the purpose of fomenting criminal conduct. Such intent is present in aiding-and-abetting and conspiracy cases, but in those cases, the person providing the information is, in a much more direct sense, actually participating with the recipient of the information in the performance of an illegal act.

The precedents that come closest to the situation described in the text are the aiding-and-abetting decisions in Buttorff and Barnett. See supra note 24. In Buttorff, the court of appeals rejected a First Amendment argument where the "joint participation" consisted of tax-evasion instructions that defendants provided at "large public gatherings," presumably to persons they did not personally meet. 572 F.2d at 622-23. In Barnett, a First Amendment argument was rejected (albeit in the context of determining whether there was probable cause for a warrant to search premises) where the only contact between the accomplice and the principal was that the latter received from the former mail-order instructions for the manufacture of phencyclidine, along with the name of a "reliable" chemical supplier, in exchange for the \$10 purchase price. 667 F.2d at 840. As explained in note 24, supra, there is some question whether aiding and abetting can be established by virtue of arms-length transactions such as those in Buttorff and (especially) Barnett. But that is quite a different question than whether the Constitution would bar such culpability. Insofar as those cases hold that there is no First Amendment defense for transmission of information with the intent to facilitate crimes, they are consistent with the conclusion we reach in the text above.

⁶⁸ The recent case of United States v. Aguilar, 115 S. Ct. 2357 (1995), provides further support for permitting prohibition of improperly motivated publication of dangerous instructional information. The defendant in that case urged a narrow construction of a statute banning disclosure of wiretap authorizations, on the ground that a broad reading of the statute would threaten to violate the principle that "the government may not generally restrict individuals from disclosing information that lawfully comes into their hands in the absence of a `state interest of the highest order.'" Id. at 2365 (quoting Smith, 443 U.S. at 103). The Court, while endorsing that basic principle, nonetheless rejected defendants' argument, in part on the ground that "the statute here in question does not impose such a restriction generally, but only upon those who disclose wiretap information `in order to [ob]struct, impede, or prevent'" a wiretap interception. Id. (quoting 18 U.S.C. § 2232(c)).

There are many other contexts, as well, in which First Amendment protection depends upon whether a speaker has some "bad" intent, rather than on the degree of harm that the speech might cause. For example, advocacy of unlawful action will be treated very differently under Brandenburg depending on whether it is "directed to" inciting imminent unlawful conduct, even though such a bad intent does not ordinarily increase the threat to public safety. Similarly, under the earlier Smith Act cases, the Court, in order to avoid serious constitutional questions, strained to construe the Act to require bad intent, even though such intent should not have been relevant if, as the Court insisted, the touchstone for constitutional analysis was the risk of a "clear and present danger." See, e.g., Scales, 367 U.S. at 221-22, 229-30; Dennis, 341 U.S. at 499-500 (plurality opinion). See also, at 516 (defendants' intent and their "power to bring about the evil" were separate necessary elements of the offense). And, most famously, the First Amendment prohibits imposition of liability for publication of a false and defamatory statement about a public figure, unless the publisher acts with "actual malice," i.e., with knowledge that the statement was false or with reckless disregard of whether it was false or not. See, e.g., Masson v. New Yorker Magazine, Inc., 501 U.S. 496, 510 (1991); New York Times Co. v. Sullivan, 376 U.S. 254, 279-80 (1964). Similarly, the Court in Florida Star suggested that, whereas the categorical prohibition on the publication of rape victims' names at issue in that case was unconstitutional, the constitutional calculus might be different if the statute included a scienter requirement. 491 U.S. at 539.

⁶⁹ See Greenawalt, Speech, Crime, supra note 20, at 273: "The constitutional standard here should be that a person intend that the crime be committed and that it be reasonably likely that it will be committed in the `near future.'" See also supra note 65.

⁷⁰ See 141 Cong. Rec. S7683 (daily ed. June 5, 1995) (statement of Sen. Feinstein) (describing instructions from the Terrorist Handbook for construction of items -- such as "toilet paper roll booby traps" and "baby food bombs" --- the sole purpose for which allegedly is "to kill somebody"). Cf. Posters 'n' Things, Ltd. v. United States, 511 U.S. 513, 521 & n.11 (1994) (construing statutory prohibition on sale of items "primarily intende. . . for use" with drugs to cover "multiple-use" items for which the "likely use" by "customers generally" is drug-related).

⁷¹ In a civil case, on the other hand, Professor Greenawalt's concern about constraining juries' discretion would be more directly implicated, but the First Amendment should be no bar where an improper intent is proved by clear and convincing evidence. See, e.g., Masson, 501 U.S. at 510; Gertz v. Robert Welch, Inc., 418 U.S. 323, 342 (1974). In Rice v. Paladin itself, the publishers of Hit Man had no specific knowledge that they had sold the book to particular persons who planned to commit a crime. Therefore, for reasons

discussed in this Report, the First Amendment would permit liability to attach only if defendants had the requisite "intent" that Hit Man be used to facilitate crimes. For purposes of summary judgment, defendants stipulated that they "intended" that "their publications would be used, upon receipt, by criminals and would-be criminals to plan and execute the crime of murder for hire, in the manner set forth in the publications." Joint Statement of Facts ¶ 4b (referenced at 940 F. Supp. at 840). That concession would, for purposes of summary judgment, seem to foreclose a constitutional defense, except for the fact that defendants argued (in their briefs) that all they meant by this stipulation of "intent" was that they "knew" the information contained in Hit Man would be read and used by an audience that includes criminals. See Memorandum of Points and Authorities in Support of Defendant Paladin Enterprises, Inc.'s Motion for Summary Judgment, at 14; Reply Memorandum of Points and Authorities in Support of Defendant Paladin Enterprises, Inc.'s Motion for Summary Judgment, at 14-15. In other words, defendants argued that they had stipulated to "intent" only in the sense that that concept is understood in the civil tort context: *i.e.*, one "intends" the natural consequences of one's acts. Accordingly, defendants argued, they only "intended" that Hit Man would be used for unlawful purposes in the same way that Stephen King "intends" his novels will be used for unlawful purposes: in both cases, the publisher allegedly "knows" that publication likely will "produce" unlawful conduct by some, unknown, reader or readers. Reply Memorandum of Points and Authorities in Support of Defendant Paladin Enterprises, Inc.'s Motion for Summary Judgment, at 15. As we have explained in this memorandum, the First Amendment does not permit a publisher of factual information to be subject to liability merely on the basis of this type of "intent." See *supra* at 30-34. Invoking this principle, the district court in Rice granted Paladin's motion for summary judgment, but only because the court accepted Paladin's representation that the stipulation of "intent" meant only that Paladin "knew" that some readers would misuse the book's information. 940 F. Supp. at 846.

However, even assuming *arguendo* that the defendants' own construction of the "intent" stipulation were correct, that still would not justify the grant of summary judgment, since it would leave unanswered the question whether Paladin also had the specific purpose of facilitating murder. Paladin stipulated (for purposes of summary judgment) that it engaged in a marketing strategy intended to maximize sales to the public, including to "criminals and would-be criminals who desire information and instructions on how to commit crimes." As we explain in the text, if Paladin in effect encourages unlawful use of its product so that it can increase its profits - for instance, if Hit Man is "offered for sale in such a mode as purposely to attract purchasers who want[] [it] for the unlawful [use]," Danovitz, 281 U.S. at 397 -- or if there is other evidence that Paladin publishes Hit Man with the actual purpose of furthering criminal conduct, the publisher might be found to have sold Hit Man for the purpose of facilitating murder. If the finder of fact determined that that "intent" was proved by clear and convincing evidence, the First Amendment should not bar liability. We also should note, however, that, wholly apart from the First Amendment question, it is not clear whether the plaintiffs in Rice alleged a cognizable "aiding and abetting" tort claim under Maryland law, a question that we have no occasion to address. *But see supra* note 24 (discussing whether, under federal criminal law, aiding and abetting can be established by virtue of arms-length transactions with anonymous purchasers).

⁷² See also Ariz. Rev. Stat. Ann. § 13-1004 (1996); Ky. Rev. Stat. Ann. § 506.080 (Baldwin 1996); N.D. Cent. Code § 12.1-06-02 (1995).

⁷³ As far as we can tell, there are no published opinions concerning the use of such statutes to prosecute facilitation committed by way of conveying information, nor have such statutes ever been the subject of a First Amendment challenge.

⁷⁴ Similar prohibitions using a "reasonable cause to believe that the product will be unlawfully used" standard are found in statutes dealing with chemicals and equipment that can be used to produce controlled substances. See, e.g., 21 U.S.C. §§ 841(d)(2) (distribution of chemicals), 843(a)(7) (distribution and export of chemicals, equipment, and other products), 960(d)(3),(4) (export of chemicals).

⁷⁵ See *supra* note 50 (quoting Greenawalt, Speech, Crime, supra note 20, at 284-85).

⁷⁶ See also, e.g., United States v. Hayden, 64 F.3d 126, 133 (3d Cir. 1995) (citing United States v. Caminos, 770 F.2d 361, 365-66 (3d Cir. 1985)); United States v. Honeycutt, 8 F.3d 785, 787 (11th Cir. 1993), *cert. denied*, 511 U.S. 1024 (1994); United States v. Feroz, 848 F.2d 359, 360 (2d Cir. 1988); United States v. Corral-Martinez, 592 F.2d 263, 269-70 (5th Cir. 1979). This standard is derived from § 2.02(7) of the Model Penal Code:

When knowledge of the existence of a particular fact is an element of an offense, such knowledge is established if a person is aware of a high probability of its existence, unless he actually believes that it does not exist.

The Ninth Circuit recently held that the § 2.02(7) "aware of a high probability" standard is appropriate "only in situations where the evidence justifies an argument of willful blindness," and that absent a willful blindness situation the government must prove that the defendant had "actual knowledge or awareness" of the existence of the fact constituting an element of an offense. United States v. Aguilar, 80 F.3d 329, 332 (9th Cir. 1996) (en banc). We take issue with this holding. The Model Penal Code definition of "knowledge" conforms to the common understanding of knowledge, and that definition should be used regardless of whether a case involves an issue of "willful blindness." See Jonathan L. Marcus, Note, Model Penal Code Section 2.02(7) and Willful Blindness, 102 Yale L.J. 2231 (1993). To require that a criminal defendant achieve certainty before he can be said to "know" an operative fact would preclude conviction in virtually any case in which a defendant has committed an offense in reliance on information supplied by others. But most of what we "know" as historical fact has been related to us orally or in writing. Indeed, as Justice (then Judge) Kennedy explained in a case involving a related question:

[W]e commonly act on less than complete information and in this world may never know one-hundred-percent certainty. "Absolute knowledge can be had of very few things," said the Massachusetts court, and the philosopher might add "if any." For most practical purposes, "knowledge" is not confined to what we have personally observed or to what we have evolved by our own cognitive faculties."

United States v. Jewell, 532 F.2d 697, 706 n.6 (Kennedy, J., dissenting) (9th Cir.) (quoting Rollin M. Perkins, Criminal Law 775 (2d ed. 1969) (internal citations omitted)), cert. denied, 426 U.S. 951 (1976).

⁷⁷ See, e.g., Leary, 395 U.S. at 47 (defendant's "knowledge" that marijuana was imported can be established if supplier told defendant the source of the drugs).

⁷⁸ For example, persons who, with no bad intent, post information to certain Usenet newsgroups on the Internet may have reason to know that a certain subscriber to that service often expresses intense hatred of the government. While it is uncertain whether a fact-finder would conclude that such knowledge constitutes "reasonable cause to believe that [that subscriber] will use such information for, or in furtherance of," a crime, the chill caused by the risk of such a finding would raise significant First Amendment questions, because, unless there were a way to prevent access to the suspicious person, the content-provider might have little choice but to cease her "postings" altogether. Similarly, a person demonstrating the proper use of explosives to a classroom full of well-intentioned students (or purchasers of the product) may sense that a particular student seems suspicious, or may discover that one listener asks questions that might subtly suggest an improper motive for wanting to learn the techniques in question. The possible application of a facilitation prohibition to such a case might well cause the teacher to cease instruction (or, at the very least, exclude the suspicious-looking persons, where that is feasible). Because of this possibility, courts might be more inclined to question the constitutionality of the prohibition.

⁷⁹ Moreover, as Professor Greenawalt argues, it is unlikely that the First Amendment would permit criminal culpability to attach on a "facilitation" theory absent the speaker's knowledge of a substantial risk that the communication will facilitate a crime:

My own sense is that a legislature may appropriately accept whatever curtailment of expression is involved in a prohibition on facilitation that the actor believes is likely However, a principle of free speech provides a powerful reason why liability should not extend to all negligent or reckless acts of communication, that is, to situations where the speaker is wholly unaware of the use to be made of what he says or thinks there is only some modest risk it will be used for a criminal purpose.

Greenawalt, Speech, Crime, supra note 20, at 87.

⁸⁰ In order to be sustained under the First Amendment, the "intent" scienter requirement in this prohibition must be understood to refer to cases where the person disseminating the information has a "conscious purpose" that it be used unlawfully, or (at the very least) a material stake in seeing that it be used for such purposes. "Intent" should not be construed to encompass cases where criminal activity is not in fact the intended result, but is merely a "foreseeable" result, or a "natural consequence," of the publication of the information in question. Seesupra at 30-34, 40.

⁸¹ In order to avoid a chilling effect on protected speech, courts might construe such a prohibition as limited to cases where it is reasonably likely that the information will in fact facilitate such criminal conduct. See supra at 43 & note 69.

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Open-Source Software Development

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RESEARCH BRIEF

Open-Source Software Development

An overview of new research on innovators' incentives and the innovation process. **by Georg von Krogh**

Open-source software development projects — Internet-based communities of software developers who voluntarily collaborate in order to develop software that they or their organizations need — have become an important economic and cultural phenomenon. Sourceforge.net, a major infrastructure provider and repository for such projects, lists more than 10,000 of them and more than 300,000 registered users. The digital software products emanating from such projects are commercially attractive and widely used in business and government (by IBM, NASA and the German government, to name just a few). Because such products are deemed a “public good” — meaning that one person’s use of them does not diminish another’s benefits from them — the open-source movement’s unique development practices are challenging the traditional views of how innovation *should* work.

A Brief History

In the 1960s and 1970s, software development was carried out mostly by scientists and engineers working in academic, government and corporate laboratories. They considered it a normal part of their research culture to freely exchange, modify and build upon one another’s software, both individually and collaboratively. In 1969, the U.S. Defense Advanced Research Projects Agency (DARPA) established the ARPAnet, the first transcontinental, high-speed computer network. ARPAnet allowed developers to exchange software code and other information widely, easily, swiftly and cheaply. It grew in popularity and eventually linked several universities, defense contractors and research laboratories. However, its limits soon became apparent. The network could connect approximately 250 hosts, too few to cater

to the growing communication needs among engineers and academics. A number of technological advancements that emerged between 1940 and 1970 led to the development of the Internet project that would eventually solve this bottleneck. Today the Internet has more than 100 million users worldwide and has become the major breeding ground for open-source software development.

The communal culture was strongly present among a group of programmers at the MIT Artificial Intelligence Laboratory in the 1960s and 1970s. In the 1980s, this group received a major jolt when MIT licensed some of the code to a commercial software firm, which promptly restricted access to the source code of that software, and hence prevented noncompany personnel — including MIT hackers who had participated in developing it — from continuing to use it as a platform for further learning and development.

Richard Stallman, an accomplished

programmer at the Artificial Intelligence Laboratory, was rather distraught and somewhat offended by this loss of access to communally developed code, and he lamented a general trend in the software world towards the development of proprietary packages that could not be studied or modified by others. In 1985, he founded the Free Software Foundation with the intention to develop and diffuse a legal mechanism that would allow developers to preserve the “free” status of their software by using their own copyright to grant software licenses that would guarantee a number of rights to *all* future users. The basic license developed by Stallman, in order to implement this idea, was the General Public License or GPL. The basic rights transferred to those possessing a copy of free software included the right to use it at no cost, the right to study and modify its “source code,” and the right to distribute modified or unmodified versions to others at no cost.

The free software idea did not immediately become mainstream; industry was actually rather suspicious of it. For example, firms feared the possible “viral effects” of the GPL license, meaning that, after software in the GPL regime is combined with proprietary software, it would prove difficult to restrict user access through normal licensing or controlling the source code. In 1998, Bruce Perens and Eric Raymond agreed that a significant part of the problem resided in Stallman’s term “free” software. The term might understandably have an ominous ring to it when heard by individuals in the business world. Accordingly, they, along with other prominent hackers, founded the “open source” software movement. Open-source software incorporates essentially the same licensing practices as those pioneered by the free software movement, covering free redistribution of software and the inclusion of the source code of a program. These licensing

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practices also apply to derived works in that the rights attached to the original program apply to all who build upon the source code, without these programmers needing to provide additional licenses.

Incentives To Innovate

Under the aegis of open-source licensing practices, which guarantee that the products cannot be withheld from anyone's use, what are the incentives to innovate, and, given that most open-source projects exist outside the firm's boundaries, how does this innovation process work?

People and firms innovate because there are private incentives to do so. For example, entrepreneurs use their own funds to develop knowledge and products that generate revenue streams (and employees are paid for their creative services to the company). Society also encourages innovation by putting in place mechanisms to protect intellectual property associated with products, so that future revenue streams can be guaranteed for the innovator.

However, a central question raised by the success of open-source software development has been succinctly stated by two economists, Josh Lerner and Jean Tirole: "Why should thousands of top-notch programmers contribute freely to the provision of a public good?" Open-source software developers are rarely paid for their services, and the licenses and hacker practices make it difficult, if not impossible, for these developers to appropriate returns from their products. Eric von Hippel and I suggest that open-source software developers freely reveal and share because they garner personal benefits from doing so, such as learning to develop complex software, perfecting expertise with a computer language, enhancing their reputation, and for pure fun and enjoyment. Many of these benefits depend on membership in a well-functioning developer community. Typically, in open-source communities, members give direct, specific and immediate feedback on the software code that others write and submit. This peer-review process is not only valuable for the individual who

Referenced Research

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A foundational paper for research on open-source software, arguing that individuals contribute to open-source software in accordance with career incentives.

E. von Hippel and G. von Krogh, "Exploring the Open Source Software Phenomenon: Issues for Organization Science" *Organization Science* 14, no. 2 (2003, in press)
The authors suggest that a combination of private and community-related benefits results from contributions to open-source software development projects.

G. Hertel, S. Niedner, and S. Herrmann, "Motivation of Software Developers in Open Source Projects: An Internet-Based Survey of Contributors to the Linux Kernel" *Research Policy* 32 (2003, in press)

The authors test two extant models from the social sciences. The first explains incentives to participate in social movements, and the second deals with motivational processes in small work teams, particularly "virtual teams." The authors report a good fit between models and data derived from a survey of 141 contributors to the Linux kernel.

N. Franke and E. von Hippel, "Satisfying Heterogeneous User Needs via Innovation Toolkits: The Case of Apache Security Software" *Research Policy* 32 (2003, in press)

The authors explore a frequently cited reason for contributing to open-source software: People innovate to better satisfy their own needs.

S. O'Mahony, "Guarding the Commons: How Open-Source Contributors Protect Their Work" *Research Policy* 32 (2003, in press)

An ethnographic study in which the author explores the various ways open-source project members encourage compliance with the terms of their project licenses.

E. von Hippel, "Economics of Product Development by Users: The Impact of 'Sticky' Local Information" *Management Science* 44 (May 1998): 629-644

Information about user needs and problems is "sticky," in the sense that it is costly to retrieve for a manufacturer. See also "Sticky Information" and the Locus of Problem Solving: Implications for Innovation," E. von Hippel, *Management Science* 40, no. 5 (1994): 429-439.

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The author discusses the organization of large-scale, commercial software innovation.

R.D. Austin, "The Effects of Time Pressure on Quality in Software Development: An Agency Model" *Information Systems Research* 12, no. 2 (2001): 195-207

The author explores in detail the relationship between the software developer and the firm.

K. Lakhani and E. von Hippel, "How Open Source Software Works: 'Free,' User-to-User Assistance" *Research Policy* 32 (2003, in press)

How users demonstrate satisfaction and obligation in assisting each other in resolving tasks related to use of Apache software. Also see J.Y. Moon and L. Sproull, "Essence of Distributed Work: The Case of the Linux Kernel," *First Monday* 5, no. 11 (Nov. 2000).

G. von Krogh, S. Spaeth and K. Lakhani, "Community, Joining, and Specialization in Open-Source Software Innovation: A Case Study" *Research Policy* 32 (2003, in press)

A study of growth and specialization in a community of developers.

S. Koch and G. Schneider, "Effort, Co-operation, and Co-ordination in an Open Source Software Project: GNOME" *Information Systems Journal* 12, no. 1 (2002): 27-42

Research on open-source projects from a software engineering perspective. The data are used for a first attempt to estimate the total effort to be expended on a particular project.

B. Kogut and A. Metiu, "Open-Source Software Development and Distributed Innovation" *Oxford Review of Economic Policy* 17, no. 2 (2001): 248-264

The authors of this paper argue that open-source software development is a production model that exploits the distributed intelligence of participants in Internet communities.

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submits code, but also for ensuring the overall quality of the software.

The importance of community was supported in a study of contributors to the Linux operating-system kernel project. Guido Hertel, Sven Niedner and Stefanie Herrmann found that the more contributors identified themselves as “Linux developers,” the higher their level of involvement and the greater their efforts to code for the project. The Linux project and communities surrounding it have the advantage of being well known, and the project’s positive image can create a sense of responsibility and loyalty among developers. They also found contributors to be motivated by group-related factors such as their perceived indispensability to the team. Lastly, they found that contributors had important pragmatic motives to improve their own software. This is key to understanding why many skilled software developers work for free. Nic Franke and Eric von Hippel studied the security needs of those who use Apache Web-server security software. They found that because Apache is open-source software, users can modify it to better fit their individual needs and that users who do so are more satisfied.

While these motives explain, to a great degree, the benefits and incentives of becoming involved in open-source projects, the issue of how developer communities protect the fruits of their labor is a subject of some concern. Unlike in commercial development — where intellectual property law protects the rights of authors to appropriate economic returns from their innovations — open-source licenses are designed to guarantee the rights of *future users* against appropriation. Siobhan O’Mahony points out that open-source software contributors have an active concern that their work remains part of the commons, and they zealously protect their work to this end. Open-source project members encourage compliance with the terms of project licenses in various ways. They may

exercise sanctioning via online discussions and may use brands and logos to ensure that the intellectual property they have contributed remains in the commons.

The Innovation Process

Open-source projects can be started by anyone with the appropriate programming skills and motives. Typically, an entrepreneur with some workable code or an idea for a software project launches a message on one of the many Web-based collaborative communities, such as freshmeat.net or Geocrawler.com. If others find the code useful or the idea interesting, they join in by contributing code, fixing bugs or other problems in the software, providing comments, ideas, references to other projects and so on. Over time, the number of contributors can grow substantially, and the project may use one of the many technical infrastructures available on the Web to host and monitor changes to the emerging software. The entrepreneurs also normally set up a project mailing list for posting questions and answers or messages pertinent to developing the software.

The first challenge for the open-source entrepreneur is mobilizing top-notch programmers. In some cases, when no viable commercial alternatives exist or when they are too expensive, it may, in fact, be easier to

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attract top programmers to open-source projects than to commercial development ventures. Developers of standard off-the-shelf software often find it difficult to judge whether a product feature will have a major impact on satisfying user needs, and they also recognize that users often have difficulty expressing their needs. Eric von Hippel has noted that such “sticky” information is costly to retrieve because understanding a user’s problems requires that the manufacturer “dwell in the context of the user” for a prolonged period. As a result, the high development (and marketing) costs for standard packaged software typically cause software firms to spread these

costs among a large population of users. Companies will therefore seek information about “average user needs and problems,” and this affects product development. In some cases, companies supplement this with help from external opinion leaders in order to ultimately strengthen the product design and identify bugs in early releases. For some types of software, this way of optimizing the innovation process leads to market failure and will spur the interest of developers in joining open-source software projects, in which they can code to meet their own practical and technical needs.

Another challenge for open-source entrepreneurs, as has been discussed by Michael Cusumano, is organizing the innovation process properly. For-profit programming companies often seek to reduce development costs and control quality by closely monitoring what programmers do and how they do it. To secure returns on investment in innovation, most companies try to seek out and recruit the most outstanding software talent, bind them by contract and take steps to minimize opportunism. (R.D. Austin has explored in detail the relationship between the software developer and the firm.) Additionally, software companies attempt to contain costs as well as prevent spillover of knowledge, technology and other secrets to competitors by encouraging specialization and division of labor among developers.

By contrast, the relationship between the open-source software project and its participants is largely voluntary and not regulated by formal contract. The initiator of a project might become well known in the public domain, such as Linus Torvalds who created the Linux operating-system kernel (the central module responsible for such functions as memory, process and disk management); but an initiator cannot legally force participants to continue or increase their efforts in the project. Recent work by Karim Lakhani and Eric von Hippel and by Jae Yun Moon and Lee Sproull shows that contributors to open-source software projects value a sense of ownership and control over the work

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product — something they do *not* experience in programming work carried out for hire. For this reason (among others), participants of open-source software projects also do not take any particular action to minimize “free riding” (the downloading or “consumption” of remote files without reciprocal uploading or “production” of useful contributions). Project learning in the open-source world is captured in the chronology of e-mail exchanges and in the source code that is open for all to see; there is no need to contain or merge information according to a formal division of labor. By means of this transparency, a project accumulates the development efforts of volunteer users and seems to encourage the software’s diffusion in order to build a developer’s reputation and spread the products.

Whereas a firm may secure the best talent through the processes of professional recruiting, there is no formal recruiting in open-source software projects. This could lead to less talented individuals participating in open-source endeavors and eventually to compromises in the quality of the software. But research has shown that developer communities are meritocracies, in which technical knowledge and expertise

determine a contributor’s impact on the software design. Sebastian Spaeth, Karim Lakhani and I studied a sophisticated peer-to-peer software project named Freenet and found that only 30 people had the right to include code in the official version of the software. To become one of these core developers, participants had to demonstrate a considerably higher level of technical activity than other contributors. The open-source organization also self-allocates talent. As noted in our work, as well as in two other studies by Stefan Koch and Georg Schneider and by Bruce Kogut and Anca Metiu, people are not assigned tasks on the basis of predefined labor schemes, instructions and directives, but rather on the basis of interest and self-selection. This drives a high level of specialization, but implies that potentially useful software modules may never be developed.

A View to the Future

What does the open-source software phenomenon imply for future business

activities? In the short to medium term, some managers may encourage the use of open-source software in their own firms. Others may attempt to build a business based on distributing and servicing open-source software. U.S.-based Red Hat and German-based SuSE, which distribute Linux software, serve as templates for such activity. Other companies may sell computer hardware running open-source software, such as IBM, which offers Linux as an option. Managers may also try to reduce development costs and boost software standards by using the open-source software development model. Such an example is Sun Microsystems’ decision to rely on open-source methods to develop and distribute Java.

The open-source software movement also provides important management lessons regarding the most effective ways to structure and implement innovation. There are potentially great advantages (and perhaps some disadvantages) to a model whereby resources used for innovation are widely distributed throughout the world. (See also Henry Chesbrough’s article, “The Era of Open Innovation,” p. 35.) The lessons of open-source projects demonstrate the value of specialization through self-selection and how norms of meritocracy and peer recognition help ensure product quality. To be sure, finding the right blend of incentives to encourage innovation is not an easy task. In the long run, however, managers may recognize that offering a mix of motives is the best way to encourage innovation; a mix that ranges from extrinsic and monetary-based incentives to the fulfillment of more-intrinsic needs, such as enhanced reputation among peers and community identification — that is, a sense of belonging.

THERE ARE GREAT ADVANTAGES TO A MODEL WHEREBY RESOURCES USED FOR INNOVATION ARE WIDELY DISTRIBUTED THROUGHOUT THE WORLD.

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The Cathedral and the Bazaar

by Eric S. Raymond

I anatomize a successful open-source project, fetchmail, that was run as a deliberate test of some surprising theories about software engineering suggested by the history of Linux. I discuss these theories in terms of two fundamentally different development styles, the "cathedral" model of most of the commercial world versus the "bazaar" model of the Linux world. I show that these models derive from opposing assumptions about the nature of the software-debugging task. I then make a sustained argument from the Linux experience for the proposition that "Given enough eyeballs, all bugs are shallow", suggest productive analogies with other self-correcting systems of selfish agents, and conclude with some exploration of the implications of this insight for the future of software.

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The Cathedral and the Bazaar

Linux is subversive. Who would have thought even five years ago that a world-class operating system could coalesce as if by magic out of part-time hacking by several thousand developers scattered all over the planet, connected only by the tenuous strands of the Internet?

Certainly not I. By the time Linux swam onto my radar screen in early 1993, I had already been involved in Unix and open-source development for ten years. I was one of the first GNU contributors in the mid-1980s. I had released a good deal of open-source software onto the net, developing or co-developing several programs (nethack, Emacs VC and GUD modes, xlife, and others) that are still in wide use today. I thought I knew how it was done.

Linux overturned much of what I thought I knew. I had been preaching the Unix gospel of small tools, rapid prototyping and evolutionary programming for years. But I also believed there was a certain critical complexity above which a more centralized, a priori approach was required. I believed that the most important software (operating systems and really large tools like Emacs) needed to be built like cathedrals, carefully crafted by individual wizards or small bands of mages working in splendid isolation, with no beta to be released before its time.

The Linux community seems to resemble a great babbling bazaar of differing agendas and approaches ... out of which a coherent and stable system could seemingly emerge only by a succession of miracles.

Linus Torvalds's style of development - release early and often, delegate everything you can, be open to the point of promiscuity - came as a surprise. No quiet, reverent cathedral-building here - rather, the Linux community seemed to resemble a great babbling bazaar of differing agendas and approaches (aptly symbolized by the Linux archive sites, who'd take submissions from *anyone*) out of which a coherent and stable system could seemingly emerge only by a succession of miracles.

The fact that this bazaar style seemed to work, and work well, came as a distinct shock. As I learned my way around, I worked hard not just at individual projects, but also at trying to understand why the Linux world not only didn't fly apart in confusion but seemed to go from strength to strength at a speed barely imaginable to cathedral-builders.

By mid-1996 I thought I was beginning to understand. Chance handed me a perfect way to test my theory, in the form of an open-source project which I could consciously try to run in the bazaar style. So I did - and it was a significant success.

In the rest of this article, I'll tell the story of that project, and I'll use it to propose some aphorisms about effective open-source development. Not all of these are things I first learned in the Linux world, but we'll see how the Linux world gives them particular point. If I'm correct, they'll help you understand exactly what it is that makes the Linux community such a fountain of good software - and help you become more productive yourself.

The Mail Must Get Through

Since 1993 I'd been running the technical side of a small free-access ISP called Chester County InterLink (CCIL) in West Chester, Pennsylvania (I co-founded CCIL and wrote our unique multiuser bulletin-board software - you can check it out by telnetting to locke.ccil.org. Today it supports almost three thousand users on nineteen lines). The job allowed me 24-hour-a-day access to the Internet through CCIL's 56K line - in fact, it practically demanded it!

Accordingly, I had gotten quite used to instant Internet e-mail. For complicated reasons, it was hard to get SLIP to work between my home machine (snark.thyrus.com) and CCIL. When I finally succeeded, I found having to periodically telnet over to locke to check my mail annoying. What I wanted was for my mail to be delivered on snark so that I would be notified when it arrived and could handle it using all my local tools.

Simple sendmail forwarding wouldn't work, because my personal machine isn't always on the Net and doesn't have a static IP address. What I needed was a program that would reach out over my SLIP connection and pull across my mail to be delivered locally. I knew such things existed, and that most of them used a simple application protocol called POP (Post Office Protocol). And sure enough, there was already a POP3 server included with locke's BSD/OS operating system.

I needed a POP3 client. So I went out on the net and found one. Actually, I found three or four. I used pop-perl for a while, but it was missing what seemed an obvious feature, the ability to hack the addresses on fetched mail so replies would work properly.

The problem was this: suppose someone named `joe' on locke sent me mail. If I fetched the mail to snark and then tried to reply to it, my mailer would cheerfully try to ship it to a nonexistent 'joe' on snark. Hand-editing reply addresses to tack on '@ccil.org' quickly got to be a serious pain.

This was clearly something the computer ought to be doing for me. But none of the existing POP clients knew how! And this brings us to the first lesson:

1. *Every good work of software starts by scratching a developer's personal itch.*

- **Too often software**
- **developers spend their**
- **days grinding away for pay**
- **at programs they neither**
- **need nor love.**

Perhaps this should have been obvious (it's long been proverbial that "Necessity is the mother of invention") but too often software developers spend their days grinding away for pay at programs they neither need nor love. But not in the Linux world - which may explain why the average quality of software originated in the Linux community is so high.

So, did I immediately launch into a furious whirl of coding up a brand-new POP3 client to compete with the existing ones? Not on your life! I looked carefully at the POP utilities I had in hand, asking myself "which one is closest to what I want?". Because

2. Good programmers know what to write. Great ones know what to rewrite (and reuse).

While I don't claim to be a great programmer, I try to imitate one. An important trait of the great ones is constructive laziness. They know that you get an A not for effort but for results, and that it's almost always easier to start from a good partial solution than from nothing at all.

[Linus Torvalds](#), for example, didn't actually try to write Linux from scratch. Instead, he started by reusing code and ideas from Minix, a tiny Unix-like OS for 386 machines. Eventually all the Minix code went away or was completely rewritten - but while it was there, it provided scaffolding for the infant that would eventually become Linux.

In the same spirit, I went looking for an existing POP utility that was reasonably well coded, to use as a development base.

The source-sharing tradition of the Unix world has always been friendly to code reuse (this is why the GNU project chose Unix as a base OS, in spite of serious reservations about the OS itself). The Linux world has taken this tradition nearly to its technological limit; it has terabytes of open sources generally available. So spending time looking for some else's almost-good-enough is more likely to give you good results in the Linux world than anywhere else.

And it did for me. With those I'd found earlier, my second search made up a total of nine candidates - fetchpop, PopTart, get-mail, gwpop, pimp, pop-perl, popc, popmail and upop. The one I first settled on was 'fetchpop' by Seung-Hong Oh. I put my header-rewrite feature in it, and made various other improvements which the author accepted into his 1.9 release.

A few weeks later, though, I stumbled across the code for 'popclient' by Carl Harris, and found I had a problem. Though fetchpop had some good original ideas in it (such as its daemon mode), it could only handle POP3 and was rather amateurishly coded (Seung-Hong was a bright but inexperienced programmer, and both traits showed). Carl's code was better, quite professional and solid, but his program lacked several important and rather tricky-to-implement fetchpop features (including those I'd coded myself).

Stay or switch? If I switched, I'd be throwing away the coding I'd already done in exchange for a better development base.

A practical motive to switch was the presence of multiple-protocol support. POP3 is the most commonly used of the post-office server protocols, but not the only one. Fetchpop and the other competition didn't do POP2, RPOP, or APOP, and I was already having vague thoughts of perhaps adding [IMAP](#) (Internet Message Access Protocol, the most recently designed and most powerful post-office protocol) just for fun.

But I had a more theoretical reason to think switching might be as good an idea as well, something I learned long before Linux.

3. "Plan to throw one away; you will, anyhow." (Fred Brooks, The Mythical Man-Month, Chapter 11)

You often don't really understand the problem until after the first time you implement a solution.

Or, to put it another way, you often don't really understand the problem until after the first time you implement a solution. The second time, maybe you know enough to do it right. So if you want to get it right, be ready to start over *at least* once.

Well (I told myself) the changes to fetchpop had been my first try. So I switched.

After I sent my first set of popclient patches to Carl Harris on 25 June 1996, I found out that he had basically lost interest in popclient some time before. The code was a bit dusty, with minor bugs hanging out. I had many changes to make, and we quickly agreed that the logical thing for me to do was take over the program.

Without my actually noticing, the project had escalated. No longer was I just contemplating minor patches to an existing POP client. I took on maintaining an entire one, and there were ideas bubbling in my head that I knew would probably lead to major changes.

In a software culture that encourages code-sharing, this is a natural way for a project to evolve. I was acting out this:

4. If you have the right attitude, interesting problems will find you.

But Carl Harris's attitude was even more important. He understood that

5. When you lose interest in a program, your last duty to it is to hand it off to a competent successor.

Without ever having to discuss it, Carl and I knew we had a common goal of having the best solution out there. The only question for either of us was whether I could establish that I was a safe pair of hands. Once I did that, he acted with grace and dispatch. I hope I will act as well when it comes my turn.



The Importance of Having Users

And so I inherited popclient. Just as importantly, I inherited popclient's user base. Users are wonderful things to have, and not just because they demonstrate that you're serving a need, that you've done something right. Properly cultivated, they can become co-developers.

Another strength of the Unix tradition, one that Linux pushes to a happy extreme, is that a lot of users are hackers too. Because source code is available, they can be *effective* hackers. This can be tremendously useful for shortening debugging time. Given a bit of encouragement, your users will diagnose problems, suggest fixes, and help improve the code far more quickly than you could unaided.

6. Treating your users as co-developers is your least-hassle route to rapid code improvement and effective debugging.

The power of this effect is easy to underestimate. In fact, pretty well all of us in the open-source world drastically underestimated how well it would scale up with number of users and against system complexity, until Linus Torvalds showed us differently.

In fact, I think Linus' cleverest and most consequential hack was not the construction of the Linux kernel itself, but rather his invention of the Linux development model. When I expressed this opinion in his presence once, he smiled and quietly repeated something he has often said: "I'm basically a very lazy person who likes to get credit for things other people actually do." Lazy like a fox. Or, as Robert Heinlein might have said, too lazy to fail.

In retrospect, one precedent for the methods and success of Linux can be seen in the development of the GNU Emacs Lisp library and Lisp code archives. In contrast to the cathedral-building style of the Emacs C core and most other FSF tools, the evolution of the Lisp code pool was fluid and very user-driven. Ideas and prototype modes were often rewritten three or four times before reaching a stable final form. And loosely-coupled collaborations enabled by the Internet, a la Linux, were frequent.

Indeed, my own most successful single hack previous to fetchmail was probably Emacs VC mode, a Linux-like collaboration by e-mail with three other people, only one of whom (Richard Stallman, the author of Emacs and founder of the [Free Software Foundation](https://www.gnu.org/) or FSF) I have met

to this day. It was a front-end for SCCS, RCS and later CVS from within Emacs that offered "one-touch" version control operations. It evolved from a tiny, crude `sccs.el` mode somebody else had written. And the development of VC succeeded because, unlike Emacs itself, Emacs Lisp code could go through `release/test/improve` generations very quickly.

One unexpected side-effect of FSF's policy of trying to legally bind code into the GPL is that it becomes procedurally harder for FSF to use the bazaar mode, since they believe they must get a copyright assignment for every individual contribution of more than twenty lines in order to immunize GPLed code from challenge under copyright law. People who copyright using the BSD and MIT X Consortium licenses don't have this problem; they're not trying to reserve rights that anyone might have an incentive to challenge.



Release Early, Release Often

Early and frequent releases are a critical part of the Linux development model. Most developers (including me) used to believe this was bad policy for larger than trivial projects, because early versions are almost by definition buggy versions and you don't want to wear out the patience of your users.

This belief reinforced the general commitment to a cathedral-building style of development. If the overriding objective was for users to see as few bugs as possible, why then you'd only release one every six months (or less often), and work like a dog on debugging between releases. The Emacs C core was developed this way. The Lisp library, in effect, was not - because there were active Lisp archives outside the FSF's control, where you could go to find new and development code versions independently of Emacs's release cycle.

The most important of these, the Ohio State `elisp` archive, anticipated the spirit and many of the features of today's big Linux archives. But few of us really thought very hard about what we were doing, or about what the very existence of that archive suggested about problems in FSF's cathedral-building development model. I made one serious attempt around 1992 to get a lot of the Ohio code formally merged into the official Emacs Lisp library. I ran into political trouble and was largely unsuccessful.

But by a year later, as Linux became widely visible, it was clear that something different and much healthier was going on there. Linus' open development policy was the very opposite of cathedral-building. The `sunsite` and `tsx-11` archives were burgeoning, multiple distributions were being floated. And all of this was driven by an unheard-of frequency of core system releases.

Linus was treating his users as co-developers in the most effective possible way:

7. Release early. Release often. And listen to your customers.

Linus' innovation wasn't so much in doing this (something like it had been Unix-world tradition for a long time), but in scaling it up to a level of intensity that matched the complexity of what he was developing. In those early times (around 1991) it wasn't unknown for him to release a new kernel more than once a *day*! Because he cultivated his base of co-developers and leveraged the Internet for collaboration harder than anyone else, this worked.

But *how* did it work? And was it something I could duplicate, or did it rely on some unique genius of Linus Torvalds?

I didn't think so. Granted, Linus is a damn fine hacker (how many of us could engineer an entire production-quality operating system kernel?). But Linux didn't represent any awesome conceptual leap forward. Linus is not (or at least, not yet) an innovative genius of design in the way that, say, Richard Stallman or James Gosling (of `NeWS` and `Java`) are. Rather, Linus seems to me to be a genius of engineering, with a sixth sense for avoiding bugs and development dead-ends and a true knack for finding the minimum-effort path from point A to point B. Indeed, the whole design of Linux breathes this quality and mirrors Linus' essentially conservative and simplifying design approach.

So, if rapid releases and leveraging the Internet medium to the hilt were not accidents but integral parts of Linus' engineering-genius insight into the minimum-effort path, what was he maximizing? What was he cranking out of the machinery?

Put that way, the question answers itself. Linus was keeping his hacker/users constantly stimulated and rewarded - stimulated by the prospect of having an ego-satisfying piece of the action, rewarded by the sight of constant (even *daily*) improvement in their work.

Linus was directly aiming to maximize the number of person-hours thrown at debugging and development, even at the possible cost of instability in the code and user-base burnout if any serious bug proved intractable. Linus was behaving as though he believed something like this:

8. Given a large enough beta-tester and co-developer base, almost every problem will be characterized quickly and the fix obvious to someone.



Given enough eyeballs, all bugs are shallow.

Or, less formally, "Given enough eyeballs, all bugs are shallow." I dub this: "Linus' Law".

My original formulation was that every problem "will be transparent to somebody". Linus demurred that the person who understands and fixes the problem is not necessarily or even usually the person who first characterizes it. "Somebody finds the problem", he says, "and somebody *else* understands it. And I'll go on record as saying that finding it is the bigger challenge." But the point is that both things tend to happen quickly.

Here, I think, is the core difference underlying the cathedral-builder and bazaar styles. In the cathedral-builder view of programming, bugs and development problems are tricky, insidious, deep phenomena. It takes months of scrutiny by a dedicated few to develop confidence that you've winkled them all out. Thus the long release intervals, and the inevitable disappointment when long-awaited releases are not perfect.

In the bazaar view, on the other hand, you assume that bugs are generally shallow phenomena - or, at least, that they turn shallow pretty quick when exposed to a thousand eager co-developers pounding on every single new release. Accordingly you release often in order to get more corrections, and as a beneficial side effect you have less to lose if an occasional botch gets out the door.

And that's it. That's enough. If "Linus' Law" is false, then any system as complex as the Linux kernel, being hacked over by as many hands as the Linux kernel, should at some point have collapsed under the weight of unforeseen bad interactions and undiscovered "deep" bugs. If it's true, on the other hand, it is sufficient to explain Linux's relative lack of bugginess.

And maybe it shouldn't have been such a surprise, at that. Sociologists years ago discovered that the averaged opinion of a mass of equally expert (or equally ignorant) observers is quite a bit more reliable a predictor than that of a single randomly-chosen one of the observers. They called this the "Delphi effect". It appears that what Linus has shown is that this applies even to debugging an operating system - that the Delphi effect can tame development complexity even at the complexity level of an OS kernel.

I am indebted to Jeff Dutky <dutky@wam.umd.edu> for pointing out that Linus' Law can be rephrased as "Debugging is parallelizable". Jeff observes that although debugging requires debuggers to communicate with some coordinating developer, it doesn't require significant coordination between debuggers. Thus it doesn't fall prey to the same quadratic complexity and management costs that make adding developers problematic.

In practice, the theoretical loss of efficiency due to duplication of work by debuggers almost never seems to be an issue in the Linux world. One effect of a "release early and often policy" is to minimize such duplication by propagating fed-back fixes quickly.

Brooks even made an off-hand observation related to Jeff's: "The total cost of maintaining a widely used program is typically 40 percent or more of the cost of developing it. Surprisingly this cost is strongly affected by the number of users. *More users find more bugs*". (my emphasis).

More users find more bugs because adding more users adds more different ways of stressing the program. This effect is amplified when the users are co-developers. Each one approaches the task of bug characterization with a slightly different perceptual set and analytical toolkit, a different angle on the problem. The "Delphi effect" seems to work precisely because of this variation. In the specific context of debugging, the variation also tends to reduce duplication of effort.

So adding more beta-testers may not reduce the complexity of the current "deepest" bug from the *developer's* point of view, but it increases the probability that someone's toolkit will be matched to the problem in such a way that the bug is shallow *to that person*.

Linus coppers his bets, too. In case there *are* serious bugs, Linux kernel version are numbered in such a way that potential users can make a choice either to run the last version designated "stable" or to ride the cutting edge and risk bugs in order to get new features. This tactic is not yet formally imitated by most Linux hackers, but perhaps it should be; the fact that either choice is available makes both more attractive.


When Is A Rose Not A Rose?

Having studied Linus' behavior and formed a theory about why it was successful, I made a conscious decision to test this theory on my new (admittedly much less complex and ambitious) project.

But the first thing I did was reorganize and simplify popclient a lot. Carl Harris's implementation was very sound, but exhibited a kind of unnecessary complexity common to many C programmers. He treated the code as central and the data structures as support for the code. As a result, the code was beautiful but the data structure design ad-hoc and rather ugly (at least by the high standards of this old LISP hacker).

**It's no fun to be responsible
for fixing bugs in a
program you don't
understand.**

I had another purpose for rewriting besides improving the code and the data structure design, however. That was to evolve it into something I understood completely. It's no fun to be responsible for fixing bugs in a program you don't understand.

For the first month or so, then, I was simply following out the implications of Carl's basic design. The first serious change I made was to add IMAP support. I did this by reorganizing the protocol machines into a generic driver and three method tables (for POP2, POP3, and IMAP). This and the previous changes illustrate a general principle that's good for programmers to keep in mind, especially in languages like C that don't naturally do dynamic typing:

9. Smart data structures and dumb code works a lot better than the other way around.

Brooks, Chapter 9: "Show me your [code] and conceal your [data structures], and I shall continue to be mystified. Show me your [data structures], and I won't usually need your [code]; it'll be obvious."

Actually, he said "flowcharts" and "tables". But allowing for thirty years of terminological/cultural shift, it's almost the same point.

At this point (early September 1996, about six weeks from zero) I started thinking that a name change might be in order - after all, it wasn't just a POP client any more. But I hesitated, because there was as yet nothing genuinely new in the design. My version of popclient had yet to develop an identity of its own.

That changed, radically, when fetchmail learned how to forward fetched mail to the SMTP port. I'll get to that in a moment. But first: I said above that I'd decided to use this project to test my theory about what Linus Torvalds had done right. How (you may well ask) did I do that? In these ways:

1. I released early and often (almost never less often than every ten days; during periods of intense development, once a day).
2. I grew my beta list by adding to it everyone who contacted me about fetchmail.
3. I sent chatty announcements to the beta list whenever I released, encouraging people to participate.
4. And I listened to my beta testers, polling them about design decisions and stroking them whenever they sent in patches and feedback.

The payoff from these simple measures was immediate. From the beginning of the project, I got bug reports of a quality most developers would kill for, often with good fixes attached. I got thoughtful criticism, I got fan mail, I got intelligent feature suggestions. Which leads to:

10. If you treat your beta-testers as if they're your most valuable resource, they will respond by becoming your most valuable resource.

One interesting measure of fetchmail's success is the sheer size of the project beta list, fetchmail-friends. At time of writing it has 249 members and is adding two or three a week.

Actually, as I revise in late May 1997 the list is beginning to lose members from its high of close to 300 for an interesting reason. Several people have asked me to unsubscribe them because fetchmail is working so well for them that they no longer need to see the list traffic! Perhaps this is part of the normal life-cycle of a mature bazaar-style project.

Popclient becomes Fetchmail

The real turning point in the project was when Harry Hochheiser sent me his scratch code for forwarding mail to the client machine's SMTP port. I realized almost immediately that a reliable implementation of this feature would make all the other delivery modes next to obsolete.

For many weeks I had been tweaking fetchmail rather incrementally while feeling like the interface design was serviceable but grubby - inelegant and with too many exiguous options hanging out all over. The options to dump fetched mail to a mailbox file or standard output particularly bothered me, but I couldn't figure out why.

What I saw when I thought about SMTP forwarding was that popclient had been trying to do too many things. It had been designed to be both a mail transport agent (MTA) and a local delivery agent (MDA). With SMTP forwarding, it could get out of the MDA business and be a pure MTA, handing off mail to other programs for local delivery just as sendmail does.

Why mess with all the complexity of configuring a mail delivery agent or setting up lock-and-append on a mailbox when port 25 is almost guaranteed to be there on any platform with TCP/IP support in the first place? Especially when this means retrieved mail is guaranteed to look like normal sender-initiated SMTP mail, which is really what we want anyway.

There are several lessons here. First, this SMTP-forwarding idea was the biggest single payoff I got from consciously trying to emulate Linus' methods. A user gave me this terrific idea - all I had to do was understand the implications.

11. The next best thing to having good ideas is recognizing good ideas from your users. Sometimes the latter is better.



**If you are completely
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invention yourself.**

Interestingly enough, you will quickly find that if you are completely and self-deprecatingly truthful about how much you owe other people, the world at large will treat you like you did every bit of the invention yourself and are just being becomingly modest about your innate genius. We can all see how well this worked for Linus!

(When I gave this paper at the Perl conference in August 1997, Larry Wall was in the front row. As I got to the last line above he called out, religious-revival style, "Tell, it, tell it, brother!". The whole audience laughed, because they knew it had worked for the inventor of Perl too.)

After a very few weeks of running the project in the same spirit, I began to get similar praise not just from my users but from other people to whom the word leaked out. I stashed away some of that e-mail; I'll look at it again sometime if I ever start wondering whether my life has been worthwhile :-).

But there are two more fundamental, non-political lessons here that are general to all kinds of design.

12. Often, the most striking and innovative solutions come from realizing that your concept of the problem was wrong.

I had been trying to solve the wrong problem by continuing to develop popclient as a combined MTA/MDA with all kinds of funky local delivery modes. Fetchmail's design needed to be rethought from the ground up as a pure MTA, a part of the normal SMTP-speaking Internet mail path.

■ **When you hit a wall in development, it's often time to ask not whether you've got the right answer, but whether you're asking the right question.**

When you hit a wall in development - when you find yourself hard put to think past the next patch - it's often time to ask not whether you've got the right answer, but whether you're asking the right question. Perhaps the problem needs to be reframed.

Well, I had reframed my problem. Clearly, the right thing to do was (1) hack SMTP forwarding support into the generic driver, (2) make it the default mode, and (3) eventually throw out all the other delivery modes, especially the deliver-to-file and deliver-to-standard-output options.

I hesitated over step 3 for some time, fearing to upset long-time popclient users dependent on the alternate delivery mechanisms. In theory, they could immediately switch to .forward files or their non-sendmail equivalents to get the same effects. In practice the transition might have been messy.

But when I did it, the benefits proved huge. The cruftiest parts of the driver code vanished. Configuration got radically simpler - no more grovelling around for the system MDA and user's mailbox, no more worries about whether the underlying OS supports file locking.

Also, the only way to lose mail vanished. If you specified delivery to a file and the disk got full, your mail got lost. This can't happen with SMTP forwarding because your SMTP listener won't return OK unless the message can be delivered or at least spooled for later delivery.

Also, performance improved (though not so you'd notice it in a single run). Another not insignificant benefit of this change was that the manual page got a lot simpler.

Later, I had to bring delivery via a user-specified local MDA back in order to allow handling of some obscure situations involving dynamic SLIP. But I found a much simpler way to do it.

The moral? Don't hesitate to throw away superannuated features when you can do it without loss of effectiveness. Antoine de Saint-Exupery (who was an aviator and aircraft designer when he wasn't being the author of classic children's books) said:

13. "Perfection (in design) is achieved not when there is nothing more to add, but rather when there is nothing more to take away."

When your code is getting both better and simpler, that is when you *know* it's right. And in the process, the fetchmail design acquired an identity of its own, different from the ancestral popclient.

It was time for the name change. The new design looked much more like a dual of sendmail than the old popclient had; both are MTAs, but where sendmail pushes then delivers, the new popclient pulls then delivers. So, two months off the blocks, I renamed it fetchmail.



Fetchmail Grows Up

There I was with a neat and innovative design, code that I knew worked well because I used it every day, and a burgeoning beta list. It gradually dawned on me that I was no longer engaged in a trivial personal hack that might happen to be useful to few other people. I had my hands on a program every hacker with a Unix box and a SLIP/PPP mail connection really needs.

With the SMTP forwarding feature, it pulled far enough in front of the competition to potentially become a "category killer", one of those classic programs that fills its niche so competently that the alternatives are not just discarded but almost forgotten.

I think you can't really aim or plan for a result like this. You have to get pulled into it by design ideas so powerful that afterward the results just seem inevitable, natural, even foreordained. The only way to try for ideas like that is by having lots of ideas - or by having the engineering judgment to take other peoples' good ideas beyond where the originators thought they could go.

Andrew Tanenbaum had the original idea to build a simple native Unix for the 386, for use as a teaching tool. Linus Torvalds pushed the Minix concept further than Andrew probably thought it could go - and it grew into something wonderful. In the same way (though on a smaller scale),

I took some ideas by Carl Harris and Harry Hochheiser and pushed them hard. We were not 'original' in the romantic way people think is genius. But then, most science and engineering and software development isn't done by original genius, hacker mythology to the contrary.

The results were pretty heady stuff all the same - in fact, just the kind of success every hacker lives for! And they meant I would have to set my standards even higher. To make fetchmail as good as I now saw it could be, I'd have to write not just for my own needs, but also include and support features necessary to others but outside my orbit. And do that while keeping the program simple and robust.

The first and overwhelmingly most important feature I wrote after realizing this was multidrop support - the ability to fetch mail from mailboxes that had accumulated all mail for a group of users, and then route each piece of mail to its individual recipients.

I decided to add the multidrop support partly because some users were clamoring for it, but mostly because I thought it would shake bugs out of the single-drop code by forcing me to deal with addressing in full generality. And so it proved. Getting [RFC 822](#) parsing right took me a remarkably long time, not because any individual piece of it is hard but because it involved a pile of interdependent and fussy details.

But multidrop addressing turned out to be an excellent design decision as well. Here's how I knew:

14. Any tool should be useful in the expected way, but a truly great tool lends itself to uses you never expected.

The unexpected use for multi-drop fetchmail is to run mailing lists with the list kept, and alias expansion done, on the *client* side of the SLIP/PPP connection. This means someone running a personal machine through an ISP account can manage a mailing list without continuing access to the ISP's alias files.

Another important change demanded by my beta testers was support for 8-bit MIME operation. This was pretty easy to do, because I had been careful to keep the code 8-bit clean. Not because I anticipated the demand for this feature, but rather in obedience to another rule:

*15. When writing gateway software of any kind, take pains to disturb the data stream as little as possible - and **never** throw away information unless the recipient forces you to!*

Had I not obeyed this rule, 8-bit MIME support would have been difficult and buggy. As it was, all I had to do is read [RFC 1652](#) and add a trivial bit of header-generation logic.

Some European users bugged me into adding an option to limit the number of messages retrieved per session (so they can control costs from their expensive phone networks). I resisted this for a long time, and I'm still not entirely happy about it. But if you're writing for the world, you have to listen to your customers - this doesn't change just because they're not paying you in money.



A Few More Lessons From Fetchmail

Before we go back to general software-engineering issues, there are a couple more specific lessons from the fetchmail experience to ponder.

The rc file syntax includes optional 'noise' keywords that are entirely ignored by the parser. The English-like syntax they allow is considerably more readable than the traditional terse keyword-value pairs you get when you strip them all out.

These started out as a late-night experiment when I noticed how much the rc file declarations were beginning to resemble an imperative minilanguage. (This is also why I changed the original popclient `server' keyword to 'poll').

It seemed to me that trying to make that imperative minilanguage more like English might make it easier to use. Now, although I'm a convinced partisan of the "make it a language" school of design as exemplified by Emacs and HTML and many database engines, I am not normally a big fan of "English-like" syntaxes.

Traditionally programmers have tended to favor control syntaxes that are very precise and compact and have no redundancy at all. This is a cultural legacy from when computing resources were expensive, so parsing stages had to be as cheap and simple as possible. English, with about 50% redundancy, looked like a very inappropriate model then.

This is not my reason for normally avoiding English-like syntaxes; I mention it here only to demolish it. With cheap cycles and core, terseness should not be an end in itself. Nowadays it's more important for a language to be convenient for humans than to be cheap for the computer.

There are, however, good reasons to be wary. One is the complexity cost of the parsing stage - you don't want to raise that to the point where it's a significant source of bugs and user confusion in itself. Another is that trying to make a language syntax English-like often demands that the "English" it speaks be bent seriously out of shape, so much so that the superficial resemblance to natural language is as confusing as a traditional syntax would have been. (You see this in a lot of so-called "fourth generation" and commercial database-query languages.)

The fetchmail control syntax seems to avoid these problems because the language domain is extremely restricted. It's nowhere near a general-purpose language; the things it says simply are not very complicated, so there's little potential for confusion in moving mentally between a tiny subset of English and the actual control language. I think there may be a wider lesson here:

16. *When your language is nowhere near Turing-complete, syntactic sugar can be your friend.*

Another lesson is about security by obscurity. Some fetchmail users asked me to change the software to store passwords encrypted in the rc file, so snoopers wouldn't be able to casually see them.

I didn't do it, because this doesn't actually add protection. Anyone who's acquired permissions to read your rc file will be able to run fetchmail as you anyway - and if it's your password they're after, they'd be able to rip the necessary decoder out of the fetchmail code itself to get it.

All .fetchmailrc password encryption would have done is give a false sense of security to people who don't think very hard. The general rule here is:

17. *A security system is only as secure as its secret. Beware of pseudo-secrets.*



Necessary Preconditions for the Bazaar Style

Early reviewers and test audiences for this paper consistently raised questions about the preconditions for successful bazaar-style development, including both the qualifications of the project leader and the state of code at the time one goes public and starts to try to build a co-developer community.

It's fairly clear that one cannot code from the ground up in bazaar style. One can test, debug and improve in bazaar style, but it would be very hard to *originate* a project in bazaar mode. Linus didn't try it. I didn't either. Your nascent developer community needs to have something runnable and testable to play with.

When you start community-building, what you need to be able to present is a *plausible promise*. Your program doesn't have to work particularly well. It can be crude, buggy, incomplete, and poorly documented. What it must not fail to do is convince potential co-developers that it can be evolved into something really neat in the foreseeable future.

Linux and fetchmail both went public with strong, attractive basic designs. Many people thinking about the bazaar model as I have presented it have correctly considered this critical, then jumped from it to the conclusion that a high degree of design intuition and cleverness in the project leader is indispensable.

But Linus got his design from Unix. I got mine initially from the ancestral popclient (though it would later change a great deal, much more proportionately speaking than has Linux). So does the leader/coordinator for a bazaar-style effort really have to have exceptional design talent, or can he get by on leveraging the design talent of others?

I think it is not critical that the coordinator be able to originate designs of exceptional brilliance, but it is absolutely critical that the coordinator be able to *recognize good design ideas from others*.

Both the Linux and fetchmail projects show evidence of this. Linus, while not (as previously discussed) a spectacularly original designer, has displayed a powerful knack for recognizing good design and integrating it into the Linux kernel. And I have already described how the single most powerful design idea in fetchmail (SMTP forwarding) came from somebody else.

Early audiences of this paper complimented me by suggesting that I am prone to undervalue design originality in bazaar projects because I have a lot of it myself, and therefore take it for granted. There may be some truth to this; design (as opposed to coding or debugging) is certainly my strongest skill.

■ ■ ■ ■ ■ ■ ■ ■

**But the problem with being
clever and original in
software design is that it
gets to be a habit ...**

But the problem with being clever and original in software design is that it gets to be a habit - you start reflexively making things cute and complicated when you should be keeping them robust and simple. I have had projects crash on me because I made this mistake, but I managed not to with fetchmail.

So I believe the fetchmail project succeeded partly because I restrained my tendency to be clever; this argues (at least) against design originality being essential for successful bazaar projects. And consider Linux. Suppose Linus Torvalds had been trying to pull off fundamental innovations in operating system design during the development; does it seem at all likely that the resulting kernel would be as stable and successful as what we have?

A certain base level of design and coding skill is required, of course, but I expect almost anybody seriously thinking of launching a bazaar effort will already be above that minimum. The open-source community's internal market in reputation exerts subtle pressure on people not to launch development efforts they're not competent to follow through on. So far this seems to have worked pretty well.

There is another kind of skill not normally associated with software development which I think is as important as design cleverness to bazaar projects - and it may be more important. A bazaar project coordinator or leader must have good people and communications skills.

This should be obvious. In order to build a development community, you need to attract people, interest them in what you're doing, and keep them happy about the amount of work they're doing. Technical sizzle will go a long way towards accomplishing this, but it's far from the whole story. The personality you project matters, too.

It is not a coincidence that Linus is a nice guy who makes people like him and want to help him. It's not a coincidence that I'm an energetic extrovert who enjoys working a crowd and has some of the delivery and instincts of a stand-up comic. To make the bazaar model work, it helps enormously if you have at least a little skill at charming people.



The Social Context of Open-Source Software

It is truly written: the best hacks start out as personal solutions to the author's everyday problems, and spread because the problem turns out to be typical for a large class of users. This takes us back to the matter of rule 1, restated in a perhaps more useful way:

18. To solve an interesting problem, start by finding a problem that is interesting to you.

So it was with Carl Harris and the ancestral popclient, and so with me and fetchmail. But this has been understood for a long time. The interesting point, the point that the histories of Linux and fetchmail seem to demand we focus on, is the next stage - the evolution of software in the presence of a large and active community of users and co-developers.

In *The Mythical Man-Month*, Fred Brooks observed that programmer time is not fungible; adding developers to a late software project makes it later. He argued that the complexity and communication costs of a project rise with the square of the number of developers, while work done only rises linearly. This claim has since become known as "Brooks's Law" and is widely regarded as a truism. But if Brooks's Law were the whole picture, Linux would be impossible.

A few years later Gerald Weinberg's classic *The Psychology Of Computer Programming* supplied what, in hindsight, we can see as a vital correction to Brooks. In his discussion of "egoless programming", Weinberg observed that in shops where developers are not territorial about their code, and encourage other people to look for bugs and potential improvements in it, improvement happens dramatically faster than elsewhere.

Weinberg's choice of terminology has perhaps prevented his analysis from gaining the acceptance it deserved - one has to smile at the thought of describing Internet hackers as "egoless". But I think his argument looks more compelling today than ever.

- **While coding**
- **remains an**
- **essentially solitary**
- **activity, the really**
- **great hacks come**
- **from harnessing the**
- **attention and**
- **brainpower of**
- **entire communities.**

The history of Unix should have prepared us for what we're learning from Linux (and what I've verified experimentally on a smaller scale by deliberately copying Linus' methods). That is, that while coding remains an essentially solitary activity, the really great hacks come from harnessing the attention and brainpower of entire communities. The developer who uses only his or her own brain in a closed project is going to fall behind the developer who knows how to create an open, evolutionary context in which bug-spotting and improvements get done by hundreds of people.

But the traditional Unix world was prevented from pushing this approach to the ultimate by several factors. One was the legal constraints of various licenses, trade secrets, and commercial interests. Another (in hindsight) was that the Internet wasn't yet good enough.

Before cheap Internet, there were some geographically compact communities where the culture encouraged Weinberg's "egoless" programming, and a developer could easily attract a lot of skilled kibitzers and co-developers. Bell Labs, the MIT AI Lab, UC Berkeley - these became the home of innovations that are legendary and still potent.

Linux was the first project to make a conscious and successful effort to use the entire *world* as its talent pool. I don't think it's a coincidence that the gestation period of Linux coincided with the birth of the World Wide Web, and that Linux left its infancy during the same period in 1993-1994 that saw the takeoff of the ISP industry and the explosion of mainstream interest in the Internet. Linus was the first person who learned how to play by the new rules that pervasive Internet made possible.

While cheap Internet was a necessary condition for the Linux model to evolve, I think it was not by itself a sufficient condition. Another vital factor was the development of a leadership style and set of cooperative customs that could allow developers to attract co-developers and get maximum leverage out of the medium.

But what is this leadership style and what are these customs? They cannot be based on power relationships - and even if they could be, leadership by coercion would not produce the results we see. Weinberg quotes the autobiography of the 19th-century Russian anarchist Pyotr Alexeyvich Kropotkin's "Memoirs of a Revolutionist" to good effect on this subject:

"Having been brought up in a serf-owner's family, I entered active life, like all young men of my time, with a great deal of confidence in the necessity of commanding, ordering, scolding, punishing and the like. But when, at an early stage, I had to manage serious enterprises and to deal with [free] men, and when each mistake would lead at once to heavy consequences, I began to appreciate the difference between acting on the principle of command and discipline and acting on the principle of common understanding. The former works admirably in a military parade, but it is worth nothing where real life is concerned, and the aim can be achieved only through the severe effort of many converging wills."

The "severe effort of many converging wills" is precisely what a project like Linux requires - and the "principle of command" is effectively impossible to apply among volunteers in the anarchist's paradise we call the Internet. To operate and compete effectively, hackers who want to lead collaborative projects have to learn how to recruit and energize effective communities of interest in the mode vaguely suggested by Kropotkin's "principle of understanding". They must learn to use Linus' Law.

Earlier I referred to the "Delphi effect" as a possible explanation for Linus' Law. But more powerful analogies to adaptive systems in biology and economics also irresistably suggest themselves. The Linux world behaves in many respects like a free market or an ecology, a collection of selfish agents attempting to maximize utility which in the process produces a self-correcting spontaneous order more elaborate and efficient than any amount of central planning could have achieved. Here, then, is the place to seek the "principle of understanding".

The "utility function" Linux hackers are maximizing is not classically economic, but is the intangible of their own ego satisfaction and reputation among other hackers. (One may call their motivation "altruistic", but this ignores the fact that altruism is itself a form of ego satisfaction for the altruist). Voluntary cultures that work this way are not actually uncommon; one other in which I have long participated is science fiction fandom, which unlike hackerdom explicitly recognizes "egoboo" (the enhancement of one's reputation among other fans) as the basic drive behind volunteer activity.

Linus, by successfully positioning himself as the gatekeeper of a project in which the development is mostly done by others, and nurturing interest in the project until it became self-sustaining, has shown an acute grasp of Kropotkin's "principle of shared understanding". This quasi-economic view of the Linux world enables us to see how that understanding is applied.

We may view Linus' method as a way to create an efficient market in "egoboo" - to connect the selfishness of individual hackers as firmly as possible to difficult ends that can only be achieved by sustained cooperation. With the fetchmail project I have shown (albeit on a smaller scale) that his methods can be duplicated with good results. Perhaps I have even done it a bit more consciously and systematically than he.

**It is a hallowed given that
programmers hate documenting;
how is it, then, that Linux hackers
generate so much of it?**

Many people (especially those who politically distrust free markets) would expect a culture of self-directed egoists to be fragmented, territorial, wasteful, secretive, and hostile. But this expectation is clearly falsified by (to give just one example) the stunning variety, quality and depth of Linux documentation. It is a hallowed given that programmers *hate* documenting; how is it, then, that Linux hackers generate so much of it? Evidently Linux's free market in egoboo works better to produce virtuous, other-directed behavior than the massively-funded documentation shops of commercial software producers.

Both the fetchmail and Linux kernel projects show that by properly rewarding the egos of many other hackers, a strong developer/coordinator can use the Internet to capture the benefits of having lots of co-developers without having a project collapse into a chaotic mess. So to Brooks's Law I counter-propose the following:

19: Provided the development coordinator has a medium at least as good as the Internet, and knows how to lead without coercion, many heads are inevitably better than one.

I think the future of open-source software will increasingly belong to people who know how to play Linus' game, people who leave behind the cathedral and embrace the bazaar. This is not to say that individual vision and brilliance will no longer matter; rather, I think that the cutting edge of open-source software will belong to people who start from individual vision and brilliance, then amplify it through the effective construction of voluntary communities of interest.

And perhaps not only the future of *open-source* software. No commercial developer can match the pool of talent the Linux community can bring to bear on a problem. Very few could afford even to hire the more than two hundred people who have contributed to fetchmail!

Perhaps in the end the open-source culture will triumph not because cooperation is morally right or software "hoarding" is morally wrong (assuming you believe the latter, which neither Linus nor I do), but simply because the commercial world cannot win an evolutionary arms race with open-source communities that can put orders of magnitude more skilled time into a problem. 

Acknowledgements

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bazaar model. I'm grateful to the members of PLUG, the Philadelphia Linux User's group, for providing the first test audience for the first public version of this paper. Finally, Linus Torvalds's comments were helpful and his early endorsement very encouraging.

For Further Reading

I quoted several bits from Frederick P. Brooks's classic *The Mythical Man-Month* because, in many respects, his insights have yet to be improved upon. I heartily recommend the 25th Anniversary addition from Addison-Wesley (ISBN 0-201-83595-9), which adds his 1986 "No Silver Bullet" paper.

The new edition is wrapped up by an invaluable 20-years-later retrospective in which Brooks forthrightly admits to the few judgements in the original text which have not stood the test of time. I first read the retrospective after this paper was substantially complete, and was surprised to discover that Brooks attributes bazaar-like practices to Microsoft!

Gerald P. Weinberg's *The Psychology Of Computer Programming* (New York: Van Nostrand Reinhold, 1971) introduced the rather unfortunately-labeled concept of "egoless programming". While he was nowhere near the first person to realize the futility of the "principle of command", he was probably the first to recognize and argue the point in particular connection with software development.

Richard P. Gabriel, contemplating the Unix culture of the pre-Linux era, reluctantly argued for the superiority of a primitive bazaar-like model in his 1989 paper *Lisp: Good News, Bad News, and How To Win Big*. Though dated in some respects, this essay is still rightly celebrated among Lisp fans (including me). A correspondent reminded me that the section titled "Worse Is Better" reads almost as an anticipation of Linux. The paper is accessible on the World Wide Web at <http://alp-ha-bits.ai.mit.edu/articles/good-news/good-news.html>.

De Marco and Lister's *Peopeware: Productive Projects and Teams* (New York: Dorset House, 1987; ISBN 0-932633-05-6) is an underappreciated gem which I was delighted to see Fred Brooks cite in his retrospective. While little of what the authors have to say is directly applicable to the Linux or free-software communities, the authors' insight into the conditions necessary for creative work is acute and worthwhile for anyone attempting to import some of the bazaar model's virtues into a more commercial context.

Finally, I must admit that I very nearly called this paper "The Cathedral and the Agora", the latter term being the Greek for an open market or public meeting place. The seminal "agoric systems" papers by Mark Miller and Eric Drexler, by describing the emergent properties of market-like computational ecologies, helped prepare me to think clearly about analogous phenomena in the free-software culture when Linux rubbed my nose in them five years later. These papers are available on the Web at <http://www.agorics.com/agorpapers.html>.

Epilog: Netscape Embraces the Bazaar!

It's a strange feeling to realize you're helping make history

On January 22 1998, approximately seven months after I first published this paper, Netscape Communications, Inc. announced plans to [give away the source for Netscape Communicator](#). I had had no clue this was going to happen before the day of the announcement.

Eric Hahn, Executive Vice President and Chief Technology Officer at Netscape, wrote me shortly afterwards as follows: "On behalf of everyone at Netscape, I want to thank you for helping us get to this point in the first place. Your thinking and writings were fundamental inspirations to our decision."

The following week I flew out to Silicon Valley at Netscape's invitation for a day-long strategy conference (on Feb 4 1998) with some of their top executives and technical people. We designed Netscape's source-release strategy and license together, and laid some more plans that we hope will eventually have far-reaching and positive impacts on the open-source community. As I write, it is a bit too soon to be more specific; but details should be forthcoming within weeks.

Netscape is about to provide us with a large-scale, real-world test of the bazaar model in the commercial world. The open-source culture now faces a danger; if Netscape's execution doesn't work, the open-source concept may be so discredited that the commercial world won't touch it again for another decade.

On the other hand, this is also a spectacular opportunity. Initial reaction to the move on Wall Street and elsewhere has been cautiously positive. We're being given a chance to prove ourselves, too. If Netscape regains substantial market share through this move, it just may set off a long-overdue revolution in the computer industry.

The next year should be a very instructive and interesting time.



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I changed "free software" to "open source" February 9 1998 in 1.29.

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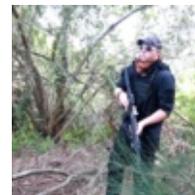
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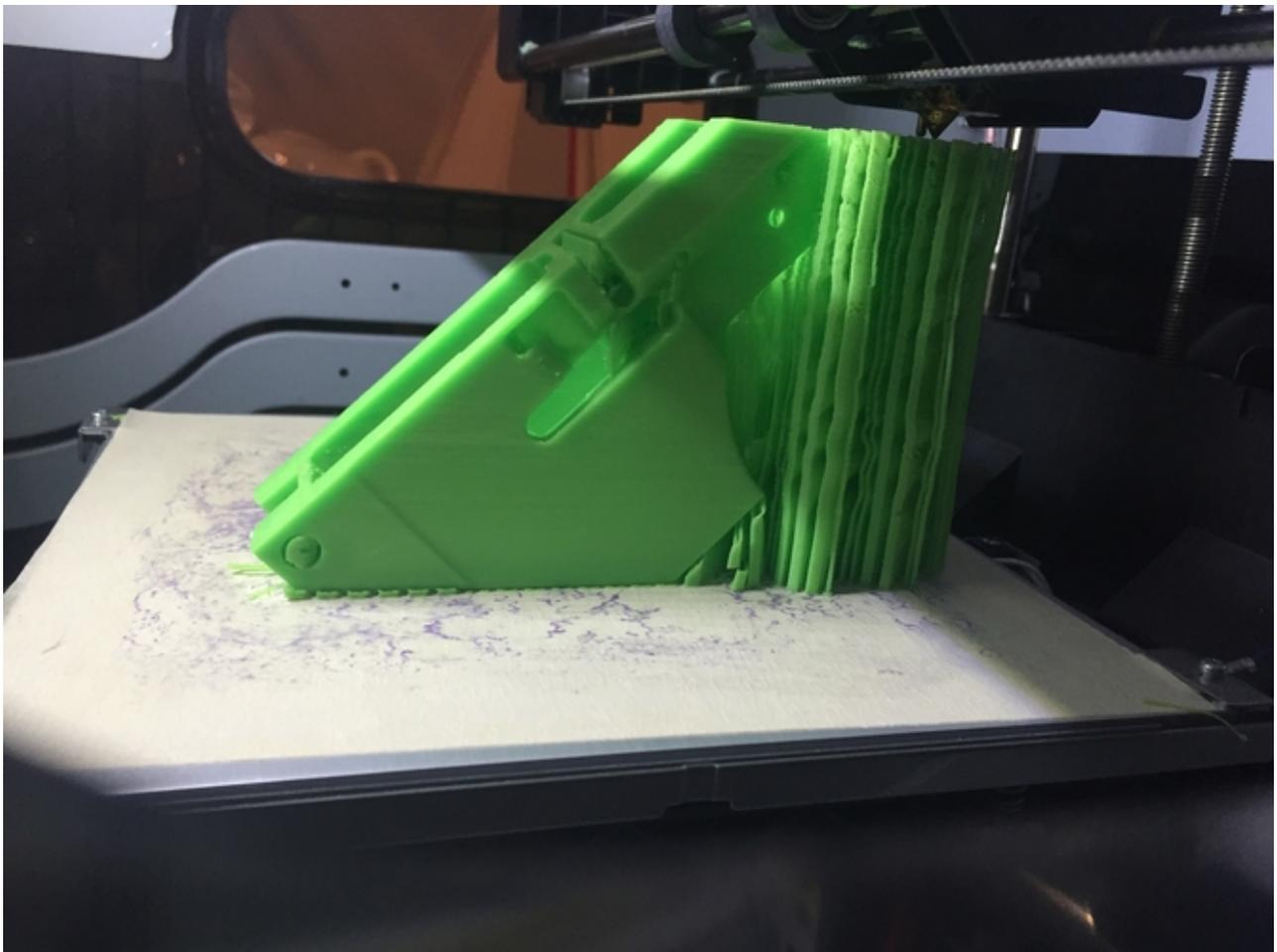
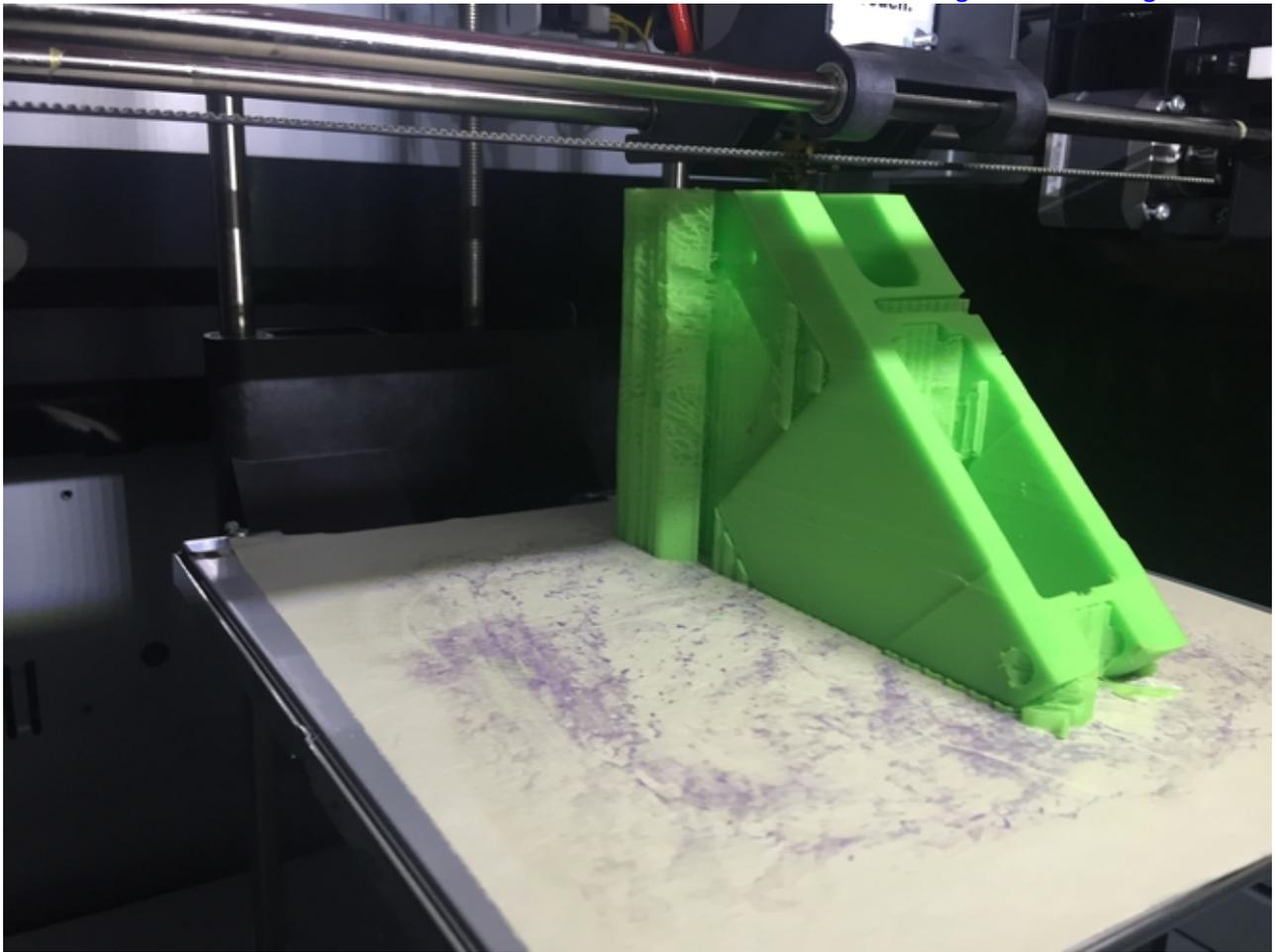
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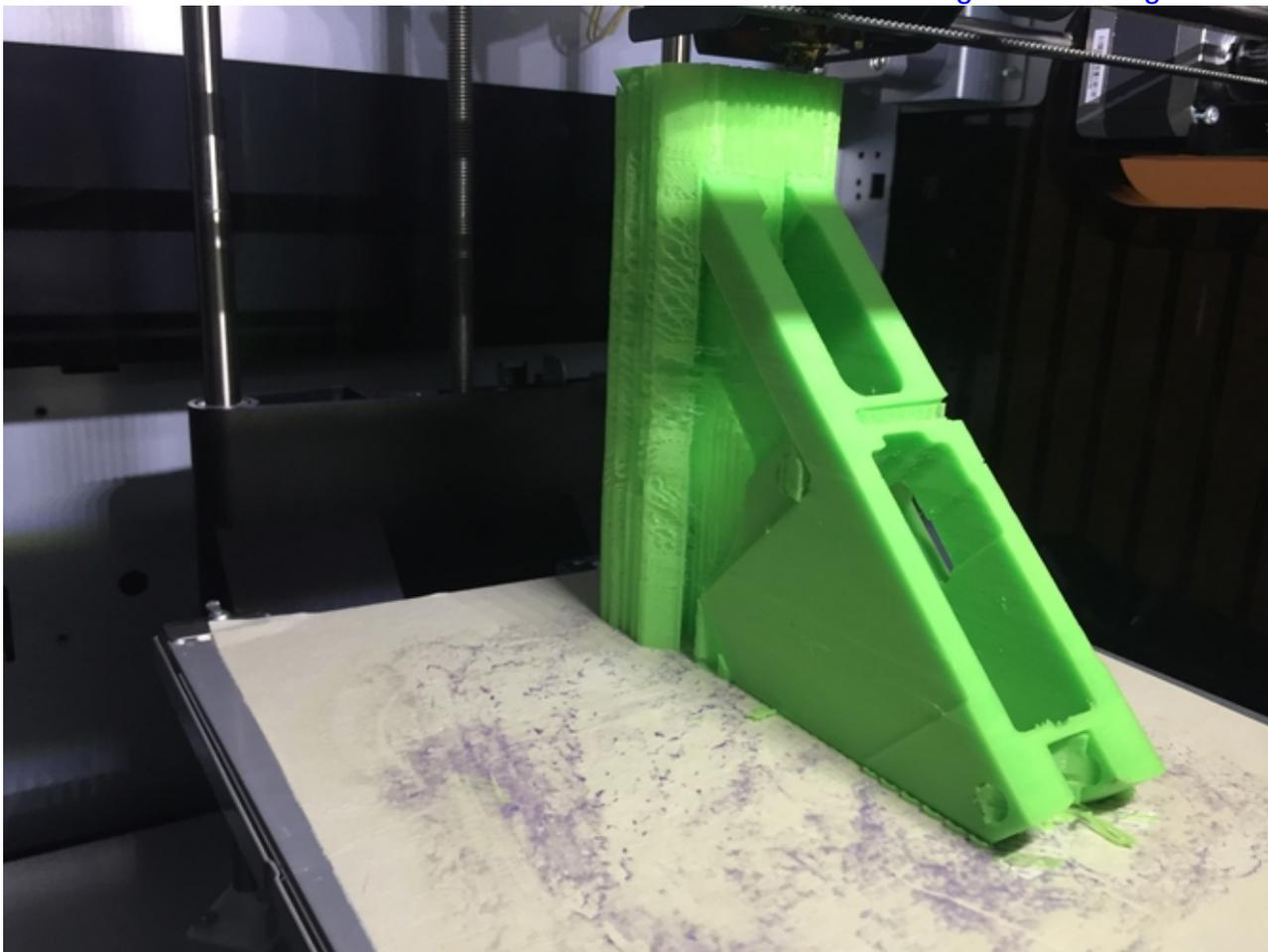
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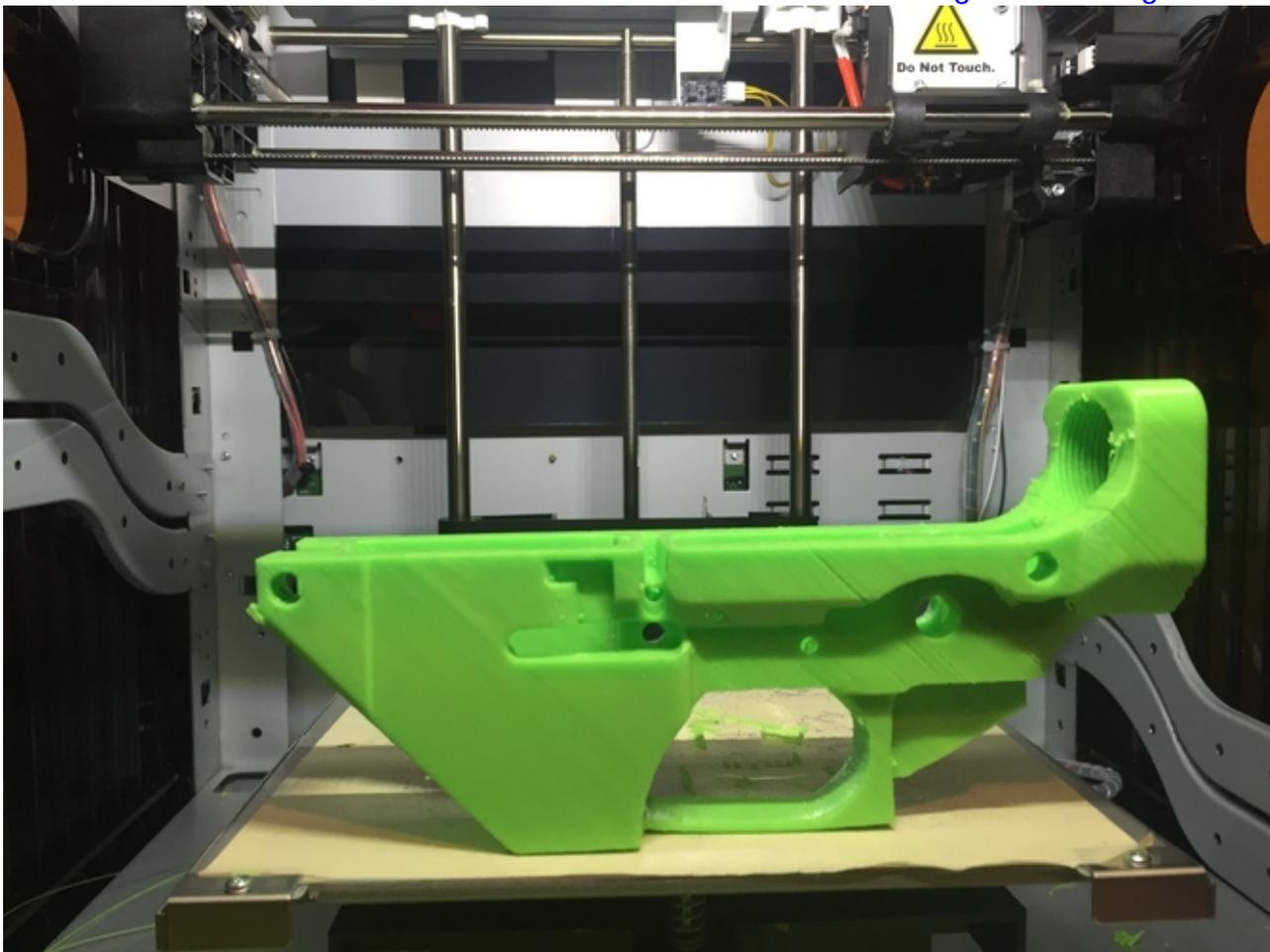
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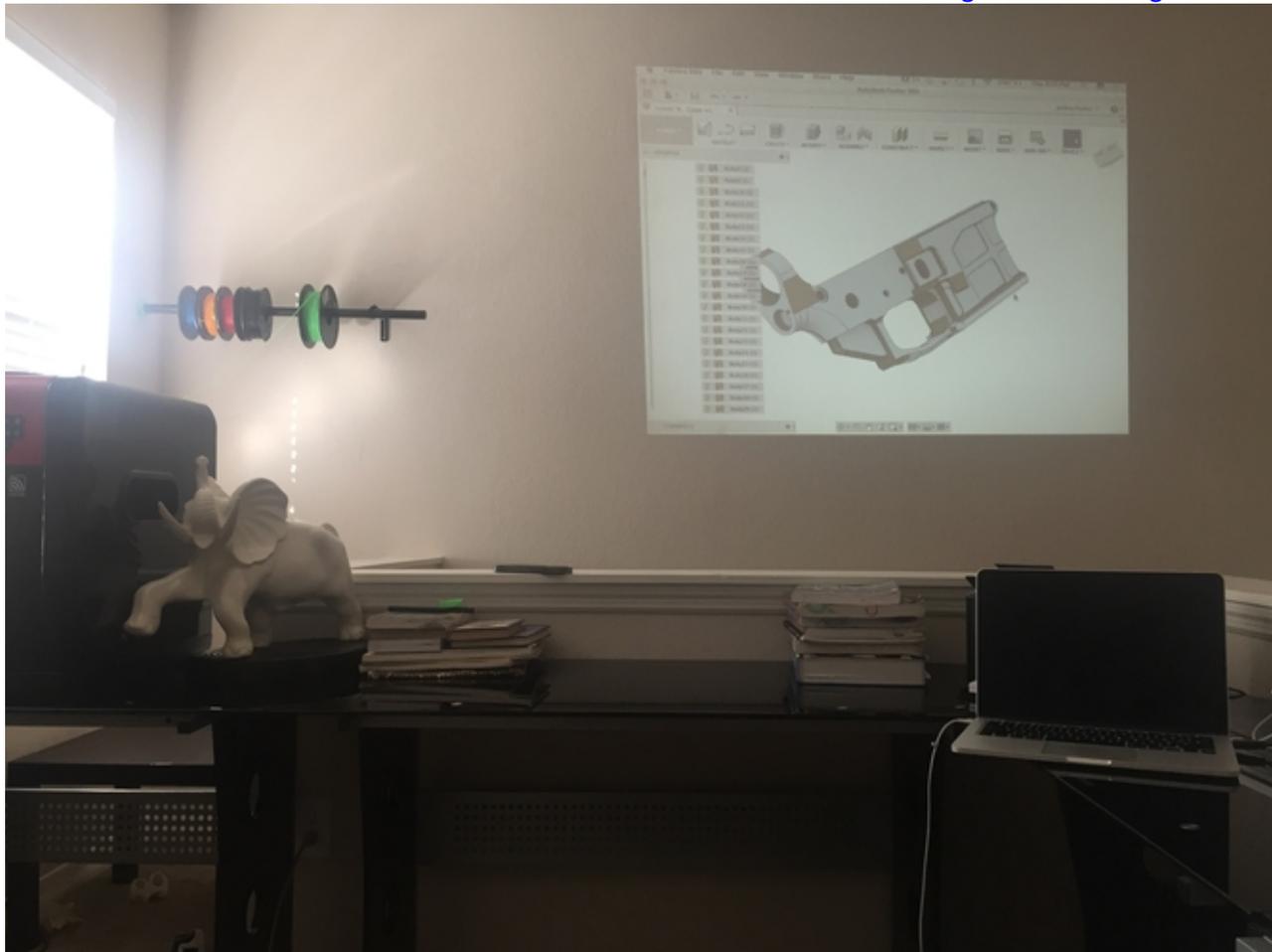
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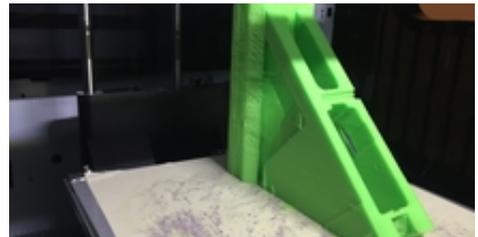
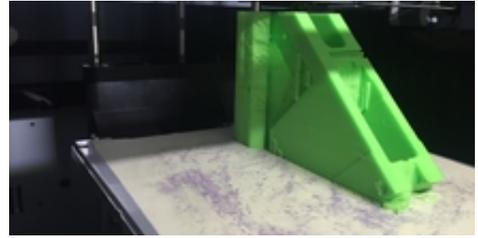


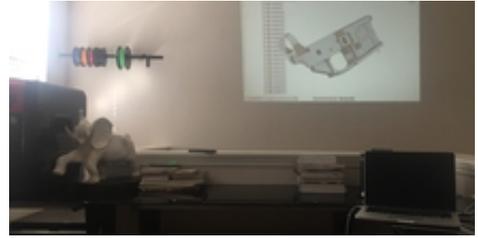














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About the Editors

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* * *

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Collaborative Development Environments

C**Javier Soriano***Universidad Politécnica de Madrid (UPM), Spain***Genoveva López***Universidad Politécnica de Madrid (UPM), Spain***Rafael Fernández***Universidad Politécnica de Madrid (UPM), Spain*

INTRODUCTION

More and more often organizations tend to behave like dynamically reconfigurable networked structures that carry out their tasks by means of collaboration and teamwork. Effective teamwork is an essential part of any non-trivial engineering process, and collaborative capabilities are an essential support for these teams. Software development is no exception; it is in itself a collaborative team effort, which has its own peculiarities. Both in the context of open source software development projects and in organizations that develop corporate products, more and more developers need to communicate and liaise with colleagues in geographically distant areas about the software product that they are conceiving, designing, building, testing, debugging, deploying, and maintaining. In their work, these development teams face significant collaborative challenges motivated by barriers erected by geographic distances, time factors, number of participants, business units or differences in organizational hierarchy or culture that inhibit and constrain the natural flow of communication and collaboration. To successfully overcome these barriers, these teams need tools by means of which to communicate with each other and coordinate their work. These tools should also take into account the functional, organizational, temporal and spatial characteristics of this collaboration. Software product users are now becoming increasingly involved in this process, for which reason they should also be considered.

In the context of the software development process, then, a collaborative development environment (CDE) can be defined as a safe and centralized solution conceived to optimize collaborative and distributed software development generally based on Internet standards.

This chapter introduces and defines the concept of CDE, while stressing the role these environments play in setting up a virtual space for negotiation, brainstorming, discussion, information and knowledge sharing, cooperation, coordination, development and management in engineering projects generally and especially software development projects. It then analyzes the collaboration-related points of conflict in the software development process. This conflict is motivated by issues, such as the space-time distribution of resources, which have a negative impact on both individual and team effectiveness and efficiency. On the basis of this analysis, we describe what essential purposes a CDE should serve, including: (a) the holistic integration of disparate collaborative processes and tools through a collaborative environment that represents a Web-accessible virtual project space, (b) the expansion of visibility and change control, (c) the centralization and administration of resources, and (d) the reinforcement of collaboration, creativity and innovation. We also examine what features and services a CDE should provide.

Then, we introduce the chief classification frameworks, according to which collaborative tools can be ranked by the needs that they satisfy, each one from a different viewpoint. Knowing and considering these frameworks, a team can contextualize the range of collaborative tools available, and compare them from different viewpoints and on the basis of assembled criteria sets to be able to make a grounded decision on what collaborative tools best meet its needs.

Finally, the chapter will refer to how CDEs are related within open source software communities. These communities have led to a change in how software development is viewed, and both communities and CDEs have been clearly influenced each other. A number of software and open source software develop-

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ment support web sites that use CDEs to achieve their goals will be presented.

WHAT IS A CDE AND WHERE DO THEY COME FROM?

The issue of CDEs was perhaps taken up for the first time back in 1984, when Iren Greif and Paul Cashman organized a workshop that brought together an influential group of people to examine how to apply technology within a collaborative work environment. This meeting was the source of the “computer-supported cooperative work (CSCW)” concept (Grudin, 1994), which aimed to find an answer to how computer systems can support and coordinate collaborative activities.

A few years later, after further researching the concept of CSCW, Malone and Crowston (1994) introduced *coordination theory*, conceived on the basis of research in several different disciplines like computer science, organization theory, management science, economics, linguistics, and psychology, and according to which they defined coordination as a way of managing dependencies between activities. By characterizing the different types of possible dependencies between task activities, Malone and Crowston were able to identify and, consequently, manage the so-called coordination processes. This investigation identified some of the problems that future CDEs would have to deal with, such as, for example, resources allocation, as well as possible solutions.

Years later, when the technology was far enough evolved and after the Internet had materialized, these coordination processes and all the years of CSCW research led to collaborative tools capable of improving not only the development of software applications, but also the networked exchange of information and ideas from different branches of knowledge, with users who had possibly never worked together before and did not even know each other, based at geographically distant places, even overcoming time differences. This then led to the concept of *groupware* (Baecker, 1993), that is computer-based systems that support groups of people engaged in a common task (or goal) and that provide an interface to a shared environment, thanks to the enabling technologies of computer networking, software and services, materializing the ideas emerged from CSCW research (Engelbart, 1992).

Predictably, this activity yielded the first tangible definitions of CDEs. For example, “a CDE is a virtual space wherein all the stakeholders of a project, even if distributed by time or distance, may negotiate, brainstorm, discuss, share knowledge, and generally labor together to carry out some task, most often to create an executable deliverable and its supporting artifacts” (Booch & Brown, 2003). In this definition, the authors establish the key aspects to be taken into account in any CDE. In view of the importance that these environments have gained both in the open source context and the corporate environment with the upsurge of virtual and networked enterprises though, we believe that the definition falls short, as it only states what a CDE is and not how it works. It fails to come up with solutions for the challenges to be met by any CDE concerning the space-time distribution of resources. Therefore, we can add to the definition by saying that a CDE holistically integrates multiple collaborative tools and resources, thanks to which it offers a set of services to aid all the stakeholders in the software development area, including managers, developers, users, commercial software manufacturers and software product support enterprises, to communicate, cooperate and liaise. CDEs consider software development’s social nature and assure that the people who design, produce, maintain, commercialize and use software are aware of and communicate about the activities of the others simply, efficiently and effectively, also encouraging creativity and driving innovation.

CHARACTERIZATION OF A CDE

Grady Booch and Alan W. Brown (2003) state that the purpose of a CDE is to create a foundation that minimizes the frictions that have an impact on the routine work of software developers, reducing both individual and group efficiency. The key points of friction are:

- **The cost of working space start-up and on-going organization.** At the start of a project or when a new member joins, there will be a period of adaptation until the team finds the best tools to use, who to ask, the project status, and so forth.
- **Inefficient work product collaboration.** More than one person sometimes needs to work on the same document at the same time. When this is a critical document, a change control log needs to

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be kept, specifying who changed what and why in order to rule out problems with simultaneous modifications, and so forth.

- **Maintaining effective group communication.** Negotiation and ambiguity management are critical tasks not related to programming. Team efficiency suffers to the extent that knowledge is inaccessible or communication mechanisms are defective.
- **Time starvation across multiple tasks.** There never seems to be enough time to do tasks.
- **Stakeholder negotiation.** This is the time it takes to reach consensus among individuals with different viewpoints so that the team can move on.
- **Stuff that doesn't work.** Although often ignored, any item that does not work (network crashes, software package errors, etc.) leads to an interruption and therefore a loss of efficiency

ACDE will help to redirect many of these friction points. Having a visual Web-based environment can help to minimize start-up costs. If this environment also offers a storage system integrating change management and the possibility of saving meta-information, teamwork-derived friction will drop substantially. Communication can be improved using discussion and meeting mechanisms. Time shortages can be counteracted by adding items that act as non-human team members executing scripts or tedious tasks. Negotiation can be improved by automating workflow. If the tool is in widespread use and is also open source, someone else is more likely to have detected and corrected the fault.

In any case, a CDE's worth lies in providing a work environment that minimizes these frictions, allowing the team to focus on its main mission: the production of useful and operational software.

Based on the definition of CDE given here, and also on the friction points previously mentioned, the key purposes a CDE should generally serve are:

- **The holistic integration of disparate collaborative processes and tools through a collaborative environment that represents a Web-accessible virtual project space.** The goal is to broaden the options for communication, cooperation and coordination, fill in missing information, and provide visibility for all resources needed by the team. Additionally, a simple way of capturing data and creating event logs should be provided for the purpose of improving project auditing and

follow-up. All these tasks can be carried out by a single system, composed of subsystems providing different services.

- **The expansion of visibility and change control.** Changes will inevitably occur during project development, and the system has to be able to deal with such changes in a reliable and transparent fashion. A key point for distributed cooperation is a clear and exhaustive change control process. A centralized repository with easy access through a user-friendly interface is also essential.
- **The centralization and administration of resources.** The system should integrate and provide the tools needed for collaboration and for project management, providing methods for implementing the relations between teams, and for document, resources and activity sharing. This reduces isolation, maximizes accuracy and speeds up decision making. The system should also offer maximum usability through a generally Internet-accessible user-friendly interface.
- **The reinforcement of collaboration, creativity and innovation.** Process transparency and information availability have a very positive impact by encouraging a constructive attitude towards and motivating collaboration between teams. The ease with which information can be accessed and new ideas can be effectively shared is a source of inspiration for the creative process.

To further specify, if possible, the definition of a CDE, the following are in our opinion services that a CDE should provide.

Table 1. Services a CDE should provide

- | |
|---|
| <ul style="list-style-type: none"> • Web hosting • Web interface-based administration • File persistence with version control • Visibility control system • Databases and directory services • Fault reporting and monitoring system • Bulletin boards or newsgroups • Mailing lists • Task organizers • New feature request system |
|---|



CLASSIFICATION FRAMEWORKS FOR CDEs

As we have seen, there are a number of collaborative tools that can be used by a team to collaboratively achieve its goals. However, a number of classification frameworks, each one based on a different set of characterizing parameters and criteria, have been proposed to rank tools by the needs they satisfy and allow a team to make a grounded decision on what collaborative tools best meet its needs. Knowing and considering the available frameworks, a team can contextualize the range of collaborative tools available and compare them from different viewpoints.

Making no claims to being exhaustive, some of the most representative frameworks that have been developed to date are concisely reviewed below.

- Conradi and Westfechtel (1998) provide a thorough taxonomy for comparing collaborative tools in a particular area.
- Grudin (1994) classifies collaborative tools based on their functionality, considering their adequacy for (a) the time mode in which communication takes place (real time, asynchronous), (b) team location (distributed, collocated) and (c) predictability or otherwise of this temporality and/or location.
- Nutt (1996), within the framework of workflow systems, defines a 3D domain space based on the underlying workflow model and more specifically on the mode in which the workflow model represents a work procedure. The resulting framework can classify models that represent just structured or explicit work, models conceived to deal with unstructured work, descriptive and analytical workflow models and conventional workflow models among others.
- Malone and Crowston (1994) identify the processes of coordination used by different disciplines to manage dependencies among activities and analyze their interdisciplinary nature. After identifying the processes, they create a taxonomy of process-based collaborative tools to provide support during software development.
- Van der Hoek et al. (2004) classify collaborative tools on the basis of their high-level approach to collaboration, and particularly depending on whether they take a formal process-based ap-

proach, an informal awareness-based approach or they combine both approaches.

- Booch and Brown (2003) classify tools on the basis of the capabilities offered, for which purpose they decompose the characteristics of a CDE into three categories of capabilities based on coordination, collaboration, and the community building nature of a CDE.
- Sarma (2005) classifies the tools depending on their impact on the effort required by users to collaborate effectively instead of focusing on functionality-related aspects and evaluates how sophisticated and automated the support they provide is. The framework classifies the expected user effort that is required to use a particular type of tool and collaborate effectively.

CDEs AND OPEN SOURCE COMMUNITIES

The software development industry has clearly undergone a change of paradigm due to the eruption of the open source phenomenon (Ghosh, 2002). The features distinguishing open source from proprietary software go beyond the merely technical points and stretch to philosophical viewpoints, new economic rules and different market models (Wynants, & Cornelis, 2005). It also brings with it new development models, whose potential for success is well tried and tested, and which differ from the classical methodologies on several points. The chief feature of this new approach is that development is network focused, enabling people who are geographically far apart to collaborate using the Internet to communicate with each other and coordinate their activities. This networked development approach necessarily targets tools that are used during the process and means that the collaborative tools and environments to support open software development are strongly oriented to Internet use.

Organizations that decide to maintain a site to support collaborative project development and place it at the disposal of the open source software community do not do so for their own benefit or at least this is not their sole objective. The ultimate goal is to promote both development and the use of open source software, and one way to do this is to provide tools and resources to enable communication, cooperation and coordination between developers and users.

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Almost all these sites host software projects, although there are others that accommodate no software at all and exclusively target information (Shah, 2005). Others accommodate software that shares some special feature or concerns some specific subject matter, whereas others offer their services for projects from many sources for different purposes. Some are very large and have thousands of visitors every day, whereas others are no more than an initiative run by a handful of enthusiasts. There are sites backed by enterprises and companies that have something to say in the open source world and others that are maintained by user associations or communities that come together around a common interest. Finally, some do not release their resources to the open source community, but use them for their own proprietary developments.

The first distinction then is between organizations that offer services to anyone who wants to use them to create an open source software project (provided they are kept under an open licence) and institutions that impose some additional conditions, generally concerning the project subject matter or even the license type. The first group includes, for example, SourceForge.net and Software-Libre.org, which host all sorts of projects provided they are governed by an open license. Most of the projects at Software-Libre.org have a GPL (general public license). SourceForge.net is larger and there is a wider variety of licenses, but most projects have an *open source initiative* approved and certified license, which means that they can be formally termed open source software. These two gateways also host projects on many different subjects, and there are practically no constraints apart from interest or utility.

Other organizations and associations maintain a web site to promote a particular product, stream or subject within the open source community. Alioth's aim is to host projects that are related to the Debian project. It promotes and facilitates the production of software that can ultimately be included in the Linux Debian distribution or serves the project's aims in some way, without placing any constraints on the subject matter of the hosted projects, because Debian is a general-purpose initiative. This improves the product (Debian) thanks to the cooperation of programmers that would probably not have been able to or would not have felt motivated to contribute without these free and accessible resources. The same applies to the Helix Community, the Blender Foundation and the PostNuke Development and Distribution Center. These are all gateways maintained by

the creators of a specific project to produce a product. This product benefits from the related projects and the programmers of these related projects benefit because they have resources and tools at their disposal. This is a clear example of symbiosis. Real is the company behind the Helix Community. The Blender gateway is maintained by volunteers.

While the ultimate goal is to promote the development and use of open source software, some organizations pursue other specific goals not directly related to software development. Generally, these organizations aim to act as mediators between open source software-related information management and open source software organizations and interest groups, such as developers, users, commercial software manufacturers and open source software product support companies. This is a third type of community that covers gateways whose goals include providing a meeting and distribution point for documentation related to open source software products and are also a source of news on what is happening within the community. Another possible related goal is to offer developers and companies the possibility of making themselves known to the public, promoting themselves, and contacting sponsors and potential partners. Berlios is an example of this approach.

Another block includes sites, like Shavannah, whose motivations are a bit different. By providing a project host site, they aim to support, promote or improve a more general ideological project rather than a particular open source tool or product. Shavannah is the site hosting the GNU projects. GNU started up in 1984 with the goal of developing a UNIX-type operating system entirely based on open source software. The *Free Software Foundation (FSF)* is the key organization behind the GNU project. The FSF is for the most part financed by donations from sympathizers and aims to preserve, protect and promote the freedom to use, scrutinize, copy, modify and redistribute software and defend the rights of open source software users.

Finally, we should not forget that the collaborative development model associated with open source software is also very appealing to companies that do not consider the possibility of opening their resources to the community of open software users and developers or part of this community, but want to make private use of this collaborative development model and of the associated technologies and tools with a proven potential for success. It is a fact that many companies

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use gateways for collaborative software development in their own internal networks to which their employees, business partners and/or customers have access. This way they benefit from the huge potential for resources communication and centralization that these gateways offer. These companies have their own needs that should be considered. Additionally, these companies may in time decide to release some of their proprietary developments. In this case, they often want to make public some parts and/or branches, while others are kept private.

CONCLUSION

Collaboration refers to the different processes wherein people, from small groups to larger collectives and societies, work together, possibly in ubiquitous environments like Internet. On the basis of the study of such processes and their distinctive properties, a number of useful and effective collaborative environments and methods have emerged and evolved to form collaborative development environments (CDE). We have defined a CDE as a virtual space wherein all project stakeholders, even if separated by time or distance, may negotiate, communicate, coordinate, brainstorm, discuss, share knowledge, and liaise to carry out some task, most often to create an executable deliverable and its supporting artefacts, holistically integrating multiple collaborative tools and resources. From this definition, the article has taken a step towards characterizing a CDE and has tackled the key purposes a CDE should serve and what services it should offer. The relationship there is between the rationale behind CDEs and research on CSCW and groupware has also been stressed. Next, a number of prominent classification frameworks have been listed with a view to enabling a team to make a grounded decision on what collaborative tools best meet its needs by contextualizing the range of collaborative tools available and comparing them from different points of view. Finally, we have discussed the role of CDEs in the development of open source communities and have shown how they influence each other.

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KEY TERMS

Collaborative Development Environment: A virtual space wherein all the stakeholders of a project, even if separated by time or distance, may negotiate, communicate, coordinate, brainstorm, discuss, share knowledge, and liaise to carry out some task, most often to create an executable deliverable and its supporting artifacts, holistically integrating multiple collaborative tools and resources.

Collaborative Tool: A software module conceived to assure that the people who design, produce, maintain, commercialize and use software are aware of and communicate about the activities of the others simply, efficiently and effectively, also encouraging creativity, driving innovation, and considering software development's social nature.

Collaboration: Refers to the different processes wherein people, from small groups to larger collectives and societies, work together, possibly in ubiquitous environments like Internet. A number of useful and effective collaborative environments and methods

have emerged from the study of such processes and their distinctive properties.

Computer-Supported Cooperative Work: A field of study addressing the way collaborative activities and their coordination can be supported by means of software and computer systems commonly referred to as groupware, as well as their psychological, social, and organizational effects.

Coordination: The management of dependencies between activities (generally representing independent subtasks as a result of the division of a cooperative task) and the support of (inter) dependencies among actors involved in carrying them out.

Groupware: Computer-based systems that support groups of people engaged in a common task (or goal) and that provide an interface to a shared environment, thanks to the enabling technologies of computer networking, software and services.

Open Source: This concept describes practices in production and development that promote access to the end product's sources and allow for the concurrent use of different agendas and approaches to production. Some consider it a philosophy, and others as a pragmatic methodology. Open source has come to represent much more than software whose source code may be freely modified and redistributed with few restrictions imposed by the terms of its distribution license. Information, documentation, and other "sources" generally related to innovation and knowledge building and sharing processes, tend to fall under the open source umbrella.

Open Source Community: A loosely organized, ad-hoc community of contributors from all over the world who share an interest in meeting a common need, ranging from minor projects to huge developments, which they carry out using a high-performance collaborative development environment, allowing the organizational scheme and processes to emerge over time. The concept represents one of the most successful examples of high-performance collaboration and community-building on the Internet.

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EXHIBIT

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UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY

GURBIR S. GREWAL, Attorney General of the State
of New Jersey,

Civil Action No.: 18-CV-13248 (SDW-
LDW)

Plaintiff,

v.

DEFENSE DISTRIBUTED, CODY R. WILSON, and
JANE and JOHN DOES 1-20, individually and as
owners, officers, directors, shareholders, founders,
members, managers, agents, servants, employees,
representatives and/or independent contractors of
DEFENSE DISTRIBUTED, and XYZ
CORPORATIONS 1-20,

Defendants.

CONSENT ORDER
TO ADMINISTRATIVELY
TERMINATE THIS CASE
WITHOUT PREJUDICE

WHEREAS this matter having been opened by Gurbir S. Grewal, Attorney General of the State of New Jersey (“State”) by way of an Order to Show Cause, filed on July 30, 2018, in the Superior Court of New Jersey, Essex County, Chancery Division – General Equity Part (“New Jersey Action”), seeking the issuance of temporary, then preliminary restraints enjoining Defense Distributed and Cody R. Wilson (collectively, “Defendants”) from disseminating printable-gun computer files through Defendants’ websites or otherwise;

WHEREAS on July 30, 2018, New Jersey, along with a group of other states including the State of Washington (collectively, the “States”), filed an Emergency Motion for a Temporary Restraining Order in the U.S. District Court for the Western District of Washington against the U.S. Department of State (“State Department”) and Defendants, in the action titled *Washington v. U.S. Dep’t of State*, No.18-1115 (W.D. Wash. Filed July 30, 2018) (“Washington Action”);

WHEREAS on July 31, 2018, the Honorable Walter Koprowski, Jr., P.J.Ch. stated in an Order in the New Jersey Action that “Defendants have agreed that they will not upload any additional files through the websites located at <https://defdist.org>, <https://defcad.com> and <https://ghostgunner.net>, or otherwise” and that “Defendants will block access to NJ IP addresses and mobile devices”;

WHEREAS on August 27, 2018, the Honorable Robert S. Lasnik, U.S.D.J. issued an order in the Washington Action granting the States’ motion for a preliminary injunction which, among other things, maintained the federal bar prohibiting Defendants’ dissemination of their printable-gun computer files by uploading them to their websites;

WHEREAS on August 27, 2018, Defendants filed a Notice of Removal of the New Jersey Action to the U.S. District Court for the District of New Jersey;

WHEREAS on September 4, 2018, Defendants filed a Motion to Change Venue or Dismiss the New Jersey Action;

WHEREAS in light of the preliminary injunction issued in the Washington Action, and in an effort to conserve judicial resources, the State and Defendants (collectively, “Parties”) have agreed to administratively terminate the New Jersey Action (this action) without prejudice pending the Conclusion of the Proceedings in the Washington Action;

WHEREAS by entering into this Consent Order, the State in no way concedes this Court’s subject matter jurisdiction over the New Jersey Action; and

WHEREAS the Parties reserve all rights to take whatever actions are deemed appropriate once the New Jersey Action is reopened, including the State’s filing of a Motion to Remand and Opposition to Defendants’ Motion to Change Venue or Dismiss.

IT IS ON THE 27th DAY OF September, 2018 HEREBY

ORDERED AND AGREED that:

- (1) The Clerk of the Court shall administratively terminate the above-captioned case without prejudice pending the Conclusion of the Proceedings in the Washington Action;
- (2) Any Party may request that the Court reinstate this case within thirty (30) days of the Conclusion of the Proceedings in the Washington Action; and
- (3) "Conclusion of the Proceedings in the Washington Action" shall mean (1) issuance of a final judgment and the expiration of all deadlines for initiating any appellate proceeding, including but not limited to a petition for a writ of certiorari to the Supreme Court of the United States or (2) entry of an order dissolving or modifying the preliminary injunction in the Washington Action.

(4) Accordingly, the motion to transfer at ECF NO. 5 is hereby terminated.

Leda Dunn Wettre
LEDA DUNN WETTRE, U.S.M.J.

THE PARTIES CONSENT TO THE FORM,
CONTENT AND ENTRY OF THIS CONSENT ORDER:

GURBIR S. GREWAL
ATTORNEY GENERAL OF NEW JERSEY
Attorneys for Plaintiff

By: s/ Lara J. Fogel
Lara J. Fogel
Deputy Attorney General

Dated: September 26, 2018

HARTMAN & WINNICKI, P.C.
Attorneys for Defendants
Defense Distributed and Cody R. Wilson

By: s/ Daniel L. Schmutter
Daniel L. Schmutter, Esq.

Dated: September 26, 2018

EXHIBIT

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STATE OF NEW JERSEY

GOVERNOR PHIL MURPHY

GOVERNOR MURPHY SIGNS LEGISLATION MAKING “GHOST GUNS” ILLEGAL IN NEW JERSEY

The guns can be 3-D printed and are untraceable by law enforcement

TRENTON- Governor Phil Murphy today signed legislation making it illegal in New Jersey to purchase parts to manufacture or distribute information to print “ghost guns,” homemade or 3D printed firearms that are untraceable by law enforcement. The Governor was joined by Attorney General Gurbir Grewal and bill sponsor Senator Joe Cryan. The bill was also sponsored by Senator Nick Scutari, Assemblymen Paul Moriarty and Gary Schaer, and Assemblywoman Annette Quijano.

“Last night, there was a shooting in Thousand Oaks, California that claimed 12 lives, including a police officer who reported to the scene,” **said Governor Murphy**. “These instances are far too common and we cannot allow any instance of this kind of violence to go unnoticed. My thoughts and prayers are with the victims and their families. But it is through action that we can make definitive changes to end these kinds of deadly mass shootings. New Jersey is committed to being a leader in ending gun violence to make sure that future generations don’t continue to face this kind of fear.

“Today, I am proud to sign a bill into law that will continue making our communities, families, and brave men and women of law enforcement safer,” **Governor Murphy continued**. “Ghost guns can be created by anyone with a computer and access to a 3D printer, giving the public at large the ability to build their own unregistered, unsafe, and untraceable firearm. Now, thanks to the Legislative sponsors who worked to quickly make this bill a reality, kits to assemble ghost guns will no longer be allowed in New Jersey.”

In June, Attorney General Grewal issued a cease and desist letter to companies that produce blueprints for ghost guns and joined like-minded Attorneys General from around the country in the successful effort to block the release of those blueprints.

“Printable guns and ghost guns put the safety of our residents and our law enforcement officers at risk, because they give anyone—even terrorists, felons, or domestic abusers—access to an untraceable gun,” **said Attorney General Grewal**. “I took a stand this summer against individuals attempting both to post codes for 3D printable guns online and sell ghost guns into our state. That’s why as New Jersey’s chief law enforcement officer, I’m proud to stand with Governor Murphy and the Legislature as they give law enforcement additional tools to rid our streets of these dangerous weapons.”

The ghost gun bill passed the Legislature by a significant margin, with only five members from either chamber opposing the measure.

“These so-called ‘ghost guns’ are the byproduct of the dark side of new technologies that allow people to make firearms that are hidden from detection and made to be untraceable,” **said Senator Cryan**, who previously served as Sheriff of Union County. “They are deadly weapons that are especially dangerous because they can literally be made at home with plastic parts and by using new 3-D printers. These homemade weapons can be a path to gun ownership for people who are a danger to themselves or others, including felons, people with mental illnesses, those convicted of domestic violence and others who are not supposed to be armed with deadly firearms. They pose a serious threat, which is why we are enacting the strongest ghost gun law in the country.”

“Instead of making it harder for criminals to obtain weapons, new technology and mail-order kits are only making it easier for criminals to manufacture firearms at home,” **said Assemblyman Moriarty**. “Our only recourse is to arm our court system with additional penalties for those who choose to skirt the law, avoid licensure and manufacture these types of firearms to keep or even to sell. We’re saying no to ghost guns, and no to 3-D firearms. Not in New Jersey.”

Since taking office earlier this year, Governor Murphy has made tackling the epidemic of gun violence a major priority. On June 13, Governor Murphy signed six gun safety bills into law. Those laws mandated background checks for private firearm sales, reduced magazine capacity to 10 rounds, changed handgun permit regulations, and created a system for law enforcement to confiscate firearms from individuals who pose a threat to themselves or to others. The Governor has also worked with other states to create the States for Gun Safety Coalition, signed an executive order to publish regular reports on gun data, established a Gun Violence Research Center at Rutgers University, and appointed Bill Castner as the Governor's Senior Advisor on Firearms.

Following the deadly shooting at a Pittsburgh synagogue in late October, Governor Murphy vowed to sign legislation that would address the following critical areas: anti-gun trafficking, investing in smart gun technology, regulating ammunition, and promoting violence intervention for at-risk individuals.

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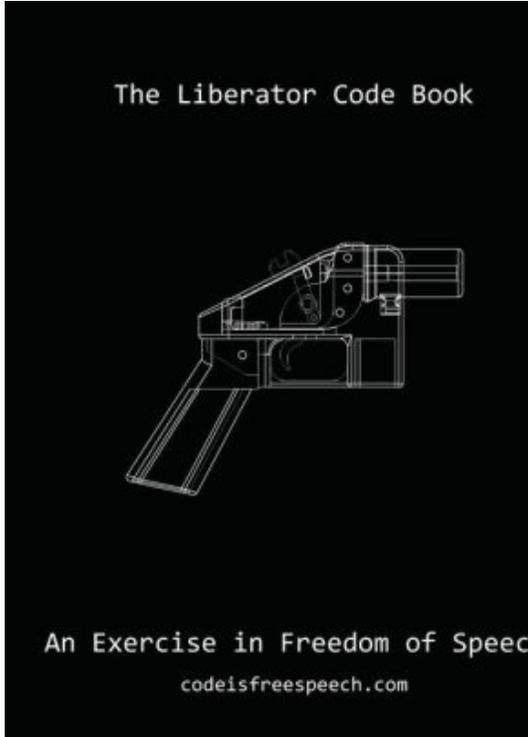
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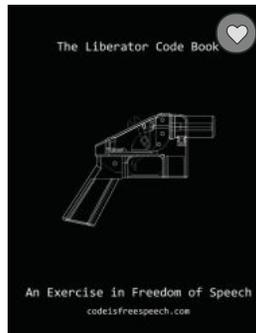
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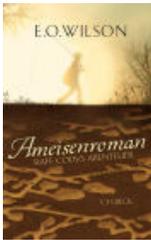
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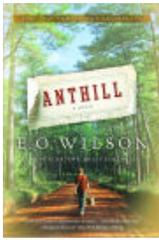
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Subject: Defense Distributed et al. v Grewal, No. 3:19-cv-04753-AET-TJB (D.N.J.)
Date: Thursday, February 14, 2019 at 12:17:30 PM Central Standard Time
From: Chad Flores <cflores@beckredde.com>
To: Jeremy Feigenbaum <Jeremy.Feigenbaum@njoag.gov>, katherine.gregory@law.njoag.gov <katherine.gregory@law.njoag.gov>, Melissa Medoway <Melissa.Medoway@law.njoag.gov>, Glenn Moramarco <Glenn.Moramarco@law.njoag.gov>
CC: Daniel L. Schmutter <dschmutter@hartmanwinnicki.com>
Attachments: Letter February 14 2019.pdf

Dear Counsel,

I attach an important letter regarding this case. In addition to this e-mail, a printed copy is being mailed to you.

Chad Flores
Partner • Beck Redden LLP
cflores@beckredde.com
(713) 951-6268

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February 14, 2019

Jeremy Feigenbaum
Katherine Gregory
Melissa Medoway
Office of the New Jersey Attorney General
124 Halsey Street, Fifth Floor
Newark, NJ 07101

Glenn Moramarco
Office of the New Jersey Attorney General
25 Market Street, First Floor
Trenton, NJ 08625

Re: *Defense Distributed et al. v Grewal*, No. 3:19-cv-04753-AET-TJB (D.N.J.)

Dear Counsel,

The letter you filed with the Court on Tuesday disclaimed *one* of the threats that had apparently been made by Attorney General Grewal against the Plaintiffs. But the letter did *not* disclaim any of the other threats that have been made against the Plaintiffs by the Attorney General. So, we pose the case's most immediate question in no uncertain terms: If Defense Distributed, the Second Amendment Foundation, or CodeIsFreeSpeech.com publish the computer files at issue, will Attorney General Gurbir Grewal bring civil or criminal enforcement actions against them for it?

Currently, every account of the Attorney General's actions since July 2018 establishes that he will, indeed, punish the Plaintiffs for sharing these computer files by deploying the civil and criminal legal tools at his disposal. In the event that the files are published again, he threatens to sue the Plaintiffs in civil actions to enjoin the speech. No letter disclaims that. In the event that the files are published again, he threatens to coerce the Plaintiffs' service providers to shut down the speech. No letter disclaims that. Worst of all, in the event that the files are published again, he threatens to use prosecution under the speech crime to jail the Plaintiffs. No letter disclaims that. Hence, the threats warranting a preliminary injunction against the Attorney General are as real and imminent as ever.

At the *Defense Distributed II* preliminary injunction hearing before the United States District Court for the Western District of Texas, we asked the Attorney General whether he still intends to stop publication of the files at issue via the mail. No disclaimer occurred. He equivocated, which does nothing but continue the infliction of censorship's irreparable harms upon the Plaintiffs.

To avoid a preliminary injunction here, the Attorney General would need to unequivocally disclaim *all* of his current threats. In particular, he would need to take the position that New Jersey Statute 2C:39-9(l)(2) will not be enforced against the Plaintiffs as punishment for publishing the files at issue via the internet or via the mail. Will he do so? Likewise for the civil punishments he threatens (*e.g.*, civil lawsuits and cease-and-desist orders). Will he now unequivocally disclaim these threats?

February 14, 2019

Page 2 of 2

As you know, the March 20 hearing on our motion for a preliminary injunction is nearing and we are due to submit amended filings, if any, by February 20. Time is of the essence.

If the Attorney General wishes to narrow this dispute by unequivocally disclaiming any or all of his existing threats, we request that it be done no later than February 19 so that we may accurately prepare our next filing. Otherwise, we will proceed on the understanding that the Attorney General stands by the position that he has staked out ever since July 2018: If Defense Distributed, the Second Amendment Foundation, or CodeIsFreeSpeech.com publish the computer files at issue via the mail or via the internet, Attorney General Grewal will respond by enforcing the speech crime of New Jersey Statute 2C:39-9(1)(2) against them, by using civil enforcement mechanisms to direct the Plaintiffs to cease and desist publishing the files at issue, and/or by using civil enforcement mechanisms to direct the Plaintiffs' communication service providers to cease and desist publishing the files at issue.

Sincerely,

A handwritten signature in black ink, appearing to read "CW FL". The signature is fluid and cursive, with the first two letters of each name being prominent.

Chad Flores
Counsel for Plaintiffs

EXHIBIT

55

From: [Jeremy Feigenbaum](#)
To: [Chad Flores](#); [Katherine Gregory](#); [Melissa Medoway](#); [Glenn Moramarco](#)
Cc: [Daniel L. Schmutter](#)
Subject: RE: Defense Distributed et al. v Grewal, No. 3:19-cv-04753-AET-TJB (D.N.J.)
Date: Tuesday, February 19, 2019 2:57:24 PM

Thanks for reaching out, Chad.

As we've explained, Section 3(l)(2) addresses the distribution of (1) digital instructions, (2) in the form of computer-aided design files or other code or instructions stored or displayed in electronic format as a digital model, that (3) may be used to program a three-dimensional printer to manufacture or produce a firearm. In other words, Section 3(l)(2) prohibits the distribution of computer files that can be used to direct a 3D printer to manufacture a firearm. Section 3(l)(2) does not prohibit the distribution of how-to manuals, advertisements, or other gun-related information whether posted online or mailed. Section 3(l)(2) also does not cover communications between individuals at trade shows.

Insofar as your clients intend to distribute how-to manuals, advertisements, or other gun-related information, or speak about 3D printable firearm code (including at trade shows), your clients would not be in violation of Section 3(l)(2). We cannot, of course, provide any generalized assurances one way or the other regarding the enforcement of Section 3(l)(2) if your clients intend to violate the plain terms of the statute.

Jeremy M. Feigenbaum
Assistant Attorney General
Jeremy.Feigenbaum@njoag.gov

From: Chad Flores <Cflores@beckredden.com>
Sent: Thursday, February 14, 2019 1:18 PM
To: Jeremy Feigenbaum <Jeremy.Feigenbaum@njoag.gov>; Katherine Gregory <Katherine.Gregory@law.njoag.gov>; Melissa Medoway <Melissa.Medoway@law.njoag.gov>; Glenn Moramarco <Glenn.Moramarco@law.njoag.gov>
Cc: Daniel L. Schmutter <dschmutter@hartmanwinnicki.com>
Subject: [EXTERNAL] Defense Distributed et al. v Grewal, No. 3:19-cv-04753-AET-TJB (D.N.J.)

Dear Counsel,

I attach an important letter regarding this case. In addition to this e-mail, a printed copy is being mailed to you.

Chad Flores
Partner • Beck Redden LLP
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**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY**

Defense Distributed,
Second Amendment Foundation, Inc.,
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The Calguns Foundation,
California Association of Federal
Firearms Licensees, Inc., and
Brandon Combs,

Plaintiffs,

v.

Gurbir Grewal, Attorney General of the
State of New Jersey,

Defendant.

No. 3:19-cv-04753-AET-TJB

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(202) 294-9003

**Pro hac vice* motion to be filed

I, **DANIEL L. SCHMUTTER, ESQ.**, hereby certify as follows:

1. I am an attorney at law admitted to practice before this Court and am a member of the firm of Hartman & Winnicki, P.C., attorneys for Plaintiffs in the above-captioned matter. On February 20, 2019, I electronically filed and served the following documents on counsel of record behalf of Plaintiffs:

- a. Plaintiffs' First Amended Complaint with Exhibits A-E
- b. Plaintiffs' Amended Brief in Support of Plaintiffs' Motion for a Preliminary Injunction, with Exhibits 1-55, the Declaration of Brandon Combs, and the Declaration of Daniel Hammond
- c. Plaintiffs' Proposed Order Granting Preliminary Injunction
- d. Plaintiffs' Notice of Motion for a Preliminary Injunction

I declare under penalty of perjury that the foregoing is true and correct.

Dated: February 20, 2019

By: s/ Daniel L. Schmutter, Esq.

Daniel L. Schmutter, Esq.

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