

File Name: 11a0003p.06

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

UNITED STATES OF AMERICA,
Plaintiff-Appellee,

v.

JOHN REECE ROTH,
Defendant-Appellant.

No. 09-5805

Appeal from the United States District Court
for the Eastern District of Tennessee at Knoxville.
No. 08-00069-001—Thomas A. Varlan, District Judge.

Decided and Filed: January 5, 2011

Before: MARTIN, GIBBONS, and KETHLEDGE, Circuit Judges.

COUNSEL

ON BRIEF: Thomas H. Dundon, Joshua J. Phillips, NEAL & HARWELL, PLC, Nashville, Tennessee, for Appellant. Jeffrey E. Theodore, A. William Mackie, ASSISTANT UNITED STATES ATTORNEYS, Knoxville, Tennessee, for Appellee.

OPINION

BOYCE F. MARTIN, JR., Circuit Judge. This case involves violations of the Arms Export Control Act, which imposes export controls on “defense articles and services” without a license. Defendant-appellant John Roth worked as a consultant on a United States Air Force defense research project, which had been awarded to Atmospheric Glow Technologies, Inc. in Knoxville, Tennessee. The project entailed developing plasma technology for use on military aircraft. The government charged Roth with exporting data from the project on a trip to China and allowing two foreign

nationals in Knoxville access to certain data and equipment in violation of the Act. A jury in United States District Court for the Eastern District of Tennessee convicted him of one count of conspiracy, fifteen counts of exporting defense articles and services without a license, and one count of wire fraud. He appeals his convictions. For the following reasons, we **AFFIRM**.

I. BACKGROUND

Roth is a published author in the field of plasma technology and was a professor of electrical engineering at the University of Tennessee at Knoxville during the events underlying this case. His former student, Daniel Sherman, was a principal at Atmospheric, of which Roth was a minority owner. The two men had co-authored a paper explaining how plasma technology devices can be used to affect electrohydrodynamic flow, a topic relating to aircraft flight.

In October 2003, the Air Force solicited contract proposals to develop plasma actuators that could be used to control the flight of small, subsonic, unmanned, military drone aircraft. The project would be broken down into Phase I, which entailed developing the design of the actuators, and Phase II, which entailed testing the actuators in a wind tunnel and on a non-military aircraft.

Atmospheric submitted the winning Phase I proposal and the Air Force awarded it the contract in May 2004 with Roth working as a consultant for the project. At or around that time, Sherman told Roth that the project would be paid for with “6.2” funds, which Roth knew implied that the research would be subject to export control laws that prohibit allowing access to the research outside of the United States or to foreign nationals unless a license has been obtained.

When Phase I was completed, Roth assisted Atmospheric in drafting the contract proposal for Phase II, which the Air Force also assigned to Atmospheric. Roth also assisted in writing, and signed, Task Order 102, a subcontract between him and Atmospheric acknowledging that Phase II work was subject to export controls. The Air Force identified some of the technical data reports in the Phase II contract as being

export controlled, such as the Quarterly Reports, Technology Transfer Reports, Final Report, and Test Plan. Jesse Crump, who worked for the Department of Defense, testified at trial that the data contained in the Weekly Reports and Quarterly Reports was unquestionably export controlled information, partly because it could only be intended for military use. Additionally, the contract and the subcontract incorporated federal regulations prohibiting foreign nationals from working on the project. Nevertheless, Roth proposed that two of his graduate research assistants—Truman Bonds, an American, and Xin Dai, a Chinese national—would work with him on the project. Sherman originally protested Dai's involvement, so it was decided that Bonds was to work at Atmospheric on the export controlled data and Dai would work at the University without access to the export controlled data. Bonds testified at trial that the main reason for the separation of work was because of Dai's foreign citizenship and the export controlled data. Roth did not think that Dai needed to be shielded from the data and Dai eventually gained access to the Weekly Reports from Atmospheric.

As part of the testing of the plasma actuators, a device called the Force Stand was developed for the project and installed in labs at Atmospheric and the University in the fall of 2005. It was used to test the actuators and gather data before proceeding to the stage in which the actuators would be tested in a wind tunnel. Dai worked with the Force Stand, and another graduate student named Sirous Nourgostar, an Iranian national, had access to it multiple times. Crump testified that the Force Stand was a defense article because it was designed specifically to collect data for this project, which had a military purpose.

In anticipation of Dai's completion of his doctorate, Roth informed Sherman and Atmospheric that he intended to replace Dai with Nourgostar. After meeting with reluctance and opposition from Sherman because of Nourgostar's foreign citizenship, and especially because of America's contentious affairs with Iran, Roth sought support from Carolyn Webb, an administrator at the University who supervised research contracts. Webb worried that some parts of the project might concern export controlled data and referred Roth to Robin Witherspoon, the University's officer in charge of export

controls. At their initial meeting, Roth explained to Witherspoon that the project was military in nature, but that the subject of the research was part of the public domain, which meant it was publicly available, and, thus, not export controlled. Witherspoon indicated that she was concerned that the data from the research was export controlled. She later followed up with Roth via e-mail and phone to explain that she had concluded that the data was export controlled. At that time, Dai was removed from the project. Additionally, knowing of Roth's upcoming trip to lecture in China, Witherspoon warned him that he could not take anything from Phase II abroad. In a similar vein, Sherman obtained agreement from Roth that he would not take any data from the project to China.

Aside from the Phase II project, Sherman and Atmospheric submitted another contract proposal in May 2005 to the Defense Advance Research Projects Agency, an arm of the Department of Defense that assigns and funds advanced weapons projects. Roth and Sherman spoke about Roth working on the project, and Roth sent Sherman a plan for part of the project that was incorporated into the Agency Proposal. Sherman e-mailed Roth a completed copy of the Proposal, which contained export controlled information from the Boeing Company's weapons division, and marked all but one of the pages with "Proprietary and Export Controlled Information."

On May 16, 2006, Roth traveled to China to lecture at universities regarding his work. He took with him a paper copy of a Phase II Weekly Report, a flash drive with electronic copies of Phase II reports, and a laptop computer on which was stored a copy of the Agency Proposal. Neither Roth nor anyone else accessed any of the electronic files stored on the thumb drive or the laptop, but Roth had Dai send him a copy of a paper containing Phase II data by way of a Chinese professor's e-mail address. Roth later gave Nourgostar access to the paper in the fall of 2007.

On May 20, 2008, a grand jury in United States District Court for the Eastern District of Tennessee returned an indictment against Roth and Atmospheric claiming that Roth had taken Phase II data and the Agency Proposal to China, and both Roth and Atmospheric had allowed Dai and Nourgostar access to the data and the Force Stand. Roth was charged with one count of conspiracy to export defense articles in violation of

the Act, fifteen counts of exporting defense articles in violation of the Act, and one count of wire fraud. Before the court delivered instructions to the jury, Roth requested an instruction regarding willfulness that required the government to prove beyond a reasonable doubt that he knew the data and items he allegedly exported were listed on the United States Munitions List. Additionally, he requested a separate instruction regarding ignorance of the law as a defense. However, the district court declined to deliver a separate instruction on ignorance of the law as an affirmative defense, and gave the jury the following instruction regarding willfulness:

To prove that defendant acted knowingly and willfully, the government must prove beyond a reasonable doubt that the defendant voluntarily and intentionally violated a known legal duty. In other words, the defendant must have acted voluntarily and intentionally and with the specific intent to do something he knew was unlawful, that is to say, with intent either to disobey or disregard the law. Negligent conduct, or conduct by mistake or accident, or with a good faith belief that the conduct was lawful, is not sufficient to constitute willfulness.

The jury found Roth guilty of all counts on September 3. He timely filed a motion for judgment of acquittal on grounds of legal and factual insufficiency. He also filed a motion for a new trial, arguing that the district court's jury instructions were improper because the court failed to read to the jury the proper instruction for willfulness and declined to give a separate instruction on ignorance of the law as a defense. The district court denied both motions.

II. DISCUSSION

On appeal, Roth claims that: (1) the Phase II data and the data included in the Agency Proposal are not defense articles or services as a matter of law; (2) the district court incorrectly instructed the jury as to willfulness and improperly failed to deliver his proposed instruction regarding ignorance of the law; and (3) there was insufficient evidence to support the jury's conclusion that he willfully exported the Agency Proposal.

A. Defense Articles and Services Under the Act

We review questions of statutory interpretation de novo. *United States v. Gagnon*, 553 F.3d 1021, 1025 (6th Cir. 2009) (citing *United States v. Parrett*, 530 F.3d 422, 429 (6th Cir. 2008)).

The Act allows for the President of the United States to identify “defense articles and defense services” on the United States Munitions List that cannot be exported without a license from the United States. 22 U.S.C. § 2778(a)-(b) (2006). Furthermore, section 2778(c) imposes criminal penalties for “[a]ny person who willfully violates any provision of [the Act].” In part, the Munitions List identifies as defense articles:

(a) Aircraft, including . . . drones . . . which are specifically designed, modified, or equipped for military purposes.

....

(h) Components, parts, accessories, attachments, and associated equipment (including ground support equipment) specifically designed or modified for the articles in paragraphs (a) through (d) of this category, excluding aircraft tires and propellers used with reciprocating engines.

(i) Technical data (as defined in § 120.10) and defense services (as defined in § 120.9) directly related to the defense articles enumerated in paragraphs (a) through (h) of this category (see § 125.4 for exemptions), except for hot section technical data associated with commercial aircraft engines. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

22 C.F.R. § 121.1, Category VIII (2010). Section 120.10 of the Code of Federal Regulations proceeds to define “technical data” as:

(1) Information . . . which is required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance or modification of defense articles. This includes information in the form of blueprints, drawings, photographs, plans, instructions or documentation.

And section 120.09 instructs that a “defense service” is, in relevant part, “[t]he furnishing to foreign persons of any technical data controlled under this subchapter (see § 120.10), whether in the United States or abroad.”

Initially, we take note that courts may not review whether items are properly designated as defense articles on the Munitions List. 22 U.S.C. § 2778(h). Our query, therefore, is not whether technical data and components are defense articles, but whether the data from Phase II and the Agency Proposal and the Force Stand fall under the definitions of technical data and components. See *United States v. Pulungan*, 569 F.3d 326, 328 (7th Cir. 2009) (referencing 22 U.S.C. § 2778(h)).

Roth argues that the Phase II data, Agency Proposal, and Force Stand were not defense articles because they were not developed to put plasma actuators on anything designated on the Munitions List. He draws this conclusion because during the time he worked on the project, future stages of Phase II envisioned testing actuators on commercially available aircraft, which are not covered on the Munitions List, before incorporating the actuators into military aircraft. He asserts that his removal from Phase II before actuators were ever applied to any aircraft signifies that his actions could have no connection to a military aircraft.

However, the federal regulations extend export controls to all stages of defense projects that are covered by the Act, not just the final stages when military devices are directly involved. In pertinent part, the federal regulations define “technical data,” which is a category of defense article, as “[i]nformation . . . which is required for the design, development, production, manufacture, [and] assembly . . . of defense articles” such as drones. 22 C.F.R. §§ 120.10, 121.1. These terms envision that research requires multiple stages before a project reaches completion, and apply export controls to all those phases. Furthermore, the regulations define “components” as “parts, accessories, attachments, and associated equipment . . . specifically designed or modified for the articles” such as drones. *Id.* The regulations have been written to cover a broad range of articles at all stages of research and development in projects covered by the Act.

Somehow, Roth ignores the fact that the final goal of Phase II was to incorporate plasma actuators on military drone aircraft. While the project might have called for the data to be tested on a commercially available drone plane at some point in the project, Roth admits that all the data collected, as well as the Force Stand that was developed to

collect it, were derived for eventual military use. What is more, he does not argue that the data and Force Stand would not have been defense articles once they were used in conjunction with a military aircraft. This omission implies that the data and the Force Stand would have qualified as defense articles at some point. It seems that Roth thinks that barriers exist between the stages of the project that prevent the defense article qualification from being imputed from one stage to another, which is incorrect according to 22 C.F.R. §§ 120.10, 121.1.

Because the final objective of this project was incorporating plasma actuators into military drones, the district court properly concluded that the underlying data and component were defense articles and services pursuant to 22 C.F.R. § 121.1, Category VIII.

B. Jury Instructions

When a party claims a jury instruction improperly or inaccurately stated the law, we review that claim de novo. *United States v. Blanchard*, 618 F.3d 562, 571 (6th Cir. 2010); *H.C. Smith Invs., L.L.C. v. Outboard Marine Co.*, 377 F.3d 645, 650 (6th Cir. 2004) (citing *Fisher v. Ford Motor Co.*, 224 F.3d 570, 576 (6th Cir. 2000)). On the other hand, “[a] district court’s refusal to give a jury instruction is reviewed for abuse of discretion.” *H.C. Smith Invs., L.L.C.*, 377 F.3d at 650 (citing *Fisher*, 224 F.3d at 576). Roth’s claim that the court instructed the jury on the incorrect definition of willfulness is reviewed de novo. His claim that the court erred by not giving the jury an instruction on ignorance of the law as a separate and complete defense is reviewed for abuse of discretion.

1. Willfulness

Neither the Supreme Court nor our Court has defined “willfulness” under section 2778(c). Roth argues that it requires the defendant to intentionally export defense articles or services that he specifically knows are on the Munitions List. The government counters that willfulness under the statute only requires a defendant to know

of the general unlawfulness of his conduct, not to know of the specific statutory provision he is violating.

“[A] fundamental canon of statutory construction is that ‘when interpreting statutes, the language of the statute is the starting point for interpretation, and it should also be the ending point if the plain meaning of that language is clear.’” *Thompson v. Greenwood*, 507 F.3d 416, 419 (6th Cir. 2007) (citing *United States v. Boucha*, 236 F.3d 768, 774 (6th Cir. 2001)). Here, the language cannot be our ending point as the Supreme Court has commented that willfulness can be “‘a word of many meanings’ whose construction is often dependent on the context in which it appears.” *Bryan v. United States*, 524 U.S. 184, 191 (1998) (quoting *Spies v. United States*, 317 U.S. 492 (1943)). Generally though, in criminal cases, “in order to establish a ‘willful’ violation of a statute, ‘the Government must prove that the defendant acted with knowledge that his conduct was unlawful.’” *Id.* (quoting *Ratzlaf v. United States*, 510 U.S. 135, 137 (1994)).

Other circuits have interpreted the willfulness element of section 2778(c) and produced different results. Multiple circuits have interpreted willfulness as requiring a defendant to know generally that the act of exporting the underlying items is unlawful without requiring that the defendant know the items are on the Munitions List. *See United States v. Murphy*, 852 F.2d 1, 7 (1st Cir. 1988) (holding that willfulness was sufficiently established under section 2778(c) if the defendant “knew he had a legal duty not to export the weapons”); *see also United States v. Hsu*, 364 F.3d 192, 198 n.2 (4th Cir. 2004) (rejecting the defendants’ argument that “the [jury] instructions as to ‘willfulness’ were deficient because the ‘jury was not instructed that the government had to show that the defendants knew that the KIV-7HS was covered by the Munitions List . . . [or that] the device was designed for military use’”); *United States v. Tsai*, 954 F.2d 155, 160-62 (3d Cir. 1992) (affirming court’s instructions that the defendant did not have to have read the Munitions List or know all the details of the law, and holding that the “[district] court did not err in instructing the jury that it could convict if it found that defendant knew that the export was illegal”); *United States v. Smith*, 918 F.2d 1032,

1038 (2d Cir. 1990) (finding jury instructions were proper because “[t]he jury was told that defendant must have known that the helicopters to be exported were subject to the licensing requirements of the Arms Export Control Act and that he intended to export them in a manner inconsistent therewith” even though the Munitions List was not referenced).

Conversely, in *United States v. Gregg*, 829 F.2d 1430, 1437 & n.14 (8th Cir. 1987), the Eighth Circuit appears to have interpreted willfully to require that a defendant knew the underlying exported items were on the Munitions List. In applying section 2778(c), the court approved of a jury instruction that “plainly directed acquittal if the jury was not satisfied beyond a reasonable doubt that the *defendant knew that the items exported were on the Munitions List* and required license.” *Id.* at 1437 n.14 (emphasis added).

Additionally, it is helpful to consider *Bryan*, 524 U.S. at 194-95, in which the Supreme Court decided the meaning of willfulness in a statute analogous to section 2778(c). In *Bryan*, the defendant was convicted of conspiring to willfully deal firearms without a license in violation of the Federal Firearms Statute, 18 U.S.C. §§ 922(a)(1)(A), 924(a)(1)(D). *Id.* at 190-91. At that time, the statute criminalized multiple types of acts, but in pertinent part, it made it illegal for anyone to “willfully violate[] any other provision of this chapter.” 18 U.S.C. § 924(a)(1)(D) (1994). The Supreme Court held that the willfulness requirement of section 924(a)(1)(D) only required that a defendant know his act was unlawful. *Bryan*, 524 U.S. at 195. The defendant argued that the Court should extend to section 924(a)(1)(D) the exception from *Ratzlaf* and *Cheek v. United States*, 498 U.S. 192, 200 (1991), that requires knowledge of a law to satisfy willfulness requirements. *Id.* at 194. The Court refused, however, and distinguished those cases by explaining that they involved “highly technical statutes,” such as tax laws and banking regulations, “that presented the danger of ensnaring individuals engaged in apparently innocent conduct.” *Id.* at 194-95. The Court stated that those cases could not apply to the defendant in *Bryan* because a jury had already found that he knew what he

did was unlawful, therefore, precluding him from mistaking his action as innocent. *Id.* at 195.

In our view, the arguments in the multiple cases from the other circuits deciding the section 2778(c) willfulness issue and the Supreme Court's interpretation of analogous section 924(a)(1)(D) are persuasive. All that section 2778(c) expressly requires is that someone willfully violate a provision of the Act. Congress did not instruct courts to apply the willfulness requirement to any specific provision, let alone the Munitions List, even though it could have. Furthermore, no court has conclusively held that willfulness requires knowledge that an item is on the Munitions List. Additionally, as in *Bryan*, the underlying conduct concerned in the Act—exporting defense articles and services without a license—is not innocent in the way an everyday, uninformed citizen may unintentionally violate complex, confusing tax laws. Rather, exporting defense articles can only be achieved by educated parties with atypical access to proprietary military weapons, systems, and data. By Roth's own admission, he knew that receiving "6.2" funds from the Air Force imposed regulations on his research. Finally, the Federal Firearms Act considered in *Bryan* is extremely similar to the statute considered here. Both impose criminal sanctions for actions involving highly regulated weapons, and both have similar willfulness requirements that apply broadly to violations of their respective statutes. It follows, then, that the Supreme Court's analysis in *Bryan* applies to the Act.

Accordingly, following *Bryan* and the swath of cases from other circuits interpreting section 2778(c), we hold that section 2778(c) does not require a defendant to know that the items being exported are on the Munitions List. Rather, it only requires knowledge that the underlying action is unlawful.

The instruction given by the district court defined willfulness as doing something intentionally that the defendant knew was unlawful, which falls in line with *Bryan*, the other circuits' interpretations of section 2778(c), and now our holding here. As a result, the district court's jury instruction regarding willfulness was proper.

2. Ignorance of the law

When a district court refuses to give a requested jury instruction, we will reverse that decision “only when (1) the requested instruction is a correct statement of the law; (2) the requested instruction is not substantially covered by other instructions actually delivered; and (3) the failure to give the requested instruction impairs the defendant’s theory of the case.” *United States v. Tarwater*, 308 F.3d 494, 510 (6th Cir. 2002) (citing *United States v. Chesney*, 86 F.3d 564, 573 (6th Cir. 1996)).

The ignorance of the law as a defense instruction would not have been a correct statement of law. Roth incorrectly asserts that multiple circuits have held that ignorance of the law is a separate defense to charges under the Act. In fact, no circuit court has decided this issue. Indeed, the Supreme Court has identified only a few areas, such as tax law, where “ignorance of the law is a defense,” and that is because the tax system is so complex. *United States v. Abboud*, 438 F.3d 554, 581 (6th Cir. 2006) (citing *Cheek*, 498 U.S. at 199-200). Only when “highly technical statutes . . . present[] the danger of ensnaring individuals engaged in apparently innocent conduct,” as in the example of tax laws and banking regulations, has the Supreme Court “held that . . . statutes ‘carve out an exception to the traditional rule’ that ignorance of the law is no excuse.” *Bryan*, 524 U.S. at 194-95 (citing *Cheek*, 498 U.S. at 200; *Ratzlaf*, 510 U.S. at 149).

It should be noted that two cases from the Fifth Circuit have addressed ignorance of the law in the context of charges brought under the Act. In *United States v. Davis*, 583 F.2d 190, 194 (5th Cir. 1978) (citing *United States v. Schilleci*, 545 F.2d 519, 524 (5th Cir. 1977)), the court noted that, with specific intent crimes, juries should not be instructed that ignorance of the law is not a defense. Later, in *United States v. Hernandez*, 662 F.2d 289, 292 (5th Cir. Oct. 1981), the Fifth Circuit cited *Davis* and commented that a “court should put squarely before the jury the relevance of ignorance of the law” in cases charging specific intent crimes. Both cases instructed that ignorance can be critical when instructing a jury about the defendant’s state of mind when specific intent is an element of the crime. However, neither case went so far as to hold that ignorance is a separate, affirmative defense that juries must be instructed about when

considering specific intent crimes. They left open the possibility that a court may instruct a jury regarding ignorance of the law in some other fashion, such as when explaining the required *mens rea* of the crime.

Furthermore, it appears that the instruction given by the district court regarding willfulness substantially covered Roth's proposed ignorance instruction. Roth admits as much in his brief. The first two sentences of the proposed instruction actually concern willfulness as an element of the crime. It is not until the third and fourth sentences of the proposed instruction that Roth really addresses and explains ignorance of the law as an affirmative and separate defense. There, he would have instructed the jury that:

An innocent or negligent mistake by the Defendant is insufficient to support a finding of a knowing and willful export. So if Defendant was ignorant of the requirements of the Arms Export Control Act or was aware of the requirements of the Act but believed that he was complying with those requirements, he did not act knowingly or willfully, and you must find him not guilty.

This, however, is extremely similar to the court's instruction that "[n]egligent conduct, or conduct by mistake or accident, or with a good faith belief that the conduct was lawful, is not sufficient to constitute willfulness," which was delivered to the jury through the willfulness instruction. Both the proposed and actual instructions address negligence, mistake, and a good faith belief regarding compliance with the law.

Roth's proposed instruction was not a correct statement of the law, and the portion that was correct was substantially covered by another instruction. Furthermore, because the district court addressed much of the proposed instruction in the willfulness instruction, failing to deliver Roth's proposed ignorance of the law instruction to the jury impaired his case only slightly, if at all. Therefore, the district court did not abuse its discretion in declining to deliver Roth's proposed instruction on ignorance of the law as a separate defense.

C. Sufficiency of the Evidence Supporting Roth's Conviction for Exporting the Agency Proposal

When reviewing a conviction for sufficiency of evidence, we ask ““whether, after viewing the evidence in the light most favorable to the prosecution, and after giving the government the benefit of all inferences that could reasonably be drawn from the testimony, any rational trier of fact could find the elements of the crime beyond a reasonable doubt.”” *United States v. Ross*, 502 F.3d 521, 529 (6th Cir. 2007) (quoting *United States v. M/G Trans. Servs., Inc.*, 173 F.3d 584, 589 (6th Cir. 1999)). This is a ““very heavy burden.”” *Id.* (quoting *United States v. Davis*, 397 F.3d 340, 344 (6th Cir. 2005)).

Roth claims that there was insufficient evidence to support the jury's finding that he willfully exported the Agency Proposal because he never opened the electronic file and could not have known its contents until after he returned from China. However, the purpose of the Agency Proposal was to eventually build military munitions, and it was premised upon the Phase II technology, which University officials had told Roth was export controlled. Furthermore, University officials instructed Roth to take nothing concerning Phase II with him to China. Moreover, Roth and Sherman had discussed the Boeing information and it is not disputed that Roth knew it was export controlled. While Roth might not have opened the Proposal to see that the Boeing information was contained therein, it would only make sense that Roth and Sherman discussed it in regard to either Phase II or the Proposal. Ultimately, Roth knew that the research he was conducting in Phase II was export controlled, and it was essentially the same technology used in the Proposal. He also knew that the information from Boeing was export controlled. Roth's conviction could be sufficiently supported by nothing more than circumstantial evidence. *Tucker v. Palmer*, 541 F.3d 652, 657 (6th Cir. 2008) (citing *United States v. Kelley*, 461 F.3d 817, 825 (6th Cir. 2006)). Therefore, when viewing all the facts in the light most favorable to the government, a rational jury could find beyond a reasonable doubt that Roth knew that the Proposal contained export controlled information.

III. CONCLUSION

The data from Phase II and the Agency Proposal, as well as the Force Stand, are defense articles and services as a matter of law because the ultimate objective of the project was to apply plasma actuators to military aircraft. Additionally, the district court did not err in its jury instructions. Finally, there was sufficient evidence to support Roth's conviction for exporting the Agency Proposal. Accordingly, we **AFFIRM**.