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THE ITAR TREATY AND ITS IMPLICATIONS FOR U.S. SPACE EXPLORATION POLICY AND THE COMMERCIAL SPACE INDUSTRY

P.J. BLOUNT*

I. INTRODUCTION

PRESIDENT GEORGE W. BUSH announced on January 14, 2004, a new space policy for the United States.¹ His *Vision for Space Exploration* seeks to refocus the nation on goal oriented achievement in outer space.² The policy centers on a human return to the Moon and then a move towards human exploration of other celestial bodies.³ This goal is to be accomplished by NASA, but in cooperation with the private sector as well as the international community.⁴

Commercial investment in space is the key to developing the necessary technologies to accomplish the President's goals, and this crucial point is recognized in the policy.⁵ However, private sector money often is entirely contingent on a potential for future profit. Commercial space exploration seeks to fulfill its own self-interests, leaving the "glory" of the United States as a secondary interest at best.⁶ Unfortunately, the current configuration of the International Traffic in Arms Regulations ("ITAR") creates a significant impediment to private industry's ability to reach international markets, as there can be major delays in get-

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¹ PRESIDENT'S COMM'N ON IMPLEMENTATION OF U.S. SPACE EXPLORATION POLICY, A JOURNEY TO INSPIRE, INNOVATE, AND DISCOVER 6 (2004), available at http://www.nasa.gov/pdf/60736main_M2M_report_small.pdf [hereinafter PRESIDENT'S COMM'N].

² See *id.*

³ *Id.*

⁴ *Id.* at 7.

⁵ See *id.* at 6.

⁶ This is not to say that aerospace companies are unpatriotic, only that patriotism does not necessarily pay the bills.

ting approval for exports. This policy is “disconnected from program requirements and the reality of international space activity.”⁷ The obstacle effectively bars smaller entrepreneurial companies from participating in this market at all, which adversely affects the amount of diversity in innovation. Additionally, violations of these regulations can have “serious administrative, civil, and criminal consequences,” making it a risky enterprise for all but the most savvy.⁸

Because both international cooperation and commercial enhancement of the space industry are keystones in President Bush’s vision for space exploration, ITAR is an important issue for the nation’s space policy. Additionally, ITAR is an important issue for the nation’s security policy. The issues raised require a balance between the importance of keeping defense technology out of the hands of the enemies of the United States and the importance of allowing the space industry to grow so that the nation can remain a leader in space exploration.

This article will address the effects of ITAR on the private sector and the implications ITAR has for the space policy. Sections II and III will overview the U.S. space exploration policy and ITAR regimes, respectively. Section IV will seek to investigate the effects of ITAR on the space industry and how these effects damage the ability of the United States to effectuate the space policy. Finally, Section V will examine ITAR treaties and their ability to deal with the export problems caused by ITAR.

II. SPACE POLICY SPECIFICS

A. INTERNATIONAL COOPERATION

The President’s space policy sets as a specific goal a human return to the Moon by 2020, followed by a manned exploration of Mars and unmanned exploration of the rest of the solar system.⁹ The allure of the plan is that it is goal oriented in the way that early space exploration was during the Apollo missions.¹⁰ This is particularly important due to the increasing competitiveness of international actors in space exploration and the shrink-

⁷ SATELLITE COMM’N, CTR. FOR STRATEGIC & INT’L STUDIES, PRESERVING AMERICA’S STRENGTH IN SATELLITE TECHNOLOGY xiii (2002) [hereinafter CSIS].

⁸ John R. Liebman & Kevin J. Lombardo, *A Guide to Export Controls for the Non-Specialist*, 28 LOY. L.A. INT’L & COMP. L. REV. 497, 497 (2006).

⁹ PRESIDENT’S COMM’N, *supra* note 1, at 6.

¹⁰ *See id.*

ing market share of the U.S. space industry.¹¹ The plan calls for the United States to “[p]ursue opportunities for international participation to support U.S. space exploration goals,”¹² but this participation still must be beneficial to U.S. policy.

The space policy recognizes that U.S. accomplishments in the field are “a particularly potent symbol of American democracy,” but in order for the policy itself to be successful, international cooperation is a requirement.¹³ To this end, the President’s Commission on Implementation of U.S. Space Exploration Policy (“the Commission”) recommended that “NASA pursue international partnerships based upon an architecture that would encourage global investment in support of the vision.”¹⁴ The Commission, which was given the task of determining “the most appropriate and effective roles for potential private-sector and international participants” in the new space policy, sought to find a balance between the need for increased international cooperation and the interests in protecting the security of the United States.¹⁵ The Commission noted that, while the international climate is different from the one that existed following the launch of *Sputnik*, outer space is still a “competitive frontier,” and if the United States does not lead the way then “someone else will.”¹⁶ Because “[i]t is hard to envision a national space program based on exploration solely by the United States,” the Commission made the finding “that international talents and technologies will be of significant value in successfully implementing the space exploration vision.”¹⁷ This cooperation, though, cannot be a free for all; the Commission acknowledges that the United States “must . . . determine its own requirements, expectations, milestones, and risks” and “what technologies it is prepared to transfer to the international partners” before entering into international agreements.¹⁸ In light of the Commission’s findings, it “recommends that NASA pursue international partnerships based upon an architecture

¹¹ U.S. AIR FORCE, DEPT. OF DEF., DEFENSE INDUSTRIAL BASE ASSESSMENT: U.S. SPACE INDUSTRY FINAL REPORT ix-x (2007), available at <http://www.acq.osd.mil/ott/natibo/ExportControlFinalReport083107Master.pdf>.

¹² PRESIDENT’S COMM’N, *supra* note 1, at 53.

¹³ NASA, THE VISION FOR SPACE EXPLORATION 21 (2004), available at http://www.nasa.gov/pdf/55583main_vision_space_exploration2.pdf.

¹⁴ PRESIDENT’S COMM’N, *supra* note 1, at 9.

¹⁵ *Id.* at 11.

¹⁶ *Id.* at 12.

¹⁷ *Id.* at 34.

¹⁸ *Id.*

that would encourage global investment in support of the vision."¹⁹

B. PRIVATE SECTOR INVOLVEMENT

The space exploration policy as unveiled by President Bush also envisions a major role for the private sector in U.S. space exploration policy.²⁰ Specifically, the policy states that the nation should "[p]ursue commercial opportunities for providing transportation and other services supporting the International Space Station and exploration missions beyond low-Earth orbit."²¹ The Commission found this sort of activity paramount in achieving the goals of the space policy, referring to a space industry "capable of contributing to economic growth" as "a national treasure."²²

According to the Commission, the space industry, while relying on "proven players with aerospace capabilities . . . should encourage entrepreneurial activity."²³ The Commission envisions *space industry* to mean more than a group of entities that "perform contract work for various government agencies."²⁴ It states that "a . . . space industry would consist of a variety of contributors, each vigorously pursuing their own diverse agendas."²⁵ In fact, the Commission sees the "commercialization of space [to be] a primary focus of the vision,"²⁶ with "an entirely new set of businesses . . . that will seek profit in space."²⁷

In order to achieve a significant level of private involvement in space exploration, the Commission recognizes the need to create "commercial rewards and incentives in space,"²⁸ such as tax benefits and defining property rights in space.²⁹ Significantly, it also recommends that regulatory relief be granted to the fledgling industry, noting that it is "important to ensure that this industry not become over-regulated."³⁰

¹⁹ *Id.* at 35.

²⁰ *See id.* at 53.

²¹ *Id.*

²² *Id.* at 32.

²³ *Id.*

²⁴ *Id.* at 31.

²⁵ *Id.*

²⁶ *Id.* at 19.

²⁷ *Id.* at 20.

²⁸ *Id.*

²⁹ *Id.* at 33.

³⁰ *Id.* The small section devoted to this topic mentions liability, occupational safety, and environmental regulations, but not ITAR. *See id.*

The Commission also found that “tapping into the global marketplace is consistent with our core value of using private sector resources to meet mission goals.”³¹ This finding connects private sector involvement with international cooperation by acknowledging that the space industry will need to be able to access global markets in order to both make profit and deliver the high standard of technology that the *Vision for Space Exploration* requires. Notably, the Commission recognizes that this goal does not necessarily conflict with security interests, stating that “[e]conomic security is also a function of long term competitiveness” and that the “technological and industrial base must constantly be renewed” in order to obtain this economic security.³²

III. ITAR SPECIFICS

A. GENERAL

ITAR is a group of export control regulations that were adopted under the Arms Export Control Act.³³ The Act allows the government to control the export of defense items, services, and technical data to other nations, and ITAR is the implementation of these controls.³⁴ The policy behind ITAR is to further “world peace and security.”³⁵ The crucial section of ITAR is the United States Munitions List (“USML”), which designates, in twenty-one categories, articles and data that are considered to be defense items.³⁶ If an object is found on the USML, it and data about it will require licensing by the Department of State’s Director of Defense Trade Controls before the item can be exported.³⁷ Of particular interest to practitioners in the space industry are items such as launchers³⁸ and propellants;³⁹ however, the inclusion of spacecraft and commercial satellites create the largest problems for the industry.⁴⁰

The bulk of the items included on the USML would still be subject to export controls by the Department of Commerce as

³¹ *Id.* at 34.

³² *Id.* at 12.

³³ 22 U.S.C. § 2778 (2000).

³⁴ *Id.* § 2778(a)(1).

³⁵ *See id.*

³⁶ *Id.*

³⁷ *See id.* § 2778(b)(1)(B)(2); 22 C.F.R. § 120.1(a) (2008).

³⁸ The United States Munitions List, 22 C.F.R. §121.1 (Category IV) (2008).

³⁹ *Id.* §121.1 (Category V).

⁴⁰ *Id.* §121.1 (Category XV).

dual use technology,⁴¹ but the Department of Commerce process for evaluating potential exports is streamlined to be favorable towards the marketplace. ITAR, on the other hand, is a complex set of regulations that require a high level of sophistication to obtain a license. This complexity leads to long waiting periods for licenses to be granted.

B. ITAR CATEGORY XV: SPACECRAFT SYSTEMS AND ASSOCIATED EQUIPMENT

This category is the most important one for the commercial space industry, as it specifically covers satellites and other spacecraft.⁴² Included are “[s]pacecraft, including communications satellites, remote sensing satellites, scientific satellites, research satellites, navigation satellites, experimental and multi-mission satellites.”⁴³ The regulations also cover “[g]round control stations for telemetry, tracking and control of spacecraft or satellites.”⁴⁴ Components of space systems are covered as well, including some GPS technology,⁴⁵ some radiation-hardened microelectronic circuits,⁴⁶ and “[a]ll specifically designed or modified systems or subsystems, components, parts, accessories, attachments, and associated equipment for the articles in this category.”⁴⁷ A note in this section, though, excludes some items if they otherwise are not “specifically designed or modified for military” use.⁴⁸

Technical data on these articles is included, but the terms are more explicit than in most other categories. Technical data contemplated by Category XV includes everything covered under the definition in 22 C.F.R. § 120.9 “as well as detailed design, development, manufacturing or production data for all spacecraft and specifically designed or modified components for

⁴¹ 15 C.F.R. § 730.3 (2008) (“[T]he term dual use serves to distinguish . . . items that can be used both in military and other strategic uses and in civil applications from those that are weapons and military related use.”).

⁴² 22 C.F.R. § 121.1 (Category XV)(a).

⁴³ *Id.*

⁴⁴ *Id.* § 121.1 (Category XV)(b).

⁴⁵ *Id.* §§ 121.1 (Category XV)(c)(1)–(4).

⁴⁶ *Id.* §§ 121.1 (Category XV)(d)(1)–(5).

⁴⁷ *Id.* § 121.1 (Category XV)(e). This includes “articles identified in section 1516 of Public Law 105-261: satellite fuel, ground support equipment, test equipment, payload adapter or interface hardware, replacement parts, and non-embedded solid propellant orbit transfer engines.” *Id.*

⁴⁸ *Id.* § 121.1 (Category XV)(e) Note. The excluded items cover an array of different technologies from data recorders to qualified traveling wave tubes. *Id.*

all spacecraft systems.”⁴⁹ It also includes “all technical data . . . for all launch support activities,” which encompasses “technical data provided to the launch provider on form, fit, function, mass, electrical, mechanical, dynamic, environmental, telemetry, safety, facility, launch pad access, and launch parameters, as well as interfaces for mating and parameters for launch.”⁵⁰

The regulatory burden on these types of items is made heavier due to the special regime that applies to these sorts of defense items. Under this special regime, exporters of a great deal of space technology must make arrangements for monitoring by the Department of Defense when working with countries that are not members of NATO or are not a major non-NATO ally.⁵¹ This monitoring must be paid for by the exporter,⁵² and the monitor must be present for almost all export transactions in order to assure that only technical data that is covered by the export license is being exported.⁵³ Additionally, Department of Defense monitors must be present at “launch failure (crash) investigations and analyses.”⁵⁴

IV. THE PROBLEMS ITAR CAUSES

Both ITAR and the *Vision for Space Exploration* seek to protect important national interests of the United States. ITAR seeks to secure not only national but international peace and security,⁵⁵ whereas the space exploration policy attempts to facilitate space exploration through growth of the U.S. space industry.⁵⁶ The problem is that ITAR often hinders the stated policy of the Administration. Somewhat circularly, security “depends on predictable, guaranteed access to space, which in turn depends on a strong domestic space industry.”⁵⁷ This balancing act is complicated because “[m]any experts hold that the guaranteed ability to access space is only achieved by maintaining a healthy domestic industrial base . . . and government policies that support international competitiveness.”⁵⁸

⁴⁹ *Id.* § 121.1 (Category XV)(f).

⁵⁰ *Id.*

⁵¹ *Id.* § 124.15(a)(2).

⁵² *Id.*

⁵³ *Id.* §§ 124.15(a)(2)(i)–(iv).

⁵⁴ *Id.* § 124.15(b).

⁵⁵ See 22 U.S.C. § 2778(a)(1) (2000).

⁵⁶ PRESIDENT’S COMM’N, *supra* note 1, at 7.

⁵⁷ Elizabeth Seebode Waldrop, *Integration of Military and Civilian Space Assets: Legal and National Security Implications*, 55 A.F. L. REV. 157, 158 (2004).

⁵⁸ *Id.* at 176.

ITAR significantly hinders the growth of the space industry. It raises the cost of doing business across the board, which often sends investors to other sources for technology, and it can effectively bar small entrepreneurial businesses from entering into international markets. Additionally, it impedes international cooperation on space programs by making it difficult for civil space programs to cooperate with foreign programs. This significantly hinders the completion of the stated goals in the space policy.

Since spacecraft and commercial satellites were transferred to the State Department's jurisdiction from the jurisdiction of the Commerce Department in 1999, the U.S. space industry has suffered financial losses.⁵⁹ The industry has gone from "dominating the commercial satellite-manufacturing field with an average market share of 83 percent" to holding only a market share of 50 percent.⁶⁰ While not all of this decline can be attributed to ITAR, it is significant that the decline coincides with the addition of spacecraft and commercial satellites to the USML.⁶¹ Furthermore, this addition is "the only factor that resulted from U.S. government intervention."⁶² Recently, at the 58th International Astronautical Congress, numerous speakers classified ITAR as "a major hurdle in the growth of new space industry actors," indicating that these regulations might do more than just damage U.S. business prospects.⁶³ Representative Ellen O. Tauscher cites statistics showing that from 2004 to 2005, "global satellite revenues decreased by twenty four percent."⁶⁴ This, coupled with the decreasing U.S. market share, means a loss of money for the U.S. industry. The U.S. launch industry revenues dropped from \$2.7 billion in 2000 to \$1.5 billion in 2005.⁶⁵ Similarly, satellite manufacturing revenues fell from \$6 billion to

⁵⁹ See *id.* at 194.

⁶⁰ Ryan Zelnio, *The Effects of Export Control on the Space Industry*, SPACE REV., Jan. 16, 2006, <http://www.thespacereview.com/article/533/1>.

⁶¹ See *id.* It should also be noted that "[t]here has also been a major downturn in the economy, particularly affecting the telecommunications industry." *Id.*

⁶² CSIS, *supra* note 7, at ix. These new rules "reinforced trends outside the United States," doing further damage to an industry "already under substantial pressure." *Id.*

⁶³ *U.S. Regulations Restrict Space Industry Growth*, INDIA PRWIRE, Sept. 27, 2007, <http://www.indiaprwire.com/businessnews/20070927/24683.htm>.

⁶⁴ Representative Ellen O. Tauscher, Speech to the Center for Strategic and International Studies: Commercial Satellite Export Controls: Are Things Getting Better? 4 (Sept. 19, 2006) (transcript available at http://www.tauscher.house.gov/index2.php?option=com_content&task=view&id=953).

⁶⁵ *Id.*

\$3.12 billion in 2004.⁶⁶ It also has affected the balance of trade; in 1998 the U.S. imported 19 percent of spacecraft, satellites, and parts, but imports rose each year after that and reached 46 percent in 2001.⁶⁷

The manufacture, launch, and insurance on an average geosynchronous orbit (“GSO”) satellite can range from \$200-500 million.⁶⁸ This amount is prohibitive and ITAR can only raise the cost as well as the hassle. As noted before, the complexity of ITAR can induce foreign buyers to go to other sellers who are increasingly beginning to market “ITAR-free” satellites.⁶⁹ The ITAR requirements are extensive. ITAR approval is needed for numerous steps of the export process “including being able to discuss technical performance details with the customer, obtaining insurance for a satellite . . . , exporting a satellite to a launch base, and being able to talk to ground operators for help with flying the spacecraft.”⁷⁰ The length of time that it takes to gain this approval also is a significant factor.⁷¹ The export license can take months to be granted and then, due to the price of these contracts, it must be submitted for congressional approval, which can take up to thirty days.⁷² The median time for licensing grants was seventy-one days in July 2006.⁷³ This time and cost then is exacerbated by end-user requirements which “require the prior written consent of the State Department before the item may be retransferred to another end-user or its end-use changed from what was originally authorized.”⁷⁴ This significantly hinders the uses that can be made by the client, especially in light of the deemed export rule, which potentially

⁶⁶ *Id.*

⁶⁷ CSIS, *supra* note 7, at ix.

⁶⁸ Zelnio, *supra* note 60.

⁶⁹ *See id.* For example, the European company Alcatel Alenia Space began marketing an ITAR-free spacecraft. *Id.* In 2004, the company had doubled its market share from ten percent to twenty percent. *Id.*

⁷⁰ *Id.*

⁷¹ Liebman & Lombardo, *supra* note 8, at 504. “Since obtaining a license from [the] State [Department] requires considerable resources and substantial time and effort, the company must allow adequate lead time between the date the company accepts an order for goods and the date upon which the company is to deliver the goods.” *Id.*

⁷² Zelnio, *supra* note 60.

⁷³ Tauscher, *supra* note 64, at 8.

⁷⁴ *Id.* at 6.

limits which employees within a client's company would be able to work with the technology.⁷⁵

The allure of the ITAR-free satellite is pronounced, and numerous buyers have already taken advantage of these technologies. Since the change from Commerce to State Department control, many nations and companies have availed themselves of these foreign options. For example, Chinese satellite operators have avoided satellites with ITAR controls, Arabsat awarded two satellites to Astrium over Lockheed Martin (Arabsat's usual vendor), Canada's Telesat has turned to Astrium, and Intelsat has awarded a satellite contract to Astrium to avoid the implications of ITAR.⁷⁶ The regulations also discourage U.S. bidding on contracts that might have large ITAR problems, such as Koreasat 5, due to its "combined military and civil uses."⁷⁷ This means that U.S. satellite manufacturers have lost up to \$6 billion attributable to ITAR since 1999.⁷⁸ K.R. Sridhara Murthy, Executive Director of Antrix Corp Ltd., which functions as the commercial arm of the Indian Space Research Organization, stated that "ITAR is the most challenging and difficult regulation we have to contend with," claiming that "there is more risk to non-U.S. players."⁷⁹

Commercial space, however, is not the only place that gets hit by ITAR. In 2005, the European Space Agency pulled out of a joint venture with NASA for a Mars rover because ITAR would "[make] cooperation too complicated to be feasible."⁸⁰ There is speculation that ITAR "will foreclose whole categories of trans-Atlantic cooperative efforts in space exploration."⁸¹ These "missed opportunities" could mean that the American "industrial base will continue to shrink."⁸²

Further damage to the industry is done by the fact that ITAR serves as a bar to smaller companies entering the market as real competitors. Larger companies, such as Boeing, have extensive resources and a bastion of lawyers which allow it effectively to

⁷⁵ See generally Brian F. Walsh & David M. Dunbar, *Deemed Exports of Technology*, 11 CHI. BAR ASS'N. REC. 46 (1997).

⁷⁶ Zelnio, *supra* note 60.

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ U.S. *Regulations Restrict Space Industry Growth*, *supra* note 63.

⁸⁰ Peter de Selding, *ESA Looks East for Future Space Cooperation*, SPACE NEWS BUS. REP., May 30, 2005, http://www.space.com/spacenews/businessmonday_050530.html.

⁸¹ *Id.*

⁸² Tauscher, *supra* note 64, at 5.

cope with the stringent requirements of ITAR. However, for small companies, coping with ITAR can be almost impossible.⁸³ Smaller entities can be completely overwhelmed by ITAR because “[r]igorous compliance with the ITAR is essential to the integrity and success of a company’s business operations.”⁸⁴ These costs can range from simple legal fees to the expenses of ITAR monitors that must accompany executives when discussing products with foreign citizens, and are small compared with those associated with noncompliance. Melissa Farrell, CEO of Stellar Solutions Aerospace, says that nothing her company does is “routine,” and that “[a]lmost everything [it does] seems to be an exception which, for a small business, is a tremendous burden.”⁸⁵ In the end, smaller companies are forced out of the market because they are unable to compete—not only with the large companies in the United States—but also with the numerous companies worldwide that are not burdened with the extra cost of ITAR imposed on their technology. The Director of Trade for Intelsat, Kent Bossart, claims that “[o]nly a big company with a dedicated staff can handle” the rigorous nature of ITAR, further evincing the way in which ITAR pushes small companies to the side.⁸⁶ If Intelsat has problems, then smaller companies will have even bigger problems.

V. THE WAIVER

There is a way around ITAR. The Executive Branch can negotiate a bilateral treaty, which functions as an ITAR waiver that can help to lessen the effects of ITAR. Specifically, “[b]y reducing the export control burden on US companies, [a] Treaty could also encourage smaller US companies to enter the export market.”⁸⁷ However, the requirements for an ITAR waiver are also stringent and in the end, these waivers may not be effective.

⁸³ See Taylor Dinerman, *Space Tourism Meets ITAR*, SPACE REV., Oct. 11, 2004, <http://www.thespacereview.com/article/245/1>. Dinerman notes that this could be by design because technology leaks often occur through small companies. *Id.*

⁸⁴ Liebman & Lombardo, *supra* note 8, at 501.

⁸⁵ Jeff Foust, *A New Hope for Export Control Reform?*, SPACE REV., Feb. 26, 2007, <http://www.thespacereview.com/article/819/1>.

⁸⁶ *Id.*

⁸⁷ AUSTRALIAN GOV'T DEP'T OF DEF., QUESTIONS AND ANSWERS: AUSTRALIA U.S. TREATY ON DEFENSE TRADE COOPERATION 3, available at http://www.defence.gov.au/publications/treaty_qanda.pdf.

A. REQUIREMENTS OF THE ARMS EXPORT CONTROL ACT

The Arms Export Control Act envisions the idea that the Executive Branch may want to conclude a bilateral agreement in order to lessen the effects of ITAR on other countries. Congress, however, imposed severe limitations on the Executive's ability to accomplish this task.

The first set of conditions for validity of these agreements "require the foreign country, as necessary, to revise its policies and practices, and promulgate or enact necessary modifications to its laws and regulations to establish an export control regime that is at least comparable" to the U.S. regime.⁸⁸ The first requirement is that the foreign country require certain conditions for the handling of defense items with a U.S. origin.⁸⁹ Specifically included is that the country require "prior written United States Government approval for any reexports to third countries."⁹⁰ The next requirement is that the foreign country require "end-use and retransfer control commitments."⁹¹ These commitments must be binding and must be secured from all end-users.⁹² The third requirement is that the country develop a "watchlist" if one is not already in existence.⁹³ In addition to the watchlist, the foreign country must fully "cooperat[e] with United States Government law enforcement agencies to allow for sharing of export and import documentation and background information on foreign businesses," their employees, and other individuals connected with those businesses.⁹⁴ Finally, the act requires the compilation of a list of defense items that "will be exported under the exemption."⁹⁵

The second set of conditions requires that the foreign country bring its laws and policies into a comparable state with U.S. law, regulation, and policy in the areas of "controls on the export of tangible or intangible technology," "controls on unclassified information," and controls on arms trafficking.⁹⁶ It also requires cooperation with U.S. agencies "to combat efforts by [unautho-

⁸⁸ 22 U.S.C. § 2778(j)(2)(A) (2000).

⁸⁹ *Id.* § 2778(j)(2)(A)(i).

⁹⁰ *Id.*

⁹¹ *Id.* § 2778(j)(2)(A)(ii).

⁹² *Id.*

⁹³ *Id.* § 2778(j)(2)(A)(iii).

⁹⁴ *Id.*

⁹⁵ *Id.* § 2778(j)(2)(A)(iv).

⁹⁶ *Id.* §§ 2778(j)(2)(B)(i)-(iii).

rized] third countries to acquire defense items.”⁹⁷ Finally, the act requires that the foreign country’s penalties for violations be brought in line with U.S. penalties.⁹⁸

It is obvious from the text that the Act meant to set a very high bar for these waivers. The law also requires that the treaty be submitted to Congress for ratification in order to certify that the foreign country has indeed performed the items required by the Act.⁹⁹

B. CURRENT WAIVERS

The United States has recently entered into two ITAR waiver treaties: one with the United Kingdom and the other with Australia.¹⁰⁰ The waiver with the United Kingdom has been transmitted to Congress and is currently under committee review.¹⁰¹ It is a treaty that has long been in the works, originally promised to the United Kingdom during the Clinton Administration.¹⁰² The agreement was finally signed on June 21 and 26, 2007, at Washington and London.¹⁰³ It was transmitted to Congress on September 20, 2007, and no further action has been taken.¹⁰⁴ The Australia Treaty was concluded on September 5, 2007.¹⁰⁵ It was transmitted to Congress on December 3, 2007.¹⁰⁶ The two treaties are substantially the same, so this article will discuss and cite to the treaty with the United Kingdom (“the Treaty”).

The stated purpose of the Treaty is to provide “a comprehensive framework for Exports and Transfers, without a license or

⁹⁷ *Id.* § 2778(j)(2)(B)(iv).

⁹⁸ *Id.* § 2778(j)(2)(B)(v).

⁹⁹ *See id.* § 2778(j)(3).

¹⁰⁰ *See* Treaty with United Kingdom Concerning Defense Trade Cooperation, U.S.-U.K., June 21, 2007, S. Treaty Doc. 110-7 [hereinafter U.K. Treaty]; Treaty with Australia Concerning Defense Trade Cooperation, U.S.-Austl., Sept. 5, 2007, S. Treaty Doc. 110-10 [hereinafter Austl. Treaty].

¹⁰¹ *See* U.K. Treaty, *supra* note 100, at III. *See also* U.S. Senate, Legislation and Records Home, Treaties Approved, http://www.senate.gov/pagelayout/legislative/one_item_and_teasers/trty_rtf.htm [hereinafter Treaties Approved] (last visited Oct. 21, 2008).

¹⁰² Lewis Page, *UK Could Get Privileged Access to American Kill-tech*, REGISTER, June 28, 2007, http://www.theregister.co.uk/2007/06/28/blighty_keys_to_us_gunshop_promises_no_reselling/. Page notes that the waiver was held up due to “concerns of certain American congressmen.” *Id.*

¹⁰³ *See* U.K. Treaty, *supra* note 100, at I.

¹⁰⁴ *See id.*; *see also* Treaties Approved, *supra* note 101.

¹⁰⁵ Austl. Treaty, *supra* note 100, at I.

¹⁰⁶ *Id.*

other written authorization, of Defense Articles.”¹⁰⁷ The Treaty then goes on to delimit its scope. It only applies to defense articles for:

- (a) United States and United Kingdom combined military or counter-terrorism operations as described in the Implementing Arrangements;
- (b) United States and United Kingdom cooperative security and defense research, development, production, and support programs that are identified pursuant to the Implementing Arrangements;
- (c) Mutually agreed specific security and defense projects where Her Majesty’s Government is the end-user that are identified pursuant to the Implementing Arrangements; and
- (d) United States Government end-use.¹⁰⁸

The scope is then further limited by the specification that the Treaty will not apply to particular defense articles that will be listed as exempt in the Implementing Arrangements.¹⁰⁹

Licenses will only be waived for transfers between the communities in the United Kingdom and the United States. In the United Kingdom, the community will consist of government facilities and personnel as well as some private entities.¹¹⁰ The private entities will be “[s]pecifically identified” and will meet “mutually agreed eligibility requirements.”¹¹¹ They must be accredited by the U.K. government and then both the United States and the United Kingdom must agree to the entities’ inclusion on a list of waived entities.¹¹² Employees in these entities will be included if they “meet criteria set out in the Implementing Arrangements” but, at a minimum, they must meet “United Kingdom security accreditation and a need-to-know.”¹¹³ Non-

¹⁰⁷ U.K. Treaty, *supra* note 100, art. 2.

¹⁰⁸ *Id.* art. 3(1).

¹⁰⁹ *Id.* art. 3(2). The Implementing Arrangement, however, does not contain an itemized list of defense articles; instead, it sets forth a procedure for creating such a list. See generally Implementing Arrangement Pursuant to the Treaty Between the Government of the United States of America and the Government of the United Kingdom of Great Britain and Northern Ireland Concerning Defense Trade Cooperation, U.S.-U.K., Feb. 14, 2008, available at <http://www.state.gov/t/pm/rls/othr/misc/101101.htm> [hereinafter Implementing Arrangement].

¹¹⁰ U.K. Treaty, *supra* note 100, art. 4(1).

¹¹¹ *Id.* art. 4(1)(c).

¹¹² *Id.*

¹¹³ *Id.* art. 4(1)(d).

governmental entities may be removed from the list at the request of either the United States or the United Kingdom.¹¹⁴

The U.S. community also consists of government departments and agencies, as well as private entities.¹¹⁵ Private entities are those that are “registered with the United States Government and eligible to export Defense Articles.”¹¹⁶ Employees of these entities are included as long as they have the proper security clearance and a need-to-know when required.¹¹⁷

All exports made under the Treaty will be identified by the U.S. government as being exported under the Treaty.¹¹⁸ Additionally, upon entry into the United Kingdom, all items exported under the Treaty will be identified with the words “Restricted USML.”¹¹⁹ This is important because once the item is in the United Kingdom, it still cannot be re-transferred or re-exported without “supporting documentation that includes United States Government approval.”¹²⁰ These re-transfers or re-exports will be subject to “terms and conditions of applicable authorizations.”¹²¹

The Treaty itself is “self-executing in the United States,”¹²² so it does not need any underlying legislation by Congress, but will require congressional ratification. Opposition could be stiff as well, as there are not only security concerns, but also concerns that the Treaty could “potentially allow [British] firms to get involved in US projects more easily, perhaps taking work from Americans.”¹²³ The Treaty does, however, require Implementing Arrangements which “shall” be concluded “on an expedited basis.”¹²⁴ These Implementing Arrangements, however, do not clear up the numerous ambiguities left in the Treaty. They instead seek to set out the process and procedure that the two countries will use when negotiating the items covered and the participants in the two communities.¹²⁵

¹¹⁴ *Id.* art. 4(2).

¹¹⁵ *Id.* art. 5.

¹¹⁶ *Id.* art. 5(2).

¹¹⁷ *Id.*

¹¹⁸ *Id.* art. 6(2).

¹¹⁹ *Id.* art. 6(3). This is a minimum; exports could have a higher degree of demarcation.

¹²⁰ *Id.* art. 9(1).

¹²¹ *Id.* art. 9(2).

¹²² *Id.* at VI.

¹²³ Page, *supra* note 102.

¹²⁴ U.K. Treaty, *supra* note 100, art. 14(1).

¹²⁵ See generally Implementing Arrangement, *supra* note 109.

C. EFFECTIVENESS OF THE WAIVERS

Whether these waivers will be effective for the space industry specifically will depend on a number of factors that have yet to be determined. One of the first questions is whether spacecraft and commercial satellites will even be covered as objects that can receive waivers. Under the Treaty, some defense articles can be declared "exempt from the Scope of [the] treaty."¹²⁶ Either government may exclude items from the Treaty, but the Treaty is silent as to what considerations may be taken for these exclusions. If these lists are narrow, it "will limit the utility of the treaties and turn them into elaborate variations on previous unsuccessful efforts to facilitate defense trade."¹²⁷ Furthermore, the scope of the Treaty limits the export of defense articles to ones used only for certain purposes. The ability to grant a waiver would depend on whether the satellite or spacecraft was involved in "combined military or counter-terrorism operations," "cooperative security and defense research, development, production, and support programs," "[m]utually agreed specific security and defense projects" where the U.K. government is the end user, or U.S. government end-use.¹²⁸ Articles not being used for these sorts of activities will still be subject to ITAR licensing. Notably missing are non-military and defense activities such as commercial satellite systems (including telecommunications and remote sensing), commercial space exploration, and joint government civil aerospace activities. Any space systems that are included most likely will be included in contracts with larger aerospace corporations as opposed to smaller commercial firms trying to break into the business. Thus, the positive effects of the Treaty on the aerospace industry could be negligible.

Another obstacle to the Treaty's effectiveness is the limitations on who may participate in the program. Under the Treaty, waivers only will be available from a U.S. exporter to the U.K. government and to specific nongovernmental entities.¹²⁹ These entities must "meet mutually agreed eligibility requirements."¹³⁰ Then there will be a question of what personnel at the nongovernmental agency will be allowed to use the export. The Treaty

¹²⁶ U.K. Treaty, *supra* note 100, art. 3(2).

¹²⁷ Christopher Wall, Thomas M. deButts & Ada L. Loo, *New Defense Trade Treaties Will Streamline ITAR Licensing* 3 (Oct. 3, 2007), <http://www.pillsburylaw.com/publications>.

¹²⁸ U.K. Treaty, *supra* note 100, art. 3(1).

¹²⁹ *See id.*

¹³⁰ *Id.* art. 4(1)(c).

sets as a minimum that personnel must meet “appropriate [U.K.] security accreditation and a need-to-know” standard.¹³¹ This potentially could be a high standard for many U.K. companies. Since the United Kingdom is a member of the European Union, British companies likely will have employees that are European foreign nationals. This could be a major problem if these employees are in high-level positions or are technical experts in light of the deemed export rule. It also should be noted that the Implementing Arrangement calls for the list to take into account “[f]oreign ownership, control or influence.”¹³² The inability of some persons to get U.K. security clearance most likely will limit the number of nongovernmental entities that can participate in the U.K. community.

Finally, the Treaty still maintains the strict rules on re-transfer of technology to third parties.¹³³ This will encourage private companies to seek ITAR-free technology in lieu of waiver technology. If a commercial enterprise is incorporating technology into its products, then it must be free to sell those products. Since exports that enter the United Kingdom under the waiver still will be subject to ITAR for the purposes of re-transfer or re-export, companies will not necessarily be given enough incentive to take advantage of these waivers. This is especially so in the space industry since the United Kingdom lacks a launch site of its own. Space technology would have to be launched from the United States or an ITAR license would have to be gained, which would defeat the waiver and add to the cost. In light of this, ITAR-free technology is still the more marketable technology.

VI. MAKING THE WAIVER SYSTEM WORK

If the *Vision for Space Exploration* is to be effective, steps should be taken to limit the effects of ITAR on the commercial space industry. It is unlikely, though, that Congress will remove space technology from the USML. The ITAR waiver system could serve as a solution in some cases, but these waivers must be tailored for the space industry to be effective.

The Bush Administration should lobby for space industry-specific waivers with space partners of the United States. If a waiver could be gained for partners such as the European Space

¹³¹ *Id.* art. 4(1)(d).

¹³² Implementing Arrangement, *supra* note 109, at 9.

¹³³ See U.K. Treaty, *supra* note 100, art. 9.

Agency, a great deal of international cooperation could be restored. These waivers could also include nongovernmental entities within the territories of our space partners. These agreements likely would have to be limited in a way similar to the Treaty in order to make it through the ratification process, but the conclusion of such a treaty would allow for some progress by opening up markets piecemeal. In so doing, the U.S. government could maintain control over the export of sensitive space technologies and at the same time allow U.S. commercial entities access to markets of trusted allies.

These waivers should include a regime wherein it can be determined whether a particular piece of technology should be subject to ITAR upon re-transfer or re-export. Specifically, the regime should investigate whether the technology is such that its export could harm international peace and security. The oft cited example of an ITAR license being required for a satellite component that can be purchased at Radio Shack could be avoided by a built-in review process. If the regime takes into account worldwide availability and the security interest served, it would be able to develop a system that would be favorable to both commercial space policy and security interests. In so doing, it would help reallocate resources to better protect a more complete idea of national security.

VII. CONCLUSION

The hurdle that ITAR creates is such that it could hamstring both the national space policy and the commercial space industry. Furthermore, it could create challenges for the national security that it seeks to protect. ITAR reform should be approached with caution as it does serve a purpose in protecting national security. With such balancing in mind, the bilateral agreements allowed under the Arms Export Control Act may be the best short-term solution for easing ITAR issues for the space industry. This solution could allow for the space industry to be competitive in countries that represent U.S. space partners. These treaties will have to be crafted with care in order to meet the stringent requirements under U.S. law, but if done properly, would allow for renewed U.S. cooperation with international actors.