Program Research Project

THE INTERNATIONAL TRAFFIC IN ARMS REGULATIONS: AN IMPEDIMENT TO NATIONAL SECURITY

BY

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This paper examines the theory and history behind export controls and the current United States export control system, the regulations implemented to enforce the export control system and the negative national security implications of the ITAR. Seven recommendations to "fix the ITAR" are proposed in an effort to preserve U.S. space industry superiority as is consistent with the dictates of the U.S. National Security Strategy..

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by

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Topic Approved By
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This PRP is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The U.S. Army War College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, (215) 662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

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ABSTRACT

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THE INTERNATIONAL TRAFFIC IN ARMS REGULATIONS: AN IMPEDIMENT TO NATIONAL SECURITY

> The United States currently faces unprecedented threats to its security both at home and abroad. In confronting these threats, we must be able to exploit the full advantage we derive from our economic strength and technological prowess. To that end, the U.S. export control system must be modernized so that it is better able to respond quickly and effectively to evolving security threats, and promote our nation's continued economic and technological leadership.
>
> — Coalition for Security and Competitiveness

Export control systems serve several important national security functions. They prevent critical military and defense technologies from falling into the wrong hands, they can create and help preserve economic and technology leadership, and they can be useful tools to implement cooperation and sharing amongst allies thereby improving collective security. Controlling exports, and in particular defense trade exports, through a rigorous export control system is more than a mere regulatory function; it is an important element of most nations' foreign policies and is a critical element of the United States' national security policy.

The Current United States Export Control System

There is a decades-old, ongoing debate in the United States over the proper export control authority for satellite technology. In particular, the question is whether commercial communication satellites (often referred to as "comsats") and the underlying satellite manufacturing technology should be controlled by the Bureau of Industry and Standards within the Commerce Department or the State Department. The distinction is important because the regulatory review standards differ greatly between the two agencies. Jurisdiction and responsibility for commercial satellites has flip-flopped between the Commerce Department and the State Department several times during the

last two decades causing confusion, delay, market inefficiencies and directly contributing to the loss of U.S. market share.

If satellites and satellite technology are subject to Commerce Department jurisdiction, export authority comes under the less rigorous Export Administration Regulations (EAR)[1] and satellites may be categorized as commercial items or as dual-use controlled items (an item capable of having both commercial and military application). If satellites are subject to State Department jurisdiction, they generally are placed on the United States Munitions List (USML)[2] and subject to the more rigorous review and heightened scrutiny of the International Traffic in Arms Regulations (ITAR).[3] The timely resolution of which Department should control the export of U.S. satellite technology has a direct and immediate impact on the national security.

The International Traffic in Arms Regulations

The International Traffic in Arms Regulations (ITAR)[4] are a series of federal regulations that control the import and export of the defense articles and services that are listed on the United States Munitions List (USML).[5] The ITAR prohibits exporting[6] technical data or hardware to non-U.S. persons unless a license has first been issued to the exporter by the State Department. A U.S. person (a person or entity eligible to receive USML-controlled technical data or hardware without a license) is defined in the ITAR as

- A U.S. citizen,
- A permanent resident who does not work for a foreign company, foreign government or foreign government agency,
- A political asylee,

- A section of the U.S. government,
- A corporation, business, organization or group that is incorporated in the United States under U.S. law.[7]

If a person or entity does not fit within one of the above-referenced categories, it is illegal to share technical data, services or hardware with them in the absence of the appropriate license.

The President has delegated the authority to promulgate regulations relating to the export of defense articles and defense services (the ITAR) to the Secretary of State.[8] The Secretary of State has delegated much of the administration of the ITAR to the Deputy Assistant Secretary for Defense Trade Controls and Managing Director of Defense Trade Controls (DDTC), Bureau of Political-Military Affairs.[9] In addition to its export case review duties, DDTC also reviews and implements sanctions for failure to comply with the ITAR, assists in U.S. embargos against other countries [10] and has been involved in defense sharing agreements such as the new defense cooperation agreement with India, and policy issues such as successfully lobbying the European Union not to lift its arms embargo against China.[11]

In contrast to the ITAR, the Export Administration Regulations (EAR), administered by the Commerce Department, Bureau of Industry and Standards (BIS), controls the export of commercial and dual-use items that are not on the United States Munitions List (USML) and, therefore, do not require the heightened scrutiny that USML listed items receive.

History of U.S. Export Control of Satellite Technology

Prior to 1992, the export and sale of satellites and satellite manufacturing technologies was controlled by the State Department. Satellites were listed on the United States Munitions List and subject to ITAR review and control. In 1988, due in part to increasing world-wide demand for commercial launch services for items such as cell phones and satellite television broadcasts, President Reagan signed a deal to allow the Chinese to launch U.S. commercial satellites.[12] The agreement required the Chinese to implement a pricing strategy comparable to U.S. launch facility costs,[13] required the protection of U.S. proprietary technology, and provided for the launch of nine satellites during the next six years.[14] A similar agreement was signed with Russia in the early 1990s.[15]

These agreements not only increased the availability of commercial satellite launch resources, thereby increasing the U.S. space industries' economic competitiveness, but they were also an important negotiating tool to secure non-proliferation agreements from China and Russia.[16]

However, in 1990, in response to Chinese Government actions taken against demonstrators in Tiananmen Square in 1989, Congress passed the State Department Authorization Bill which contained a provision penalizing China and commonly referred to as the "Tiananmen Square Sanctions Law." [17] The law prohibited the sale and export to China of military weapons and equipment, crime control and detection equipment, nuclear trade and cooperation activities, and specifically, the export of "any satellite of United States origin" to be launched from Chinese owned launch facilities.[18] This law continues to be the major legislative tool allowing Congress to review, control and sanction exports to China. While the law is very broad in its prohibitions, it does permit

the President to waive the restrictions if “important to the national interest” or if it is determined that China has made satisfactory progress on certain human rights issues.

Pursuant to the exemption, President George H. W. Bush waived the prohibition and granted export licenses for three communication satellites.[19] Since the law was passed in 1990, Presidents have used the waiver provision at least seven times to allow United States companies to launch U.S. satellites from Chinese owned launch facilities.[20] Though China remains a willing and able provider of satellite launch services, it remains a very difficult task for U.S. companies to use Chinese services to launch a U.S. satellite.[21]

. In 1992, in an attempt to further bolster the economic competitiveness of the U.S. space industry, President Bush removed commercial communication satellites that did not incorporate advanced technology from the USML and put them under Commerce Department jurisdiction and oversight. This allowed the satellites to be exported under the EAR as commercial, not as military goods, thus subjecting the satellites to the less stringent Commerce Department EAR review and licensing regulations. However, the manufacturing processes and technologies required to build the satellites remained subject to the ITAR and the State Department’s licensing procedures.[22] While some purely commercial satellites were transferred to the Commerce Department immediately, the State Department retained jurisdiction over many, claiming they were dual-use technology, and, citing national security concerns, the State Department refused to transfer the programs to the Commerce Department. Commerce appealed State’s actions to the National Security Council, and in March 1996, President Clinton issued an Executive Order transferring all dual-use commercial satellites to the

Commerce Department.[23] Again, however, the State Department retained jurisdiction over satellite manufacturing technologies. The Executive Order also required Commerce to refer all satellite license applications to the Departments of Defense, Energy, State and the Arms Control and Disarmament Agency for a multi-agency review. Three of the five reviewing agencies had to vote in favor of a license and its provisos [24] before the license would be granted. This was a policy destined to fail, and it did, in large part because of bureaucratic in-fighting and turf battles between the Departments.

To complicate the export situation further, in 1995 and 1996, two U.S. satellites were destroyed during Chinese launches. Actions taken after the disasters served as the impetus for certain members of Congress to further restrict satellite export policy and to subject satellite technology exports to increased scrutiny. After the launch failures, the Chinese and the U.S. satellite manufacturers conducted joint failure analyses in an effort to determine causation. In part, these failure investigation reports were needed to satisfy the U.S. companies' insurance carriers' requirements before the U.S. companies could be reimbursed for the destroyed satellites.

While Commerce approved the transfer of the technical data by the U.S. companies to the Chinese, solely for failure investigation review purposes, the State Department objected to release of the data arguing that: 1) Commerce did not have the authority to grant the technical data transfer license without going through the multi-agency review process and securing prior approval; and, 2) the data could subsequently be used by the Chinese to improve their ballistic missile capabilities. As a result of the "unauthorized" disclosure of technical data to the Chinese, three U.S. companies,

Boeing (which had subsequently purchased Hughes, the company involved in 1995 and 1996), Lockheed Martin and Space Systems/ Loral agreed to pay fines totaling $65 million dollars.[25]

In response to these perceived lapses and the apparent inability of the Commerce Department to restrict the export of important U.S. satellite technology, Congress added a provision into the Strom Thurmond National Defense Authorization Act For Fiscal Year 1999 placing all satellite exports, including commercial communication satellites, under State Department jurisdiction, thereby returning satellites and satellite related technology back onto the USML, subject to the ITAR.[26]

While the transfer of oversight authority to State makes satellite exports more difficult and time consuming, there are also several international agreements and treaties that must be complied with and which further complicate the foreign sale of satellites and satellite technology. One such binding agreement is the 1996 Wassenaar Arrangement. The Wassenaar Arrangement is a multilateral agreement between thirty-three nations that creates additional restrictions on the sale and transfer of satellite technology. [27]

The U.S. National Security Strategy

The future of U.S. war fighting doctrine is network centric warfare (NCW), and NCW is heavily dependent upon the ability to communicate rapidly, requiring the extensive use of comsats. According to the DoD Office of Force Transformation, "All of the Service and Joint Transformation Roadmaps are based on this central principle. This is helping to create and maintain a decisive war fighting advantage for U.S. forces. In the Information Age, power is increasingly derived from information sharing,

information access, and speed, all of which are facilitated by networked forces." [28] Access to space is a key element of NCW and, therefore, of the United States' national security. Continued commercial satellite technology development is a critical element to guaranteeing that access.

In furtherance of these goals, and in response to the attacks of September 11, 2001, President Bush issued a new National Security Strategy of the United States (the "NSS").[29] While the National Security Strategy is a grand strategy document—by its very nature broad and all encompassing—it does specifically address the issue of both preserving America's technological advantages while encouraging and advocating the future development of technology. In the National Security Strategy introductory letter, President Bush states, "We will cooperate with other nations to deny, contain, and curtail our enemies' efforts to acquire dangerous technologies." [30] Certainly the ITAR helps prevent acquisition of leading U.S. technology by our enemies, but to date, we have spent very little time "cooperating with other nations," a policy that has hindered sharing technology with our friends and has forced even our allies to develop their own competing space and satellite capabilities.

While preventing the acquisition of current technology by U.S. adversaries is a primary goal of the ITAR, the National Security Strategy recognizes that defense trade technology is not a static field and that the U.S. must be actively and dynamically involved in future development in order to retain technology leadership. "Investing in future capabilities while working to protect them through a more vigorous effort to prevent the compromise of intelligence capabilities" [31] is an important goal of the NSS.

U.S. National Space Policy

The U.S. National Space Policy is one of several subordinate national policies that provide implementing guidance to achieve the overarching goals of the U.S. National Security Strategy. The President issued the current National Space Policy in 2006, and it represents a dramatic shift in focus from the prior U.S. National Space Policy.[32] In the Principles section of the Policy, the U.S. remains "committed to the exploration and use of outer space by all nations for peaceful purposes, and for the benefit of all humanity." "Consistent with this principle, 'peaceful purposes' allow U.S. defense and intelligence related activities in pursuit of national interests." [33] The Policy makes a very strong statement about the United States' right to use space in any manner that will advance its national security strategy:

> The United States considers space capabilities—including the ground and space segments and supporting links—vital to its national interests. Consistent with this policy, the United States will: preserve its rights, capabilities, and freedom of action in space; dissuade or deter others from either impeding those rights or developing capabilities intended to do so; take those actions necessary to protect its space capabilities; respond to interference; and deny, if necessary, adversaries the use of space capabilities hostile to U.S. national interests.[34]

In order to achieve these principles, the U.S. is "committed to encouraging and facilitating a growing and entrepreneurial U.S. commercial space sector" and sets forth several goals to facilitate growth in the U.S. commercial space sector:[35]

- Enable a dynamic, globally competitive domestic commercial space sector in order to promote innovation, strengthen U.S. leadership, and protect national, homeland, and economic security.

- Strengthen and maintain the U.S. space-related science, technology and industrial base. A robust science, technology, and industrial base is critical for U.S. space capabilities.

- Maintain a timely and responsive regulatory environment for licensing commercial space activities and pursuing commercial space objectives.

The ITAR, however, is currently administered in a manner that is impeding the goals set forth in the U.S. National Space Strategy.

Impact of the ITAR on the U.S. Space Industry

Worldwide, the U.S. has long been seen as the leader in all technical aspects of space and satellite technology. Unfortunately, the ability of the U.S. to maintain a technological lead is directly related to the success of its commercial space market, and never has that market been so weak.

Before the shift in export control policy in 1999, the U.S. dominated the commercial satellite-manufacturing field with an average annual market share of 83 percent. Since then, market share has declined to less than 50 percent.[36] While the plummeting market share cannot be blamed solely on tightened export regulations,[37] they have surely played a significant part in the decline.[38] For example, since the change in export policy, "no Chinese satellite operator has chosen to purchase any satellite that is subject to U.S. export regulation and have instead selected European and Israeli suppliers," at an estimated loss to U.S. manufacturers of $2-3 billion." [39]

Commentators have cited the U.S. export control system as the primary cause for dwindling market share. "American companies that produce satellites have great difficulty competing in the world market due to a rigid interpretation of ambiguous statutory requirements and a cumbersome and confusing licensing process that leads to long delays and uncertain outcomes." [40] "The most serious barrier to U.S. competitiveness in space commerce, particularly in the satellite industry, is U.S. policy on export controls. Export control policies have already seriously damaged the U.S.

commercial satellite industry and promise to do the same to the ability of the United States to conduct space operations with international partners." [41]

Further evidence of the U.S decline in a globally increasing market is borne out by the economic performance of Boeing Satellite Systems International, long the world-wide leader in satellite technology and manufacturing. In 1999, in response to an expanding commercial satellite market, Boeing purchased the El Segundo Division of Hughes Electronics for $3.8 billion. [42] In 1999, satellite export control returned to the State Department and Boeing's commercial satellite business began to crash: [43]

- In 2003, Boeing Satellite Systems delivered only five satellites, down from 11 in 2000.
- As few as 10 commercial space vehicles were built in 2003, down from 25 annually in the late 1990s.
- At Boeing's El Segundo facility, employment has dropped to between 5,700 and 6,000 people from 9,000 when Hughes was purchased.

In addition, the ITAR has had such a negative economic impact on U.S. satellite manufacturers that they are increasingly wary of even bidding on certain foreign contracts. If they anticipate a certain level of ITAR problems, such as on Koreasat 5 with its dual civil and military uses, U.S. companies will often choose not to expend the bid and proposal money necessary to submit a competitive bid.[44] As a result, "U.S. satellite manufacturers have lost somewhere between $2.5 and $6 billion since 1999 primarily due to ITAR regulations." [45]

Certainly the Federal Government recognizes the negative economic impact the current regulations are inflicting. In 2003, the White House, in addition to issuing a new National Security Policy in 2002 and a new National Space Policy in 2006, issued a new

U.S. Commercial Remote Sensing Policy. The policy specifically addresses the vital importance of a robust commercial satellite capability to the Nation's security. The policy states that it is in the national interest to "enable U.S. companies to compete successfully as a provider of remote sensing space capabilities for foreign governments and foreign commercial users, while ensuring appropriate measures are implemented to protect U.S. national security and foreign policy interests." [46] Furthermore, the White House specifically noted the negative impact regulatory inefficiencies were having on the domestic market. The U.S. Government will "provide a timely and responsive regulatory environment for licensing the operations and exports of commercial remote sensing space systems." [47]

Unfortunately, the current U.S. export regulations have not only crippled the domestic market, they have also had the unintended consequence of creating, and then strengthening, a competitive foreign space industry—one that competes directly and very effectively with U.S. manufacturers.

Impact of the ITAR on the Foreign Space Industry

"By far the greatest benefactor from U.S. export policies has been Alcatel Alenia Space." [48] In the early 2000s, Alcatel announced that they would create an "ITAR-free" spacecraft, solely for the purpose of avoiding the delay and uncertainty of operating within the ITAR. That positioned Alcatel to serve the booming Chinese market virtually by itself. This proved to be a wise business move for Alcatel, and not just as a means to enter the China market; by 2004, its global market share had more than doubled "from around 10% in 1998 to over 20% in 2004." [49]

China is also actively investing in its own satellite bus[50] which is being actively marketed to countries in Africa and South America such as Nigeria and Venezuela. As a result, China Aerospace Corp. won a large order—China's first satellite export—from the Nigerian Space Agency for a telecommunications satellite. Nigerian officials said "they sought bids from other companies before agreeing to the Chinese offer, which includes a partial payment in Nigerian crude oil." [51]

Japan, a long-time U.S. satellite customer, has also begun to successfully design and build its own hardware. "In 2005, Japan's Mitsubishi Electric Corp. of Tokyo won the contract to build the Superbird-7 satellite for Space Communication Corp. It marked the first time a Japanese manufacturer was selected for a Japanese commercial satellite." [52]

The list of countries abandoning U.S. satellite makers, not because of cost or technology, but because of the uncertainty caused by the ITAR, continues to grow: [53]

- Arabsat awarded recent satellite orders to Astrium (an EADS subsidiary) over its traditional satellite builder, Lockheed Martin, due primarily to their fear of export deliveries holding up delivery.
- Telsat Canada has also tired of the red tape associated with having to deal with ITAR approval and chose to award the Anik F1R satellite to Astrium.
- Intelsat awarded the contract of Intelsat-10 to Astrium fearing the effects of ITAR.
- EADS Astrium joined with Antrix of India to make joint bids for satellites. Alcatel Alenia Space has a similar agreement with NPO PM of Russia. The two companies have built about a dozen Russian communication satellites.

As the above-referenced examples show, unless the export control system is soon corrected and market forces change, within a generation the U.S. is likely to give up its long-enjoyed satellite communications leadership position.

Recommendations to "Fix the ITAR"

In 2007, a group of U.S. companies joined together to create the Coalition for Security and Competitiveness (also referred to as "The Coalition"). This group, comprised of eighteen industry and trade organizations such as the Aerospace Industries Association (AIA), the Society for International Affairs (SIA) and the National Defense Industries Association (NDIA) is working to modify the current United States' export control system. The Coalition has issued eleven recommendations to modify the export process and control for items on the USML.[54]

The Coalition's goals are a fine start in reforming the ITAR and returning competitiveness to the U.S. satellite industry. However, because of the political sensitivity of The Coalition members' relationship with both Congress and the State Department,[55] its recommendations do not go far enough and, alone, will not save the U.S. space industry. The following recommendations, if implemented, will improve the export control system such that the U.S. is able to control and protect critical defense technologies but is not hindered in its ability to sell and export those commercial technologies that are not critical to our national defense and security. The desired end state is to preserve U.S. space industry superiority with an intended consequence of increased national security.

1. Return Jurisdiction Over Commercial Satellites To The Commerce Department

Given the statistics and data presented above, it almost goes without saying that removing commercial satellites from the United States Munitions List and returning them

to Commerce Department oversight is the first step in correcting the U.S. export control system. Since 1999, when all satellites were placed on the USML and export control was returned to the State Department, the U.S. satellite industry has undergone a substantial and dramatic decline. Removing commercial satellites from the USML and returning them to EAR oversight at Commerce is the first necessary step in encouraging and supporting the U.S. industry's return to competitiveness.

2. Create A Procedure By Which Industry Can Get Timely Advisory Opinions

Individuals and businesses have long been able to seek pre-activity guidance (an advisory opinion) concerning the legality of proposed conduct[56] from the Antitrust Division of the Department of Justice (DOJ), and the Federal Trade Commission (FTC),

Like the procedures available at DOJ and FTC, U.S. defense industry companies should have the ability to submit requests to the State Department for advisory export opinions on proposed USML exports in order to receive timely guidance regarding the likely outcome of an export license application. Currently no such procedure exists. Thus, industry is required to incur the expense to prepare a license application, submit it, and potentially wait months to learn whether the application will be accepted or rejected. If there is a problem with just one aspect of the license application, rather than asking the applicant to modify or correct the application, State will frequently either deny the application without explanation or return it without action.[57] Both outcomes are very expensive for the applicant, time consuming, and needlessly opaque. The defense industry wishes to comply with the regulations in the most expedient and efficient manner possible—these are, after all, for-profit businesses whose goal is to export quickly and accurately. An advisory opinion would greatly aid that goal by both

assisting exporters to prepare proper and accurate applications initially and reducing State Department staff time in reviewing and returning inaccurate or improper applications.

3. Implement National Security Council Level Coordination of Export Policy

Because of the serious nature of export control—its ability to both improve and degrade national security—a senior level individual should be appointed with the authority to coordinate export policy across all relevant government agencies. This appointment should not reside within the State Department, the Commerce Department or any other agency that has export control responsibility. The recommended level of appointment is at the National Security Council because of the ability at that level to have oversight into not just the agencies and departments responsible for export control but to have input authority at the national security strategy level.

The State Department has attempted to create such a role by implementing the Defense Trade Advisory Group (DTAG). The purpose of the DTAG is to provide for regular consultation with U.S. defense industry exporters. The charter of the DTAG directs it to advise the State Department on its "support for and regulation of defense trade to help ensure that the foreign policy and national security interests of the United States continue to be protected and advanced while helping to reduce unnecessary impediments to legitimate exports…" [58]

The groups' efforts, while laudable, have failed to remedy the deficiencies in the current ITAR, or to prevent the continuing downward spiral of the U.S. satellite market. A review of the DTAG published minutes finds few references to advocacy on behalf of U.S. satellite manufacturers or concerns about U.S. competitiveness, and even fewer

recommended or implemented steps to staunch the declining U.S. commercial satellite market.[59]

The benefit of creating such a new NSC-level position would be three-fold. First, the appointee would be the central point of contact for industry so that concerns and suggestions for improving the export control system could be centralized in an office that would have the authority to act and implement changes. Second, the official could harmonize the application of the various export control and defense practices so that they are more efficient and so that corporations have an increased level of visibility into the application of export requirements. Finally, this position would create policy and serve as an expert resource for Congress, government agencies, and industry.

4. Increase Funding for Directorate of Defense Trade Controls (DDTC) Staffing

The State Department Office of the Directorate of Defense Trade Controls (DDTC), the agency within the State Department responsible for administering the ITAR, is woefully understaffed. Currently there are approximately eighty-five civilian and military personnel assigned to DDTC. Together, they review approximately 80,000 license applications and agreements each year.[60] Based on statistics for calendar year 2007, DDTC receives on average 6,700 new cases every month, ranging from a low of 5,795 cases in December 2007, to a high of 7,611 cases in August 2007.[61]

By statute, the DDTC office receives ten military officers to staff desks, but because of the operational tempo of the Global War on Terror, the military desks are frequently understaffed and civilian positions are also often vacant. Currently there are only six military officers at DDTC and only five officers review cases.[62] The military officers, all senior career officers in the grades of O-5 or O-6, currently staff the

following divisions: Aircraft Division; Military Electronics Division; Missile and Spacecraft Division; and, Military Vehicle and Naval Vessel Division.[63]

This is a critical choke point in the processing of licenses and agreements. Because of the high demand for additional support, and the negative effect on processing times, funding must be provided to train and staff additional DDTC positions. Funding for an additional ten to fifteen full-time military positions, at a cost of roughly $5 - $7 million per year,[64] would yield a dramatic improvement in processing times. Additional staffing should also be considered for ombudsman-type positions to provide training to and interface with industry, to issue advisory opinions and to conduct post-shipment verification audits.[65] The Coalition has also expressed a willingness to fund additional staff for other agencies that participate in the export control system.[66]

This increased staffing recommendation is one that could be implemented quickly at little additional cost and which will have an immediate, positive effect. Additional staff in these billets should focus on technologies that are currently needed in the field and ones that will increase our interoperability with our allies and supporters. To the extent possible, officers so assigned should have a technical background, prior assignments that provide familiarity with systems likely to be exported, or Command assignments with extensive systems-level acquisition activity.

5. Develop a Licensing Triage Program to Separate Routine and Complex Applications

Currently there is no process in place at State or Commerce to triage applications. License and agreements are assigned and staffed as received. This permits routine applications to clog the processing pipeline while more critical

applications sit idle pending assignment. Because staff time is at such a premium, a four-level category designation, with very clear guidelines, should be established. For example, a level one application would require immediate attention both because of the technology involved, and the status of the end-user/purchaser.[67] Each application would note which category it fits within, citing the criteria satisfied for inclusion in the category.

Coupled with the new category designations should be a set of mandatory processing timelines, which would vary based on the category level. One of the biggest problems with the current USML export system is that exporters have no certainty as to how long the application process will take. This makes commercial transactions extremely difficult. Mandatory processing times would solve this issue.[68]

6. Implement Pre-Approval, Program-Level, Licensing

Currently a program license (one all-encompassing license) can be granted for major systems programs. Such a license permits the prime contractor to submit one application for a single license covering all USML hardware, technical data and technical assistance on the program. In reality, however, the process is ineffective and, therefore, rarely used. Because of the voluminous paperwork required for a program license, contractors typically submit individual licenses for the underlying components because it is far more efficient. Additionally, a program license, once granted, has little flexibility so that if there are changes in the program, separate amendments must be filed for each change.

To correct this deficiency, State should grant pre-approval, at a program level, for large systems that would not otherwise be prohibited at a component level. A key

element of this recommendation would be permitting industry to implement minor, documented changes, without having to submit a new license application. This change alone would encourage industry to use this process.

The U.S. currently sells prior generation weapons and communications systems around the world. There is no reason that a pre-approval process could not be implemented that would rapidly speed the export of major commercial systems for all but the most advanced systems.

7. Permit Expanded, Pre-Approved Licensing Of Prior Generation Commercial Satellite Technology

Satellite technology and manufacturing processes that are currently available to, or in use by, foreign competitors are not treated any differently (more leniently) than cutting-edge, U.S.-only technology. This standard puts U.S. manufacturers at a decided economic disadvantage. If a commercial satellite customer (foreign or domestic) can buy the same or similar technology from a foreign source, at equivalent or better pricing, without the uncertainty created by ITAR review and approval, why would they buy from a U.S. source? The answer is simply that they will not.[69]

Any technology that is currently in commercial use by foreign entities, available for commercial sale by foreign entities, or is prior generation technology compared to the current U.S. technology, (in other words, is fungible technology) should be immediately placed on a list of “readily marketable technology” that would not be listed on the USML and would be subject only to EAR review and approval.

Conculsion

Space systems and space technology are essential to the nation's security and a key element of the U.S. National Space Policy and the U.S. National Security Strategy. The Department of Defense and the national intelligence agencies are highly reliant upon information gathered and transmitted through space-based assets, both commercial and military. The current war fighting doctrine, network centric warfare, is absolutely dependent upon satellite communications technology. As the U.S. commercial satellite market share continues to erode, however, the U.S. risks losing technical dominance. Unless the U.S. export control system generally, and the ITAR specifically, are radically and quickly modified, the nations' security will continue to needlessly be at risk.

Endnotes

[1] Department of Commerce, Bureau of Industry and Standards, 15 CFR Chapter VII.

[2] The Arms Export Control Act (22 U.S.C. 2778(a) and 2794(7)) provides that the President shall designate the articles and services deemed to be defense articles and defense services. The items so designated constitute the United States Munitions List (USML) and are set forth in part 121 of the ITAR.

[3] Section 38 of the Arms Export Control Act (22 U.S.C. 2778) authorizes the President to control the export and import of defense articles and defense services.

[4] 22 U.S.C. 2778 of the Arms Export Control Act (AECA) provides the authority to control the export of defense articles and services, and charges the President to exercise this authority. The International Traffic in Arms Regulations (ITAR), implements this authority. Executive Order 11958, as amended, delegated this statutory authority to the Secretary of State.

[5] The United States Munitions List (USML) is set forth at Sections 38 and 47(7) of the Arms Export Control Act and can be reviewed at Part 121 of the International Traffic in Arms Regulations (ITAR).

[6] The term "export" includes the sharing of technical data and hardware with non-U.S. persons regardless of geographic location. Thus, the transfer of technical data to a non-U.S. person, even when both parties are located in the United States, is considered to be a "deemed export."

[7] International Traffic in Arms Regulations, § 120.15.

[8] Executive Order 11958, as amended.

[9] International Traffic in Arms Regulations, § 120.1(a).

[10] The list of embargoed countries and prohibited sales can be found in the ITAR at § 126.1(a), et seq., and the current, updated list of embargoed countries can be reviewed on the DDTC website available from http://pmddtc.state.gov/country.htm; internet; accessed 11 November 2007.

[11] For additional information on the activities and responsibilities of the Office of Defense Trade Control Policies and DDTC, see the DDTC Defense Trade Overview, available from http://pmddtc.state.gov/docs/defense_trade_overview_2006.pdf; internet; accessed 29 March 2008
.

[12] See Statement of Franklin C. Miller, Principal Deputy Assistant Secretary of Defense for Strategy and Threat Reduction, before a Hearing of The Committee on Commerce, Science, and Transportation. U.S. Senate September 17, 1998. Available from http://www.fas.org/spp/starwars/congress/1998_h/98091704_elt.html; internet; accessed on January 22, 2008

[13] Though the U.S. Government did not accuse the Chinese Government of subsidizing commercial launches, "according to some estimates, a satellite launching by China is 30 to 50 percent cheaper than a comparable launching on an American or European vehicle." Elaine Sciolino, The New York Times, August 31, 1988, available from http://query.nytimes.com/gst/fullpage.html?res=940DE4DB173AF932A0575BC0A96E948260; internet; accessed on 2 April 2008.

[14] See Statement of Franklin C. Miller.

[15] Fact Sheet: *U.S. - Russian Commercial Space Launch Agreement*, The White House, Office of the Vice President, 2 September 1993.

[16] George Abbey and Neal Lane, *United States Space Policy: Challenges and Opportunities*, American Academy of Arts and Sciences, 2005, at 8.

[17] Public Law 101-246 (1990).

[18] In January of 1990, Congress passed H.R. 1487, the State Department Authorization bill for FY 1990, 1991 (P.L. 101-246). Current additional provisions and analysis of the bill's impact on trade and export sanctions against China can be found online, available from http://digital.library.unt.edu/govdocs/crs/permalink/meta-crs-120:1; internet; accessed on 7 March 2008.

[19] On December 19, 1989, prior to the passage of Public Law 101-246, President George H. W. Bush issued export licenses for three U.S. communications satellites for launch on Chinese vehicles under a "national interest" waiver authority contained in an earlier law, P.L.101-162 (the Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Act, 1990). Available from

http://digital.library.unt.edu/govdocs/crs/permalink/meta-crs-120:1; internet; accessed 7 March 2008.

[20] Ibid.

[21] "The satellite prohibition in Public Law 101-246 is one of two hurdles that satellites must clear before they can be exported to China. The second is the missile proliferation sanctions, imposed on
August 24, 1993, listed in sanction #8 of this report." Ibid.

[22] Abbey and Lane, p. 8.

[23] Executive Order 13020, October 12, 1996.

[24] Provisos are conditions or restrictions placed upon a license that limit certain aspects of the export and must be agreed to by the exporting party before the license will become effective.

[25] Though none of the companies admitted any liability, and the U.S. Government never brought charges or indictments against any companies or individuals, the companies made the "voluntary" payments in order to avoid long and certainly costly litigation.

[26] Strom Thurmond National Defense Authorization Act For Fiscal Year 1999, Public Law 105-261 October 17, 1998.

[27] The 1996 Wassenaar Agreement is the follow-on agreement to the Coordinating Committee on Multilateral Export Controls (COCOM) which expired in 1994. The COCOM was a multilateral agreement between NATO and NATO-friendly countries to restrict transfer of satellite technology to the Soviet Union during the Cold War. The Wassenaar Agreement is a multilateral agreement between thirty three countries, including Russia and former Warsaw Pact countries. See: The Wasseneer Agreement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, Guidelines and Procedures Including the Initial Elements, WA Secretariat, July 2004, available from
http://www.wassenaar.org/2003Plenary/initial_elements2003.htm; internet; accessed 1 April 2008.

[28] "The Implementation of Network-Centric Warfare," A. K. Cebrowski, Director, Office of Force Transformation, Office of the Secretary of Defense, January 5, 2005. Available from http://www.oft.osd.mil/library/library_files/document_387_NCW_Book_LowRes.pdf; internet; accessed 2 April 2008.

[29] The National Security Strategy of the United States of America, issued on September 17, 2002. Available from http://www.whitehouse.gov/nsc/nss.html; internet; accessed 14 November 2007.

[30] National Security Strategy, Introductory letter at page 2.

[31] National Security Strategy, p. 30

[32] The President authorized a new national space policy on August 31, 2006, that establishes overarching national policy that governs the conduct of U.S. space activities and supersedes the Presidential Decision Directive/NSC-49/NSTC-8, National Space Policy, dated September 14, 1996.

[33] Ibid.

[34] Ibid.

[35] Ibid.

[36] The Space Review, "*The National Space Policy and Space Arms Control*," Nader Elhefnawy, November 27, 2006. Available from www.thespacereview.com/article/755/1; internet; accessed 19 March 2008.

[37] For example, as an alternative explanation, the BBC reported that President Jacques Chirac declared that failure to proceed with Galileo, the European Union's constellation of navigation satellites (an expensive and duplicative alternative to the U.S. GPS system), would eventually turn the EU into an industrial and economic vassal of the United States. Available from http://news.bbc.co.uk/1/hi/world/europe/1862779.stm; internet; accessed 21 March 2008.

[38] The Space Review, "*The National Space Policy and Space Arms Control*," Nader Elhefnawy, November 27, 2006. Available from www.thespacereview.com/article/755/1; internet; accessed 19 March 2008.

[39] Though it is difficult to determine exactly the number of foreign orders placed between non-US corporations and governments, at least seven Chinese purchases have been confirmed. Ibid.

[40] Abbey and Lane, p. 9.

[41] Abbey and Lane, p. 8.

[42] David Greenberg, "Satellite Orders Tumble Earthward at Boeing's Division in El Segundo," Los Angeles Business Journal, 7 July 2003.

[43] This listing, from the Greenberg article referenced above, reflects the negative impact on Boeing only, the largest satellite manufacturer at the time.

[44] Peter B. de Selding, "Commercial Satellite Sales Rebound in 2005," Space News Business Report, 9 Jan 2006. Available from www.space.com/spacenews/archive05/Satsale_010906.html; internet; accessed 14 March 2008.

[45] Ibid.

[46] Fact Sheet: *U.S. Commercial Remote Sensing Policy* The White House, Office of the Press Secretary, May 13, 2003.

[47] Ibid.

[48] Alcatel Alenia Space is a joint venture that was formed in 2005 by combining the space businesses of Alcatel, a French company, and Finmeccanica, an Italian company. The Space Review, "*The Effects of Export Control on the Space Industry*." Ryan Zelnio, January 16, 2006. Available from www.thespacereview.com/article/533/1; internet; accessed 4 March 2008.

[49] Ibid., p. 4.

[50] "The bus is the part of the satellite that carries the payload and all its equipment into space. It holds all the satellite's parts together and provides electrical power, computers, and propulsion to the spacecraft. The bus also contains equipment that allows the satellite to communicate with Earth." For a complete review of how satellites work and a description of satellite components, see The Tech Museum of Information, available from www.thetech.org/exhibits/online/satellite/2/2.html; internet; accessed 16 December 2007.

[51] Peter B. de Selding, at p. 4.

[52] Ibid.

[53] Ibid., for a detailed listing of countries that have chosen to avoid the U.S. satellite industry.

[54] A detailed listing of the Coalition's recommendations can be found on the Coalition for Security and Competitiveness website available from www.securityandcompetitiveness.org; internet: accessed 11 November 2007.

[55] The Coalition's membership is comprised almost entirely of trade organizations whose member companies receive a substantial percentage of their annual income from U.S. Government contracts which are funded by Congress, and their requests for export approval are reviewed and granted or denied by the State Department and/or the Commerce Department.

[56] Advisory opinions and the points of contact for submitting a request for an opinion from the Federal Trade Commission are available from http://www.ftc.gov/ftc/opinions.sthm; internet; accessed on 14 January 2008, and for the Department of Justice, available from http://www.usdoj.gov/at/public/busreview; internet; accessed 14 January 2008.

[57] This is a procedure referred to as "RWA" or returned without action.

[58] "The DTAG, established as a continuing committee under the authority of 22 U.S.C. 2656 and the Federal Advisory Committee Act, provides the Bureau of Political-Military Affairs with a formal channel for regular consultation and coordination with U.S. private sector defense exporters and defense trade specialists on issues involving U.S. laws, policies, and regulations for munitions exports. The DTAG advises the Bureau on its support for and regulation of defense trade to help ensure that impediments to legitimate exports are reduced while the foreign policy and national security interests of the U.S. continue to be protected and advanced in accordance with the Arms Export Control Act, as amended." Available from http://pmddtc.state.gov/dtag_index.htm; internet; accessed 4 March 2008.

[59] The DTAG Charter and DTAG minutes and plenary session activities from 2003 through 2007 are available from http://pmddtc.state.gov/dtag_index.htm; internet; accessed 4 March 2008.

[60] For the twelve month period from March 2007 through February 2008, DDTC received 80,612 cases. Additional statistics on case volume and processing time are available from http://pmddtc.state.gov/processtime.htm; internet; accessed 10 April 2008.

[61] Ibid.

[62] A complete listing of the DDTC staffing organization, to include senior executive biographies and a by-name listing of duty positions, is available from http://pmddtc.state.gov/personnel.htm; internet; accessed 13 April 2008.

[63] Ibid.

[64] Funding estimates from The Coalition for Security and Competitiveness. Available from www.securityandcompetitiveness.org; internet; accessed 11 November 2007.

[65] These audits, often called "blue lantern visits" are designed to verify that exported hardware actually ends up with the foreign end-user designated in the license application.

[66] Coalition for Security and Competitiveness, at p.3. The Coalition has recommended that military officers selected for DDTC assignments "should have relevant career backgrounds, undergo thorough pre-training, and have an assignment at DDTC qualify as service in a joint DoD billet." Available from www.securityandcompetitiveness.org; internet; accessed 11 November 2007.

[67] United States allies and NATO + 3 nations should receive priority processing. This would not only improve allied relations, but might discourage our allies from developing competing, and potentially non-compatible, systems.

[68] There is ample precedent in the U.S. Government for mandatory processing times. For example, government bid protests handled by the General Accountability Office must be fully resolved within 100 days, regardless of the number of issues involved or how complicated the case might be. See: Competition in Contracting Act of 1984, Public Law 98-369, 98 Stat. 1175, amended by National Defense Authorization Act for Fiscal Year 1996, Public Law 104-106, 110 Stat. 186 § 5501(2)(A). It is widely held that the 100 day rule creates a reasonable balance between Agency needs and abilities to process cases while providing meaningful relief for contractors whose protests are upheld. For a detailed analysis of the "100 day rule" see: Eugene Y. Kim, "*Late is Late: The GAO Bid Protest Timeliness Rules, and How They Can Be a Model for Boards of Contract Appeals*." Army Lawyer, Nov.2007, at 30-32.

[69] See sections on "Impact of ITAR on the Foreign Space Industry" above, and endnotes 35 – 52.