

# **EXPORT CONTROL POLICY AND THE U.S. SATELLITE INDUSTRY**

**An AIAA Position Paper  
AIAA Public Policy Committee**

**Approved by the Board of Directors  
28 May 1999**

American Institute of Aeronautics and Astronautics  
1801 Alexander Bell Drive Suite 500  
Reston, VA 20191  
703/264-7500

## **EXECUTIVE SUMMARY**

As an organization that includes America's key aerospace contractors, the American Institute of Aeronautics and Astronautics supports a strong national defense and rigorous export control policies to ensure America's national security. America's national security is critically dependent upon its technological superiority, military preparedness and its economic security. Our national and economic security are increasingly linked to US global leadership in space and satellite technology.

Recent changes in US export control law and policy, however, may jeopardize our economic security and, in turn, our national security. The National Defense Authorization Act for Fiscal Year 1999 transferred jurisdiction over commercial satellite exports from the Commerce Department's Commerce Control List (CCL) to the State

Department's U.S. Munitions List (USML), effective March 15, 1999.

The current U.S. approach to satellite exports is having a strongly negative effect on U.S. satellite manufacturers, U.S. component suppliers, and other exporters of technology products. A lack of State Department personnel and uncertainty over the legislation's mandate have caused a significant slowdown in the granting of export licenses. These delays, coupled with existing satellite manufacturing contracts that contain large penalties for late delivery, have therefore become a serious financial concern of the prime U.S. satellite manufacturers. Moreover, because time from contract execution to launch is extremely important to satellite customers, there is real danger that future contracts will be lost to foreign suppliers unless the export licensing process is overhauled and streamlined. This increase in foreign market share for satellite and space technology further undermines U.S. economic and national security. Because almost every commercial satellite sale by a U.S. manufacturer involves either foreign subcontractors, foreign launch providers, foreign insurers, or foreign customers, a myriad of export licenses are required throughout the design and manufacturing process. Any delay in receiving a required license, at any step in the process, can bring manufacturing of a given satellite to a halt. For example, delays can be caused by U. S. government requirements for Department of Defense (DOD) monitors to be present for most meetings and teleconferences with foreign customers and suppliers, even those from friendly countries.

The ubiquity of export licenses in satellite manufacturing requires a licensing and monitoring regime that is prompt,

rational, and consistent. Many of the current problems can be ameliorated without new legislation.

Such actions should include the following:

- A commitment to additional personnel for license processing
- Revision of recently implemented regulations which do not sufficiently differentiate between potentially hostile countries and NATO members (or other allies). This clear distinction between friendly and potentially hostile countries was specifically directed by Congress.
- Issuance of regulations which make a clear distinction between sensitive and non-sensitive technology, in keeping with the sense of the legislation.
- Issuance of interpretative guidelines, standardized forms, and other means for enabling uniform interpretation of rules by export control officers.
- Acceptance of the "No License Required" determinations made by the Commerce Department prior to the March 15, 1999 transfer of jurisdiction.
- Reduction in the quantity of required licenses by a number of means; e.g., issuing a single license for a single commodity, piece of equipment, or technical discussion that involves multiple satellite projects.

## **BACKGROUND**

### **I. The FY 1999 National Defense Authorization Act**

On October 17, 1998, President Clinton signed into law H.R. 3616, the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999. In addition to authorizing FY 1999 appropriations for the Department of Defense, Section 1513 of the Act transfers jurisdiction over commercial satellite exports from the Commerce Department Commerce Control List (CCL) to the State Department U.S. Munitions List (USML), effective March 15, 1999.

When Congress passed the legislation, the report of the Conferees emphasized that the transfer of commercial satellites to the USML should not penalize or harm the competitive posture of the U.S. satellite industry - an industry important to U.S. national security. In addition, the President's signing statement directs the relevant agencies to implement the transfer in a manner that supports legitimate commercial communications satellite exports while ensuring that the extensive safeguards needed to protect our national security remain in place.

The Strom Thurmond National Defense Authorization Act includes several new reporting requirements and licensing procedures for commercial satellite exports. These new provisions are in addition to established regulatory requirements which are applicable to USML-regulated commodities and data.

As products on the USML, satellite exports are licensed under the International Traffic in Arms Regulations (ITAR). That means initial marketing and foreign launch supplier qualification efforts by U.S. satellite manufacturers require DSP-5 export licenses and Technical Assistance Agreements (TAAs). The ITAR covers not only the exchange

of commodities, but of information as well. Before technical discussions (whether or not of a sensitive nature) can take place with a foreign contractor or customer, U.S. satellite manufacturers have to negotiate a TAA that allows a meaningful technical interchange to take place but which also satisfies the State Department. Some U.S. satellite companies have had projects held up for months because of delays in obtaining State Department approval of a TAA. The current process of obtaining a TAA, unless and until it is standardized and streamlined, adds several months of licensing requirements to the front end of the application process for exporting a satellite either for launch or for sale. The Fiscal Year 1999 Defense Authorization Act also codified several existing licensing requirements that in most cases reflect current administrative practice.

These include:

- Requiring a technology transfer control plan approved by the Secretary of Defense for satellite exports -- including provisions for advance notification of all interactions with foreign persons -- and an encryption technology transfer control plan approved by the Director of the National Security Agency;
- Requiring the Defense Department to monitor all aspects of the export and launch to guard against unauthorized technology transfer, with the monitoring costs borne by U.S. satellite companies;
- Requiring licensing for activities by any U.S. persons in connection with the failure of a launch from a foreign country;

- Requiring the Secretaries of State and Commerce to provide copies of export license applications to the Secretary of Defense and the Director of Central Intelligence to verify the legitimacy of the stated end users; and
- Requiring the Secretary of State to provide copies of approved export licenses and technical assistance agreements to the Secretaries of Defense and Energy, the Director of Central Intelligence, and the Director of the Arms Control and Disarmament Agency.

Under the Act, the President must now certify to Congress 15 days in advance of any missile equipment or technology export for launch in China, that the export would not be detrimental to the U.S. space launch industry and that no technical benefit would be derived by the People's Republic of China that would measurably improve their missile or space launch capabilities. For all satellite exports to China, the President must also include 13 additional justifications in his waiver to Congress under the Tiananmen Square sanctions law, including a national security justification and a study of the economic impact of the Chinese launch on the U.S. launch industry.

The Department of State must also notify Congress when it has issued an export license for any satellite launched in a foreign country or for any satellite sold to a foreign entity regardless of whether it is launched by a foreign country or in the U.S. The Department of Defense must now provide an annual report to Congress on its monitoring of all overseas satellite launches. In Section 1514 of the Act, Congress also directed the Secretary of Defense to establish a program for

hiring, training, and maintenance of a foreign satellite launch monitoring staff in addition to expanding attendance by Department of Defense monitors for launches of U.S. satellites in China and Kazakhstan.

## **II. State Department Implementation**

The purpose of the legislation summarized above is to prevent the transfer to unfriendly countries of technology that could be relevant to missile capability. It could be read as reasonably narrow in scope and purpose: (1) to return satellite export control authority to the State Department; and (2) to provide for DOD monitors (at industry expense) of satellite launches (and related programs for the satellite itself), when the launch is not from a "friendly" country. The State Department's implementation of its authority over satellite exports has gone well beyond fulfilling this purpose. On the policy side, the State Department has taken an expansive interpretation of the legislation, and has exacerbated the backlog of applications by adopting an overly narrow grandfathering provision. In execution, the State Department has not provided the necessary personnel to process the onslaught of applications, and has not provided adequate guidance to export license applicants. Specifically:

- The implementing regulations treat satellites as if they were missiles, despite the fact that extensive controls of satellite programs are not necessary to prevent the transfer of missile technology. The State Department could accomplish the goal of preventing the spread of missile technology by monitoring launchers, launch technology, and technology

related to fitting the satellite on the launch vehicle. Instead, the State Department has equated satellites with missiles and treated them alike for export control and monitoring purposes. The result is that State requires DOD monitors to be present at almost all interactions (including teleconferences) with foreign customers and suppliers; making it difficult to manufacture satellites in a prompt and orderly way.

- The implementing regulations ignore the distinction the legislation makes between friendly and unfriendly countries, and very strictly control interactions with customers and suppliers from friendly countries. The same license and monitoring requirements imposed on interactions with Russians and Ukrainians are imposed on interactions with the French, Canadians, and the British.
- The State Department's expansive reading of the legislation has been coupled with a very narrow grandfathering of licensing actions taken by the Commerce Department prior to the March 15, 1999 transfer of jurisdiction. Prior to the transfer, much satellite equipment was subject to "No License Required" (NLR) status under the Commerce Department regulations. Several U.S. satellite builders had received official NLR rulings from the Commerce Department for these items. The State Department had agreed to grandfather "licenses" granted by the Commerce Department prior to March 15, 1999, but has since taken the "Catch-22" position that NLR determinations are not "licenses" and therefore are not grandfathered. The result has been that the manufacturers have had to apply to the State Department for a large number of licenses that would

not otherwise have been required, and cannot ship satellites or satellite components until the licenses are granted. An expansion of the grandfathering rule to include Commerce Department NLR determinations would go a long way toward reducing the backlog of license applications at the State Department.

## **WHAT IS NEEDED**

### **I. Speed**

Five months elapsed after the President signed the 1999 Defense Authorization Act before State Department published implementing regulations, on March 22, 1999. This delay placed in limbo not only those applications which were pending at the Commerce Department, but also those for which the Commerce Department had not issued a license because it found that no license was required. This situation is exacerbated by a shortage of licensing officers at the State Department. In 1998, the State Department received over 50,000 (non-satellite) export applications, but has only twelve licensing officers and a total staff, including administrative, compliance, management, and licensing officers, of only 45 people. By comparison, the Commerce Department staff within the Bureau of Export Administration (BXA) employs over 200 people processing only 8,000 export applications a year.

Current State Department staffing is woefully inadequate to the task at hand. Without a significant infusion of personnel, the average approval time for license applications submitted to State is expected to exceed six months. The State

Department's public response on this issue has been that since the Department's overall budget request for FY 1999 was reduced by \$350 million, language contained in the conference report to its FY1999 appropriation directing it to hire more staff to scrutinize export license applications constitutes an "unfunded Congressional mandate" that is not binding on the Department.

## **II. Focused Implementation**

The purpose of the export control language in the FY1999 National Defense Authorization Act is to prevent the transfer to this country's enemies of sensitive technology that threatens national security. The State Department's implementation of the Act has been nonresponsive to - and in some instances contrary to -- that purpose in several respects.

For example:

- The Act created distinctions between NATO members (and non-NATO allies) and all other countries for certain export control purposes. Instead of preserving and expanding this sensible distinction, the State Department's implementing regulations curtailed it. These regulations require that licenses for sale of satellite components to NATO allies (for launch by NATO allies) require that U.S. satellite manufacturers provide the Department of Defense several days' advance notice for every meeting and every teleconference with the customer, so that these routine and on-going program activities can be monitored by the Department of Defense.

- Satellite-related items that have no conceivable technology transfer issue attached to them (such as screws, washers, and batteries, unless they are identical to those commercially available) require export licenses. Instead, of endeavoring to narrow the list of items requiring an export license - and thereby complying with Congress' direction not to "penalize or harm" the U.S. satellite industry - anything related to a satellite has been swept within the orbit of its regulations.
- The State Department's implementation regulations fail to distinguish between preliminary commercial interchanges and discussions (or exchanges of information) that might involve advanced technical data. Thus U.S. companies cannot respond to routine requests for proposals (RFPs) from foreign customers - from any country -- without first obtaining a marketing license or entering into a comprehensive Technology Assistance Agreement (TAA), approved by the State Department. Because the RFP cycle is often shorter than the State Department's TAA processing time, U.S. companies have lost the opportunity to bid on certain projects.

### **III. Consistency**

The State Department's export licensing process lacks any routine or order. There are no guidelines or "Questions and Answers" that interpret the rules, and there is no mechanism in place to ensure that recurring questions get consistent answers. Thus every question to a State Department license examiner is treated as a "question of first impression." Not

only does this preclude a timely answer, but different examiners often give different answers to the same or similar questions. The lack of guidelines and consistent advice results in more export license applications and additional delays.

## **Economic Impact**

Over the past several years the time it takes to build and deliver a commercial communications satellite has decreased dramatically. Large custom-built geostationary satellites can now be delivered to customers in less than 18 months. The revolution in satellite manufacturing is taking place not only in the U.S. but in European facilities as well. However, European countries do not license satellite exports as military items. Thus, shifting U.S. satellites to the USML without improving the timeliness of the licensing process could provide six to eight months' delivery advantage to European satellite suppliers.

Most of the technologies employed by major U.S. and European satellite suppliers are available worldwide. What sets these suppliers apart, and therefore what satellite customers use as discriminators in buying a satellite, is their efficiency and their ability to respond quickly and cost-effectively to market requests. Even though the market is mature, the state of the art is rapidly improving and the sale usually goes to the company that can provide a new capability the fastest. If these advantages are taken away, the U.S. position of dominance in the satellite industry could quickly evaporate. In fact, at least two longstanding customers of one U.S. satellite manufacturer have indicated that the delays engendered by the new U.S. export control

regime may force them to seek a foreign source for their next satellite.

According to the Satellite Industry Association (SIA), an estimated 1,200 commercial satellites valued at over \$170 billion will be built and launched into orbit over the next decade. U.S. satellite manufacturers currently have a 65.3% share of the world market. If they can hold this share, the potential market for U.S.-built satellites over the next ten years would be greater than \$110 billion. Today nearly 60,000 Americans are employed in the satellite manufacturing field in high-tech, high-wage jobs. SIA estimates that the failure to process export license applications in a timely fashion could put in jeopardy an estimated \$50 billion in contracts and 25,000 jobs that are directly linked to satellite exports.

## **National Security**

U.S. satellite manufacturers' inability to maintain a leadership position in this critical industry also risks harming our technological edge in national security satellites. Between 1985 and 1995, the Defense Department's acquisition budget has declined over 60% in constant dollars. As military budgets were cut over the last decade, the roles of commercial and military development of space have been reversed. The military now relies on commercial funding for research and development (R&D) efforts that were formerly funded by the DoD. Since the export license regime extends to R&D, the lack of a sensible export control regime has national security implications.

## **Solutions**

The AIAA did not oppose the transfer of jurisdiction from the Commerce Department to the State Department, and maintains that proper export control, as stipulated in the FY 1999 National Defense Authorization Act, could be accomplished effectively by either agency. However, the current implementation of export controls poses a serious threat not only to the entire U.S. satellite manufacturing industry, but to national security as well.

There are a variety of actions the State Department could take to make the export control regime more responsive to the intent of the legislation without compromising national security concerns. Many of these could be taken immediately and would go a long way toward making the export licensing process workable.

## **I. Immediate Actions**

- (1)** Grandfather the "No License Required" determinations made by the Commerce Department prior to the March 15, 1999 transfer of jurisdiction. This would greatly reduce the current backlog of pending export license applications.
- (2)** To resolve the personnel issue, the State Department itself could fund additional positions on an interim basis until Congressional appropriations are forthcoming. Another interim solution would be to detail Commerce Department licensing personnel to the State Department.
- (3)** Change the current regulations so as to eliminate the monitoring and related requirements for NATO members and non-NATO allies. These requirements go beyond both the purpose and the language of the statute. As a practical matter, such a change would significantly ease U.S.

industry's dealings with European, Latin American, and "friendly" Asian customers and suppliers.

**(4)** Eliminate the requirement for an export license to respond to an RFP, or develop a generic "proposal license" that allows manufacturers to respond to time-sensitive RFPs that come from "friendly" countries.

**(5)** Provide a single license that covers a particular commodity or type of technical exchange for multiple satellites.

**(6)** Provide the industry with meaningful, uniform and timely guidance on export license issues through the use of published guidelines, standard forms, and "Questions and Answers."

## **II. Longer-Term Actions**

**(1)** Create a fast-track processing regime for requests of a routine nature. Fast-track processing should be completed within a few weeks and should be used where neither the commodity in question nor the destination/end-use raises legitimate national security or technology transfer concerns.

**(2)** Amend and revise the ITAR to close gaps, eliminate contradictory provisions, and clarify ambiguous provisions.

**(3)** Move toward a system of project licensing whereby the 15 to 20 separate licenses now required to export a single satellite system would be condensed into a single license. Such a system would enhance export control by increasing awareness of a given satellite program within the State Department and DoD.

**(4)** Initiate an overall modernization of the largely manual, paper-intensive review process.