



The Impact of Export Controls on the Domestic Aerospace Industry:

An AIAA Information Paper

Abstract

Export Control policies originally designed to protect sensitive technologies and capabilities from adversarial regimes are a significant detriment to the security and advanced technology industrial base in the United States. Recent studies highlight the degree that the current export control regime suffers from divided authority, undue delay in adjudication, and aid those in competition with our the domestic aerospace industry. New policies are needed to protect our most sensitive technologies for national security balanced against the recognition that a robust US Aerospace industry must have the ability to compete in order for our economy and this keystone industrial sector to continue to contribute to national security objectives as well. We support the call for the President to task the Office of Science and Technology Policy to initiate, without delay, a review of current export control policies and procedures with a view to issuing recommendations that would incorporate a unified export control authority tasked to adjudicate and respond within a specified time period with justification for its decisions based on a net analysis of threat vs. economic impact.

Background

As a response to the arms race of the Cold War, the US and its allies put into place policies designed to restrict access to advanced defense technologies by the former soviet bloc countries in an attempt to insulate the advantages we enjoy due to these technologies. Beginning as early as 1949, the US Congress passed the Export Control Act (P.L. 81-11) in recognition of the need to control the capabilities US manufacturers export. The Arms Export Control Act (AECA; P.L. 94-329) was adopted in 1976 and provided for the creation of the International Trafficking in Arms Regulations (ITAR) and the United States Munitions List (USML), which list technologies, components and services (as well as information regarding the design and manufacture of those products) that are subject to export controls under the AECA. The intended goal of ITAR was to protect US national security by fencing off access to its advanced technologies and capabilities that served, or could serve a military objective. Its implementation and usefulness have long been subjects of controversy.

The reach of ITAR and the growth of items listed on the USML were accelerated by the failed Chinese launch of a Space Systems Loral telecommunications satellite in 1996,

and the subsequent Cox Report (The United States House of Representatives Select Committee on U.S. National Security and Military/Commercial Concerns with the People's Republic of China) released in 1998. Part of the fallout from this incident and the report was the increased scrutiny placed on satellites, launch systems, and their components. To support this, broad language was included in the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (P.L. 105-261) which specifically moved commercial communications satellites technologies from the Department of Commerce's list of dual-use items, and placed them on the USML.

Some Significant Issues

Implementing jurisdiction determination between the Departments of State and Commerce and applying appropriate controls has been a difficult and frustrating task for industry, the US Government agencies, and Congress. The regulations fail to provide clear definitions and standards for what constitutes a significant military capability or national security risk. Multiple offices across different agencies oversee overlapping technology lists with little specific definition to commodity jurisdiction determinationⁱ. Most applications are sent first to the US Department of State's Department of Defense Trade Control (DTC) if the jurisdiction is uncertain. Jurisdiction determinations in 2008 were processed in an average exceeding 100 days, with disputed jurisdictions during the interagency review reach years and not months until final decisions determined. DTC has been historically understaffed and overwhelmed, with processing times for even the most routine export regularly exceeding six months. More recently, due to process changes required by National Security Presidential Determination 56 issued in 2008, those times have been greatly reduced, but complaints about increasing complexity in those provisions or limitations attached to the DTC approval may also require further action prior to exporting using the license authority.

Neither the original legislation, nor subsequent revisions have included a process to review and update components and services listed on the control list. US companies continue to be subjected to strict export control oversight even for products that do not provide capabilities on par with those manufactured by foreign competitors. Foreign manufacturers have capitalized on this oversight, and now market products as being "ITAR-free"ⁱⁱ. The result is that ITAR has created an undue trade barrier for US manufactures, who have lost significant market shareⁱⁱⁱ and their innovative edge.

This toll on economic opportunity has been justified in the past as the cost of sound national security. However, recent studies have shed a new light on this issue, and it has become apparent that US export control policies have actually reduced national security^{iv}. Our own industrial base has been weakened, and we have restricted access to our research programs by the US-educated foreign talent pool that we once tapped as a source for our innovation. We have also lost the advantage of knowing what technologies adversarial nations possess and what capabilities they have because we are

no longer providing it^v. In many cases, US control policies have forced other nations to pursue their own research and development programs that have enabled them to make advances that would not have occurred had they not been cut off from US designed and manufactured technologies. In essence we have traded the advantage of the known, for the ambiguity of the unknown.

Recommendations

To mitigate its adverse effects while preserving the intended national security benefits, the ITAR should be overhauled so that its strictest provisions are applied only to technologies that are not already readily available from countries that freely export the resulting capabilities. This means that many aerospace subsystem components that fall into this category should be specifically removed from ITAR. The Congress should adopt legislation that charges the Administration to review capabilities, technologies, and production/manufacturing capacities on an on-going basis to identify which domestic components and capabilities do not provide a significant national security advantage compared to equivalent available foreign components or capabilities. A process should be developed and implemented that provides timely updates to the ITAR-exempt components list which will allow the U.S. to maintain the highest levels of national security while maintaining a viable industrial base that can support that support US military requirement.

ⁱ “The Export Administration Act: Evolution, Provisions, and Debate (RL31832)” by the Congressional Research Service, p.25, 2007

ⁱⁱ “Defense Industrial Base Assessment: U.S. Space Industry Final Report” The Department of Defense Air Force Research Laboratory, Materials and Manufacturing Directorate, p.48, 2007

ⁱⁱⁱ “Briefing of the Working Group on the Health of the U.S. Space Industrial Base and the Impact of Export Controls” by the Center For Strategic & International Studies, p. 52, 2008

^{iv} “Beyond ‘Fortress America’ National Security Controls on Science and Technology in a Globalized World” by The National Academy of Sciences Committee on Science, Security and Prosperity, p. 3, 2009

^v “Briefing of the Working Group on the Health of the U.S. Space Industrial Base and the Impact of Export Controls” by the Center For Strategic & International Studies, p. 8, 2008