8. Space technologies and the export control system in the United States: Prospects for meaningful reform

Henry R. Hertzfeld

8.1. Executive summary

The export controls imposed by the United States are law, and the one law that receives the largest amount of criticism from the space community is the International Traffic in Arms Regulations (ITAR).\textsuperscript{457} The penalties for violating export control laws are severe.\textsuperscript{458} However, they are not the only laws in the United States that have a severe impact on foreign relations and trade. There are many others, including the Patriot Act,\textsuperscript{459} the Iran Nonproliferation Act,\textsuperscript{460} and the Department of the Treasury, Office of Foreign Assets Control.\textsuperscript{461} And there are at least ten government agencies that have regulatory responsibilities for these and other related laws. Although this paper will focus on ITAR and the Export Administration Regulations (EAR),\textsuperscript{462} even reform or changes in these laws would not significantly change the overall policy, approach, and attitude now present in the United States toward security. However, adjustments to the regulations with regard to communications satellite technology and other commercial dual-use space items would recognise the realities of a global industry, benefit domestic firms, and add to the competitiveness of those firms internationally.

Some aspects of ITAR even extend to citizens of other nations under certain circumstances. Even though this appears to be inequitable and unjust, it can be enforced through various business sanctions. The export control laws do not exclude government agencies and can also have negative consequences for some international cooperative scientific technological ventures.

Nobody can argue the fact that some very advanced technologies and some that have important strategic value should be held closely by the United States government and not be readily put on the open worldwide marketplace. However, a strict codification along with restrictions on specific technologies can lead to counterproductive results. Over time, all technologies mature and are either copied by others or are put into open and general use much faster than governments can adjust their laws and lists. Restricting the export of particular items also encourages
other nations to take advantage of the supply shortage, produce competitive products, and openly sell them, thereby hurting the industry in the nation that first invented and manufactured the capability. In effect, what began as a legitimate and valid security policy can, over time, have the dual result of decreasing national security and dampening the economic competitiveness of that nation.

The most restrictive aspects of ITAR arose from events and subsequent legislation in the late-1990s that particularly hurt the satellite manufacturing industry in the United States. There have been calls for reform of these laws since they were passed. None have succeeded. And even the most recent legislative attempts for reform do not address the core of the problem; they are focused on making the process of enforcing the laws a bit more efficient and not on taking a broader policy approach to insuring that only the most important technologies are protected while allowing the U.S. to more freely engage in the growing global economy.

Most experts as well as business interests complain bitterly about this system. But, since the events of 11 September 2001, in the United States it has become very difficult politically for a member of Congress to vote against a bill intended to "protect our security". It is unlikely that major changes in export controls, which are considered to be part of the system of national security, will occur in the near future.

Beyond ITAR, there are other trends in the United States that also have a negative effect on U.S. exports, the U.S. space sector, and the ability of the U.S. to fully engage in cooperative and competitive world trade. One example of this is the increasing difficulty non-U.S. citizens have in obtaining student visas as well as the much stricter visa and immigration regulations that have recently been issued. Other examples include: export controls and their effect on the growing commercial launch industry (both suborbital and orbital, including "tourism"); international cooperation on government space missions; and the space insurance industry.

The key unanswered issue is the effect of these restrictive laws on the continued ability of the United States to remain the technological leader in space and related sectors, which has been and is a major component of U.S. space policy. Going beyond the specifics of the space sector, will these laws isolate the United States from the growth of world trade and eventually lead to a decline in the overall leadership and importance of the U.S. in world politics, economics, and influence?

This result could occur. But an equally valid argument can be made that these types of restrictions are nothing new for the U.S. and that for many years, particularly with regard to space technologies, U.S. policy has been isolationist, restrictive, and has included many elements where space policy, security policy, and economic policy have been inconsistent and uncoordinated.