Statement of Edmund B. Rice
To the
Subcommittee on Oversight of Government Management
Committee on Homeland Security and Governmental Affairs
United States Senate
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Today's hearing and the Subcommittee's ongoing inquiry into U.S. efforts to control the transfer of militarily-sensitive technology are focused on an important issue, both for U.S. national security and for U.S. technological leadership. From both a policy and a government management viewpoint, the two U.S. export control systems have significant issues that require urgent attention from the Congress and the Executive Branch. Some are being addressed; others are not.

As a reference point for today's hearing, the Subcommittee has cited the 2007 High Risk Areas report (GAO-07-310) by the Government Accountability Office (GAO), which included "protection of technologies critical to U.S. national security interests"(pages 20-26) as an area of the federal government with significant problems. GAO identified eight programs related to protection of critical technologies. Today, the Subcommittee focuses on two: controls on transfers of dual-use technologies under the Export Administration Act and the Export Administration Regulations and controls on transfers of munitions under the Arms Export Control Act and the International Trafficking in Arms Regulations.

In its main finding, GAO contends that both export control systems have "weaknesses (that) are largely attributable to poor coordination within complex interagency processes, inefficiencies in program operations and a lack of systematic evaluations for assessing program effectiveness and identifying corrective actions." GAO also notes that "significant forces have heightened the U.S. government's challenge of weighing security concerns with the desire to reap economic benefits."

While the GAO findings are accurate, they are too narrowly focused and incomplete. Moreover, there have been significant developments since GAO issued the report in January 2007 that the Subcommittee should take into account in its inquiry. These additional relevant aspects and new developments differ between the dual-use and munitions control systems, as follows.

ISSUES REGARDING EXPORT CONTROLS ON DUAL-USE TECHNOLOGIES

The weaknesses in the U.S. controls on dual-use technologies stem primarily from the inability of the U.S. government – both Congress and the Executive Branch – to adopt policies that take into account and respond effectively to fundamental changes in the interaction between technological progress globally, the relationship between civilian and military technological developments and the post-Cold War geo-political situation. As a result, mid-level U.S. officials have struggled for years to adapt an outmoded dual-use export control system to a rapidly changing environment, without having a coherent national policy to guide them. When GAO identifies administrative and operational weaknesses in the dual-use system, most of these

problems stem from a larger failure among the highest level of U.S. policy-makers to establish a realistic and workable policy to regulate the transfer of U.S.-origin dual-use technologies.

When the Export Administration Act was last comprehensively revised, in 1979, most militarily-sensitive dual-use technologies were in the possession of the United States and a small group of U.S. allies. Most such technologies were developed by and for military organizations, with limited application to civilian uses. The U.S. and its allies had a consistent policy that governed the transfer of such technologies to other nations and they had a well-functioning and disciplined multi-lateral system, COCOM, to administer consistent controls on such transfers. That situation had been maintained for thirty years, dating from the 1949 advent of the Western Alliance's export control system, which began as an adjunct to NATO in counteracting the Soviet Union, China and their allies.

Today, none of those conditions exist. Militarily-significant dual-use technologies largely originate in the civilian sector and are later adapted to military use, as evidenced by the Defense Department's increasing acquisition of civilian-origin items for sensitive applications, now formally called Commercial Off-the-Shelf (COTS) acquisition. Such items, by definition, are not subject to control by governments. Dual-use technology is widely available globally in open commerce; very few, if any, dual-use technologies are possessed solely by the U.S. There is no multi-lateral agreement on the transfer of most dual-use technologies or items, although there are several narrowly-focused informal and tacit arrangements among some governments for cooperation in controlling dual-use technologies, but without any common policy or disciplines. These informal understandings are embodied in four multi-lateral bodies: the Wassenaar Arrangement (dual-use and certain munitions), the Nuclear Suppliers Group (nuclear technology), the Missile Technology Control Regime (medium- and long-range missiles) and the Australia Group (chemical- and biological weapons-related technology). There are also side agreements among the U.S. and some of its allies on dual-use transfers to specific countries of concern. None of these are comprehensive or disciplined control regimes.

Yet, U.S. export controls on dual-use technologies largely have not been adapted to current global realities. Increasingly, U.S. controls on dual-use items and technology are unilateral, with little coordination with even our closest allies. When GAO (correctly) questions the effectiveness of U.S. dual-use controls, it is highlighting the futility of U.S.-only attempts to regulate the transfer of items and technologies in global commerce when other major sources, as well as transfer points in global trade, do not have parallel controls, and in certain respects fundamentally disagree with the United States. Contrary to the GAO finding, this failure is not the result of weaknesses in administrative or interagency process; rather, this is a more fundamental failure of the U.S. – both Congress and the Executive Branch – to adopt a policy, in statute and regulation, that is realistic and workable in today's world.

Unfortunately, the most recent moves by the U.S. government in dual-use export control regulations indicate that the U.S. is moving even further toward unilateral, and therefore ultimately ineffective, control measures. Both initiatives have occurred after the GAO High Risk report was issued.

RECENT U.S. RE-CONTROLS FOR CHINA UNDERSCORE U.S. ISOLATION

First, in July, 2007, the Export Administration Regulations (EAR) were amended to re-control several dozen dual-use technologies that the Defense Department and the intelligence community identified as being acquired by China and applied to China's accelerating military modernization. As with the U.S. military, Chinese military capabilities have been significantly improved with the application of dual-use technologies that are freely available commercially. The goal of the U.S. regulation is to impede the application of U.S.-origin technologies to China's military and to set up a system for making distinctions between Chinese entities that are part of the Chinese defense industrial base and those that are purely civilian in orientation, for purposes of targeting U.S. controls.

While both goals are laudable and rational from a U.S. security perspective, the new U.S. controls remain unilateral. These dual-use items remain in open global commerce beyond the jurisdiction of the U.S. This is despite a U.S. diplomatic initiative, beginning in 2006, to bring our allies' export control policies into line with the new U.S. focus on denying access by the Chinese military to the identified dual-use technologies. No other government has agreed. As a result, direct bilateral U.S. trade with China has been re-regulated for these items, but China faces no restrictions in obtaining equivalent technologies from other countries. Moreover, the U.S. attempt to regulate the re-export of U.S. origin to China from third countries is hampered by the refusal of other governments to adopt parallel controls. While entities subject to U.S. controls are now required to comply with the U.S. controls, it is not illegal under other nations' laws for entities in those other countries to acquire and transfer U.S. origin items to China.

It is not unreasonable for the U.S. government to be concerned about, and take steps to stop, the transfer of dual-use items to China for its military programs. However, it is a mistake for anyone in the U.S. government to expect that purely unilateral U.S. controls will have a measurable effect on the global availability of these technologies to China. At worst, it would be a mistake to base U.S. security policy or assessments of our military posture vis-à-vis China on a mis-placed expectation that these unilateral U.S. export controls will have any significant effect on China's ability to acquire these technologies and use them for military purposes.

U.S. EFFORTS TO CONTROL TRANSFERS OF TECHNOLOGICAL KNOWLEDGE ARE FUTILE

The second development since the GAO report is the announced U.S. government goal of expanding U.S. controls on the transfer of technological knowledge to foreign nationals while in U.S. territory. Under U.S. export control parlance, such transfers are called "deemed exports", since the transfer of information to a foreign national is "deemed" to be an export because he retains the information when he leaves the U.S.

The U.S. government long has attempted to control the transfer of technological knowledge to certain foreign nationals when they are in the U.S. However, as with the new China controls, the U.S. restrictions are unilateral. In December, 2007 a U.S. government-chartered advisory panel described the difficulty of controlling the transfer of technological knowledge, especially if

attempted unilaterally. Nevertheless, work is now under way within the U.S. government to draft an expansion of the existing U.S. controls, with the primary goal of extending the regulation of the transfer of knowledge to naturalized citizens of friendly governments who earlier had been citizens of governments that are of concern to the U.S.

This developing regulatory initiative is in response to warnings from the FBI and the Office of the Director of National Intelligence of increasing espionage within U.S. territory that targets U.S. dual-use technology. Efforts to counter this threat are certainly warranted, but cannot be relied upon without other governments' cooperation. No other government has controls equivalent to the U.S. in this area.

Therefore, as with the recent re-control of certain dual-use technologies sought by the Chinese military, the expansion of controls on technology transfers to certain foreign nationals is unilateral. As a result, the coming "deemed export" regulations are likely to impose a significant compliance burden on U.S. academic and research institutions and U.S.-based corporations without having any measurable effect on the global transfer of technological information. As with dual-use items, virtually all dual-use technological knowledge is now globally dispersed and therefore un-controllable by the U.S. Moreover, any information originating in the U.S. that exists on the Internet is available for global transfer regardless of governments' controls.

U.S. MUNITIONS CONTROLS HAVE BEEN AN OBSTACLE TO DEFENSE COOPERATION

On January 22, 2008, the White House announced that the President had signed two directives that export controls on dual-use and munitions items be fundamentally revised. Of the two directives (both classified), the changes in the procedures for munitions controls are the more extensive. The White House explained the changes as necessary to remove regulatory obstacles to defense cooperation programs with our allies.

The White House announcement came as a response to rising concern in the Defense Department, among our closest allies and among U.S. defense contractors that the munitions licensing system was out of synch with U.S. policy to foster cooperative development programs with our allies and multi-national military operations. Indeed, the State Department's munitions licensing office had become overwhelmed with some 80,000 license applications and only 40 licensing staff. Long delays ensued, negatively impacting the development of multi-national defense systems and the ability of U.S. forces to operate with our allies in the field. Worse, some license decisions negatively affected ongoing U.S. defense programs with our allies.

In contrast to the problems with the dual-use control system, the munitions controls deficiencies were more specific: controls had not been adjusted to accommodate U.S. defense policy. The defense cooperation and interoperability policies were in effect, but the control system lagged. The White House directive on munitions carries the promise of resolving much of the difficulty. However, implementation is now the key question, requiring continued attention by senior U.S. officials. A previous effort to revise munitions controls was started by the Bush White House in its first term, only to run into the ground in the early 2000's due to bureaucratic intransigence

and lack of follow-through. As a result, the problems with cooperation and interoperability became acute. Completion of this second attempt is now crucial.

A key element of improvement would be the implementation of a "project" or "program" license for munitions transfers. Under this proposal, a defense project with an ally would be approved and the necessary technology transfers identified. Individual transfers would occur under an overall project license to the approved defense partners. This would remove the need for thousands of individual licenses under the current regulations. Such a proposal is a key element of a set of recommendations made in March, 2007 by a coalition of U.S. organizations on behalf of U.S. defense contractors who have run into licensing obstacles in carrying out their responsibilities in U.S. cooperative defense projects with our allies.

U.S. EXPORT CONTROLS AFFECT DEFENSE POSTURE AND TECHNOLOGICAL LEADERSHIP

GAO focuses on administrative and operational weaknesses in the export control systems, principally in interagency relationships. That view is too narrow. The more fundamental issues relate to the failures (1) to adjust U.S. dual-use controls to the realities of open global trade in such technologies and the isolation of the U.S. controls from other countries', including our closest allies, and (2) to update munitions controls to support U.S. defense policies in cooperative development programs with our allies and multi-national operations in the field.

The impact of these disconnects is four-fold. First, unilateral dual-use controls impose significant compliance burdens on U.S.-located companies that are not faced by companies in other countries. This translates into a competitive disadvantage for U.S. technology firms in global markets. Purchasers of dual-use technologies can obtain equivalent items and information from non-U.S. sources in virtually every situation. Over time, unilateral U.S. controls serve to strengthen the performance of non-U.S. firms in global markets and weaken the performance of U.S. firms. While some U.S. officials are well aware of this impact, the policy-making system for dual-use controls does have a mechanism to take such effects into account. Any accommodation of market realities is episodic. This is the real management failure of the dual-use system.

Second, both the dual-use and munitions control systems have not been geared to consider the effect of controls on the defense industrial base, which now includes both defense contractors and commercial firms that supply off-the-shelf items for defense purposes. All such firms must be able to survive in the commercial marketplace, but export controls often are an obstacle to a successful business plan. Defense Department acquisitions no longer are the sole determinant of long-term survival for the defense industrial base. Current pending reforms in the control systems are essential to improving the survivability of the defense industrial base.

Third, the increasingly unilateral character of U.S. export controls, particularly in the dual-use area, threatens U.S. technological leadership. As U.S. controls increasingly restrict the interaction of U.S. companies globally and the ability of U.S. academic and research institutions to attract and educate the most talented students from countries that are subject to controls, both the affected commercial transactions and the students move to non-U.S. sources. Over time,

commercial innovation and scientific advances shift away from the U.S. Funding follows. Non-U.S. firms and academic institutions take the lead and the U.S. is left behind. This is not theory: already commercial research and development in several dual-use areas are moving out of the U.S., driven out in part by U.S. attempts to control technological flows. Academic leadership will follow as controls are expanded on transfer of knowledge.

Fourth, U.S. security policy becomes grounded in a mis-placed reliance on controls on technology transfer. Qualitative military superiority, a central element of U.S. defense strategy, assumes that the U.S. will maintain a technological edge over our adversaries. This is a two-part strategy: to continually advance U.S. military technology and to retard that of our adversaries. The increasingly strident warnings in the annual reports on Chinese military advances are one indication that the assumption of U.S. superiority in technology is becoming less reliable. The U.S. is trying to expand and tighten controls on Chinese access to militarily-significant dual-use technology. Yet we do not have the cooperation of even our closest allies in this effort. Just as we mis-judged the ability of North Korea and Iran to acquire dual-use technology and apply it to their weapons programs, so we are depending on an unreliable and ultimately failing export control system to restrict technology to a perceived antagonist in the western Pacific theatre.

These effects are the more significant management failures related to export controls. The Executive Branch is moving to address some of the administrative and regulatory weaknesses in the dual-use and munitions systems. However, thus far the larger policy questions remain unresolved.