

**GAO**

Testimony

Before the Subcommittee on Terrorism,  
Nonproliferation, and Trade, Committee  
on Foreign Affairs, House of  
Representatives

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## EXPORT CONTROLS

# Vulnerabilities and Inefficiencies Undermine System's Ability to Protect U.S. Interests

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Highlights of [GAO-07-1135T](#), a testimony before the Subcommittee on Terrorism, Nonproliferation, and Trade, Committee on Foreign Affairs, House of Representatives

## Why GAO Did This Study

In controlling the transfer of weapons and related technologies overseas, the U.S. government must limit the possibility of sensitive items falling into the wrong hands while allowing legitimate trade to occur. Achieving this balance, however, has become increasingly difficult due to redefined security threats and an increasingly globalized economy. The export control system is a key government program intended to balance U.S. interests. GAO has identified and reported on many weaknesses and challenges in the export control system.

The export control system is a complex system involving multiple departments, laws, and regulations. It is governed primarily by the State Department, which regulates arms exports, and the Commerce Department, which regulates dual-use exports that have both military and civilian applications.

GAO has made a number of recommendations aimed at improving the export control system, but many have yet to be implemented. This statement focuses on three key areas: (1) weaknesses and challenges that have created vulnerabilities in the U.S. export control system, (2) inefficiencies in the export licensing process, and (3) State's and Commerce's lack of assessments on the effectiveness of their controls.

[www.gao.gov/cgi-bin/getrpt?GAO-07-1135T](http://www.gao.gov/cgi-bin/getrpt?GAO-07-1135T).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Ann Calvaresi-Barr at (202) 512-4841 or [calvaresibarra@gao.gov](mailto:calvaresibarra@gao.gov).

## EXPORT CONTROLS

# Vulnerabilities and Inefficiencies Undermine System's Ability to Protect U.S. Interests

## What GAO Found

For over a decade, GAO has documented vulnerabilities in the export control system's ability to protect U.S. security, foreign policy, and economic interests. Two key weaknesses relate to the most basic aspects of the system's effectiveness. First, State and Commerce have yet to clearly determine which department controls the export of certain sensitive items. Unclear jurisdiction lets exporters—not the government—determine which export restrictions apply and the type of government review that will occur. Not only does this create an unlevel playing field among U.S. companies, it also increases the risk that items will fall into the wrong hands. Second, a lack of clarity on exemption use has limited the government's ability to ensure that unlicensed exports comply with export laws and regulations. These weaknesses compound an already challenged enforcement community, which has had difficulty coordinating investigations, balancing multiple priorities, and leveraging finite resources.

State's initiatives to facilitate defense trade by reducing the time it takes to process export license applications have generally not been successful. For example, D-Trade, State's new automated application processing system, has not yet achieved anticipated efficiencies. Overall, processing times have increased—from a median of 13 days in 2002 to 26 days in 2006. Also, at the end of 2006, State's backlog of applications reached its highest level—more than 10,000 open cases. While Commerce's license processing times have been relatively stable, the overall efficiency of its processing is unknown.

Despite the existence of known vulnerabilities, neither department has conducted systematic assessments of its export control system. Federal programs need to reexamine their priorities and approaches and determine what corrective actions may be needed to ensure they are fulfilling their missions in the 21<sup>st</sup> century. Given their export control responsibilities, State and Commerce should not be excused from this basic management tenet.

Ultimately, GAO's work demonstrates both the ineffectiveness and inefficiency of the export control system—a key concern that compelled GAO to designate the effective protection of technologies critical to U.S. national security interests as a new high risk area. In its 21<sup>st</sup> century challenges report, GAO has identified the need for basic reexamination of programs established decades ago. Given the importance of the system in protecting U.S. national security, foreign policy, and economic interests, it is necessary to assess and rethink what type of system is needed to best protect these interests in a changing environment.

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Mr. Chairman and Members of the Subcommittee:

Thank you for inviting me here today to discuss the U.S. export control system, a key component of the U.S. government's efforts to protect critical technologies while allowing legitimate defense trade. As you know, the U.S. government controls the transfer of weapons and related technologies to other countries and foreign companies. In doing so, the government must consider U.S. national security, foreign policy, and economic interests and strike a balance among these interests. Achieving such a balance, however, has become increasingly difficult due to a redefinition of security threats after the September 2001 terrorist attacks and an increasingly globalized and high-tech economy. This changing environment raises concerns about the ability of government programs, which were established decades ago, to protect critical technologies. These concerns, along with a body of GAO work on weaknesses in the export control system and related federal programs, prompted GAO early this year to designate the effective protection of technologies critical to U.S. national security interests as a high-risk area warranting strategic examination.<sup>1</sup>

Within the safety net of government programs to protect critical, defense-related technologies, the export control system is particularly complex as it involves multiple agencies, laws, and regulations. This system is governed primarily by the Departments of State and Commerce. State is responsible for regulating arms exports<sup>2</sup> while Commerce is responsible for regulating exports of dual-use items, which have both military and civilian applications. Exports subject to State's regulations generally require a license, unless an exemption applies. Many Commerce-controlled items do not require a license for export to most destinations. Both departments, however, are responsible for limiting the possibility of exported items falling into the wrong hands while allowing legitimate trade to occur.

We have made a number of recommendations to address the weaknesses and challenges we have identified in the U.S. export control system, but many have yet to be implemented. My statement today focuses on three key areas: (1) weaknesses and challenges that have created vulnerabilities in the U.S. export control system, (2) inefficiencies in the export licensing

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<sup>1</sup>GAO, *High-Risk Series: An Update*, GAO-07-310 (Washington, D.C.: January 2007).

<sup>2</sup>"Arms" refers to defense articles and services as specified in 22 U.S.C. §2778.

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process, and (3) State's and Commerce's lack of assessments on the effectiveness of their controls. In addition, the appendix contains summaries of our export control-related reports issued from fiscal year 2000 to date, along with information on the status of the implementation of our recommendations by the various departments involved in the system. A list of related products that we have issued since the mid-1990s is also included.

My statement is based on GAO's extensive body of work on the export control system, including information from our on-going review of the arms export control system. We conducted our work in accordance with generally accepted government auditing standards.

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## Summary

For over a decade, we have reported on weaknesses and challenges that have created vulnerabilities in the U.S. export control system. Two key weaknesses relate to the most basic aspects of the system. First, State and Commerce have yet to clearly determine which department controls the export of certain sensitive items. Jurisdictional disputes are often rooted in the departments' differing interpretations of regulations and inadequate coordination. Second, a lack of clarity on exemption use has limited the government's ability to ensure that unlicensed exports comply with export laws and regulations. These weaknesses compound an already challenged enforcement community, which has difficulty in coordinating investigations, balancing multiple priorities, and leveraging finite resources.

To help facilitate defense trade, State has sought to reduce the amount of time it takes to process export license applications. However, streamlining initiatives have generally not been successful and processing times have increased in recent years—from a median of 13 days in 2002 to 26 days in 2006. Also, at the end of 2006, State's backlog of applications reached its highest level of more than 10,000 open cases. While Commerce's license application processing times have been relatively stable, the overall efficiency of Commerce's process is unknown, in part due to its limited assessments. Commerce's assessments are limited to only the first steps in its application review process and not the review process as a whole.

State and Commerce can provide little assurance about the overall effectiveness of their respective export control systems. In managing their systems, neither department has conducted systematic assessments that would provide a basis for determining what corrective actions may be needed to ensure they are fulfilling their missions. Without such

assessments, the departments are ill-equipped to adapt to the changing demands of the 21st century.

## Background

The U.S. export control system for defense-related items involves multiple federal agencies and is divided between two regulatory bodies—one for arms and another for dual-use items, which have both military and commercial applications (see table 1).

**Table 1: Roles and Responsibilities in the Arms and Dual-Use Export Control Systems**

| Principal regulatory body                                | Mission   | Statutory authority                            | Implementing regulations                  |
|--|---|--|---|
| State Department's Directorate of Defense Trade Controls | Regulates export of arms by giving primacy to national security and foreign policy concerns   | Arms Export Control Act <sup>a</sup>           | International Traffic in Arms Regulations |
| Commerce Department's Bureau of Industry and Security    | Regulates export of dual-use items by weighing economic, national security, and foreign policy interests  | Export Administration Act of 1979 <sup>b</sup> | Export Administration Regulations         |
| <b>Other federal agencies</b>                            |   |  |   |
| Department of Defense                                    | Provides input on which items should be controlled by either State or Commerce and conducts technical and national security reviews of export license applications submitted by exporters to either State or Commerce |  |   |
| Department of Homeland Security                          | Enforces arms and dual-use export control laws and regulations through border inspections and investigations <sup>c</sup>   |  |   |
| Department of Justice                                    | Investigates any criminal violations in certain counterintelligence areas, including potential export control violations, and prosecutes suspected violators of arms and dual-use export control laws <sup>c</sup>    |  |   |

Source: GAO analysis of cited laws and regulations.

<sup>a</sup>22 U.S.C. §2751 et. seq.

<sup>b</sup>50 U.S.C. App. §2401 et. seq. Authority granted by the Act lapsed on August 20, 2001. However, Executive Order 13222, Continuation of Export Control Regulations, issued August 2001, continues the export controls established under the Act and the implementing Export Administration Regulations. Executive Order 13222 requires an annual extension and was recently renewed by Presidential Notice on August 3, 2006.

<sup>c</sup>Homeland Security, Justice, and Commerce investigate potential dual-use export control violations. Homeland Security and Justice investigate potential arms export control violations.

Implementing regulations for both State and Commerce contain lists that identify which items each department controls and establish requirements for exporting those items. Exporters are responsible for determining which department controls the items they are seeking to export and what the requirements for export are. The two departments' controls differ in several key areas. In most cases, Commerce's controls over dual-use items are less restrictive than State's controls over arms and provide less up-front government visibility into what is being exported. For example,

many items controlled by Commerce do not require licenses for export to most destinations, while State-controlled items generally require licenses to most destinations. Also, Commerce-controlled items may be exported to China while arms exports to China are generally prohibited.

In carrying out their respective export control functions, Commerce and State have different levels of workload and personnel (see table 2).

**Table 2: Case Workload and Staffing for the Dual-Use and Arms Export Control Systems for Fiscal Year 2006**

|  | Number of cases closed <sup>a</sup> | Number of positions filled <sup>b</sup> |
|--|-------------------------------------|---|
| Commerce Department's Bureau of Industry and Security    | 23,673                              | 351                                     |
| State Department's Directorate of Defense Trade Controls | 65,274                              | 64                                      |

Source: GAO analysis of Commerce and State budget documents and State licensing data (data).

<sup>a</sup>For Commerce, cases include both export license applications and commodity classification requests. For State, cases include applications for permanent exports, temporary exports and imports, agreements, license amendments, and jurisdiction determinations.

<sup>b</sup>Commerce's positions include licensing officers, enforcement agents, analysts, and other staff. State's positions include licensing officers, compliance officials, and other staff. Numbers provided do not include contractors or staff on loan from other organizations.

## Jurisdiction Disputes, Lack of Clarity on Exemption Use, and Enforcement Challenges Have Weakened the Export Control System

Our reports have clearly documented weaknesses and challenges in the export control system that point to vulnerabilities in the system and its ability to protect U.S. security, foreign policy, and economic interests. Two key weaknesses relate to the most basic aspects of the export control system: (1) whether items are controlled by State or Commerce and (2) whether items should be subject to government review prior to export.

Because State and Commerce have different restrictions on the items they control, determining which exported items are controlled by State and which are controlled by Commerce is fundamental to the U.S. export control system's effectiveness. However, as we have previously reported, State and Commerce have disagreed on which department controls certain items. In some cases, both departments have claimed jurisdiction over the same items, such as certain missile-related technologies. In another case, for example, Commerce improperly determined that explosive detection devices were subject to Commerce's less restrictive export control requirements when they were, in fact, State-controlled. Such jurisdictional disagreements and problems are often rooted in the departments' differing

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interpretations of the regulations and minimal or ineffective coordination between the departments. Until these disagreements and problems are resolved, however, exporters—not the government—determine which restrictions apply and the type of governmental review that will occur. Not only does this create an unlevel playing field and competitive disadvantage—because some companies will have access to markets that others will not, depending on which system they use—but it also increases the risk that critical items will be exported without the appropriate review and resulting protections. Despite these risks, no one has held the departments accountable for making clear and transparent decisions about export control jurisdiction.

Even when jurisdiction is clearly established, limitations exist in the government’s ability to ensure that exports exempt from licensing requirements comply with laws and regulations. While State generally requires a license for exports, some exports are exempt from licensing, such as certain arms exports to Canada. In such cases, it becomes the exporter’s responsibility—not the government’s—to ensure the legitimacy of the export. Therefore, exporters need sufficient guidance to minimize the possibility of incorrect interpretations of the regulations and improper use of an exemption to export an item. At times, State has provided conflicting information to exporters on the proper use of the Canadian exemption, which has resulted in some exporters using the exemption while others applied for licenses to export the same item.

Together, these weaknesses create considerable challenges for enforcement agencies in carrying out their respective inspection, investigation, and prosecution responsibilities. For example, obtaining timely and complete information to confirm whether items are controlled and need a license is a challenge. In one case, investigative agents executed search warrants based on Commerce’s license determination that missile technology-related equipment was controlled. Subsequently, Commerce determined that no license was required for this equipment, and the case was closed. The use of license exemptions has also raised serious concerns for enforcement officials. Homeland Security officials explained that they generally oppose licensing exemptions because items can be more easily diverted without detection, which complicates potential investigations. Justice officials similarly noted that prosecuting export violations under an exemption is difficult because of the challenges in acquiring evidence of criminal intent, given the limited “paper trail” generated under an exemption. Other enforcement challenges include difficulty in coordinating investigations among several departments, balancing multiple priorities, and leveraging finite resources.

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## Export Control System is Further Hindered by Licensing Inefficiencies

While exporters and foreign governments have complained about processing times, reviews of arms export license applications require time to deliberate and ensure that license decisions are appropriate. However, such reviews should not be unnecessarily delayed due to inefficiencies nor should they be eliminated for efficiency's sake—both of which could have unintended consequences for U.S. security, foreign policy, and economic interests. Over the last several years, State has initiated various efforts to reduce license application processing times. Yet, these initiatives have generally not been successful:

- The establishment in 2004 of D-Trade, a new automated system for processing licensing applications, has been cited as State's most significant effort to improve efficiency. However, the anticipated efficiencies have not been realized. Our current analysis of processing times for permanent export licenses does not show a significant difference between D-Trade and paper processing for fiscal years 2004 through 2006.
- State also implemented initiatives to expedite applications in support of on-going military operations. In 2005, however, we reported that only 19 percent of the applications submitted under the initiatives for Operations Enduring Freedom and Iraqi Freedom were processed within the time frames set by State. Our current work shows that even fewer cases are being processed within the department's current 2-day goal for applications in support of these operations.
- Other initiatives have not been widely used by exporters. For example, we reported that between 2000 and 2005, State had only received three applications for comprehensive export authorizations for a range of exports associated with multinational defense efforts, such as the Joint Strike Fighter.

The initiatives' lack of success is not surprising. When many of these initiatives were announced in 2000, we determined that there was no analysis of the problems that the initiatives were intended to remedy or demonstration of how they would achieve identified goals. As a result, there was little assurance that the initiatives would result in improvements to the arms export control system. State also has not implemented procedures to expedite license applications for exports to Australia or the United Kingdom, as required by a 2004 law.<sup>3</sup> Our current work shows that processing times for Australia and the United Kingdom do not significantly

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<sup>3</sup>Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, Pub. L. No. 108-375 §1225(b) (2004).

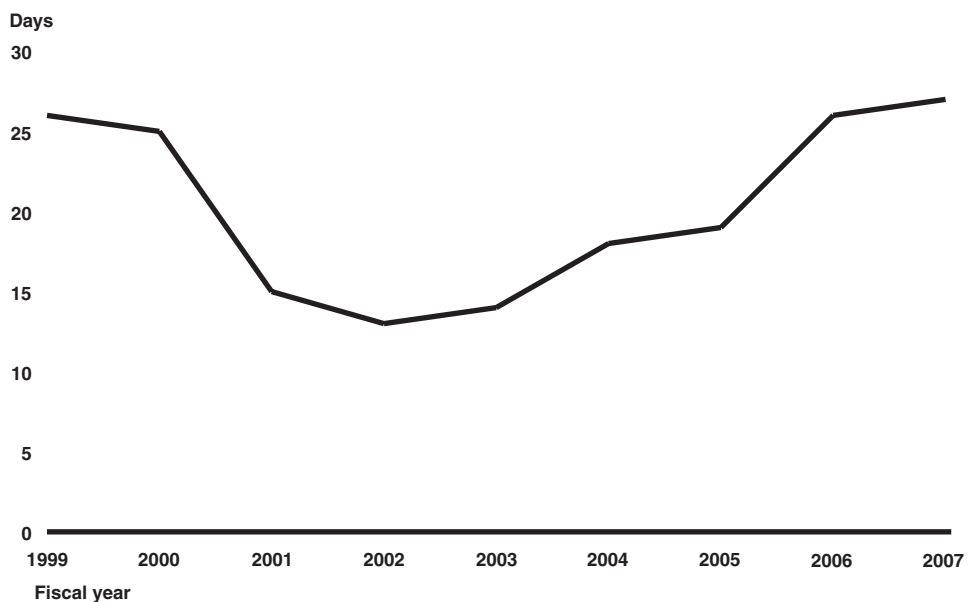


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differ from other major trading partners, taking a median of 21 days to process in fiscal year 2006.

Despite efforts to improve efficiency, State's median processing times of license applications for arms exports have been increasing since 2003, reversing a downward trend since 1999 (see fig. 1). Furthermore, State has not kept pace with a growing number of applications, which has increased almost 23 percent over the last 3 years. At the end of fiscal year 2006, the backlog reached its highest level of over 10,000 cases.

**Figure 1: Median Processing Times for Arms Export Cases, Fiscal Year 1999 through April 2007 (in days)**



Source: GAO analysis of State data.

Concerns about licensing efficiency have largely focused on State, in part, because most Commerce-controlled exports can occur without a license. In 2005, for example, only 1.5 percent of dual-use exports, by dollar value, were licensed.<sup>4</sup> However, the overall efficiency of Commerce's licensing process is unknown. For example, in assessing its license processing

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<sup>4</sup>This amount reflects only the export of items specifically identified on Commerce's control list. If an item is not listed on the control list but is subject to Commerce's regulations, it falls into the category known as EAR99. In 2005, 99.98 percent of EAR99 items were exported without licenses. Amounts do not include data for exports to Canada.

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times, which have remained relatively stable, Commerce only measures the first steps of its application review process—how long it takes to review an application internally and refer it to another agency for review. Commerce does not have efficiency-related measures for other steps in the license application review process, such as how quickly a license should be issued once other agencies provide their input, or for the review process as a whole.

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## Lack of Systematic Assessments Invites Risk

To be able to adapt to 21st century challenges, federal programs need to systematically reassess priorities and approaches and determine what corrective actions may be needed to fulfill their missions.<sup>5</sup> Given their export control responsibilities, State and Commerce should not be exceptions to this basic management tenet. However, neither department has conducted such assessments to determine overall effectiveness, despite the existence of known vulnerabilities.

While GAO has made numerous recommendations to improve the effectiveness and efficiency of the arms export control system, State has not made significant changes to its system. State does not know how well it is fulfilling its mission and what additional corrective actions may be needed since it has not systematically assessed its controls, even in light of the September 2001 terror attacks.

Commerce officials acknowledged that they had not comprehensively assessed the effectiveness of dual-use export controls in protecting U.S. national security and economic interests. Instead, they stated they conducted an ad hoc review of the dual-use system after the events of September 2001 and determined that no fundamental changes were needed. We were unable to assess the sufficiency of this review because Commerce did not document how it conducted the review or reached its conclusions.

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## Conclusions

At a time of evolving threats, changing allied relationships, and increasing globalization, it is appropriate to ask how Congress can be assured that the export control system is achieving its intended purposes—protecting

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<sup>5</sup>GAO, *21st Century Challenges: Reexamining the Base of the Federal Government*, GAO-05-325SP (Washington, D.C.: February 2005) and *21st Century Challenges: Transforming Government to Meet Current and Emerging Challenges*, GAO-05-830T (Washington, D.C.: July 13, 2005).

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national security and promoting foreign policy interests while allowing legitimate trade. To accomplish such purposes, an export control system needs to clearly define what should be controlled and how, so that it is understandable by exporters and enforceable by the government. The system should also be efficient and well managed. Our work in this area demonstrates both the ineffectiveness and inefficiency of the system—a key concern that compelled GAO to designate the effective protection of technologies critical to U.S. national security interests as a new high risk area. It is, therefore, time to step back, assess, and rethink what type of system is needed to best protect U.S. national security, foreign policy, and economic interests in a changing environment.

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## GAO Contacts and Acknowledgments

For questions regarding this testimony, please contact me at (202) 512-4841 or [calvaresibarra@gao.gov](mailto:calvaresibarra@gao.gov). Anne-Marie Lasowski and Johana R. Ayers, Assistant Directors; Ian Jefferies, Karen Sloan, and Bradley Terry made key contributions to this statement. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement.

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# Appendix: Summary of Prior GAO Reports on the U.S. Export Control System

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Over the last several years, GAO has issued numerous reports regarding the export control system. In those reports, we have identified weaknesses primarily in two areas: (1) the U.S. government's controls on exports to ensure that U.S. interests are protected and (2) the mechanisms to ensure that these exports comply with U.S. laws and regulations. We have also identified inefficiencies in the administration and management of the system. To correct these weaknesses and inefficiencies, we have made multiple recommendations. The recommendations have generally focused on clarifying regulations and guidance, improving interagency coordination, and obtaining sufficient information for decision making. As we followed up with the various departments over the last year, we determined that a number of these recommendations have not been implemented. Table 3 summarizes what we found, what we recommended, and what actions, if any, the departments have taken to implement the recommendations.

The State Department regulates overseas arms sales by U.S. companies under the authority of the Arms Export Control Act. State maintains a list of the items subject to its export controls. Prior to exporting State-controlled items to foreign companies and governments, companies generally need to obtain State-issued licenses. The Defense Department assists State by providing input on which items should be State-controlled and by conducting technical and national security reviews of export license applications. State's controls on arms exports are separate from those maintained by the Commerce Department. Commerce regulates the export of dual-use items, which have both military and commercial applications. Under the authority of the Export Administration Act of 1979, Commerce maintains its own list of items subject to its controls. Many items controlled by Commerce do not require licenses for export to most destinations. State and Commerce's controls differ in several key areas. For example, many items controlled by Commerce do not require licenses for export to most destinations, and Commerce-controlled items may be exported to China while arms exports to China are generally prohibited.

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**Table 3: Summary of 2000-2007 GAO Reports on the U.S. Export Control System**

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**Defense Trade: Analysis of Support for Recent Initiatives  
(Aug. 31, 2000, [GAO/NSIAD-00-191](#))**

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| <b>Background:</b>  | <b>GAO recommendations</b> | <b>Action taken</b> |
|---|----------------------------|---------------------|
| <p>In 1999, Defense compiled a list of 81 defense cooperation initiatives intended to enhance cross-border defense trade and investment. Several initiatives were part of an ongoing effort to reinvent the Foreign Military Sales program, while other initiatives were to help streamline processes and/or change policies considered important for defense cooperation, such as export controls. Building on the 81 initiatives, State and Defense announced 17 measures, collectively known as the Defense Trade Security Initiative (DTSI), to adjust the export control system.</p> <p><b>Main issues:</b> Defense developed its initiatives on the basis of incomplete data and inadequate analysis to determine underlying causes for problems it identified. It is unclear whether the department's initiatives will achieve the desired outcomes of improving U.S. and foreign forces' ability to operate together in coalition warfare scenarios, reducing a gap in military capabilities between the United State and its allies, and ensuring that U.S. companies successfully compete in overseas markets. Further, there was no demonstration of how DTSI measures would achieve identified goals and no analysis of existing problems. As a result, there is little assurance that any underlying problems with the U.S. export control system have been sufficiently analyzed to determine whether DTSI will remedy any existing problems.</p> | No recommendations         | Not applicable      |

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**Export Controls: System for Controlling Exports of High Performance Computing Is Ineffective (Dec. 18, 2000, GAO-01-10)**

**Background:** Exports of high performance computers exceeding a defined performance threshold require an export license from Commerce. As technological advances in high performance computing occur, it may become necessary to explore other options to maintain the U.S. lead in defense-related technology. As a step in this direction, the National Defense Authorization Act for Fiscal Year 1998 required the Secretary of Defense to assess the cumulative effect of U.S.-granted licenses for exports of computing technologies to countries and entities of concern. It also required information on measures that may be necessary to counter the use of such technologies by entities of concern.

**Main issues:** The current system for controlling exports of high performance computers is ineffective because it focuses on the performance level of individual computers and does not address the linking or “clustering” of many lower performance computers that can collectively perform at higher levels than current export controls allow. However, the act does not require an assessment of the cumulative effect of exports of unlicensed computers, such as those that can be clustered. The current control system is also ineffective because it uses millions of theoretical operations per second as the measure to classify and control high performance computers meant for export. This measure is not a valid means for controlling computing capabilities.

**GAO recommendations**

*Commerce*

- in consultation with other relevant agencies, convene a panel of experts to comprehensively assess and report to Congress on ways of addressing the shortcomings of computer export controls

*Defense*

- determine what countermeasures are necessary, if any, to respond to enhancements of the military or proliferation capabilities of countries of concern derived from both licensed and unlicensed high performance computing

**Action taken**

Commerce has implemented our recommendation.

Defense has not implemented our recommendation.

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**Export Controls: Regulatory Change Needed to Comply with Missile Technology Licensing Requirements (May 31, 2001, GAO-01-530)**

**Background:** Concerned about missile proliferation, the United States and several major trading partners in 1987 created an international voluntary agreement, the Missile Technology Control Regime (MTCR), to control the spread of missiles and their related technologies. Congress passed the National Defense Authorization Act for Fiscal Year 1991 to fulfill the U.S. government’s MTCR commitments. This act amended the Export Administration Act of 1979, which regulates the export of dual-use items, by requiring a license for all exports of controlled dual-use missile technologies to all countries. The National Defense Authorization Act also amended the Arms Export Control Act, which regulates the export of military items, by providing the State Department the discretion to require licenses or provide licensing exemptions for missile technology exports.

**Main issues:** State’s regulations require licenses for the exports of missile technology items to all countries—including Canada, which is consistent with the National Defense Authorization Act. However, Commerce’s export regulations are not consistent with the act as they do not require licenses for the export of controlled missile equipment and technology to Canada.

**GAO recommendations**

*Commerce*

- revise the Export Administration Regulations to comply with the MTCR export licensing requirements contained in the National Defense Authorization Act for Fiscal Year 1991, or
- seek a statutory change from Congress to specifically permit MTCR items to be exempted from licensing requirements
- if Commerce seeks a statutory change, revise the Export Administration Regulations to comply with the current statute until such time as a statutory change occurs

**Action taken**

Our recommendations have not been implemented. However, Commerce has a regulatory change pending that, once implemented, will require licenses for the export of dual-use missile technologies to Canada.

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**Export Controls: State and Commerce Department License Review Times Are Similar  
(June 1, 2001, GAO-01-528)**

**Background:** The U.S. defense industry and some U.S. and allied government officials have expressed concerns about the amount of time required to process export license applications.

**Main issues:** In fiscal year 2000, State's average review time for license applications was 46 days while Commerce's average was 50 days. Variables identified as affecting application processing times include the commodity to be exported and the extent of interagency coordination. Both departments approved more than 80 percent of license applications during fiscal year 2000.

**GAO recommendations**

No recommendations

**Action taken**

Not applicable

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**Export Controls: Clarification of Jurisdiction for Missile Technology Items Needed  
(Oct. 9, 2001, GAO-02-120)**

**Background:** The United States has committed to work with other countries through the Missile Technology Control Regime (MTCR) to control the export of missile-related items. The regime is a voluntary agreement among member countries to limit missile proliferation and consists of common export policy guidelines and a list of items to be controlled. In 1990, Congress amended existing export control statutes to strengthen missile-related export controls consistent with U.S. commitments to the regime. Under the amended statutes, Commerce is required to place regime items that are dual-use on its list of controlled items. All other regime items are to appear on State's list of controlled items.

**Main issues:** Commerce and State have not clearly determined which department has jurisdiction over almost 25 percent of the items that the U.S. government agreed to control as part of its regime commitments. The lack of clarity as to which department has jurisdiction over some regime items may lead an exporter to seek a Commerce license for a militarily sensitive item controlled by State. Conversely, an exporter could seek a State license for a Commerce-controlled item. Either way, exporters are left to decide which department should review their exports of missile items and, by default, which policy interests are to be considered in the license review process.

**GAO recommendations**

*Commerce and State*

- jointly review the listing of items included on the MTCR list, determine the appropriate jurisdiction for those items, and revise their respective export control lists to ensure that proposed exports of regime items are subject to the appropriate review process

**Action taken**

Commerce and State have not implemented our recommendations despite initially agreeing to do so.

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**Export Controls: Reengineering Business Processes Can Improve Efficiency of State Department License Reviews (Dec. 31, 2001, GAO-02-203)**

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**Background:** The U.S. defense industry and some foreign government purchasers have expressed concern that the arms export control process is unnecessarily lengthy. While the export licensing process can be lengthy because of foreign policy and national security considerations, other factors may also affect processing times.

**Main issues:** State lacks formal guidelines for determining which agencies and offices should review arms export license applications and does not have procedures to monitor the flow of applications through the process. As a result, thousands of applications have been delayed while no substantive review occurred and hundreds more have been lost.

**GAO recommendations**

*State*

- develop criteria for determining which applications should be referred to which agencies and offices for further review, develop formal guidelines and training for reviewing organizations so they clearly understand their duties
- establish timeliness goals for each phase of the licensing process and mechanisms to ensure that applications are not lost or delayed
- implement these recommendations before proceeding with a planned upgrade to the department's electronic business processing system

**Action taken**

Our recommendations have been implemented.

- State's electronic system does not yet accept all types of export applications.



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**Defense Trade: Lessons to Be Learned from the Country Export Exemption  
(March 29, 2002, GAO-02-63)**

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**Background:** State's export regulations do not require licenses for the export of many defense items to Canada. In 2000, the U.S. government announced plans to extend similar licensing exemptions for exports to other countries.

**Main issues:** Because of unclear guidance, some exporters have implemented the Canadian exemption inconsistently and have misinterpreted requirements to report their export activities to State. State has provided inconsistent answers to exporters and U.S. Customs Service<sup>a</sup> officials when questions were raised about the exemption's use in specific situations.

State encourages exporters to voluntarily disclose violations but relies primarily on U.S. Customs to enforce export control laws and regulations, including use of the Canadian exemption. U.S. Customs' ability to enforce the proper use of exemptions is weakened by a lack of information and resources, difficulties in investigating suspected violations, and competing demands, such as terrorism prevention and drug interdiction.

**GAO recommendations**

*State*

- review guidance and licensing officer training to improve clarity and ensure consistent application of the exemption and provide the guidance to U.S. Customs to ensure consistent application of the exemption and provide the guidance to U.S. Customs to ensure that consistent information is disseminated to exporters
- work with the Justice Department and U.S. Customs to assess lessons learned from the Canadian exemption and ensure the lessons are incorporated in future agreements

*U.S. Customs*

- assess the threat of illegal defense exports along the Canadian border and evaluate whether reallocation of inspectors or other actions are warranted to better enforce export regulations
- update, finalize, and provide guidance on inspection requirements to all inspectors

**Action taken**

State has not implemented our recommendations. In its response to our report, State said it would provide training and guidance but did not indicate how it would ensure that the guidance and training are clear and understood by those who need to use them. The department also said it would work with law enforcement agencies to assess lessons learned but did not identify how it would do so. Subsequently, State signed the treaty with the United Kingdom to allow for license-free export before the department conducted a lessons learned assessment.

U.S. Customs has implemented our recommendations.

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**Export Controls: Issues to Consider in Authorizing a New Export Administration Act (Feb. 28, 2002, [GAO-02-468T](#))**

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**Background:** The U.S. government's policy regarding exports of sensitive dual-use technologies seeks to balance economic, national security, and foreign policy interests. The Export Administration Act (EAA) of 1979, as amended, has been extended through executive orders and law. Under the act, the President has the authority to control and require licenses for the export of dual-use items, such as nuclear, chemical, biological, missile, or other technologies that may pose a national security or foreign policy concern. In 2002, there were two different bills before the 107th Congress—H.R. 2581 and S. 149—that would enact a new EAA.

**Main issues:** A new EAA should take into consideration the increased globalization of markets and an increasing number of foreign competitors, rapid advances in technologies and products, a growing dependence by the U.S. military on commercially available dual-use items, and heightened threats from terrorism and the proliferation of weapons of mass destruction.

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**GAO recommendations**

No recommendations

**Action taken**

Not applicable

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**Export Controls: Rapid Advances in China’s Semiconductor Industry Underscore Need for Fundamental U.S. Policy Review (April 19, 2002, GAO-02-620)**

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**Background:** Semiconductor equipment and materials are critical components in everything from automobiles to weapons systems. The U.S. government controls the export of these dual-use items to sensitive destinations, such as China. Exports of semiconductor equipment and materials require a license from Commerce. Other departments, such as Defense and State, assist Commerce in reviewing license applications. The United States is a member of the multilateral Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies.

**Main issues:** Since 1986, China has narrowed the gap between the U.S. and Chinese semiconductor manufacturing technology from approximately 7 years to 2 years or less. China’s success in acquiring manufacturing technology from abroad has improved its semiconductor manufacturing facilities for more capable weapons systems and advanced consumer electronics. The multilateral Wassenaar Arrangement has not affected China’s ability to obtain semiconductor manufacturing equipment because the U.S. is the only member of this voluntary arrangement that considers China’s acquisition of semiconductor manufacturing equipment a cause for concern. Additionally, U.S. government policies and practices to control the export of semiconductor technology to China are unclear and inconsistent, leading to uncertainty among U.S. industry officials about the rationale for some licensing decisions. Furthermore, U.S. agencies have not done the analyses, such as assessing foreign availability of this technology or the cumulative effects of such exports on U.S. national security interests, necessary to justify U.S. policies and practices.

**GAO recommendations**

*Commerce*

- in consultation with Defense and State, reassess and document U.S. export policy on semiconductor manufacturing equipment and materials to China:
- complete the analyses needed to serve as a sound basis for an updated policy;
- develop new export controls, if appropriate, or alternative means for protecting U.S. security interests; and
- communicate the results of these efforts to Congress and U.S. industry

**Action taken**

Commerce has not implemented our recommendations.

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**Export Controls: More Thorough Analysis Needed to Justify Changes in High Performance Computer Controls (Aug. 2, 2002, [GAO-02-892](#))**

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**Background:** High performance computers that operate at or above a defined performance threshold, measured in millions of theoretical operations per second, require a Commerce license for export to particular destinations. The President has periodically changed, on the basis of technological advances, the threshold above which licenses are required. The National Defense Authorization Act of 1998 requires that the President report to Congress the justification for changing the control threshold. The report must, at a minimum, (1) address the extent to which high performance computers with capabilities between the established level and the newly proposed level of performance are available from foreign countries, (2) address all potential uses of military significance to which high performance computers between the established level and the newly proposed level could be applied, and (3) assess the impact of such uses on U.S. national security interests.

**Main issues:** In January 2002, the President announced that the control threshold—above which computers exported to such countries as China, India, and Russia—would increase from 85,000 to 190,000 millions of theoretical operations per second. The report to Congress justifying the changes in control thresholds for high performance computers was issued in December 2001 and focused on the availability of such computers. However, the justification did not fully address the requirements of the National Defense Authorization Act of 1998. The December 2001 report did not address several key issues related to the decision to raise the threshold: (1) the unrestricted export of computers with performance capabilities between the old and new thresholds will allow countries of concern to obtain computers they have had difficulty constructing on their own, (2) the U.S. government is unable to monitor the end uses of many of the computers it exports, and (3) the multilateral process used to make earlier changes in high performance computer thresholds.

**GAO recommendations**

No recommendations

**Action taken**

Not applicable

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**Export Controls: Department of Commerce Controls over Transfers of Technology to Foreign Nationals Need Improvement (Sept. 6, 2002, GAO-02-972)**

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**Background:** To work with controlled dual-use technologies in the United States, foreign nationals and the firms that employ them must comply with U.S. export control and visa regulations. U.S. firms may be required to obtain what is known as a deemed export license from Commerce before transferring controlled technologies to foreign nationals in the United States. Commerce issues deemed export licenses after consulting with the Defense, Energy, and State Departments. In addition, foreign nationals who are employed by U.S. firms should have an appropriate visa classification, such as an H-1B specialized employment classification. H-1B visas to foreign nationals residing outside of the United States are issued by State, while the Immigration and Naturalization Service approves requests from foreign nationals in the United States to change their immigration status to H-1B.

**Main issues:** In fiscal year 2001, Commerce approved 822 deemed export license applications and rejected 3. Most of the approved deemed export licenses allowed foreign nationals from countries of concern to work with advanced computer, electronic, or telecommunication and information security technologies in the United States. To better direct its efforts to detect possible unlicensed deemed exports, in fiscal year 2001 Commerce screened thousands of applications for H-1B and other types of visas submitted by foreign nationals overseas. From these applications, it developed 160 potential cases for follow-up by enforcement staff in the field. However, Commerce did not screen thousands of H-1B change-of-status applications submitted domestically to the Immigration and Naturalization Service for foreign nationals already in the United States. In addition, Commerce could not readily track the disposition of the 160 cases referred to field offices for follow-up because it lacks a system for doing so. Commerce attaches security conditions to almost all licenses to mitigate the risk of providing foreign nationals with controlled dual-use technologies. However, according to senior Commerce officials, their staff do not regularly visit firms to determine whether these conditions are being implemented because of competing priorities, resource constraints, and inherent difficulties in enforcing several conditions.

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**GAO recommendations**

*Commerce*

- use available Immigration and Naturalization Service data to identify foreign nationals potentially subject to deemed export licensing requirements
- establish, with Defense, Energy, and State, a risk-based program to monitor compliance with deemed export license conditions; if the departments conclude that certain security conditions are impractical to enforce, they should jointly develop conditions or alternatives to ensure that deemed exports do not place U.S. national security interests at risk

**Action taken**

Our recommendations have been implemented.

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**Export Controls: Processes for Determining Proper Control of Defense-Related Items Need Improvement**  
(Sept. 20, 2002, [GAO-02-996](#))

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**Background:** Companies seeking to export defense-related items are responsible for determining whether those items are regulated by Commerce or State and what the applicable export requirements are. If in doubt about whether an item is Commerce- or State-controlled or when requesting a change in jurisdiction, an exporter may request a commodity jurisdiction determination from State. State, which consults with Commerce and Defense, is the only department authorized to change export control jurisdiction. If an exporter knows an item is Commerce-controlled but is uncertain of the export requirements, the exporter can request a commodity classification from Commerce. Commerce may refer classification requests to State and Defense to confirm that an item is Commerce-controlled.

**Main issues:** Commerce has improperly classified some State-controlled items as Commerce-controlled because it rarely obtains input from Defense and State before making commodity classification determinations. As a result, the U.S. government faces an increased risk that defense items will be exported without the proper level of government review and control to protect national interests. Also, Commerce has not adhered to regulatory time frames for processing classification requests.

In its implementation of the commodity jurisdiction process, State has not adhered to established time frames, which may discourage companies from requesting jurisdiction determinations. State has also been unable to issue determinations for some items because of interagency disputes occurring outside the process.

**GAO recommendations**

*Commerce*

- promptly review existing guidance and develop criteria with concurrence from State and Defense for referring commodity classification requests to those departments
- work with State to develop procedures for referring requests that are returned to companies because the items are controlled by State or because they require a commodity jurisdiction review

*Commerce, Defense and State*

- revise interagency guidance to incorporate any changes to the referral process and time frames for making decisions
- assess the resources needed to make jurisdiction recommendations and determinations within established time frames and reallocate them as appropriate

**Action taken**

With a limited exception, our recommendations have not been implemented. In responding to our report, State indicated it partially agreed with our recommendations, while Commerce and Defense agreed to implement our recommendations.

Commerce and Defense have added staff to assist with their respective processes. State indicated that it intends to seek additional staff to assist with its processes.

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**Nonproliferation: Strategy Needed to Strengthen Multilateral Export Control Regimes**  
(Oct. 25, 2002, [GAO-03-43](#))

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**Background:** Multilateral export control regimes are a key policy instrument in the overall U.S. strategy to combat the proliferation of weapons of mass destruction. They are consensus-based, voluntary arrangements of supplier countries that produce technologies useful in developing weapons of mass destruction or conventional weapons. The regimes aim to restrict trade in these technologies to prevent proliferation. The four principal regimes are the Australia Group, which controls chemical and biological weapons proliferation; the Missile Technology Control Regime (MTCR); the Nuclear Suppliers Group; and the Wassenaar Arrangement, which controls conventional weapons and dual-use items and technologies. All four regimes expect members to report denials of export licenses for controlled dual-use items, which provide members with more complete information for reviewing questionable export license applications. The United States is a member of all four regimes.

**Main issues:** Weaknesses impede the ability of the multilateral export control regimes to achieve their nonproliferation goals. Regimes often lack even basic information that would allow them to assess whether their actions are having their intended results. The regimes cannot effectively limit or monitor efforts by countries of concern to acquire sensitive technology without more complete and timely reporting of licensing information and without information on when and how members adopt and implement agreed-upon export controls. For example, GAO confirmed that the U.S. government had not reported its denial of 27 export licenses between 1996 and 2002 for items controlled by the Australia Group. Several obstacles limit the options available to the U.S. government in strengthening the effectiveness of multilateral export control regimes. The requirement to achieve consensus in each regime allows even one member to block action in adopting needed reforms. Because the regimes are voluntary in nature, they cannot enforce members' compliance with regime commitments. For example, Russia exported nuclear fuel to India in a clear violation of its commitments under the Nuclear Suppliers Group, threatening the viability of this regime. The regimes have adapted to changing threats in the past. Their continued ability to do so will determine whether they remain viable in curbing proliferation in the future.

**GAO recommendations**

*State*

- as the U.S. government's representative to the multilateral regimes, establish a strategy to strengthen these regimes. This strategy should include ways for regime members to
  - improve information-sharing,
  - implement regime changes to their export controls more consistently, and
  - identify organizational changes that could help reform regime activities
- ensure that the United States reports all license application denials to regimes
- establish criteria to assess the effectiveness of the regimes

**Action taken**

State has not implemented our recommendations.

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**Nonproliferation: Improvements Needed to Better Control Technology Exports for Cruise Missiles and Unmanned Aerial Vehicles**  
**(Jan. 23, 2004, GAO-04-175)**

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**Background:** Cruise missiles and unmanned aerial vehicles (UAV) pose a growing threat to U.S. national security interests as accurate, inexpensive delivery systems for conventional, chemical, and biological weapons. Exports of cruise missiles and military UAVs by U.S. companies are licensed by State while government-to-government sales are administered by Defense. Exports of dual-use technologies related to cruise missiles and UAVs are licensed by Commerce.

**Main issues:** U.S. export control officials find it increasingly difficult to limit or track dual-use items with cruise missile or UAV-related capabilities that can be exported without a license. A gap in dual-use export control authority enables U.S. companies to export certain dual-use items to recipients that are not associated with missile projects or countries listed in the regulations, even if the exporter knows the items might be used to develop cruise missiles or UAVs. The gap results from current “catch-all” regulations that restrict the sale of unlisted dual-use items to certain national missile proliferation projects or countries of concern, but not to nonstate actors such as certain terrorist organizations or individuals. Catch-all controls authorize the government to require an export license for items that are not on control lists but are known or suspected of being intended for use in a missile or weapons of mass destruction program.

Commerce, Defense, and State have seldom used their end use monitoring programs to verify compliance with conditions placed on the use of cruise missile, UAV, or related technology exports. For example, Commerce conducted visits to assess the end use of items for about 1 percent of the 2,490 missile-related licenses issued between fiscal years 1998 and 2002. Thus, the U.S. government cannot be confident that recipients are effectively safeguarding equipment in ways that protect U.S. national security and nonproliferation interests.

**GAO recommendations**

*Commerce*

- assess and report to the Committee on Government Reform on the adequacy of the Export Administration Regulations’ catch-all provision to address missile proliferation by nonstate actors; this assessment should indicate ways the provision should be modified

*Commerce, Defense and State*

- as a first step, each department complete a comprehensive assessment of cruise missile, UAV, and related dual-use technology transfers to determine whether U.S. exporters and foreign end users are complying with the conditions on the transfers
- as part of the assessment, each department conduct additional postshipment verification visits on a sample of cruise missile and UAV licenses

**Action taken**

Commerce has addressed our recommendation by revising its licensing requirement for missile technology exports.

While Commerce has taken some actions to address our recommendations, the other departments have not done so.



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**Export Controls: Post-Shipment Verification Provides Limited Assurance that Dual-Use Items Are Being Properly Used (Jan. 12, 2004, GAO-04-357)**

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**Background:** Commerce conducts post-shipment verification (PSV) checks to ensure that dual-use items arrive at their intended destination and are used for the purposes stated in the export license. To conduct PSV checks, Commerce personnel visit foreign companies to verify the use and location of exported items. PSVs serve as one of the primary means of checking whether end users are complying with conditions imposed by the license. Commerce placed conditions on nearly all approved licenses for exports to countries of concern for fiscal years 2000 to 2002.

**Main issues:** In fiscal years 2000 to 2002, Commerce approved 7,680 licenses for dual-use exports to countries of concern, such as China, India, and Russia. However, we found that during this time Commerce completed PSV checks on only 428 of the dual-use licenses it approved for countries of concern.

We identified three key weaknesses in the PSV process that reduce its effectiveness. First, PSVs do not confirm compliance with license conditions because U.S. officials often lack the technical training needed to assess compliance and end users may not be aware of the license conditions by which they are to abide. Second, some countries of concern, most notably China, limit the U.S. government's access to facilities where dual-use items are shipped, making it difficult to conduct a PSV. Third, PSV results have only a limited impact on future licensing decisions. Companies receiving an unfavorable PSV may receive greater scrutiny in future license applications, but licenses for dual-use exports to these companies can still be approved. In addition, according to Commerce officials, past PSV results play only a minor role in future enforcement actions.

**GAO recommendations**

*Commerce*

- improve technical training for personnel conducting PSV checks to ensure they are able to verify compliance with license conditions
- ensure that personnel conducting PSV checks assess compliance with license conditions
- require that the exporter inform the end user in writing of the license conditions

**Action taken**

Our recommendations have been implemented.

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**Defense Trade: Arms Export Control System in the Post-9/11 Environment  
(Feb. 16, 2005, GAO-05-234)**

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**Background:** Over the years, there have been various efforts to change the arms export control system overseen by State. One effort was the Defense Trade Security Initiative (DTSI) in 2000, which was intended to facilitate defense trade with allies in the post-Cold War environment. Given the September 2001 terror attacks, the U.S. government has had to reevaluate whether existing policies support national security and foreign policy goals.

**Main issues:** Since the September 2001 terror attacks, the arms export control system has not undergone fundamental changes because, according to State officials, the system is already protecting U.S. interests. While the system essentially remains unchanged, new trends have emerged in the processing of arms export cases. In particular, median processing times for all arms export cases began increasing in fiscal year 2003.

State and Defense have continued to implement DTSI and related initiatives primarily designed to streamline the processing of arms export licenses. According to State officials, they have not evaluated the effects of these initiatives on the export control system or revised the initiatives but maintain that the initiatives remain relevant after September 2001. Yet, applications processed under these initiatives have generally not been processed within the time frames established by State and Defense and exporters have not widely used several initiatives.

State has sought limited coordination with the agencies responsible for enforcing U.S. arms export laws—the Departments of Homeland Security and Justice—regarding initiatives designed to streamline arms export licensing. The only exceptions have been regarding proposed export licensing exemptions. Enforcement officials have raised concerns regarding licensing exemptions, including the increased risk of diversion.

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**GAO recommendations**

No recommendations

Action taken

Not applicable

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**Export Controls: Improvements to Commerce's Dual-Use System Needed to Ensure Protection of U.S. Interests in the Post-9/11 Environment**  
(June 26, 2006, GAO-06-638)

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**Background:** In regulating dual-use exports, Commerce seeks to allow U.S. companies to compete globally while minimizing the risk of items falling into the wrong hands. In so doing, Commerce faces the challenge of weighing U.S. national security and economic interests, which at times can be divergent or even competing—a challenge heightened by shifts in the security and economic environment.

**Main issues:** Commerce has not systematically evaluated whether the dual-use export control system is meeting its stated goal of protecting U.S. national security and economic interests. Specifically, Commerce has not comprehensively analyzed available data to determine what dual-use items have actually been exported. Commerce has also not established performance measures that would provide an objective basis for assessing how well the system is protecting U.S. interests. Instead, Commerce relies on limited measures of efficiency, as well as intelligence reports and meetings with industry to gauge how the system is operating. After conducting an ad hoc review of the system, Commerce officials determined that no fundamental changes were needed after September 2001, but did make some adjustments primarily related to controls on chemical and biological agents.

Omissions exist in the watchlist Commerce uses to screen export license applications. This screening is intended to identify ineligible parties or parties warranting more scrutiny. The omissions undermine the list's utility, which increases the risk of dual-use exports falling into the wrong hands. GAO identified 147 parties that had violated U.S. export control requirements, had been determined by Commerce to be suspicious end users, or had been reported by State as committing acts of terror, but these parties were not on the watchlist of approximately 50,000 names. Reasons for the omissions include a lack of specific criteria as to who should be on the watchlist and Commerce's failure to regularly review the list. In addition, a technical limitation in Commerce's computerized screening system results in some parties on license applications not being automatically screened against the watchlist.

Commerce has implemented several but not all of GAO's recommendations for ensuring that export controls on sensitive items protect U.S. interests. Among weaknesses identified by GAO is the lack of clarity on whether certain items are under Commerce's control, which increases the risk of defense-related items being improperly exported. Commerce has yet to take corrective action on this matter.

**GAO recommendations**

*Commerce*

- use available data and develop performance measures in consultation with other agencies to systematically evaluate the effectiveness and efficiency of the dual-use export control system in achieving the goal of protecting U.S. interests
- correct omissions in the watchlist and weaknesses in the screening process
- report to Congress on the status of GAO recommendations, the reasons why recommendations have not been implemented, and what other actions, if any, are being taken to address the identified weaknesses

**Action taken**

While Commerce indicated it has plans to evaluate the effectiveness of the dual-use export control system, it has not implemented them or taken action regarding the report to Congress.

Commerce has implemented the recommendations concerning the watchlist.

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**Analysis of Data for Exports Regulated by the Department of Commerce  
(Nov. 13, 2006, GAO-07-197R)**

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**Background:** GAO previously reported that Commerce has not systematically evaluated the overall effectiveness and efficiency of the dual-use export system. Commerce has not conducted comprehensive analyses of available data about items that have actually been exported from the United States. GAO made several recommendations in that report, including that Commerce should use the available data to evaluate the system's effectiveness.

**Main issues:** The data we obtained provide an overall picture of the dollar value of commodities subject to Commerce regulations and of the countries receiving these exports. Most items subject to Commerce's regulations do not require government review and approval in the form of a license prior to export. We found that less than 1 percent of exports subject to Commerce regulations were licensed in 2005.<sup>b</sup> The dollar value of unlicensed exports from the United States in 2005 was about \$624 billion, while the value of licensed exports was about \$1.2 billion.

The insight we gained from analyzing shipment data further supports the prior recommendation to Commerce that is use available data to evaluate the effectiveness of its export control system. The data could aid in determining the economic impact of current regulations and in evaluating whether exporters are complying with regulations. Commerce officials told us they periodically use portions of the data for enforcement activities but currently do not use the data to evaluate the system's effectiveness.

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**GAO recommendations**

No recommendations

**Action taken**

Not applicable

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**Export Controls: Agencies Should Assess Vulnerabilities and Improve Guidance for Protecting Export-Controlled Information at Companies**  
(Dec. 5, 2006, [GAO-07-69](#))

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**Background:** The U.S. government controls exports of defense-related goods and services by companies and the export of information associated with their design, production, and use. Globalization and communication technologies facilitate exports of controlled information, which provides benefits to U.S. companies and increases interactions between U.S. and foreign companies—making it challenging to protect such exports.

**Main issues:** Commerce and State have less oversight on exports of controlled information than they do on exports of controlled goods. Commerce’s and State’s export control requirements and processes provide physical checkpoints on the means and methods companies use to export controlled goods to help the agencies ensure such exports are made under their license terms, but the agencies cannot easily apply these same requirements and processes to exports of controlled information. Commerce and State expect individual companies to be responsible for implementing practices to protect export-controlled information. However, one-third of the companies GAO interviewed did not have internal control plans to protect export-controlled information.

Commerce and State have not fully assessed the risks of companies using a variety of means to protect export-controlled information. They have not used existing resources, such as license data, to help identify the minimal protections for such exports. As companies use a variety of measures for protecting export-controlled information, increased knowledge of the risks associated with protecting such information could improve agency outreach and training efforts.

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**GAO recommendations**

*Commerce and State*

- strategically assess potential vulnerabilities in the protection of export-controlled information using available resources, such as licensing data, and evaluate company practices for protecting such information
- improve interagency coordination in the following areas (1) provide specific guidance, outreach, and training on how to protect export-controlled information and (2) better target compliance activities on company protection of export-controlled information

**Action taken**

Commerce and State have not implemented the recommendations, but Commerce indicated it is taking steps to address them.

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**Export Controls: Agencies Should Assess Vulnerabilities and Improve Guidance for Protecting Export-Controlled Information at Universities**  
(Dec. 5, 2006, [GAO-07-70](#))

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**Background:** U.S. export control regulations allow foreign students and researchers without export licenses to partake in fundamental research, defined to mean basic research and applied research in science and engineering, the results of which are ordinarily published and shared broadly within the scientific community. U.S. policymakers recognize that foreign students and researchers have made substantial contributions to U.S. research efforts, but the potential transfer of knowledge of controlled defense-related technologies to their home countries could have significant consequences for U.S. national interests.

**Main issues:** According to university officials we interviewed, their institutions focus almost exclusively on fundamental research, which is generally not subject to export controls. By conducting fundamental research, universities can openly share and publish their research findings within a broad community that includes international students and scholars. To ensure their research remains in the public domain, most university officials said they extensively screen and review potential contracts and grants for fundamental research to ensure there are no publication or other dissemination restrictions. If export controls apply, university officials stated they sometimes reject the research contract, involve only students and scholars who can conduct the research under license exclusions, or refer such work to associated facilities that can better regulate and control foreign national access to such research. However, the universities we visited indicated that government-provided training and guidance on export regulations is limited in informing their efforts to manage and protect export-controlled information, and it does not clarify when fundamental research exclusions should apply.

While State and Commerce officials expressed concerns that universities may not correctly interpret and apply export regulations, they have not conducted an overall assessment of available trend data on technology development research and foreign participation in such research at U.S. universities to identify potential vulnerabilities. Although State and Commerce provide guidance through training seminars, agency Web sites, and telephone help desks to assist exporters in understanding and complying with regulations, officials stated that their focus is on processing export license applications—primarily from industry. Recently, Commerce established an advisory committee composed of industry and university representatives who are expected to discuss issues such as the nature of university research and its relation to export controls.

**GAO recommendations**

*Commerce and State*

- strategically assess potential vulnerabilities in the conduct and publication of academic research through analyzing available information on technology development and foreign student populations at universities
- on the basis of this assessment, coordinate efforts and improve guidance and outreach to ensure that universities understand when to apply export controls

**Action taken**

Commerce and State have not yet implemented the recommendations, but Commerce indicated it is taking steps to address them.

**Export Controls: Challenges Exist in Enforcement of an Inherently Complex System**  
**(Dec. 20, 2006, GAO-07-265)**

**Background:** A key function of the U.S. export control system is enforcement, which consists of various activities that aim to prevent or deter the illegal export of controlled defense and dual-use items and can result in apprehending violators and pursuing and imposing appropriate criminal and administrative penalties. Enforcement activities are largely carried out by Commerce, Homeland Security, Justice, and State.

**Main issues:** The enforcement of export control laws and regulations involves multiple agencies with varying roles, responsibilities, and authorities. The agencies responsible for export control enforcement conduct a variety of activities, including inspecting items to be exported, investigating potential export control violations, and pursuing and imposing appropriate penalties and fines against violators. These agencies' enforcement authorities are granted through a complex set of laws and regulations, which give concurrent jurisdiction to multiple agencies to conduct investigations.

Agencies face several challenges in enforcing export control laws and regulations. For example, agencies have had difficulty coordinating investigations and agreeing on how to proceed on cases. Coordination and cooperation often hinge on the relationships individual investigators across agencies have developed. Other challenges include obtaining timely and complete information to determine whether violations have occurred and enforcement actions should be pursued, and the difficulty in balancing multiple priorities and leveraging finite human resources.

Each enforcement agency has a database to capture information on its enforcement activities. However, outcomes of criminal cases are not systematically shared with State and Commerce, the principal export control agencies. Without information on the outcomes of criminal cases, export control agencies cannot gain a complete picture of an individual or a company seeking export licenses or discover trends in illegal export activities.

**GAO recommendations**

*Commerce, Homeland Security, and Justice*

- establish a task force to evaluate options to improve coordination and cooperation among export enforcement investigative agencies
- report the status of task force actions to Congress

*Commerce and Homeland Security*

- establish goals for license determinations

*Commerce, Homeland Security, and State*

- determine what additional training or guidance is needed on license determinations

*Commerce and Homeland Security*

- determine the feasibility of establishing a requirement for Customs and Border Protection to decrement Commerce licenses and an action plan for doing so

*Justice*

- establish formal procedures for conveying criminal export enforcement results to State and Commerce

**Action taken**

Justice and Homeland Security indicated that they are taking steps to address this recommendation.

Commerce and State have not yet implemented these recommendations. Homeland Security has implemented the recommendation concerning guidance on license determinations.

Commerce and Homeland Security have not implemented this recommendation.

Justice has implemented this recommendation.

Source: GAO analysis of prior work.

<sup>a</sup>The U.S. Customs Service is now part of the Homeland Security Department's Customs and Border Protection and Immigration and Customs Enforcement.

<sup>b</sup>Amounts do not include data for exports to Canada.

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# Related GAO Products

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*Export Controls: Challenges Exist in Enforcement of an Inherently Complex System.* [GAO-07-265](#). Washington, D.C.: December 20, 2006.

*Analysis of Data for Exports Regulated by the Department of Commerce.* [GAO-07-197R](#). Washington, D.C.: November 13, 2006.

*Export Controls: Agencies Should Assess Vulnerabilities and Improve Guidance for Protecting Export-Controlled Information at Universities.* [GAO-07-70](#). Washington, D.C.: December 5, 2006.

*Export Controls: Agencies Should Assess Vulnerabilities and Improve Guidance for Protecting Export-Controlled information at Companies.* [GAO-07-69](#). Washington, D.C.: December 5, 2006.

*Defense Technologies: DOD's Critical Technologies Lists Rarely Inform Export Control and Other Policy Decisions.* [GAO-06-793](#). Washington, D.C.: July 28, 2006.

*Export Controls: Improvements to Commerce's Dual-Use System Needed to Ensure Protection of U.S. Interests in the Post-9/11 Environment.* [GAO-06-638](#). Washington, D.C.: June 26, 2006.

*Defense Trade: Arms Export Control Vulnerabilities and Inefficiencies in the Post-9/11 Environment.* [GAO-05-468R](#). Washington, D.C.: April 7, 2005.

*Defense Trade: Arms Export Control System in the Post-9/11 Environment.* [GAO-05-234](#). Washington, D.C.: February 16, 2005.

*Nonproliferation: Further Improvements Needed in U.S. Efforts to Counter Threats from Man-Portable Air Defense Systems.* [GAO-04-519](#). Washington, D.C.: May 13, 2004.

*Nonproliferation: Improvements Needed to Better Control Technology Exports for Cruise Missiles and Unmanned Aerial Vehicles.* [GAO-04-175](#). Washington, D.C.: January 23, 2004.

*Export Controls: Post-Shipment Verification Provides Limited Assurance That Dual-Use Items Are Being Properly Used.* [GAO-04-357](#). Washington, D.C.: January 12, 2004.



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*Joint Strike Fighter Acquisition: Cooperative Program Needs Greater Oversight to Ensure Goals Are Met.* [GAO-03-775](#). Washington, D.C.: July 21, 2003.

*Defense Trade: Better Information Needed to Support Decisions Affecting Proposed Weapons Transfers.* [GAO-03-694](#). Washington, D.C.: July 11, 2003.

*Nonproliferation: Strategy Needed to Strengthen Multilateral Export Control Regimes.* [GAO-03-43](#). Washington, D.C.: October 25, 2002.

*Export Controls: Processes for Determining Proper Control of Defense-Related Items Need Improvement.* [GAO-02-996](#). Washington, D.C.: September 20, 2002.

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