

## BUREAU OF INDUSTRY AND SECURITY ANNUAL REPORT FISCAL YEAR 2005



Carlos M. Gutierrez Secretary of Commerce



David H. McCormick Under Secretary for Industry and Security



#### STATEMENT OF THE SECRETARY AND UNDER SECRETARY

We are pleased to present this report on the activities of the Department of Commerce's Bureau of Industry and Security (BIS) for Fiscal Year 2005.

It is an honor to lead the Department of Commerce and BIS in support of President Bush's agenda of service to the American people. From its unique vantage point at the intersection of industry and security, BIS plays a critical role in supporting the President's efforts to deny our enemies the means to acquire weapons of mass destruction while at the same time supporting the continued growth of America's innovation economy.

BIS brings a deep understanding of both America's security needs and American business's perspectives to its key priorities of:

- Maintaining and strengthening an adaptable and effective U.S. export control and treaty compliance system;
- Collaborating with other countries to create a more effective global export control and treaty compliance system;
- Eliminating illicit export activity outside the global export control and treaty compliance system;
- Ensuring continued U.S. technology leadership in industries that are essential to national security.

Fiscal Year 2005 was a year of accomplishment for BIS in fulfilling this critical work on behalf of the American people.

In its efforts to maintain and strengthen the dual-use export control system at the heart of BIS's mission, BIS adapted its regulations to accommodate important developments in encryption technology and worked on developing an updated high-performance computer metric for implementation in 2006. BIS also updated controls to reflect the successful conclusion of the U.S.-India Next Steps in Strategic Partnership and advances in the four multilateral export control regimes.

Over the past year, BIS continued its excellent service to American exporters, processing 8 percent more export license applications, 14 percent faster, on average, than in the previous year. In addition, BIS expanded its programs of outreach to American exporters to ensure that they had the knowledge they needed to work effectively within the system of dual-use export controls.

At the same time, BIS met its treaty compliance responsibilities by receiving and verifying 784 declarations and reports as required by the Chemical Weapons Convention, while also conducting 12 site assistance visits to help American producers meet treaty requirements.

BIS also continued its cooperation with other countries to strengthen the global export control system that underpins American security. BIS played an essential role in successful U.S.

Government efforts to strengthen the international export control regimes, in which major exporting countries coordinate their export policies for maximum effect. In addition, BIS conducted technical exchanges with 23 countries to help them develop and strengthen their own export control systems.

Fiscal Year 2005 was also a year of outstanding accomplishment in eliminating illicit export and illegal boycott activity. BIS sharpened its focus on the most dangerous dual-use items and actors, resulting in investigations leading to the criminal conviction of 31 individuals and businesses and over \$7.7 million in criminal fines. Among the most significant criminal cases in Fiscal Year 2005 was the smashing of the Asher Karni/Humayan Khan smuggling ring, which sought to send high speed electrical switches and oscilloscopes with nuclear weapons applications to Pakistan. In addition, BIS concluded 74 administrative cases and imposed \$6.8 million in administrative penalties for violations of the dual-use export control laws, as well as \$57,000 in administrative penalties for anti-boycott violations.

Finally, Fiscal Year 2005 saw continued achievement in BIS's activities in support of the defense industrial base and American technology leadership. Through the Defense Priorities and Allocations System, BIS expedited the supply of critically needed defense articles for U.S. and allied armed forces in Iraq and Afghanistan and facilitated the rebuilding of areas ravaged by Hurricane Katrina. BIS initiated or completed studies of four industries important to American defense capabilities and completed its ninth congressionally mandated report on the impact of offsets in defense trade, covering data for 1993-2003. In coordination with the Commerce Department's International Trade Administration, BIS also reviewed 62 potential foreign acquisitions of U.S. companies to ensure that the transaction did not threaten U.S. national security.

Building on these and other accomplishments, as described in this Annual Report, the men and women of the Bureau of Industry and Security move forward into Fiscal Year 2006 with a strong sense of mission and clear priorities for their important role in increasing the security and prosperity of the American people.

Carlos M. Gutterrez Secretary of Commerce David H. McCormick
Under Secretary of Commerce
for Industry and Security





# BUREAU OF INDUSTRY AND SECURITY FISCAL YEAR 2005 ANNUAL REPORT

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### **Executive Summary**

This report summarizes the activities of the Department of Commerce's Bureau of Industry and Security (BIS) during Fiscal Year 2005, from October 1, 2004, through September 30, 2005<sup>1</sup>.

#### **Highlights of Fiscal Year 2005**

Fiscal Year 2005 was a year of accomplishment for BIS as it worked to advance U.S. national security, foreign policy, and economic objectives by ensuring an effective export control and treaty compliance system and promoting continued U.S. strategic technology leadership. BIS strengthened and streamlined the U.S. dual-use export control system, expanded participation in the global system, and helped reduce illicit activity occurring outside the system. BIS also worked with the private sector to support the U.S. defense industrial and technological base.

In Fiscal Year 2005 BIS continued to adapt its policies on controls of exports and re-exports of U.S.-origin items to geopolitical, security, technological, and market developments.

- With the successful conclusion of the U.S.-India Next Steps in Strategic Partnership Initiative, BIS published a rule removing six Indian entities from the Department of Commerce Entity List and lifted certain export license requirements for exports of items controlled for nuclear proliferation reasons.
- Following extensive consultations within government and with the private sector, BIS published a rule to

strengthen and streamline controls on the export of encryption items.

BIS advanced its efforts to update the metric for controlling exports of high-performance computers to reflect the remarkable changes in computer architecture and semiconductor technology. With formal adoption of the new Weighted TeraFLOPS (WT) metric by the Wassenaar Arrangement in December 2005, BIS expects to update its regulations early in 2006.

Exporters depend on timely and accurate processing of their licenses to export controlled items. In Fiscal Year 2005, BIS continued to improve its service to exporters by processing 8 percent more license applications while reducing average processing time by 14 percent.

Fiscal Year 2005 was also a year of outstanding accomplishment in enforcing American's dual-use export control and antiboycott laws and regulations.

- BIS investigations resulted in the criminal conviction of 31 individuals and businesses, and the imposition of more than \$7.7 million in criminal fines.
- BIS also concluded 74 administrative cases and imposed \$6.7 million in administrative penalties for violations of the dual-use export control laws, along with \$57,000 in administrative penalties for antiboycott violations.
- Among the most significant cases in Fiscal Year 2005 was the smashing of the Asher Karni/Humayan Khan smuggling ring which sought to illegally export high

In accordance with past practice, this report has been prepared and is being submitted to Congress pursuant to the annual reporting requirement set forth in Section 14 of the Export Administration Act of 1979 (EAA). It should be noted, however, that this annual reporting requirement, together with the rest of the EAA, has expired, and that the President has continued the U.S. dual-use export control regime under the authority of the International Emergency Economic Powers Act. It should be further noted that some of the information included in this report fulfills reporting requirements in statutes other than the EAA.

speed electrical switches and oscilloscopes with nuclear weapons applications to Pakistan.

In Fiscal Year 2005, BIS also continued its aggressive outreach program of communication with industry and other interested parties, both in support of rule-making and to educate exporters on their responsibilities under U.S. law.

- Six Technical Advisory Committees and the President's Export Council's Subcommittee on Export Administration provided advice on export control policy.
- BIS solicited comments on potential changes to the Export Administration Regulations affecting deemed exports through publication of an advance notice of rulemaking.
- BIS reached out to industry through 45 domestic export control seminars in 17 states, 4 international seminars in 3 countries, 21 targeted sector outreach programs, and the launch of the Project Guardian outreach program.

In addition, BIS continued its role in furthering U.S. government interests in the four major export control regimes—the Australia Group (chemical and biological weapons), the Missile Technology Control Regime, the Nuclear Suppliers' Group, and the Wassenaar Arrangement (conventional arms and related dual-use items). BIS also managed and coordinated 76 bilateral technical exchanges with 23 countries to help them build their own export control systems, as required by United Nations Security Council Resolution 1540.

In Fiscal Year 2005, BIS met its treaty compliance responsibilities by receiving and verifying 784 declarations and reports as required by the Chemical Weapons Convention, while conducting 12 site assistance visits.

Finally, Fiscal Year 2005 saw continued achievement in BIS's defense industrial base and advocacy activities.

- BIS's worked closely with industry and relevant U.S.
  Government agencies to utilize the Defense Priorities
  and Allocations System to expedite the supply of defense articles needed to support U.S. and allied armed
  forces, and to facilitate the rebuilding of areas ravaged
  by Hurricane Katrina.
- BIS continued to provide national security assessments of industries and programs, as well as completing its annual report on the impact of offsets in defense trade.
- In coordination with the Commerce Department's International Trade Administration, BIS also reviewed 62 potential foreign acquisitions of U.S. companies to ensure that the transaction did not threaten U.S. national security.
- BIS also assisted U.S. companies in obtaining some \$3.2 billion worth of contracts to supply foreign governments with defense articles.

Through these activities and more, as detailed in this Annual Report, the men and women of the Bureau of Industry and Security bolstered American security while supporting American economic growth and innovation. These accomplishments provide a solid foundation for BIS's continued efforts on America's behalf in Fiscal Year 2006.





# Chapter 1: Export Control Policy and Regulations

#### **Mission**

The mission of the Bureau of Industry and Security (BIS) is to advance U.S. national security, foreign policy, and economic objectives by ensuring an effective export control and treaty compliance system and promoting continued U.S. strategic technology leadership.

Dual-use items subject to BIS regulatory jurisdiction have predominately civilian uses, but also have military and proliferation applications, or may be used in terrorist activities. BIS has primary responsibility for implementing U.S. export control policy on such dual-use commodities, software and technology. To accomplish its objectives, BIS seeks to promulgate clear, concise and timely changes to the Export Administration Regulations (EAR) setting forth license requirements and licensing policy for the export of dual-use items.

One principal area of focus is implementation of export controls agreed in the four major multilateral export control regimes—the Australia Group (chemical and biological nonproliferation), the Missile Technology Control Regime, the Nuclear Suppliers Group, and the Wassenaar Arrangement (conventional arms and dual-use goods and technologies). Other BIS regulations support U.S. foreign policy and national security interests, including regulations that implement sanctions policies, specify licensing agency jurisdictional authority for a given item, and clarify the rights and obligations of U.S. exporters.

In the development of regulatory policy, BIS consults closely with the President's Export Council Subcommittee on Export Administration, which met three times



Under Secretary David McCormick addresses the Bureau of Industry and Security's Update Conference on Export Controls and Policy.

during Fiscal Year 2005 to discuss the impact of technological developments on existing U.S. and foreign export controls, the foreign availability of controlled items, and related security and economic issues.

BIS also consults closely with industry and academia through its six Technical Advisory Committees (TACs). The TACs provide valuable input regarding industry perspectives on trends in technology and the practicality and likely impact of export controls. In addition, BIS often publishes proposed rules to provide the exporting community an opportunity to review and comment on regulations before they take effect.

<sup>&</sup>lt;sup>1</sup>Please see Chapter 5 for additional information.

# Accomplishments in Fiscal Year 2005

In Fiscal Year 2005, BIS adapted its dual-use export control policies to important geopolitical, security, technological, and market developments.<sup>2</sup>

#### **Country-Specific Policies**

#### China

China continues to be one of the largest foreign markets for controlled items. In Fiscal Year 2005, nearly 10 percent of all licenses were for Chinese end-users. While China is a party to several nonproliferation treaties, including the Nuclear Non-Proliferation Treaty, the Chemical Weapons Convention, the Biological Weapons Convention, and joined the Nuclear Suppliers Group, it is not a member of the Wassenaar Arrangement, the Missile Technology Control Regime, or the Australia Group. Exports to China are also controlled by a number of statutory provisions.

In Fiscal Year 2005, BIS continued to build on the enduse visit understanding with China reached at the 2004 meeting of the joint Commission on Commerce and Trade to expand U.S.-China civilian high-technology trade, consistent with U.S. security requirements. As a result, BIS was able to reduce the average processing time for a license to a Chinese end-use by some 25 percent.

#### India

BIS played a major role in the successful completion of President Bush's Next Steps in Strategic Partnership (NSSP) initiative with the Government of India. Steps taken by India in the NSSP enabled BIS to revise controls on exports to India, leading to the elimination of export licensing requirements for approximately \$45 million in annual trade. In addition, the U.S.-India High Technology Cooperation Group (HTCG), chaired by the Under Secretary of Commerce for Industry and Security and the Indian Foreign Secretary, met in the fall of 2004 to continue its work in identifying and eliminating tariff and non-

tariff barriers to high technology trade between the United States and India.

#### Republic of Korea

BIS continued to work with the Republic of Korea (ROK) on issues relating to the Kaesong Industrial Complex (KIC) in North Korea. Many ROK companies have announced plans to begin production in the KIC using goods or technologies controlled for export to the DPRK. Thus, in Fiscal Year 2005, BIS worked with the ROK on export licensing issues raised by the export of items into the KIC. For example, BIS provided the ROK with a comprehensive list of dual-use items the United States controls unilaterally for anti-terrorism reasons. BIS also provided commodity classifications for the many types of equipment under consideration for shipment from the ROK, conducted a training program for ROK industry on export controls, and worked with the ROK on the training program.

#### **Commodity-Specific Policies**

#### Deemed Exports

BIS published an Advanced Notice of Proposed Rulemaking (ANPR) seeking public comments on recommendations on revisions to deemed export policy recommended by the Department of Commerce's Office of Inspector General. (Deemed exports are transfers of controlled technology to foreign nationals in the United States.) BIS received over 300 public comments in response to the ANPR. BIS has carefully reviewed all of the public comments on the ANPR and will publish a proposed rule early in 2006.

#### Encryption

Following extensive consultations with other U.S. Government agencies, Technical Advisory Committees, and industry representatives, BIS on December 9, 2004, published a rule change to streamline and strengthen controls on the export and reexport of encryption items subject to the EAR. Highlights of this change include recognition of the 2004 expansion of the European Union (EU) in License Exception ENC, clarification of the criteria by

<sup>&</sup>lt;sup>2</sup> Please see Appendix B for more details.



Deputy Assistant Secretary for Export Administration Matthew Borman addresses the Bureau of Industry and Security's Update Conference on Export Controls and Policy.

which the licensing requirement to "government endusers" outside the EU "license-free zone" is determined, a reduced requirement to notify the U.S. Government of changes to encryption source code posted on the Internet pursuant to License Exception TSU, and explicit authority for the U.S. Government to request additional information about an encryption product following the initial 30-day License Exception ENC review period.

#### High Performance Computers

In Fiscal Year 2005, the United States, in active consultation with its allies and key Wassenaar Arrangement partners, co-sponsored a proposal adopted by the December 2005 Wassenaar Plenary to replace the existing millions of theoretical operations per second (MTOPS)-based Wassenaar controls on computer hardware, software and technology with updated controls based on the new Weighted TeraFLOPS (WT) metric. MTOPS has been

used to measure computer performance for export control purposes for more than a decade. Because of remarkable changes in computer architecture and semiconductor technology, MTOPS has developed significant shortcomings when applied against modern computer system architectures. The revised composite theoretical performance formula is Adjusted Peak Performance (APP) as measured in units of WT.

### **Industry Input on Export Control Policy and Regulations**

BIS continues to partner with U.S. industry to ensure that the private sector's views on export control policy issues and regulations are fully considered. Six Technical Advisory Committees (TACs), covering information systems, materials, materials processing equipment, regulations and procedures, sensors and instrumentation, and transportation and related equipment advised BIS on export control issues, including proposed revisions to multilateral export control lists, licensing procedures that affect export controls, and assessments of foreign availability of controlled products. TAC industry representatives are selected from firms producing a broad range of goods, technologies, and software. TACs meet on a quarterly basis.

#### Goals for Fiscal Year 2006

In Fiscal Year 2006, BIS will continue to update policies and regulations to meet the needs of a rapidly changing world. BIS plans to implement the new WT metric for high-performance computers and complete work on revisions to the deemed export regulations. BIS will also continue it focus on updating regime regulations and adapting policies toward key countries such as India and China.





# Chapter 2: Export Licensing

#### Mission

A core part of the BIS mission as mandated by Executive Order 12981 is to take a leadership role in administering an effective U.S. export control system by processing dual-use license applications in a consistent, accurate, and timely manner. BIS works closely with the Departments of Defense, Energy, and State, and the Central Intelligence Agency in performing its export license processing and related functions.

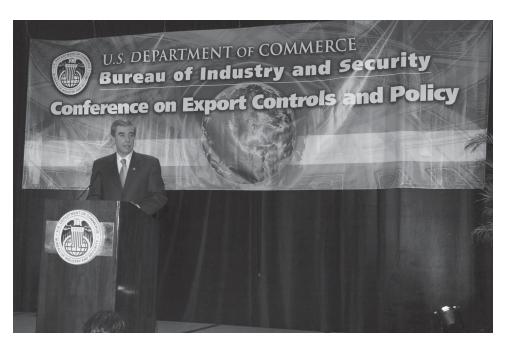
# Accomplishments in Fiscal Year 2005

#### **Export License Processing**

In Fiscal Year 2005, BIS closed out 16,719 export license applications (compared to 15,534 in Fiscal Year 2004) worth approximately \$36 billion, in an average process-

ing time of 31 days. BIS approved 14,100 license applications, returned 2,380 applications without action, and denied 239 applications. Although the number of license applications processed was 8 percent higher than in Fiscal Year 2004, the average processing time was 14 percent shorter than in Fiscal Year 2004. Indeed, over the past five years, the number of license applications processed has risen over 50 percent, while the average processing time has declined by 22 percent.

In Fiscal Year 2005, the highest value of approvals—\$23 billion— was for the export of crude oil in return for equivalent amounts of refined product. The highest number of approvals under one commodity classification was for thermal imaging and light intensifying cameras (ECCN 6A003), with 2,413 approved applications worth \$68.2 million. Approvals for Germany and Japan accounted for 49 percent of all ECCN 6A003 approvals.



Secretary of Commerce Carlos Gutierrez addresses the Bureau of Industry and Security's Update Conference on Export Controls and Policy.

The People's Republic of China was the destination for the largest number of approved licenses. BIS approved 1,303 licenses for exports to China, worth more than \$2.4 billion; 31 percent of these were for so-called "deemed exports," licenses to transfer knowledge to Chinese nationals working in U.S. companies and universities. The average processing time for all approved licenses to China was approximately 25 percent less in Fiscal Year 2005 than in Fiscal Year 2004.

### Cases Escalated for Dispute Resolution

Under Executive Order 12981, the Operating Committee —with mem-

bership from the Departments of Commerce, Defense, Energy and State—is tasked with resolving license applications when there is disagreement among the relevant U.S. Government agencies as to the appropriate licensing action. In Fiscal Year 2005, 165 cases were escalated to the Operating Committee for dispute resolution, down from 269 cases in the previous year. Of these 165 cases, 15 were further escalated to the policy-level Advisory Committee on Export Policy for resolution. The average time for decision for escalated cases in Fiscal Year 2005 was 64 days, well within the 90-day time-frame established in Executive Order 12981.



Assistant Secretary for Export Administration Peter Lichtenbaum addresses the Bureau of Industry and Security's Update Conference on Export Controls and Policy.

#### **Deemed Exports**

BIS closed out 707 deemed export license applications in Fiscal Year 2005, a decrease of almost 30 percent from Fiscal Year 2004. This decrease is due to several factors, including the relicensing of approximately 350 deemed export licenses as technology exports, decreased hiring of foreign nationals within key U.S. technology sectors, and the reduced quota for H1-B visas for foreign technology workers.

In Fiscal Year 2005, deemed export license processing times improved to an average of 40 days, five percent faster than the Fiscal Year 2004 processing time of 42

days and a 35 percent improvement over the Fiscal Year 2003 processing time of 62 days. Most deemed export cases continue to involve the transfer of technology associated with the semiconductor manufacturing, telecommunications, and computer industries that is controlled for national security reasons.

Due to the new requirement for export licenses for technology related to chemical and biological equipment included on the Australia Group (AG) Common Control List to all non-AG participating countries, there was an increase in deemed export licenses for technology con-

trolled for chemical and biological weapons proliferation reasons to Country Group B nationals.

## **Special Comprehensive Licenses/ Internal Control Program**

In an effort to streamline licensing procedures while protecting U.S. national security, BIS has developed a number of special programs:

• BIS conducted 15 reviews of company Special Comprehensive Licenses (SCLs), issued to qualified exporters and consignees in place of individual export licenses. Parties to an SCL must have appropriate export management and internal compliance programs (ICPs) that include procedures and safeguards to ensure that each export and reex-

port meets the terms and conditions of the SCL and is in accordance with applicable provisions of the EAR.

- In response to the growing U.S. exports to China, BIS developed ICP guidelines specific to Chinese SCL consignees. The guidelines are tailored for companies that export and/or reexport to China and provide an overview of compliance requirements and best practices with an emphasis on license condition compliance.
- BIS also developed ICP guidelines for the commercial night vision and thermal imaging industry. Night vision/thermal imaging companies submit over 2,500

license applications for similar products and destinations in a given year. Using the guidelines, BIS worked directly with six companies to assist them in the pre-SCL application process and the development of their ICPs. The first SCL for the export of commercial night vision and thermal imaging equipment was approved in October 2005.

 In addition, BIS conducted five Export Management and Compliance Program (EMCP) reviews of corporate written compliance programs. An EMCP review consists of a comparison of a company's written compliance program procedures and internal controls against EMCP Guidelines as they relate to the company's export and/or reexport transactions.

#### **Technical Reviews of Encryption Exports**

With the exception of encryption commodities and software that require a license to certain government endusers (e.g., 'network infrastructure' products, source code, products customized or tailored for government end-use or to customer specification), commercial encryption products that have met a 30-day technical review requirement may be exported and reexported to both government and non-government end-users outside the designated terrorism-supporting countries under the License Exception ENC. Such encryption technical reviews address a wide range of information technology products, including commodities and software for desktop and laptop computers, wireless handheld devices and access points, database and other business software, virtual private networking (VPN), storage area networking (SAN), network protection, and telecommunications infrastructure equipment.

In Fiscal Year 2005, BIS processed approximately 1,600 technical review requests for over 2,600 controlled encryption products, components, and source code items. Of the 2,600 controlled products, 2,099 were encryption products and components submitted for 30-day technical review for potential exclusion from the government enduser licensing requirement. 88 percent of these encryption products and components were classified as "unrestricted" or "mass market" encryption commodities and

software, making them eligible for export and reexport without a license to both government and non-government end-users in most countries.

BIS also approved 636 license applications for the export or reexport of "restricted" encryption products (e.g., high-end routers and other network infrastructure equipment) and technology outside the United States and Canada to non-sanctioned end-users outside Country Group E1. The overall estimated value of these authorized transactions was \$61.2 million.

#### **Short Supply Controls**

BIS implements the Congressionally-mandated controls set forth in the Export Administration Act of 1979, as amended (EAA). The EAA authorizes the President to prohibit or curtail the export of goods "where necessary to protect the domestic economy from the excessive drain of scarce materials and to reduce the serious inflationary impact of foreign demand." In addition, BIS administers export controls under the Energy Policy and Conservation Act, the Mineral Leasing Act, the Naval Petroleum Reserves Production Act, the Outer Continental Shelf Lands Act, and the Forest Resources Conservation and Shortage Relief Act, as amended. Under these provisions, BIS approved 27 licenses for the export of crude oil in Fiscal Year 2005, amounting to 408 million barrels, to be returned in an equivalent amount of refined product. No licenses were approved for the export of unprocessed timber. No licenses were denied for either crude oil or western red cedar.

In Fiscal Year 2005, BIS revised its policy concerning certain exports from the United States of western red cedar (Thuja plicata) described under ECCN 1C988). Under the revised policy, Western red cedar timber harvested from state or federal lands in the United States that has been cut into poles, posts, or pilings for use as such, is not prohibited for export or subject to an export license requirement if they are intended to be treated with preservative outside the United States. Treatment with preservative includes dipping such western red cedar poles, posts, or pilings in, or coating, impregnating, or injecting them with, a chemical preservative.

Section 14(a)(13) of the EAA requires a report on any short supply monitoring program conducted pursuant to the EAA or Section 812 of the Agricultural Act of 1970. Information from the U.S. Department of Agriculture on its monitoring activities during Fiscal Year 2005 is included in Appendix H of this report.

### **Simplified Network Application Process System**

The Simplified Network Application Process (SNAP) system enables exporters to transmit certain submissions directly to BIS via the Internet. From a single secure Web site, exporters can certify and submit license applications, reexport authorizations, commodity classification requests and Agriculture License Exception Notices. SNAP has over 14,563 registered users representing over 7,146 companies. BIS received 18,881 export and reexport license applications, commodity classification requests and other submissions via the SNAP system in Fiscal Year 2005—an increase of 22 percent over Fiscal Year 2004. Of these submissions, 14,405 were license applications, 4,296 were commodity classification requests and 180

were miscellaneous submissions. In addition, BIS made significant progress in developing the SNAP replacement software application, referred to as SNAP Redesign (SNAP-R). SNAP-R, which was demonstrated at the October 2005 BIS Update Conference, will improve security and ease of use; support on-line submission, search, and review of license and classification supporting documents and technical specifications; and provide the ability to search application information online.

#### Goals for Fiscal Year 2006

In Fiscal Year 2006, BIS will work to sustain and advance its efforts to process export license applications and related documents effectively and efficiently, while developing new avenues for exporters to enhance their compliance programs. In late Fiscal Year 2006 or early in Fiscal Year 2007, BIS also plans to replace the existing SNAP with the Simplified Network Application Process Redesign (SNAP-R). BIS will develop and implement a plan to migrate exporters to SNAP-R with a minimum of disruption.





# **Chapter 3: Export Enforcement**

#### **Mission**

A top BIS priority is the enforcement of U.S. dual-use export control and antiboycott laws and regulations. BIS's Export Enforcement arm is recognized for its expertise, professionalism, integrity, and accomplishments. BIS performs its enforcement mission through preventive enforcement activities as well as by identifying and apprehending violators, pursuing appropriate criminal sanctions, and imposing administrative penalties including fines and denials of export privileges.



Assistant Secretary for Export Enforcement Darryl Jackson.

BIS special agents in nine offices in or near Boston, New York City, Chicago, Miami, Dallas, Houston, Los Angeles, San Jose, and Washington, D.C., conduct investigations of possible export control violations with the goal of "keeping the most sensitive goods out of the most dangerous hands." BIS focuses its efforts on the most significant international export enforcement threats facing the U.S. today: the proliferation of Weapons of Mass Destruction (WMD), terrorism and state sponsors of terror, and diversions of dual-use goods to unauthorized military uses.

BIS also maintains Export Control Officers (ECOs) in Abu Dhabi, Beijing, Hong Kong, Moscow, and New Delhi. ECOs conduct end-use checks to confirm the *bona fides* of foreign parties to export transactions and ensure compliance with the law, assist foreign export control officials in issues of mutual interest, and coordinate foreign export enforcement matters.

BIS also administers and enforces the U.S. antiboycott laws and regulations which direct U.S. businesses not to participate in unsanctioned foreign boycotts of countries friendly to the U.S. BIS uses three tools to accomplish its antiboycott responsibilities: (1) enforcing the antiboycott provisions; (2) educating and assisting U.S. businesses regarding compliance with the antiboycott law; and (3) assembling and examining information concerning international boycotts.

# Accomplishments in Fiscal Year 2005

#### **Preventive Enforcement**

To help stop potential violations before they occur, BIS conducts preventative enforcement activities including detaining shipments suspected of constituting violations of the EAR, recommending denial of license applications, and preventing exposure of foreign nationals to controlled technology. Other types of preventive enforcement activity include issuing warning letters, monitoring compliance with the conditions on particular export licenses, and performing outreach to educate industry on export controls.

BIS also conducts end-use checks (EUCs) to verify that targeted commodities will be or have been properly used by the proper end-users. Pre-License Checks (PLCs) are used to determine if an overseas person or firm is a suit-

able party to a transaction involving controlled U.S. origin goods or technical data. A Post-Shipment Verification (PSV) confirms whether or not goods exported from the United States actually were received by the party named on the license or other export documentation, and whether the goods are being used in accordance with the provisions of that license. During Fiscal Year 2005, BIS conducted 761 end-use checks in 73 countries, consisting of 256 PLCs and 505 PSVs.

In cases in which BIS is unable to verify the existence or authenticity of an end-user, intermediate consignee, ultimate consignee, or other party to an export transaction, BIS may add the person to the Unverified List (UVL). This constitutes a red-flag for exporters. In Fiscal Year 2005, BIS added six entities to the UVL.

BIS also encourages parties who may have been involved in violations of the EAR to submit a Voluntary Self Disclosure (VSD) to BIS's Office of Export Enforcement. VSDs are an important indicator of parties' intent to bring themselves into compliance with the EAR and may provide important BIS important information on illicit proliferation networks. A VSD is considered a "great weight" mitigating factor in the settlement of BIS administrative cases.

#### **Dual-Use Investigations**

BIS investigations lead to both criminal convictions and administrative penalties. In Fiscal Year 2005, BIS investigations resulted in the criminal conviction of 31 individuals and businesses and the imposition of over \$7.7 million in criminal fines for export and antiboycott violations, compared to 33 convictions and \$2.9 million in criminal fines in Fiscal Year 2004. In Fiscal Year 2005, BIS investigations also resulted in the completion of 74 administrative cases against individuals and businesses and the imposition of \$6.8 million in administrative penalties, compared to 69 cases and 6.2 million in administrative penalties in Fiscal Year 2004.

These investigations and penalties result from BIS's focus on the most significant dual-use export enforcement threats facing the United States: the proliferation of weapons of mass destruction, terrorism and State spon-



Secretary of Commerce Carlos Gutierrez and Assistant Secretary for Export Enforcement Darryl Jackson following Mr. Jackson's swearing-in ceremony.

sorship of terror, and diversions of dual-use goods and technology to unauthorized military uses. BIS had considerable success in pursuing such cases in Fiscal Year 2005, including:

#### **WMD Proliferation**

- Nuclear Detonators to Pakistan: In August 2005, Asher Karni, a South African businessman, was sentenced to three years' imprisonment after pleading guilty to conspiracy and export violations arising out of his unlawful exports to Pakistan of high speed electrical switches and oscilloscopes with nuclear weapons applications. Karni had ordered the switches purportedly for a South African hospital for use in medical equipment, but he arranged their onward delivery to a Pakistani businessman, Humayan Khan. Khan was indicted and is currently in Pakistan. Khan and his company, Pakland, are currently subject to a BIS Order denying their export privileges under the EAR. In February 2005, BIS issued an Order denying their export privileges for 180 days and renewed the Order in August 2005.
- Chemical and Biological Weapons-controlled Toxins to Syria: On August 5, 2005, Maine Biological Labs (MBL) was criminally fined \$500,000, and placed on five years' corporate probation for various charges including conspiracy, illegal exports, false statements, and antiboycott offenses in connection with unlicensed



A triggered spark gap, which is an electrical switch with nuclear weapons applications. Triggered spark gaps were sought by Asher Karni for illicit delivery to Pakistan. A BIS investigation prevented the illegal export of these items and resulted in Karni's imprisonment.

exports of virus toxins to Syria. On July 22, 2005, six former MBL employees were sentenced for these offenses to terms of imprisonment between 9 to 12 months and fines between \$5,000-\$30,000. Two other employees were previously convicted and sentenced to probation for these offenses in 2004. This case is the second BIS case in which criminal convictions have been obtained for antiboycott violations. See "Antiboycott Activities" section for a discussion of the antiboycott aspects of this case.

#### Terrorism/State Sponsors of Terror

• Night Vision Equipment to Hezbollah: In August 2005, Naji Antoine Abi Khalil pled guilty to criminal charges of providing support to a terrorist organization, for attempting to export BIS and State Department controlled night vision units to Greece, knowing they would be shipped to the foreign terrorist organization Hezbollah in Beirut, Lebanon. An associate of Khalil, Tomer Grinberg of Tober Group, Inc., a Brooklyn freight forwarder, pled guilty in July 2005 to conspiring to complete this export. Both defendants are awaiting sentencing. This is one of the first BIS cases charg-

- ing an exporter with providing material support to a terrorist organization.
- Terrorist Support/Computer Exports to Libya and Syria: In April 2005, Infocom Corporation and its principals, the five Elashi brothers, were criminally convicted of dealing in the funds of a Specially Designated Terrorist, a high ranking member of Hamas. This was the second of two trials for Infocom and the Elashis arising out of this case. In July 2004, during the first part of this two-part trial, Bayan Elashi, Ghassan Elashi, Basman Elashi, and Infocom Corporation, along with brothers Hazim Elashi and Ihsan Elashi, were also convicted on charges they violated the Export Administration Regulations and the Libyan Sanctions Regulations for conspiring to export computers and computer equipment to Libya and Syria. Each of the five brothers was also found guilty of conspiracy to file false Shipper's Export Declaration forms and making false statements. All of the defendants except Ihsan Elashi were also convicted on money laundering charges. One of the Elashis was also previously convicted in 2002 for violating a BIS Temporary Denial Order and was sentenced to 48 months imprisonment.

#### Diversions to Military Use

- Thermal Insulation Blankets to China: In May 2005, Vladimir Alexanyan, owner of Valtex International, was sentenced to a \$12,000 criminal fine and three years' probation in connection with attempted exports and false statements involving the attempted export of satellite/missile thermal insulation materials to the Chinese Academy of Space Technology in Beijing. BIS had previously rejected Valtex's export license application for these items, which were seized in San Francisco before being exported from the U.S. BIS assessed Alexanyan and Valtex administrative penalties of \$88,000 and \$77,000 respectively, and both were denied export privileges to China for five years.
- National Security Controlled Electronics to China: In July 2005, Jian Guo Qu was sentenced to 46 months' imprisonment, two years' supervised release, and a

\$2000 criminal fine for conspiring to export more than \$500,000 worth of controlled electronics components to China. In September 2005, a second defendant, Ning Wen, was found guilty at trial on similar violations and is awaiting sentencing.

A complete summary of export control cases resulting in convictions and/or administrative penalties in Fiscal Year 2005 is included in Appendix D of this report.

#### Antiboycott Activities

During Fiscal Year 2005, five companies agreed to pay civil penalties totaling \$57,000 to settle charges that they violated the antiboycott provisions of the EAR. Most of the settlements reached during the Fiscal Year involved alleged violations of the prohibition against furnishing information about business relationships with or in Israel, or with companies on boycotting countries' blacklists. Other settlements involved failure to report receipt of requests to engage in restrictive trade practices or boycotts.

Of particular note in this Fiscal Year, Maine Biological Labs (MBL) (mentioned above) was investigated for antiboycott as well as dual-use violations. In addition to the dual-use violations noted above, MBL pled guilty to three criminal violations of the antiboycott provisions of the EAR when it knowingly and willfully furnished prohibited business information and failed to report the receipt of a boycott-related request in connection with the sale of virus toxins to Syria.

#### Goals for Fiscal Year 2006

In Fiscal Year 2006, BIS intends to continue strengthening its efforts to investigate and prosecute the most significant dual-use and antiboycott violations. As part of this effort, BIS will move to implement the recommendations of the Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction regarding enhanced BIS engagement in countering WMD proliferation. BIS will continue to refine targeting to ensure that its efforts and resources are directed to the highest-impact cases involving the most significant threats, and will increase targeted outreach to key industry sectors and manufacturers of particularly sensitive commodities, as well as the freight forwarding community. In addition, BIS will intensify its efforts to investigate businesses that intentionally violate the antiboycott provisions of the EAR in pursuit of an unfair competitive advantage.





# Chapter 4: Industry Outreach Activities

#### **Mission**

Achieving BIS's goal of increasing the efficiency and effectiveness of the export control system requires a true partnership between government and the private sector. America's firms must be America's first line of defense against the diversion of sensitive items into the wrong hands. To help forge this partnership at the heart of America's security and prosperity, BIS conducts an aggressive outreach program through which BIS provides timely information to U.S. industry regarding the updating of export controls and means of compliance with the EAR.

Accomplishments in Fiscal Year 2005

BIS engaged closely with industry in Fiscal Year 2005 through, domestic seminars, and conferences, increased public-private partnerships, international outreach, and other targeted programs.

#### Seminars and Conferences

In Fiscal Year 2005, BIS reached more than 3,300 people through 45 domestic export control outreach seminars, conducted in 17 states. These seminars provided guidance to new and experienced exporters regarding the EAR, changes in export policy, and licensing procedures. These programs included a one-day seminar program addressing the major elements of the U.S. dual-use export control system and an intensive two-day program that provided a more comprehensive presentation of exporter obligations under the EAR.

BIS also held its 18<sup>th</sup> annual Update Conference on Export Controls and Policy. Every year, the Update Conference brings together government officials and industry

representatives to discuss new U.S. export control policies, regulations, and procedures. Update 2005, held in Washington, D.C., attracted more than 800 registered attendees, speakers and members of foreign delegations.

In addition to these seminars and the annual Update Conference, BIS partnered with a number of public and private-sector organizations to introduce the mission and services of BIS to audiences in specific business and technology sectors. These partnerships also provide BIS with greater insight into technology and market develop-



Secretary of Commerce Carlos Gutierrez.

ments in key sectors of the economy. BIS supported 21 of these programs, which reached more than 900 people, through company visits and formal conference presentations.

BIS also, conducted four international export control outreach seminars. These seminars provided important export control-related information to companies in other countries that use U.S.-origin parts and components for manufacturing and assembly; companies that use U.S.-

origin systems, software, or technology to develop foreign-made products; and companies that reexport U.S.origin items. Approximately 500 total participants attended the two BIS conferences in India, as well as the single conferences in the Republic of Korea, and Singapore.

#### Targeted Outreach

In Fiscal Year 2005, BIS provided targeted outreach on topics of specialized interest. BIS's Deemed Exports and Electronics Division participated in 120 activities to inform participants of the rationale and requirements for complying with the transfer of sensitive knowledge to non-American citizens or legal permanent residents. For the first time, more than 30 percent of this outreach was targeted at the academic and research community. BIS also increased outreach on this issue to government national laboratories and agencies with research capabilities.

In the area of encryption, BIS conducted instructional seminars to raise industry and government awareness of updates to U.S. encryption export policies and regulations in Austin, Texas; Arlington, Virginia; Dallas, Texas; Newport Beach, California, and Washington, DC.

BIS also increased outreach to the freight forwarding community, in recognition of its key role in supply chain security. BIS prepared new outreach materials, updated the BIS Web site's sections on freight forwarder compliance, and established a dialog with national freight forwarder associations.

Finally, BIS conducted a webcast seminar on proposed amendments to its CWC Regulations (CWCR). This innovative and cost-effective approach resulted in more than 100 chemical facility representatives participating in the seminar via the Internet.

#### Guardian Program

BIS also maintains a cooperative relationship with the business community through outreach programs sponsored by the BIS's Export Enforcement arm. In Fiscal Year 2006, BIS launched Project Guardian, which focuses on specific goods and technologies sought by overseas proliferation networks. BIS contacts U.S. manufacturers and exporters of these goods and technologies to apprise them of the acquisition threat and to solicit cooperation in identifying and responding to suspicious foreign purchase requests. BIS conducted 15 Project Guardian outreach contacts in the first 30 days of the program, and will move to full implementation of Project Guardian in Fiscal Year 2006.

#### Counseling

BIS regulatory specialists assisted more than 100,000 people in one-on-one counseling sessions through phone calls, visits, and e-mails to BIS's Outreach and Educational Services Division in Washington, D.C., and Western Regional Office in California. These sessions provide guidance on regulations, policies and practices that affect a particular company's export operations and help increase compliance with U.S. export control regulations.

BIS's e-mail notification program provides exporters with information about BIS seminars and training programs. More than 7,000 people have signed up to receive monthly e-mails on upcoming BIS outreach events. In addition, exporters may sign up to receive e-mail notification of Web site changes, regulations, press releases, and other information relating to the administration of export controls, at the BIS web site, www.bis.doc.gov.

#### Compliance with Antiboycott Regulations

In Fiscal Year 2005, BIS's Office of Antiboycott Compliance responded to 927 requests from companies for guidance on compliance with the antiboycott regulations. During the same period, BIS officials made 13 public presentations on the antiboycott regulations to exporters, manufacturers, financial services institutions, freight forwarders, and attorneys involved in international trade. BIS also provided extensive counseling to individual companies with specific boycott problems.

#### Goals for Fiscal Year 2006

In Fiscal Year 2006 BIS plans to continue the important work of outreach to the business community and the general public. Specifically, BIS plans to: schedule more than 40 programs at various locations around the country, in addition to the annual Update Conference on Export

Controls and Policy planned for Washington, D.C., in October 2006; increase its international outreach efforts; continue targeted outreach in areas such as deemed exports and encryption; and fully implement Project Guardian.





### Chapter 5: International Regimes and Treaty Compliance

#### **Mission**

BIS's priorities include maintaining and strengthening an adaptable and effective U.S. export control and treaty compliance system, as well as integrating non-U.S. actors to create a more effective global export control and treaty compliance system. Consequently, BIS works to strengthen multilateral coordination and compliance with multilateral export control regimes and relevant treaties.

BIS plays an important role in the U.S. Government's efforts to develop and refine the control lists and operational guidelines for four major nonproliferation regimes \_ the Australia Group (chemical and biological weapons), the Missile Technology Control Regime, the Nuclear Suppliers Group, and the Wassenaar Arrangement (conventional arms and related dual-use items).

BIS also administers the industry compliance program for the Chemical Weapons Convention (CWC), which bans the development, production, stockpiling, and use of chemical weapons and provides for an extensive verification regime to ensure adherence to its terms. In addition, BIS works actively with other CWC States Parties and the Technical Secretariat of the Organization for the Prohibition of Chemical Weapons to ensure that the provisions of the CWC are being implemented in a rigorous, analytically sound, and equitable manner by all 175 States Parties to the CWC.

# Accomplishments in Fiscal Year 2005

In Fiscal Year 2005, BIS played a leading role in U.S. Government efforts to encourage the four multilateral regimes to:

• address the threat of international terrorism,



(From left to right) Office of International Programs Director Mi-Yong Kim, Assistant Secretary for Export Administration Peter Lichtenbaum, and Deputy Assistant Secretary for Export Administration Matthew Borman participate in a forum with government officials and business representatives from Malaysia.

- promote the uniform interpretation and enforcement of multilateral controls,
- strengthen regime end use/user controls (also known as "catch-all" controls),
- refine technical control parameters to focus on items of specific proliferation concern,
- expand multilateral control lists to reflect technological developments,
- reach out to non-regime members to enlist their support for multilateral nonproliferation goals, and assist states in complying with their treaty obligations.

## Multilateral Export Control Regimes Australia Group

The Australia Group (AG) was formed in 1985 to help stem the proliferation of chemical and biological weapons through harmonized export controls. With the addition of Ukraine in 2005, the AG now includes 39 countries and the European Union.

In Fiscal Year 2005, the AG welcomed Israel's announcement that it would adhere to AG guidelines as a nonmember state. To encourage even broader international regime adherence, AG participants developed outreach strategies and pledged to assist countries in meeting their United Nations Security Council Resolution 1540 obligations to establish effective laws to prevent chemical, nuclear and biological proliferation. To address concerns regarding dispersal devices for biological agents, the AG agreed to add the most threatening aerosol sprayers to the biological equipment control list. Existing controls on pumps and genetically modified organisms were also revised to assist enforcement and help exporters better understand their obligations. As part of the AG's ongoing effort to keep its control lists up to date and scientifically relevant, participants also agreed to consider the addition of up to 25 more biological agents to the control lists.

Domestically, the U.S. expanded AG controls on dual-use chemical and biological equipment to all destinations except to AG partners. This measure was taken to conform with guidelines requiring that exports of AG-listed commodities be controlled to all destinations except those determined to have proven nonproliferation credentials.

#### Missile Technology Control Regime

The Missile Technology Control Regime (MTCR) was created in 1987 to limit the proliferation of missiles capable of delivering weapons of mass destruction. The MTCR currently includes 34 member countries, all of which have agreed to coordinate their national export controls to prevent missile proliferation.

Two MTCR Plenaries were held in Fiscal Year 2005. Both plenaries focused on regional nonproliferation and outreach to non-MTCR countries. Members also agreed to a number of critical modifications to the MTCR Equipment, Software, and Technology Annex, which lists all items controlled by the Regime, to adapt it to security-related and technological developments. Annex changes covered accelerometers, guidance equipment incorporating magnetometers, internal combustion engines de-

signed for use in Unmanned Aerial Vehicles, graphite, accelerometers, liquid propellant tanks, and environmental chambers.

#### **Nuclear Suppliers Group**

The Nuclear Suppliers Group (NSG) was formally established in 1992 and now includes 45 member countries to include Croatia which was admitted to the NSG in Fiscal Year 2005.

At the annual plenary meeting, the NSG discussed President Bush's major nuclear nonproliferation initiatives and pledged to cooperate in the implementation of United Nations Security Council Resolution 1540. NSG members also committed to new standards in exporting sensitive items to non-member countries and countries that do not adhere to International Atomic Energy Agency obligations, and agreed to changes to clarify and liberalize the controls for machine tools and measurement equipment.

#### Wassenaar Arrangement

The Wassenaar Arrangement (WA) was founded in 1996 to replace the East-West technology control program under the Coordinating Committee for Multilateral Export Controls (COCOM) that ended in 1994.

At the December 2004 plenary, WA members agreed to admit Slovenia. They also reaffirmed their intention to intensify efforts to prevent the acquisition of conventional arms and dual-use goods and technologies by terrorist groups and organizations. In this context, members exchanged information on national measures taken in accordance with the 2003 decision to tighten controls on the exports of Man Portable Air Defense Systems (MANPADS) and again called on other countries to apply similar principles in order to prevent proliferation of these dangerous weapons.

In order to keep pace with advances in technology and developments in international security, WA members agreed to strengthened controls on certain types of polymeric substances, jig grinders and magnetometers. They also took into account advances in technology and market availability, and rationalized export controls in the areas

of electronic components and telecommunications equipment. Particular attention was given to items that might be used for terrorism purposes.

#### **Treaty Compliance**

#### **Chemical Weapons Convention**

The United States ratified the Convention on the Prohibition of the Development, Production, Stockpiling, and Use of Chemical Weapons and their Destruction (known as the Chemical Weapons Convention or CWC) on April 25, 1997. Thus far, 175 states have become States Parties to the CWC.

The CWC bans the development, production, stockpiling, or use of chemical weapons by its signatories and provides for an extensive verification regime to ensure compliance. Its verification functions are the responsibility of the Organization for the Prohibition of Chemical Weapons (OPCW). Approximately 200 inspectors, drawn from States Parties to the CWC, inspect military and industrial chemical facilities throughout the world to verify compliance with the CWC's nonproliferation provisions.

The CWC requires certain commercial chemical facilities to submit data declarations that include information on chemical production, processing, and consumption activities. In the United States, BIS compiles this information and forwards it to the OPCW Technical Secretariat (TS), which is charged with carrying out verification functions under the CWC. As of September 2005, the OPCW TS had conducted 896 routine inspections at commercial and other related sites in 72 countries. Since the CWC's entry into force, the United States has hosted approximately one-third of all CWC inspections.

During Fiscal Year 2005, BIS received and verified 784 declarations and reports from 618 plant sites. Of this number, 757 were forwarded to the OPCW TS, 16 were maintained for internal information purposes, and 11 were returned without action. BIS also hosted nine onsite inspections of U.S. facilities engaged in chemical-related activities. In addition, in response to requests from U.S. companies, BIS conducted 12 site assistance visits (SAVs) to assist industry in the preparation for

OPCW TS inspections, and provide advice on methods for identifying and protecting confidential business and national security information.

BIS worked with the Government of Romania to develop outreach materials to assist States Parties that have not yet done so adopt national measures to fully implement the provisions of the CWC. This Implementation Assistance Programme (IAP) provides States Parties requesting assistance with electronic and hard-copy materials focusing on the implementation of a national CWC program. The IAP was distributed to more than 100 States Parties and presented to 14 States Parties in South America, Asia, and Africa.

Finally, the CWC's ninth Conference of States Parties adopted a decision to increase uniformity in the submission of declarations for Schedule 2 and Schedule 3 chemicals that are produced in captive use situations.

#### **Biological Weapons Convention**

The Biological Weapons Convention (BWC) prohibits developing, producing, stockpiling, or otherwise acquiring or retaining of biological agents or toxins for non-peaceful purposes. The BWC entered into force in 1975 and currently has 154 States Parties.

In Fiscal Year 2005, BIS took an active role in strengthening international cooperation with BWC principles and implementation efforts, with a focus on promoting common understanding and effective action on the content, promulgation, and adoption of codes of conduct for scientists.

## U.S. Additional Protocol to The IAEA Safeguards Agreement

The U.S. Government signed the Additional Protocol to the U.S.-IAEA Safeguards Agreement in 1998. Additional Protocols enhance the IAEA's capabilities to detect proliferation activities by expanding state declaration and inspection requirements to the entire nuclear fuel-cycle. The Senate provided its advice and consent to ratification of the U.S. Additional Protocol on March 31, 2004. Legislation necessary to implement the Additional Protocol is pending in Congress.

Once implementing legislation is in place, BIS anticipates being designated Lead Agency for all subject commercial activities and locations not licensed by the Nuclear Regulatory Commission (NRC) or an NRC Agreement State (i.e., equipment manufacturing, public and private research and development, imports of specially-designed equipment, and hard-rock uranium mines). In addition to collecting declarations from U.S. industry, BIS will operate an Additional Protocol Reporting System (APRS) to process BIS and NRC declarations, and aggregate all agency information into a U.S. national declaration for transmission to the IAEA. BIS has developed draft regulations, completed development of a beta-version of the APRS and begun testing declaration forms (including those subject to NRC regulations) with industry.

#### Goals for Fiscal Year 2006

In Fiscal Year 2006, BIS will continue to support U.S. Government efforts to improve the effectiveness of the multilateral export control regimes and relevant treaties.

#### **Multilateral Export Control Regimes**

In Fiscal Year 2006, BIS will work to expand outreach activities, combat terrorism through more effective awareness and stricter controls on sources of chemicals and biological agents, and control brokering and other intermediary agent activities in the Australia Group. BIS will continue to participate in the U.S. Government's work with international regime partners to strengthen

regional nonproliferation efforts and outreach to non-MTCR countries and regional international organizations in order to promote broad adherence to missile nonproliferation objectives in the Missile Technology Control Regime. In the year ahead, BIS plans to participate in the U.S. Government's work with international regime partners in the implementation of President Bush's major nuclear nonproliferation initiatives and to develop new standards in exporting sensitive items to non-member countries and countries that do not adhere to IAEA obligations in the Nuclear Suppliers Group. Work will continue during Fiscal Year 2006 on proposals to strengthen commitments regarding anti-terrorism initiatives and advance proposals for reform of the Wassenaar Arrangement control lists.

#### **Treaty Compliance**

In Fiscal Year 2006, BIS will work to complete and distribute a revised and translated (Spanish and French) version of the Chemical Weapons Convention IAP. BIS also plans to issue amendments, as needed, to clarify the scope of the CWCR, provide alternate data submission options for declarations, and update the CWCR to reflect OPCW decisions. In addition, BIS plans to continue its program of outreach seminars to familiarize industry with the revised CWCR. Once legislation to implement the U.S. Additional Protocol is enacted, BIS is ready to promulgate implementing regulations and work with relevant U.S. Government agencies in order to finalize the roles and responsibilities of lead agencies.





### Chapter 6: International Cooperation Programs

#### **Mission**

An important goal of The Bureau of Industry and Security (BIS) is to strengthen the export control systems of developing and emerging countries of interest. By promoting the development of effective national export control systems, BIS not only addresses issues of proliferation concern and terrorism, but also helps to level the playing field for U.S. industry.

# Accomplishments in Fiscal Year 2005

## **Nonproliferation and Export Control Cooperation**

As an implementing agency for the Department of State-funded interagency Export Control and Related Border Security Assistance (EXBS) Program, BIS managed and coordinated 76 bilateral technical exchanges with 23 countries during Fiscal Year 2005. Each exchange focused on one of the five essential components of an effective national export control system: the legal basis and framework, licensing procedures and practices, enforcement, industry-government relations, and program administration. As a function of these and previous years' technical exchanges, BIS helped remedy 40 deficiencies identified in prior assessments of the export control systems of cooperating countries.

In the context of the U.S.-India High-Technology Cooperation Group, and under the auspices of the EXBS Program, the United States continued to engage India in export control technical exchanges and outreach efforts. These included a U.S.-India Industry Government Forum in Washington, D.C. and Tampa, Florida, a seminar on complying with U.S. export controls, and a meeting in Washington D.C. to preview the Internal Control Program.

#### **Internal Control Program Activities**

The Internal Control Program (ICP), established in 1998, plays an important role in BIS's export control and non-proliferation mission. The ICP software tool provides companies with self-paced training, searchable databases, and templates for internal procedures that assist them to comply with their respective national export control systems. The ICP tool is widely used in seven countries (Czech Republic, Hungary, Kazakhstan, Poland, Romania, Russia, Ukraine). It is being deployed in five countries (Estonia, Latvia, Lithuania, Slovakia, Slovenia). In addition, BIS initiated ICP development in Moldova and Turkey.



Under Secretary David McCormick takes questions from journalists prior to a trip to India.

#### **Product Identification Tool**

In Fiscal Year 2005, BIS initiated Product Identification Tool (PIT) programs in Bulgaria, Cyprus, Kazakhstan, and Turkey, in addition to its existing deployments in Russia and Ukraine. The PIT, developed in Fiscal Year 2003 to combat weapons of mass destruction (WMD) proliferation, provides computer-based self-paced training and case studies on screening shipments at the border.

It has an extensive database of controlled items, including photographs, that allows officials in the field to match items to information contained in export control documents.

### **Security and Prosperity Partnership of North America**

President Bush launched the Security and Prosperity Partnership of North America (SPP), in conjunction with Prime Minister Paul Martin of Canada and President Vincente Fox of Mexico, in March 2005. As part of the SPP, BIS is working with Canada and Mexico to ensure compatible national and international export control sys-

tems so that North American countries are not used to divert sensitive American, Canadian, or Mexican goods or technologies to proscribed countries or end-users.

#### Goals for Fiscal Year 2006

In Fiscal Year 2006, BIS will continue to provide technical assistance under the EXBS program, develop the SPP, and pursue other initiatives to expand the global dual-use export control and treaty compliance system. BIS is also planning a multilateral regional forum on export control and nonproliferation for the Caucasus and Central Asian countries, for May 2006.





# Chapter 7: U.S. Defense Industrial Base Programs and Advocacy Activities

#### Mission

BIS's priorities include supporting continued U.S. technology leadership in industries that are essential to U.S. national security. BIS advances this priority by securing timely delivery of products for national defense, emergency preparedness, and critical infrastructure programs; working with U.S. industry and interagency partners to support the sale of U.S. defense products overseas; and implementing programs to help ensure that the U.S. defense industrial base has the capacity and capability to meet current and future national security, economic security, and homeland security requirements.



Under Secretary David McCormick meets with reporters covering the Bureau of Industry and Security's Update Conference on Export Controls and Policy.

# Accomplishments in Fiscal Year 2005

### **Administering the Defense Priorities and Allocations System**

BIS's administration of the Defense Priorities and Allocations System (DPAS) continues to play an important role in supporting the deployment of U.S. and allied forces in Iraq and Afghanistan, in meeting critical national defense and homeland security requirements, and in facilitating recovery from natural disasters. In Fiscal Year 2005, and in cooperation with the Department of Defense, BIS expedited the delivery of special ballistic material to produce lightweight body armor for American troops in Iraq and Afghanistan. BIS also implemented DPAS authorities to support hurricane Katrina recovery operations, including the restoration of certain critical infrastructure resources to facilitate transportation in the region.

### Supporting the U.S. Defense Industry's International Competitiveness

In Fiscal Year 2005, BIS successfully assisted U.S. companies in obtaining contracts to supply foreign governments with defense articles worth approximately \$3.2 billion. These sales help maintain the U.S. defense industrial and technological base and preserve high-technology employment. BIS also worked closely with the Department of Commerce's global network of commercial offices in the United States and around the world to identify defense trade opportunities for U.S. industry, to support U.S. defense trade exhibitions overseas, and to provide export counseling to U.S. industry exploring emerging market opportunities.

In addition, BIS continued to administer the Department of Commerce's NATO Security Investment Program (NSIP), a certification requirement for U.S. companies



Assistant Secretary for Export Administration Peter Lichtenbaum testifies before a joint hearing of the House Armed Services Committee and the House International Relations Committee.

interested in competing to supply goods and services in NSIP-funded procurements. In Fiscal Year 2005, BIS certified 414 U.S. firms that were interested in participating in NATO procurement competitions totaling more than \$1 billion annually.

#### Monitoring the Strength of the U.S. Defense Industrial and Technological Base

In December 2004, BIS published a national security assessment of the U.S. munitions power sources (batteries) industry, completed at the request of the U.S. Army, and initiated three more studies during Fiscal Year 2005, which are scheduled for completion in Fiscal Year 2006:

- Economic Impact of the C-17 Aircraft Program (for the U.S. Air Force).
- National Security Assessment of the Cartridge- and Propellant-actuated Device Industry, Third Review (for the U.S. Navy).
- Defense Industrial Base Assessment of the U.S. Imaging and Sensors Industry (in coordination with the U.S. Army).

BIS also completed its ninth Congressionally mandated report on the impact of offsets in defense trade, covering data for 1993-2003. Offsets are mandatory compensation required by foreign governments when purchasing weapons systems and services. The BIS report detailed the impact of offsets on U.S. defense preparedness, industrial

competitiveness, employment, and trade. The report noted that offset demands continue to rise worldwide, with Europe leading in increased demand.

In addition to its annual offset report to Congress, BIS participates in an interagency group, established in 2005 under the leadership of the Department of Defense, which is tasked with consulting with foreign nations on limiting the adverse effects of offsets on the United States. The in-

teragency group met with defense contractors, labor unions, and trade associations to gather their input on offsets in defense trade and upcoming consultations. The group also met with representatives from nine countries.

BIS's defense industrial base responsibilities extend to the evaluation of foreign investments in U.S. industries through participation in the Committee on Foreign Investment in the United States (CFIUS). BIS, in coordination with the Department of Commerce's International Trade Administration, reviewed 62 foreign acquisition cases submitted to CFIUS to ensure that they did not threaten U.S. national security. BIS also reviewed 76 proposed transfers of excess defense equipment to foreign governments through the Department of Defense's Excess Defense Articles program and provided the Department of Defense with determinations as to whether these transfers would interfere with ongoing sales or marketing activities of U.S. industry.

#### Goals for Fiscal Year 2006

Building on Fiscal Year 2005's accomplishments, BIS will continue to partner with industry and other U.S. Government agencies to support the ability of the U.S. defense industrial and technological base to meet current and future national security requirements.

BIS will continue to work closely with U.S. industry and interagency partners, under the authority of the DPAS program, to support the production and delivery of indus-

trial resources needed to meet national defense and homeland security requirements.

BIS will also continue its efforts with U.S. industry and interagency partners to support the sale of U.S. defense products overseas. In addition, BIS plans to work closely with NATO procurement agencies, the U.S. Mission to NATO, and U.S. Embassy staff to facilitate the dissemination of business opportunities for U.S. firms. Finally, BIS also will support the Department of Defense in negotiating bilateral Security of Supply agreements.

For the U.S. Air Force, BIS plans to complete and publish its economic impact assessment of the C-17 aircraft program. For the U.S. Navy, BIS will complete and publish its comprehensive assessment of the cartridge-actuated

and propellant-actuated device industry. BIS also expects to complete and release an assessment of the imaging and sensors industry, including an analysis of the economic strength of this industry as well as the effect of export controls on industry competitiveness.

BIS has already begun work on its tenth report on the impact of offsets in defense trade to the Congress. With the completion of this report, BIS will have collected and analyzed data on offset agreements and transactions from 1993-2004. In addition, the interagency group will complete consultations with our trading partners and report to Congress on the outcome.





### Appendix A: Mission Statement and Guiding Principles of the Bureau of Industry and Security

#### **BIS Mission and Priorities**

#### **Commerce Department Strategic Goals/Objectives:**

- 1. Provide Information and Tools to Maximize U.S. Competitiveness and Enable Economic Growth for American Industries, Workers, and Consumers.
- 5. Strengthen Management at All Levels



#### **Bureau of Industry & Security Mission:**

Advance U.S. National Security, Foreign Policy, and Economic Objectives by Ensuring an Effective Export Control and Treaty Compliance System and Promoting Continued U.S. Strategic Technology Leadership



#### **Key Bureau Priorities:**

- Maintain and Strengthen an Adaptable and Effective U.S. Export Control and Treaty Compliance System
- 2. Integrate non-U.S. Actors to Create a More Effective Global Export Control and Treaty Compliance System
- 3. Eliminate Illicit Export Activity Outside the Global Export Control and Treaty Compliance System
- 4. Ensure Continued U.S. Technology Leadership in Industries that are Essential to National Security



This statement of principles represents the guiding philosophy of the Commerce Department's Bureau of Industry and Security in approaching its activities and fulfilling its responsibilities. This statement is not intended to dictate any particular regulatory action or enforcement action.

- The Bureau's paramount concern is the security of the United States. The Bureau's mission is to protect the security of the United States, which includes its national security, economic security, cyber security, and homeland security.
  - The Bureau's credibility—within government, with industry, and with the American people—depends upon its fidelity to this principle.
  - For example, in the area of dual-use export controls, the Bureau will vigorously administer and enforce such controls to stem the proliferation of weapons of mass destruction and the means of delivering them, to halt the spread of weapons to terrorists or countries of concern, and to further important U.S. foreign policy objectives. Where there is credible evidence suggesting that the export of a dual-use item threatens U.S. security, the Bureau must act to combat that threat.
- Protecting U.S. security includes not only supporting U.S. national defense, but also ensuring the health of the U.S. economy and the competitiveness of U.S. industry.
  - The Bureau seeks to promote a strong and vibrant defense industrial base that can develop and provide technologies that will enable the United States to maintain its military superiority.
  - The Bureau must take great care to ensure that its regulations do not impose unreasonable restrictions on legitimate international commercial activity that is necessary for the health of U.S. industry. In protecting U.S. security, the Bureau must avoid actions that compromise the international competitiveness of U.S. industry without any appreciable national security benefits.

- The Bureau strives to work in partnership with the private sector. The Bureau will seek to fulfill its mission, where possible, through public-private partnerships and market-based solutions.
  - U.S. security cannot be achieved without the active cooperation of the private sector, which today controls a greater share of critical U.S. resources than in the past. At the same time, the health of U.S. industry is dependent on U.S. security—of our borders, our critical infrastructures, and our computer networks.
  - The symbiotic relationship between industry and security should be reflected in the formulation, application, and enforcement of Bureau rules and policies.
- The Bureau's activities and regulations need to be able to adapt to changing global conditions and challenges. The political, economic, technological, and security environment that exists today is substantially different than that of only a decade ago. Bureau activities and regulations can only be justified, and should only be maintained, to the extent that they reflect current global realities. Laws, regulations, or practices that do not take into account these realities—and that do not have sufficient flexibility to allow for adaptation in response to future changes—ultimately harm national security by imposing costs and burdens on U.S. industry without any corresponding benefit to U.S. security.
  - In the area of exports, these significant geopolitical changes suggest that the U.S. control regime that in the past was primarily list-based must shift to a mix of list-based controls and controls that target specific end-uses and end-users of concern.
  - The Bureau also should be creative in thinking about how new technologies can be utilized in designing better export controls and enforcing controls more effectively.
- The Bureau's rules, policies, and decisions should be stated clearly, applied consistently, and followed faith-

fully. The Bureau's rules, policies, and decisions should be transparent and clearly stated. Once promulgated, Bureau rules and policies should be applied consistently, and Bureau action should be guided by precedent.

- Uncertainty, and the delay it engenders, constitutes a needless transaction cost on U.S. companies and citizens, hampering their ability to compete effectively. Voluntary compliance with Bureau rules and regulations should be encouraged and, to the extent appropriate, rewarded.
- These precepts are particularly important with respect to the application and enforcement of export controls. An effective export control regime necessarily depends upon the private sector clearly understanding and seeking to implement Bureau rules and policies voluntarily.
- Decision making should be fact-based, analytically sound, and consistent with governing laws and regulations. Bureau decisions should be made after careful review of all available and relevant facts and without any philosophical predisposition.
  - A "reasonable person" standard should be applied to all decisions: How would a "reasonable person" decide this issue? The Bureau's mission does not lend itself to "ideological" decision making—especially when it comes to its licensing and enforcement functions.
  - It is inappropriate to recommend outcomes based on an assumption that a position will be reviewed and "pared back" by another party—whether it be another office in the Bureau or another agency of the U.S. Government. Such an approach violates the public's trust, undermines the Bureau's credibility, and imposes substantial costs in terms of wasted time and effort.

- The Bureau strives to work cooperatively with other parts of the U.S. Government and with state and local governments.
  - The Bureau shall seek to collaborate in a collegial and effective manner with other agencies and departments of the U.S. Government, including the National Security Council, the Department of Homeland Security, the State Department, the Defense Department, the Energy Department, and the intelligence community.
  - The Bureau shall consult with its oversight committees and other appropriate Members of Congress and congressional staff on matters of mutual interest.
  - The Bureau shall seek to enhance its relationships with state and local government officials and first responders to national emergencies.
- International cooperation is critical to the Bureau's activities. Fulfilling the Bureau's mission of promoting security depends heavily upon international cooperation with our principal trading partners and other countries of strategic importance, such as major transshipment hubs. Whether seeking to control the spread of dangerous goods and technologies, protect critical infrastructures, or ensure the existence of a strong defense industrial base, international cooperation is critical.
  - With regard to export control laws in particular, effective enforcement is greatly enhanced by both international cooperation and an effort to harmonize the substance of U.S. laws with those of our principal trading partners.
  - International cooperation, however, does not mean, settling on the "lowest common denominator."
     Where consensus cannot be broadly obtained, the Bureau will not abandon its principles, but should seek to achieve its goals through other means, including cooperation among smaller groups of likeminded partners.

Nothing contained herein shall create any rights or benefits, substantive or procedural, enforceable by any party against BIS, its officers and employees, or any other person.



#### **U.S. Department of Commerce Bureau of Industry and Security**



#### Appendix B: Regulatory Changes in Fiscal Year 2005

#### **Multilateral Regimes**

#### Australia Group

On December 23, 2004, BIS published a rule revising controls on certain toxic gas monitoring systems to conform with Australia Group (AG) controls. On December 29, 2004, BIS published a rule implementing the understandings reached at the June 2004 plenary meeting by adding two viruses and three bacteria to the list of AG-controlled plant pathogens. This rule also implemented an AG intersessional decision by adding nine precursor chemicals to the Commerce Control List (CCL).

BIS published a rule on March 30, 2005 that expanded the country scope of chemical and biological "catch-all" controls to conform with AG guidelines.

On April 14, 2005, BIS published a rule that expanded three regulatory elements: the country scope of the license requirements that apply to certain chemical and biological equipment, the chemical and biological weapons end-use/end-user based controls to include transfers (in-country), and the country scope of chemical/biological-related restrictions on certain activities of U.S. persons.

On August 5, 2005, BIS published a rule implementing the understandings reached at the April 2005 plenary meeting. The rule clarified controls on genetic elements, genetically modified organisms, certain pumps and controlling certain spraying systems. It also updated the list of States Parties to the Chemical Weapons Convention (CWC).

#### Missile Technology Control Regime

In order to reflect changes to the Missile Technology Control Regime (MTCR) Annex that were agreed to at the October 2004 MTCR plenary in Seoul, South Korea, BIS on March 10, 2005 published a rule that amended the CCL and revised missile "catch-all" controls, modifying an earlier revision to the catch-all control published on November 8, 2004.

#### Revisions to Missile "Catch-All" Controls

BIS amended the Export Administration Regulations (EAR) by removing the list of missile projects of concern and expanding license requirements for missile-related end-users and end-uses. This rule expands the scope of end-uses to which a license requirement applies to include certain rocket and unmanned air vehicle activities in certain countries of concern for missile proliferation reasons. In addition, this rule implements a new license requirement for exports, reexports and transfers anywhere in the world that applies when you know or are informed that an item subject to the EAR will be used in rocket systems or unmanned air vehicles of any range for the delivery of chemical, biological or nuclear weapons. These changes to the end-use and end-user controls are necessary to meet U.S. non-proliferation objectives and are consistent with the Missile Technology Control Regime (MTCR) guidelines. This amendment also removes restrictions on Certain Rocket Systems, by clarifying that the general prohibition includes a license requirement for items that will be used anywhere in the world except by governmental programs for nuclear weapons delivery of NPT nuclear weapons states that are also members of NATO, in "the design, development, production or use of" rocket systems or unmanned air vehicles, regardless of range capabilities, for the delivery of chemical, biological, or nuclear weapons.

#### Wassenaar Arrangement

On July 15, 2005, BIS published a rule revising certain CCL entries for national security reasons. Categories 1, 2, 3, 4, 5 Part I, 6, 7, 8, and 9 were changed to conform with changes in the List of Dual-Use Goods and Technologies, which is agreed upon and maintained by governments participating in the Wassenaar Arrangement. The rule also added Slovenia as a member state.

#### India

On January 12, 2004, President Bush announced the Next Steps in Strategic Partnership (NSSP) with India. The proposed cooperation outlined in the NSSP includes a series of reciprocal steps to enhance cooperation in the peaceful use of space technology and create the appropriate environment for successful high-technology commerce. On August 30, 2005, BIS published a rule implementing the final phase of the NSSP. This rule removed six Indian entities from the Department of Commerce Entity List and removed certain export license requirements for exports and re-exports to India of items controlled unilaterally for nuclear proliferation reasons.

#### **Sanctions**

#### Libya

On March 22, 2005, BIS published a rule implementing further changes to export and reexport controls with respect to Libya. These changes were based primarily on public comments resulting from the relaxation of controls on Libya that were implemented last year.

#### Sudan

On February 18, 2005, BIS published a rule to allow temporary exports of certain communications and other equipment to Sudan for use by organizations working to relieve human suffering.

#### Other Sanctions

On March 7, 2005, BIS published a rule that stated a licensing policy regarding transactions involving entities sanctioned by the State Department under three specified statutes, imposed a new license requirement for certain entities sanctioned by the State Department, and identi-

fied one entity subject to this new license requirement (Tula Instrument Design Bureau of Russia).

#### Licensing Jurisdiction: Nuclear Graphite

On July 21, 2005, BIS published a rule shifting jurisdiction of nuclear grade graphite for non-nuclear end-uses from the Nuclear Regulatory Commission to BIS.

#### Encryption

On December 9, 2004, BIS published a rule that revised controls on encryption items and included reporting and notification requirements.

#### Computer and Microprocessor Technology

On November 5, 2004 BIS published two rules expanding license exception availability for deemed exports of computer and microprocessor technology.

#### **Proposed Rules**

#### Missile Technology Items to Canada

On May 24, 2005, BIS published a rule proposing imposition of a license requirement for exports and reexports to Canada of items controlled for missile technology reasons. This proposal was consistent with a recommendation made by the General Accounting Office (now renamed the Government Accountability Office).

#### Knowledge, Red Flags, and Safe Harbor

On October 13, 2004, BIS published a proposed rule that would revise the definition of "knowledge" in the Export Administration Regulation. The rule also proposed revision of the "red flags" ("know your customer") guidance and establishment of a safe harbor from liability arising from knowledge under the revised definition.

#### Advance Notice of Proposed Rulemaking Deemed Exports

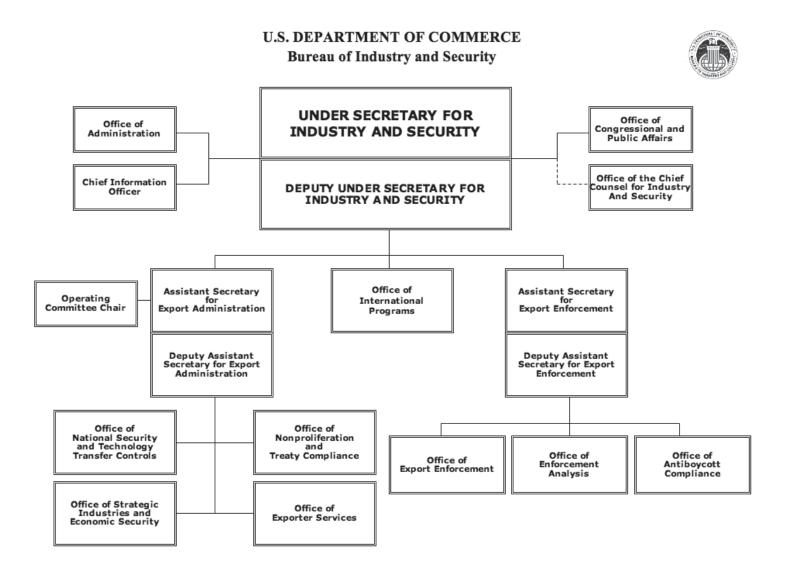
On October 13, 2005, BIS published an advance notice of proposed rulemaking soliciting public comment on potential changes to the EAR affecting deemed exports. The changes were recommended by the of the Department of Commerce Office of the Inspector General.



#### **U.S. Department of Commerce Bureau of Industry and Security**



#### Appendix C: Bureau of Industry and Security Organizational Structure and Administrative Information



### **Improved Organizational Performance Management**

In Fiscal Year 2004, BIS continued to improve its performance goals and measures by continuing the practice of focusing on outcome rather than output measures, and measuring performance that is under BIS control. Also, BIS continued its data validation program to ensure that its performance data are accurate, complete, reliable, and timely. Data validation has received increased emphasis as the Department of Commerce initiated requirements for individual bureau certification of performance results, and the use of performance data to evaluate senior executive performance.

In Fiscal Year 2004, the Export Administration Program was evaluated by the Office of Management and Budget (OMB) using OMB's Performance and Assessment Rating Tool (PART). PART assessments are designed to link organizational performance to budget decisions and provide a basis for making recommendations to improve program results. BIS has actively participated in this process working closely with OMB to provide information and explain the export licensing process.

BIS continued to refine its Monthly Performance Measurement Reporting System. A monthly report is provided to the Under Secretary and senior executives on both the Government Performance and Results, and internal performance measures. This report is used to monitor the performance of BIS programs and senior executives in meeting the Bureau's performance targets.

#### President's Management Agenda (PMA)

BIS also has supported the President's Management Agenda (PMA), particularly Strategic Management of Human Capital, Budget and Performance Integration, and Electronic Government (E-Gov).

For example, after completing a thorough workload analysis, in Fiscal Year 2004 BIS developed a plan for reorganizing its activities to carry out its export administration and enforcement responsibilities more effectively. BIS also partnered with the Office of Personnel Management (OPM) in Fiscal Year 2004 to develop the Succes-

sion Plan to prepare today's managers to be tomorrow's leaders.

For budget and performance integration, BIS has complied with OMB's guidance to develop performance based budgets. For example, BIS's Fiscal Year 2006 budget contains two initiatives that are clearly tied to the Bureau's performance goals and measures. In addition, OMB stated in the PART, "Budget requests are integrated with performance goals and describe the anticipated effects of resource requirements on performance."

For the E-Gov initiative, BIS posted an E-Commerce section on its Web site, completed certification and accreditation on all BIS operational information technology systems, upgraded Simplified Network Application Process (SNAP) hardware to improve reliability, replaced dial-up connections to ECASS (Export Control Automated Support System) with secure encrypted lines, completed an initial pilot to provide Web interface to ECASS for licensing officers, launched projects for upgrading existing ECASS, created capability to download anti-boycott forms from the BIS Web site, upgraded existing SNAP interface to exporters, defined a concept of operations for an upgraded ECASS that will support a streamlined licensing-decision process, and deployed new software and hardware platforms for the System for Tracking Export License Applications.

BIS also supports the Competitive Sourcing and Improved Financial Performance Initiatives. Annually, BIS performs a top-down review of all its positions and functions annually in accordance with the Federal Activities Inventory Report (FAIR) Act. Because BIS is a small organization with two primary functions, licensing and enforcement, that are inherently governmental, there is not much flexibility for outsourcing. Regarding BIS's financial performance, OMB stated in the PART, "Program funds are administered efficiently and in accordance with intended purposes and planned schedules." OMB also stated in the PART, "The financial management system used to provide BIS's accounting and financial information meets statutory requirements. Financial information is provided both accurately and timely. Fi-

nancial planning and performance management support day-to-day operations, and program resources are focused to meet performance goals including licensing processing times, publishing regulations, and outreach to exporters to meet the needs of license applicants."

#### Cooperation with Auditing Agencies and Responses to Requests from the Public and the Courts

#### **Auditing Agencies**

BIS continues to work with the Government Accountability Office (GAO) and the Office of Inspector General (OIG) on their studies of our programs and control systems, as well as to address all audit findings and recommendations.

The GAO completed five studies that dealt with BIS programs in Fiscal Year 2004, including: (1) Nonproliferation: Improvements Needed to Better Control Technology Exports for Cruise Missiles and Unmanned Aerial Vehicles; (2) Nonproliferation: Delays in Implementing the Chemical Weapons Convention Raise Concern About Proliferation; (3) Department of State: Nonproliferation, Anti-terrorism, Demining, and Related Programs Follow Legal Authority, But Some Activities Need Reassessment; (4) Transfer of Budgetary Resources to the Department of Homeland Security; and (5) Export Controls: Post Shipment Verification Provides Limited Assurance That Dual-Use Items Are Being Properly Used.

At the end of the Fiscal Year 2004, one GAO study addressing BIS programs and activities is ongoing. In addition, a final report of GAO's review of the implementation by BIS and other agencies of the Exon-Florio Amendment to the Defense Production Act is anticipated in Fiscal Year 2005.

Three OIG reviews addressing BIS programs and activities were completed during FY 2004, including: (1) Annual Follow-Up Report on Previous Export Control Recommendations, as Mandated by the National Defense Authorization Act for Fiscal Year 2000; (2) Deemed Exports May Not Stop the Transfer of Sensitive Technology to Foreign National in the United States; and (3) Inter-

agency Review of Foreign National Access to Export-Controlled Technology in the United States.

At the end of Fiscal Year 2004, two OIG studies addressing BIS programs and activities are ongoing, including:
(1) Foreign Commercial Service operations in India, and
(2) Effectiveness of the Export Control Process for Chemical and Biological Dual-Use Commodities.

### Public Requests for Information and Court-Ordered Searches

BIS processed 76 Freedom of Information Act (FOIA) requests for export licensing and enforcement, and other types of management information. BIS processed two Court requests for information, both related to bankruptcy filings.

Provision of the Latest Technology to Employees to Increase Efficiency in Completing Mission Essential Functions While Ensuring Confidentiality, Integrity, and Availability of Information System Resources

#### IT Security

In Fiscal Year 2004, BIS continued to provide specialized Information Technology (IT) security training for IT employees and contractors using the Department's Automated Learning Management System. BIS also provided annual IT Security Awareness training to all of its employees and contractors.

BIS reviewed certification and accreditation documentation and wrote operational procedures for the IT systems the agency administers. BIS developed and deployed a new network change management system to document internal change requests to its Bureau communications infrastructure. BIS enhanced IT security controls by deploying automated log monitoring software on critical servers. BIS also established a remote data center to host new Web applications that are being developed and serve as a site for disaster recovery operations.

These enhanced IT security controls and updated policies successfully raised the BIS-wide IT security program from a level 2 in 2003, to a level 3, based on the methodologies found in the NIST Special Publication (800-26), "Self-Assessment Guide for Information Technology (IT) Systems."

#### Appendix C: Bureau of Industry and Security Organizational Structure and Administrative Information

#### Technological Advances

In 2004, BIS continued its migration to the Herbert C. Hoover Building network (HCHBnet) by moving all its wide-area network telecommunications links and the majority of its servers to the new, faster network. BIS also upgraded the e-mail system and installed spam filtering software.

BIS is committed to effectively serving the public by implementing improved information technology services to support business processes for employees and customers.



#### **U.S. Department of Commerce Bureau of Industry and Security**



#### Appendix D: Summaries and Tables of Closed Export Enforcement Cases and Criminal Cases

#### Table 1 Criminal Cases Convicted And Sentenced in Fiscal Year 2005

Sentencing Date	Name of Defendant	Criminal Charges	Criminal Sanction	Case Details
10/06/04	Ting-lh Hsu	One count of making a false statement in violation of 18 U.S.C.§ 1001	Three years probation	Export of controlled low-noise amplifier chips, which have applications in Hellfire missiles, to China
10/06/04	Hai Lin Nee	One count of making a false statement in violation of 18 U.S.C.§ 1001	Three years probation	Export of controlled low-noise amplifier chips, which have applications in Hellfire missiles, to China
12/03/04	Tesmec Corporation	One count of violating the International Emergency Economic Powers Act in violation of 50 USC § 1701; one count of violating the International Emergency Economic Powers act in violation of 50 USC § 1702 and one count of violating the International Emergency Economic Powers act in violation of 50 USC § 1705	\$85,000 fine	Attempted export of a trencher for ultimate end use in the Western Libya Gas Project in Libya.
12/07/04	Everett Hylton	One count of conspiracy in violation of 18 USC § 371	\$10,000 fine and three years probation	Exporting controlled cryogenic submersible pumps to Iran via France.
01/06/05	/06/05 Ebara International Corporation  One count of conspiracy in violation of 18 USC§ 371; two counts of money laundering in violation of 18 USC§ 1956 three counts of violating the International Emergency Economic Powers Act in violation of 50 USC§ 1705; one count of aiding and abetting in violation of 18 USC§ 2		\$6,300,000 fine	Exporting controlled cryogenic submersible pumps to Iran via France.
01/10/05	Stephen Midgley	One count making false statements in violation of 18 USC § 1001	\$1500 fine, twelve months probation and 120 hours community service	Export of a controlled industrial furnace to an entity of concern in China. A license application for this export had previously been denied for missile technology concerns.

#### Table 1 Criminal Cases Convicted And Sentenced in Fiscal Year 2005

Sentencing Date	Name of Defendant	Criminal Charges	Criminal Sanction	Case Details
01/20/05	Nozzle Manufacturing	One count of violating the International Emergency Economic Powers Act in violation of 50 USC § 1705	\$10,000 fine	Export of oil burning nozzles to Iran.
02/10/05	Spector International dba Norsal Export	One count of making false statements in violation of 18 USC § 1001	\$57,000 Fine	Export of controlled microwave amplifiers, which have radar applications, to China.
03/03/05	LaVern Miller	Two counts of violating the International Emergency Economic Powers Act in violation of 50 USC § 1705	\$18,000 fine, two and half years probation and 500 hours community service	Export of controlled polygraph machines to China.
03/03/05	Stoelting Company	Two counts of violating the International Emergency Economic Powers Act in violation of 50 USC § 1705	\$20,000 fine, two and half years probation	Export of controlled polygraph machines to China.
04/01/05	BEF Corporation	One count of violating the International Emergency Economic Powers Act in violation of 50 USC § 1705; eleven counts of making false statements in violation of 18 USC §1001	\$350,000 Fine	Export of miniature photo labs to Iran.
04/07/05	Metric Equipment Sales	One count of violating the National Nuclear Security Act in violation of 50 USC § 2410 National Nuclear Security Act and one count of violating the International Emergency Economic Powers Act in violation of 50 USC § 1705	Three years probation and \$50,000 fine and 250 hours of community service	Export of controlled oscilloscopes, which can be used in WMD development and missile delivery fields, to Israel.
04/29/05	Markous Chua	One count of conspiracy in violation of 18 USC § 371	One year, four months and 21 days in Prison and then deported to Singapore	Export of aircraft parts to Iran via Singapore and Malaysia.
05/02/05	Rou Ling Wang	One count of violating the International Emergency Economic Powers Act in violation of 50 USC § 1705; one count of aiding and abetting in violation of 18 USC § 2	Six months and 15 days in prision and a \$1500 fine	Export of controlled electronic equipment to China.
05/17/05	Valtex Intenational	One count of violating the International Emergency Economic Powers Act in violation of 50 USC §1705	\$250,000 fine and five years probation	Attempted export of controlled satellite/missile insulation blankets to the Chinese Academy of Space. A license application for this export had previously been denied.

#### Table 1 Criminal Cases Convicted And Sentenced in Fiscal Year 2005

Sentencing Date	Name of Defendant	Criminal Charges	Criminal Sanction	Case Details
05/17/05	Vladimir Alexan	One count of making false statements in violation of 18 USC § 1001	\$12,000 fine and three years probation	Attempted export of controlled satellite/missile insulation blankets to the Chinese Academy of Space. A license application for this export had previously been denied.
07/19/05	Eric Kyriacou	Two counts of violating the International Emergency Economic Powers Act in violation of 50 USC § 1705; one count transportation of stolen property in interstate commerce in violation of 18 USC § 2314; one count of making false statements in violation of 18 USC § 1001	Five years probation and four months home confinement plus financial restitution	Export of night vision lenses to Iran.
07/21/05	Mark Dekich	One count of conspiracy in violation of 18 USC § 371	Nine months in prison, two years supervised release and a \$5000 fine	Export of controlled virus toxins to Syria.
07/21/05	John Donahoe	One count of conspiracy in violation of 18 USC § 371; one count of accessory after the fact in violation of 18 USC § 3	364 days in prison, three years supervised release and a \$30,000 fine	Export of controlled virus toxins to Syria.
07/21/05	John Rosenberger	One count of aiding and abetting in violation of 18 USC § 2	\$10,000 fine and two years probation	Export of controlled virus toxins to Syria.
O7/21/05 Marjorie Evans  One count of conspiracy in violation of 18 USC § 371; one count of accessor after the fact in violation of 18 USC § 3; three counts of mail fraud in violation of 18 USC § 1341; two counts of making false statements in violation of 18 USC § 1001; one count of sale of harmful substances in violation of 21 USC §151		\$10,000 fine, one year and one day in prison and three years supervised release	Export of controlled virus toxins to Syria.	
07/21/05	Dennis Guerrette	One count of conspiracy in violation of 18 USC § 371; two counts of mail fraud in violation of 18 USC § 1341	\$10,000 fine, one year and one day in prison and two years supervised release	Export of controlled virus toxins to Syria.
07/21/05	Thomas Swieczkowski	One count of accessory after the fact in violation of 18 USC § 3; one count of conspiracy in violation of 18 USC § 371 three counts of mail fraud in violation of 18 USC § 1341	\$5,000 fine, one year and one day in prison ;and three years supervised release	Export of controlled virus toxins to Syria.

Table 1 Criminal Cases Convicted And Sentenced in Fiscal Year 2005

Sentencing Date	Name of Defendant	Criminal Charges	Criminal Sanction	Case Details
07/25/05	Charles Kuan	Three counts of violating the International Economic Emergency Powers Act in violatoin of 50 USC § 1705	\$300 fine, one year and one day in prision and two years probation	Export of controlled detector log video amplifiers to a China. The end user of the products was a company controlled by the Chinese government.
07/26/05	Jain Guo Qu	One count of violating the National Nuclear Security Act in violation of 50 USC § 2401; one count of violating the International Emergency Economic Powers Act in violation of 50 USC § 1705; one count of violating the International Emergency Economic Powers Act in violation of 50 USC § 1701-1706	46 months in prison, \$2000 fine and two years supervised release	Export of controlled electronic equipment to China.
08/04/05	Asher Karni	One count of conspiracy in violation of 18 USC § 371; four counts of violating the International Emergency Economic Powers Act in violation of 50 USC § 1701–1706	Three years in prison	Export of controlled triggered spark gaps, which can be used as nuclear detonators, to Pakistan.
08/05/05	Maine Biological Lab	Two counts of violating the National Nuclear Security Act in violation of 50 USC § 2410; one count of smuggling into the United States in violation of 18 USC § 545; one count of mail fraud in violation of 18 USC §1341; one count of making false statements in violation of 18 USC § 1001; one count of sales of harmful substances in violation of 21 USC § 151; one count of sales of harmful substances in violation of 21 USC § 158	\$500,000 Fine	Export of controlled virus toxins to Syria.
09/14/05	Zheng Zheng	One count of making false statements in violation of 18 USC § 1001	\$1000 fine	Export of controlled low noise amplifiers to China.
09/14/05	Univision Technology Inc.	One count of making false statements of Shippers Export Declarations in violation of 13 USC § 305	\$1000 fine	Export of controlled low noise amplifiers to China.
09/22/05	Mohammad Farahbakhkh	One count of conspiracy in violation of 18 USC § 371; one count of violating the International Emergency Economic Powers Act in violation of 18 USC §1705	Seven months in prison and two years supervised release	Export of controlled computer and satellite equipment to an Iranian company affiliated with Iran's ballistic missile program via the UAE.
09/28/05	Zhaoxin Zhu	One count of conspiracy in violation of 18 USC § 371	Two years in prison and three years supervised release	Conspiracy to purchase controlled satellite and radar technology for export to China



#### **U.S. Department of Commerce Bureau of Industry and Security**



# Appendix E: Tables of Antiboycott Settlements and Reporting Data

Number of Individual Firms, Transactions, Requesting Documents, and Restrictive Trade Practices by Firm Type
October 2004 through September 2005
ALL TRANSACTIONS (Summary Totals)<sup>1</sup>
(The column "Other" includes but is not limited to law firms, consulting firms, and general contractors)

Item	Exporter	Bank	Forwarder	Carrier	Insurer	Other	Total
Individual Firms Reporting	179	46	7	1	0	70	303
Transactions Reported	479	329	8	1	0	220	1,037
Requesting Documents Involved	479	329	8	1	0	220	1,037
Restrictive Trade Practices Requests (2)	567	354	9	2	0	252	1,184

#### **Appendix E-1(a) All Transactions**

Category	Take Action <sup>3</sup>	Refuse <sup>4</sup>	Undecided	Total <sup>5</sup>
EXPORTER				
Number of Requests	111	366	1	478
Dollar Amount (\$000)	19,847,351	22,055,142	44,717	41,947,210
BANK				
Number of Requests	261	68	0	329
Dollar Amount (\$000)	87,135	21,207	0	108,342
FORWARDER				
Number of Requests	3	5	0	8
Dollar Amount (\$000)	753	550	0	1,303
CARRIER				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	0	0	0
INSURER				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
OTHER				
Number of Requests	98	122	0	220
Dollar Amount (\$000)	76,753	1,396,015	0	1,472,768
TOTAL				
Number of Requests	473	562	1	1,036
Dollar Amount (\$000)	20,011,992	23,472,914	44,717	43,529,623

<sup>&</sup>lt;sup>1</sup> Totals, other than the number of firms reporting, are enhanced to the extent that an exporter and one or more other organizations report on the same transaction.

<sup>&</sup>lt;sup>2</sup> Two or more types of restrictive trade practices are often reported in connection with one transaction.

<sup>&</sup>lt;sup>3</sup> Transactions in this table are characterized as "take action" or "refuse" in terms of action taken on the original request, not on amended or deleted requests.

<sup>&</sup>lt;sup>4</sup> "Refuse" does not necessarily mean that business was lost because firms refused to comply with a prohibited boycott request. Rather, it indicates that firms refused to comply with the request in bidding on contracts totaling the dollar amounts indicated. Prohibited boycott language is often amended or deleted to permit U.S. firms to comply with U.S. law. Amendments and deletions are not reflected in these statistics.

<sup>&</sup>lt;sup>5</sup> Dollar values may not add due to rounding.

#### **Appendix E-1(b) Prohibited Transactions**

Category	Take Action <sup>3</sup>	Refuse <sup>4</sup>	Undecided	Total <sup>5</sup>
EXPORTER				
Number of Requests	4	167	0	171
Dollar Amount (\$000)	5	622,036	0	622,041
BANK				
Number of Requests	0	2	0	2
Dollar Amount (\$000)	0	2,633	0	2,633
FORWARDER				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	71	0	71
CARRIER				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	0	0	0
INSURER				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
OTHER				
Number of Requests	2	61	0	63
Dollar Amount (\$000)	8	809,759	0	809,768
TOTAL				
Number of Requests	6	232	0	238
Dollar Amount (\$000)	13	1,434,513	0	1,434,513

<sup>&</sup>lt;sup>1</sup> Totals, other than the number of firms reporting, are enhanced to the extent that an exporter and one or more other organizations report on the same transaction.

<sup>&</sup>lt;sup>2</sup> Two or more types of restrictive trade practices are often reported in connection with one transaction.

<sup>&</sup>lt;sup>3</sup> Transactions in this table are characterized as "take action" or "refuse" in terms of action taken on the original request, not on amended or deleted requests.

<sup>&</sup>lt;sup>4</sup> "Refuse" does not necessarily mean that business was lost because firms refused to comply with a prohibited boycott request. Rather, it indicates that firms refused to comply with the request in bidding on contracts totaling the dollar amounts indicated. Prohibited boycott language is often amended or deleted to permit U.S. firms to comply with U.S. law. Amendments and deletions are not reflected in these statistics.

<sup>&</sup>lt;sup>5</sup> Dollar values may not add due to rounding.

#### Appendix E-1(c) Prohibited as First Received, But Amended

Category	Take Action <sup>3</sup>	Refuse <sup>4</sup>	Undecided	Total⁵
EXPORTER				
Number of Requests	1	28	0	29
Dollar Amount (\$000)	520	26,654	0	27,174
BANK				
Number of Requests	10	37	0	47
Dollar Amount (\$000)	1,541	7,821	0	9,361
FORWARDER				
Number of Requests	1	1	0	2
Dollar Amount (\$000)	520	411	0	931
CARRIER				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
INSURER				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
OTHER				
Number of Requests	2	21	0	23
Dollar Amount (\$000)	50,975	435,170	0	486,145
TOTAL				
Number of Requests	14	87	0	101
Dollar Amount (\$000)	53,556	470,056	0	523,612

<sup>&</sup>lt;sup>1</sup> Totals, other than the number of firms reporting, are enhanced to the extent that an exporter and one or more other organizations report on the same transaction.

<sup>&</sup>lt;sup>2</sup> Two or more types of restrictive trade practices are often reported in connection with one transaction.

<sup>&</sup>lt;sup>3</sup> Transactions in this table are characterized as "take action" or "refuse" in terms of action taken on the original request, not on amended or deleted requests.

<sup>&</sup>lt;sup>4</sup> "Refuse" does not necessarily mean that business was lost because firms refused to comply with a prohibited boycott request. Rather, it indicates that firms refused to comply with the request in bidding on contracts totaling the dollar amounts indicated. Prohibited boycott language is often amended or deleted to permit U.S. firms to comply with U.S. law. Amendments and deletions are not reflected in these statistics.

<sup>&</sup>lt;sup>5</sup> Dollar values may not add due to rounding.

#### **Appendix E-1(d) Exceptions to Prohibited**

Category	Take Action <sup>3</sup>	Refuse <sup>4</sup>	Undecided	Total <sup>5</sup>
EXPORTER				
Number of Requests	90	126	1	217
Dollar Amount (\$000)	19,845,259	21,403,457	44,717	41,293,434
BANK				
Number of Requests	16	1	0	17
Dollar Amount (\$000)	18,404	118	0	18,522
FORWARDER				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	0	0	0
CARRIER				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
INSURER				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
OTHER				
Number of Requests	93	34	0	127
Dollar Amount (\$000)	25,748	141,325	0	167,073
TOTAL				
Number of Requests	199	162	1	362
Dollar Amount (\$000)	19,889,411	21,544,900	44,717	41,479,029

<sup>&</sup>lt;sup>1</sup> Totals, other than the number of firms reporting, are enhanced to the extent that an exporter and one or more other organizations report on the same transaction.

<sup>&</sup>lt;sup>2</sup> Two or more types of restrictive trade practices are often reported in connection with one transaction.

<sup>&</sup>lt;sup>3</sup> Transactions in this table are characterized as "take action" or "refuse" in terms of action taken on the original request, not on amended or deleted requests.

<sup>&</sup>lt;sup>4</sup> "Refuse" does not necessarily mean that business was lost because firms refused to comply with a prohibited boycott request. Rather, it indicates that firms refused to comply with the request in bidding on contracts totaling the dollar amounts indicated. Prohibited boycott language is often amended or deleted to permit U.S. firms to comply with U.S. law. Amendments and deletions are not reflected in these statistics.

<sup>&</sup>lt;sup>5</sup> Dollar values may not add due to rounding.

#### **Appendix E-1(e) Not Prohibited**

Category	Take Action <sup>3</sup>	Refuse <sup>4</sup>	Undecided	Total <sup>5</sup>
EXPORTER				
Number of Requests	16	45	0	61
Dollar Amount (\$000)	1,566	2,995	0	4,562
BANK				
Number of Requests	235	28	0	263
Dollar Amount (\$000)	67,191	10,635	0	77,825
FORWARDER				
Number of Requests	2	2	0	4
Dollar Amount (\$000)	233	68	0	301
CARRIER				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
INSURER				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
OTHER				
Number of Requests	1	6	0	7
Dollar Amount (\$000)	22	9,760	0	9,782
TOTAL				
Number of Requests	254	81	0	335
Dollar Amount (\$000)	69,012	23,457	0	92,470

<sup>&</sup>lt;sup>1</sup> Totals, other than the number of firms reporting, are enhanced to the extent that an exporter and one or more other organizations report on the same transaction.

<sup>&</sup>lt;sup>2</sup> Two or more types of restrictive trade practices are often reported in connection with one transaction.

<sup>&</sup>lt;sup>3</sup> Transactions in this table are characterized as "take action" or "refuse" in terms of action taken on the original request, not on amended or deleted requests.

<sup>&</sup>lt;sup>4</sup> "Refuse" does not necessarily mean that business was lost because firms refused to comply with a prohibited boycott request. Rather, it indicates that firms refused to comply with the request in bidding on contracts totaling the dollar amounts indicated. Prohibited boycott language is often amended or deleted to permit U.S. firms to comply with U.S. law. Amendments and deletions are not reflected in these statistics.

<sup>&</sup>lt;sup>5</sup> Dollar values may not add due to rounding.

#### Number of Restrictive Trade Practices by Firm Type and Type of Restrictive Trade Practice October 2004 through September 2005 ALL TRANSACTIONS

#### **Appendix E-2**

Restrictive Trade Practice	Exporter	Bank	Forwarder	Carrier	Insurer	Other	Total
Carrier	92	280	6	1	0	19	398
Manufacturer/Vendor/Buyer	39	19	1	0	0	10	69
Insurance	1	0	0	0	0	0	1
Finance	7	7	0	0	0	3	17
Origin of Goods	265	37	2	0	0	36	340
Marked Goods/Packages	0	0	0	0	0	0	0
War Reparations	0	0	0	0	0	0	0
Observe Boycott Laws	86	2	0	0	0	31	119
Race/Religion/Sex/Origin	0	0	0	0	0	0	0
Relations with Boycotted Country	36	7	0	1	0	26	70
Risk of Loss	0	0	0	0	0	0	0
Destination of Goods	35	0	0	0	0	125	160
Other Restrictive Trade Practices	6	2	0	0	0	2	10
Totals	567	354	9	2	0	252	1,184

OTHER: Includes but are not limited to law firms, consulting firms, and general contractors.

TOTALS: Enhanced to the extent that an exporter and one or more other organizations report on the same transaction.

#### Number<sup>1</sup> of Restrictive Trade Practices by Originating Country and Type of Practice October 2004 through September 2005

Country	Ma Carrier	anufactur Vendor /Buyer	er/ Insurance	Finance	Origin of Goods	Marked Goods/ Packaging	War Reparations	Observe Boycott Laws	Race/ Religion/ Sex/ Origin	Relations with Boycotted Country	Risk of Loss	Destination of Goods	n Other Restrictive Practices	Total
Bahrain	15	3	0	0	4	0	0	5	0	1	0	0	0	28
Egypt	4	0	0	0	1	0	0	0	0	0	0	0	0	5
Iraq	0	0	0	0	2	0	0	1	0	3	0	0	2	8
Jordan	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Kuwait	39	0	0	0	18	0	0	0	0	0	0	0	0	57
Lebanon	73	4	0	0	7	0	0	4	0	6	0	0	0	94
Libya	2	4	0	0	8	0	0	7	0	11	0	0	0	32
Qatar	33	0	1	2	6	0	0	8	0	0	0	14	4	68
Saudi Arabi	a 1	12	0	2	26	0	0	33	0	9	0	1	1	85
Syria	9	2	0	0	18	0	0	8	0	22	0	0	0	59
UAE	179	29	0	8	186	0	0	42	0	15	0	6	2	467
Other <sup>2</sup>	39	15	0	5	64	0	0	11	0	3	0	139	1	277
Total	398	69	1	17	340	0	0	119	0	70	0	160	10 1,	184
Percent <sup>3</sup>	34	6	0	1	29	0	0	10	0	6	0	14	1	101

<sup>&</sup>lt;sup>1</sup> All figures are enhanced to the extent that an exporter and one or more other organizations reports on the same transaction.

<sup>&</sup>lt;sup>2</sup> Includes Algeria, Iran, Malaysia, Nigeria, Oman, Pakistan, Tunisia, and Yemen.

<sup>&</sup>lt;sup>3</sup> Percentages may not add due to rounding.

#### Number <sup>1</sup> of Restrictive Trade Practices by Originating Country and Type of Document October 2004 through September 2005

Country	Bid or Tender Proposal	Carrier Blacklist	Letter of Credit	Questionnaire	Requisition Purchase Order	Unwritten	Other Written	Total
Bahrain	5	0	10	0	5	0	2	22
Egypt	0	0	4	0	0	0	1	5
Iraq	2	0	0	2	0	0	4	8
Jordan	0	0	4	0	0	0	0	4
Kuwait	2	0	52	0	1	0	0	55
Lebanon	2	0	66	3	8	0	5	84
Libya	7	0	3	1	7	0	4	22
Qatar	12	0	37	0	14	0	2	65
Saudi Arabia	45	0	7	0	2	1	7	62
Syria	16	0	3	12	11	7	2	51
UAE <sup>2</sup>	131	3	182	0	82	0	10	408
Other <sup>3</sup>	72	0	54	0	99	0	26	251
Total	294	3	422	18	229	8	63	1037
Percentage <sup>4</sup>	28	0	41	2	22	1	6	100

<sup>&</sup>lt;sup>1</sup> All figures are enhanced to the extent that an exporter and one or more other service organizations reports on the same transaction.

<sup>&</sup>lt;sup>2</sup> Includes Abu Dhabi, Sharjah, Ajman, Umm Al-Qaiwan, RA's Al-Khaimah and Fujairah.

<sup>&</sup>lt;sup>3</sup> Includes Algeria, India, Iran, Malaysia, Nigeria, Oman, Pakistan, Tunisia, and Yemen.

<sup>&</sup>lt;sup>4</sup> Percentages may not add due to rounding.

#### Number and Value of Exporter Transactions by Originating Country and Decision on the Request October 2004 through September 2005 All Transactions<sup>1</sup>

Country	Take Action <sup>2</sup>	Refuse <sup>3</sup>	Undecided	Total <sup>4</sup>
BAHRAIN				
Number of Requests	1	5	0	6
Dollar Amount (\$000)	112	190	0	302
EGYPT				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
IRAQ				
Number of Requests	0	2	0	2
Dollar Amount (\$000)	0	0	0	0
JORDAN				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
KUWAIT				
Number of Requests	3	9	0	12
Dollar Amount (\$000)	366	944	0	1,310
LEBANON				
Number of Requests	2	17	0	0
Dollar Amount (\$000)	159	3,157	0	3,315
LIBYA				
Number of Requests	0	12	0	12
Dollar Amount (\$000)	0	54,675	0	54,675
QATAR				
Number of Requests	7	30	0	37
Dollar Amount (\$000)	289	1,906	0	2,195
SAUDI ARABIA				
Number of Requests	0	51	1	52
Dollar Amount (\$000)	0	210,840	44,717	255,557

#### Number and Value of Exporter Transactions by Originating Country and Decision on the Request October 2004 through September 2005 All Transactions<sup>1</sup>

#### **Appendix E-5(continued)**

Country	Take Action <sup>2</sup>	Refuse <sup>3</sup>	Undecided	Total <sup>4</sup>
SYRIA				
Number of Requests	4	28	0	32
Dollar Amount (\$000)	5	43042	0	43,047
UAE				
Number of Requests	59	151	0	210
Dollar Amount (\$000)	2,766	4,615,913	0	4,618,679
OTHER <sup>5</sup>				
Number of Requests	35	61	0	96
Dollar Amount (\$000)	19,843,655	17,124,475	0	36,968,130
TOTAL <sup>4</sup>				
Number of Requests	111	366	1	478
Dollar Amount (\$000)	19,847,351	22,055,142	44,717	41,947,210

<sup>&</sup>lt;sup>1</sup> Transactions figures and dollar values include bids, tenders and trade opportunities. Such figures my be duplicated and include dollar values for potential transactions that never resulted in a sale.

<sup>&</sup>lt;sup>2</sup> Dollar values may not add due to rounding.

<sup>&</sup>lt;sup>3</sup> Includes Abu Dhabi, Sharjah, Ajman, Umm Al-Qaiwan, RA's Al-Khaimah and Fujairah.

<sup>&</sup>lt;sup>4</sup> Includes Algeria, India, Iran, Malaysia, Nigeria, Oman, Pakistan, Tunisia, and Yemen..

<sup>&</sup>lt;sup>5</sup> This figure does not represent business lost due to refusals with boycott requests. It reflects the fact that U.S. companies refused to comply with boycott requests in bidding on contracts totaling this amount. The boycott language is often revised or eliminated to allow U.S. companies to bid consistent with U.S. law. Such revisions are not reflected in these statistics.

<sup>&</sup>lt;sup>7</sup> Transactions in this table are characterized as "take action" or "refuse" in terms of action taken on the original request, not on amended or deleted requests in bidding on contracts totaling the dollar amounts indicated. Prohibited boycott language is often amended or deleted to permit U.S. firms to comply with U.S. law.

#### **Appendix E-5(b) Prohibited Transactions**

Country	Take Action <sup>2</sup>	Refuse <sup>3</sup>	Undecided	Total <sup>4</sup>
BAHRAIN				
Number of Requests	0	4	0	4
Dollar Amount (\$000)	0	121	0	121
EGYPT				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
IRAQ				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	0	0	0
JORDAN				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
KUWAIT				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	0	0	0
LEBANON				
Number of Requests	0	12	0	12
Dollar Amount (\$000)	0	2,952	0	2,952
LIBYA				
Number of Requests	0	10	0	10
Dollar Amount (\$000)	0	54,369	0	54,369
QATAR				
Number of Requests	0	9	0	9
Dollar Amount (\$000)	0	966	0	966
SAUDI ARABIA				
Number of Requests	0	33	0	33
Dollar Amount (\$000)	0	135,022	0	135,022

#### **Appendix E-5(b) Prohibited Transactions(continued)**

Country	Take Action <sup>2</sup>	Refuse <sup>3</sup>	Undecided	Total <sup>4</sup>
SYRIA				
Number of Requests	4	24	0	28
Dollar Amount (\$000)	5	42,904	0	42,909
UAE				
Number of Requests	0	57	0	57
Dollar Amount (\$000)	0	279,123	0	279,123
OTHER <sup>5</sup>				
Number of Requests	0	16	0	16
Dollar Amount (\$000)	0	106,578	0	106,578
TOTAL <sup>4</sup>				
Number of Requests	4	167	0	171
Dollar Amount (\$000)	5	622,036	0	622,041

<sup>&</sup>lt;sup>1</sup> Transactions figures and dollar values include bids, tenders and trade opportunities. Such figures my be duplicated and include dollar values for potential transactions that never resulted in a sale.

<sup>&</sup>lt;sup>2</sup> Dollar values may not add due to rounding.

<sup>&</sup>lt;sup>3</sup> Includes Abu Dhabi, Sharjah, Ajman, Umm Al-Qaiwan, RA's Al-Khaimah and Fujairah.

<sup>&</sup>lt;sup>4</sup> Includes Algeria, India, Iran, Malaysia, Nigeria, Oman, Pakistan, Tunisia, and Yemen..

<sup>&</sup>lt;sup>5</sup> This figure does not represent business lost due to refusals with boycott requests. It reflects the fact that U.S. companies refused to comply with boycott requests in bidding on contracts totaling this amount. The boycott language is often revised or eliminated to allow U.S. companies to bid consistent with U.S. law. Such revisions are not reflected in these statistics.

<sup>&</sup>lt;sup>7</sup> Transactions in this table are characterized as "take action" or "refuse" in terms of action taken on the original request, not on amended or deleted requests in bidding on contracts totaling the dollar amounts indicated. Prohibited boycott language is often amended or deleted to permit U.S. firms to comply with U.S. law.

#### Appendix E-5(c) Prohibited as First Received, but Amended

Country	Take Action <sup>2</sup>	Refuse <sup>3</sup>	Undecided	Total <sup>4</sup>
BAHRAIN				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	69	0	69
EGYPT				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
IRAQ				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
JORDAN				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
KUWAIT				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	8	0	8
LEBANON				
Number of Requests	0	2	0	2
Dollar Amount (\$000)	0	116	0	116
LIBYA				
Number of Requests	0	2	0	2
Dollar Amount (\$000)	0	306	0	306
QATAR				
Number of Requests	0	2	0	2
Dollar Amount (\$000)	0	519	0	519
SAUDI ARABIA				
Number of Requests	0	2	0	2
Dollar Amount (\$000)	0	63	0	63

#### **Appendix E-5(c) Prohibited as First Received, but Amended(continued)**

Country	Take Action <sup>2</sup>	Refuse <sup>3</sup>	Undecided	Total <sup>4</sup>
SYRIA				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	41	0	41
UAE				
Number of Requests	1	11	0	12
Dollar Amount (\$000)	520	16,817	0	17,337
OTHER 5				
Number of Requests	0	6	0	6
Dollar Amount (\$000)	0	8,714	0	8,714
TOTAL <sup>4</sup>				
Number of Requests	1	28	0	29
Dollar Amount (\$000)	520	26,654	0	27,174

<sup>&</sup>lt;sup>1</sup> Transactions figures and dollar values include bids, tenders and trade opportunities. Such figures my be duplicated and include dollar values for potential transactions that never resulted in a sale.

<sup>&</sup>lt;sup>2</sup> Dollar values may not add due to rounding.

<sup>&</sup>lt;sup>3</sup> Includes Abu Dhabi, Sharjah, Ajman, Umm Al-Qaiwan, RA's Al-Khaimah and Fujairah.

<sup>&</sup>lt;sup>4</sup> Includes Algeria, India, Iran, Malaysia, Nigeria, Oman, Pakistan, Tunisia, and Yemen..

<sup>&</sup>lt;sup>5</sup> This figure does not represent business lost due to refusals with boycott requests. It reflects the fact that U.S. companies refused to comply with boycott requests in bidding on contracts totaling this amount. The boycott language is often revised or eliminated to allow U.S. companies to bid consistent with U.S. law. Such revisions are not reflected in these statistics.

<sup>&</sup>lt;sup>7</sup> Transactions in this table are characterized as "take action" or "refuse" in terms of action taken on the original request, not on amended or deleted requests in bidding on contracts totaling the dollar amounts indicated. Prohibited boycott language is often amended or deleted to permit U.S. firms to comply with U.S. law.

#### **Appendix E-5(d) Exceptions to Prohibited Transactions**

Country	Take Action <sup>2</sup>	Refuse <sup>3</sup>	Undecided	Total <sup>4</sup>
BAHRAIN				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
EGYPT				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
IRAQ				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	0	0	0
JORDAN				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
KUWAIT				
Number of Requests	0	3	0	3
Dollar Amount (\$000)	0	102	0	102
LEBANON				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
LIBYA				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
QATAR				
Number of Requests	6	0	0	6
Dollar Amount (\$000)	254	0	0	254
SAUDI ARABIA				
Number of Requests	0	15	1	16
Dollar Amount (\$000)	0	75,736	44,717	120,453

#### **Appendix E-5(d) Exceptions to Prohibited Transactions(continued)**

Country	Take Action <sup>2</sup>	Refuse <sup>3</sup>	Undecided	Total <sup>4</sup>
SYRIA				
Number of Requests	0	2	0	2
Dollar Amount (\$000)	0	0	0	0
UAE				
Number of Requests	51	71	0	122
Dollar Amount (\$000)	1,422	4,318,924	0	4,320,346
OTHER 5				
Number of Requests	33	34	0	67
Dollar Amount (\$000)	19,843,583	17,008,695	0	36,852,278
TOTAL <sup>4</sup>				
Number of Requests	90	126	1	217
Dollar Amount (\$000)	19,845,259	21,403,457	44,717	41,293,434

<sup>&</sup>lt;sup>1</sup> Transactions figures and dollar values include bids, tenders and trade opportunities. Such figures my be duplicated and include dollar values for potential transactions that never resulted in a sale.

<sup>&</sup>lt;sup>2</sup> Dollar values may not add due to rounding.

<sup>&</sup>lt;sup>3</sup> Includes Abu Dhabi, Sharjah, Ajman, Umm Al-Qaiwan, RA's Al-Khaimah and Fujairah.

<sup>&</sup>lt;sup>4</sup> Includes Algeria, India, Iran, Malaysia, Nigeria, Oman, Pakistan, Tunisia, and Yemen..

<sup>&</sup>lt;sup>5</sup> This figure does not represent business lost due to refusals with boycott requests. It reflects the fact that U.S. companies refused to comply with boycott requests in bidding on contracts totaling this amount. The boycott language is often revised or eliminated to allow U.S. companies to bid consistent with U.S. law. Such revisions are not reflected in these statistics.

<sup>&</sup>lt;sup>7</sup> Transactions in this table are characterized as "take action" or "refuse" in terms of action taken on the original request, not on amended or deleted requests in bidding on contracts totaling the dollar amounts indicated. Prohibited boycott language is often amended or deleted to permit U.S. firms to comply with U.S. law.

#### Appendix E-5(e) Prohibited as First Received, but Amended

Country	Take Action <sup>2</sup>	Refuse <sup>3</sup>	Undecided	Total <sup>4</sup>
BAHRAIN				
Number of Requests	1	0	0	1
Dollar Amount (\$000)	112	0	0	112
EGYPT				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
IRAQ				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
JORDAN				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
KUWAIT				
Number of Requests	3	4	0	7
Dollar Amount (\$000)	366	833	0	1199
LEBANON				
Number of Requests	2	3	0	5
Dollar Amount (\$000)	159	89	0	248
LIBYA				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
QATAR				
Number of Requests	1	19	0	20
Dollar Amount (\$000)	35	422	0	456
SAUDI ARABIA				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	19	0	19

#### **Appendix E-5(e) Prohibited as First Received, but Amended(continued)**

Country	Take Action <sup>2</sup>	Refuse <sup>3</sup>	Undecided	Total <sup>4</sup>
SYRIA				
Number of Requests	0	1	0	0
Dollar Amount (\$000)	0	97	0	97
UAE				
Number of Requests	7	12	0	19
Dollar Amount (\$000)	824	1048	0	1,872
OTHER 5				
Number of Requests	2	5	0	7
Dollar Amount (\$000)	72	488	0	560
TOTAL <sup>4</sup>				
Number of Requests	16	45	0	61
Dollar Amount (\$000)	1,566	2,995	0	4,562

<sup>&</sup>lt;sup>1</sup> Transactions figures and dollar values include bids, tenders and trade opportunities. Such figures my be duplicated and include dollar values for potential transactions that never resulted in a sale.

<sup>&</sup>lt;sup>2</sup> Dollar values may not add due to rounding.

<sup>&</sup>lt;sup>3</sup> Includes Abu Dhabi, Sharjah, Ajman, Umm Al-Qaiwan, RA's Al-Khaimah and Fujairah.

<sup>&</sup>lt;sup>4</sup> Includes Algeria, India, Iran, Malaysia, Nigeria, Oman, Pakistan, Tunisia, and Yemen..

<sup>&</sup>lt;sup>5</sup> This figure does not represent business lost due to refusals with boycott requests. It reflects the fact that U.S. companies refused to comply with boycott requests in bidding on contracts totaling this amount. The boycott language is often revised or eliminated to allow U.S. companies to bid consistent with U.S. law. Such revisions are not reflected in these statistics.

<sup>&</sup>lt;sup>7</sup> Transactions in this table are characterized as "take action" or "refuse" in terms of action taken on the original request, not on amended or deleted requests in bidding on contracts totaling the dollar amounts indicated. Prohibited boycott language is often amended or deleted to permit U.S. firms to comply with U.S. law.

#### Number of Individual Firms, Transactions, Requesting Documents and Restrictive Trade Practices Received by ("Controlled-in-Fact") Foreign Subsidiaries October 2004 through September 2005

#### **ALL TRANSACTIONS (Summary Totals)**

Country	Individual Firms Reporting	Transactions Reported	Requesting Documents Involved	Restrictive Trade Practices Requests
United Kingdom	25	62	62	70
France	6	6	6	10
Germany	2	2	2	2
Netherlands	5	6	6	8
Belgium	5	9	9	15
Switzerland	8	10	10	16
Canada	1	2	2	3
Italy	8	11	11	15
Other (European Nations)	10	13	13	15
Other (Arab Nations) 1	31	144	144	178
All Other Nations	19	49	49	54
TOTAL	120	314	314	386

<sup>&</sup>lt;sup>1</sup> Includes Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Saudia Arabia, UAE, Qatar, and Yemen.

#### Number of Individual Firms, Transactions, Requesting Documents and Restrictive Trade Practices Received by ("Controlled-in-Fact") Foreign Subsidiaries October 2004 through September 2005

#### **Appendix E-6(a) All Transactions**

Country	Take Action	Refuse	Undecided	Total
UNITED KINGDOM				
Number of Requests	22	40	0	62
Dollar Amount (\$000)	4,334	535,279	0	539,613
FRANCE				
Number of Requests	1	5	0	6
Dollar Amount (\$000)	8	77,186	0	77,194
GERMANY				
Number of Requests	0	2	0	2
Dollar Amount (\$000)	0	0	0	0
NETHERLANDS				
Number of Requests	1	5	0	6
Dollar Amount (\$000)	0	223	0	223
BELGIUM				
Number of Requests	3	6	0	9
Dollar Amount (\$000)	0	1,304	0	1,304
SWITZERLAND				
Number of Requests	0	10	0	10
Dollar Amount (\$000)	0	119,868	0	119,868
CANADA				
Number of Requests	0	2	0	2
Dollar Amount (\$000)	0	5,216	0	5,216
ITALY				
Number of Requests	0	11	0	11
Dollar Amount (\$000)	0	14,134	0	14,134

#### Number of Individual Firms, Transactions, Requesting Documents and Restrictive Trade Practices Received by ("Controlled-in-Fact") Foreign Subsidiaries October 2004 through September 2005

#### **Appendix E-6(a) All Transactions(continued)**

Country	Take Action	Refuse	Undecided	Total
OTHER EUROPEAN NATIONS				
Number of Requests	0	13	0	13
Dollar Amount (\$000)	0	2,168	0	2,168
OTHER ARAB NATIONS <sup>1</sup>				
Number of Requests	7	136	0	143
Dollar Amount (\$000)	815	368,637	0	369,452
ALL OTHER NATIONS				
Number of Requests	33	16	0	49
Dollar Amount (\$000)	54,963	177,116	0	232,078
TOTAL				
Number of Requests	67	246	0	313
Dollar Amount (\$000)	60,119	1,301,130	0	1,361,250

<sup>&</sup>lt;sup>1</sup> Includes Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Saudia Arabia, UAE, Qatar, and Yemen.

# Number of Requests of Individual Firms, Transactions, Requesting Documents and Restrictive Trade Practices Received by ("Controlled-in-Fact") Foreign Subsidiaries October 2004 through September 2005

#### **Appendix E-6(b) Prohibited Transactions**

Country	Take Action	Refuse	Undecided	Total
UNITED KINGDOM				
Number of Requests	0	16	0	16
Dollar Amount (\$000)	0	506,753	0	506,753
FRANCE				
Number of Requests	1	5	0	6
Dollar Amount (\$000)	0	77,186	0	77,194
GERMANY				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	0	0	0
NETHERLANDS				
Number of Requests	0	3	0	3
Dollar Amount (\$000)	0	136	0	136
BELGIUM				
Number of Requests	3	5	0	8
Dollar Amount (\$000)	0	899	0	899
SWITZERLAND				
Number of Requests	0	5	0	5
Dollar Amount (\$000)	0	112,928	0	112,928
CANADA				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	5,200	0	5,200
ITALY				
Number of Requests	0	7	0	7
Dollar Amount (\$000)	0	12,351	0	12,351

# Number of Requests of Individual Firms, Transactions, Requesting Documents and Restrictive Trade Practices Received by ("Controlled-in-Fact") Foreign Subsidiaries October 2004 through September 2005

#### **Appendix E-6(b) Prohibited Transactions(continued)**

Country	Take Action	Refuse	Undecided	Total
OTHER EUROPEAN NATIONS				
Number of Requests	0	6	0	6
Dollar Amount (\$000)	0	1,399	0	1,399
OTHER ARAB NATIONS <sup>1</sup>				
Number of Requests	1	79	0	80
Dollar Amount (\$000)	5	274,684	0	274,689
ALL OTHER NATIONS				
Number of Requests	1	6	0	6
Dollar Amount (\$000)	0	226	0	226
TOTAL				
Number of Requests	5	134	0	139
Dollar Amount (\$000)	13	991,762	0	991,775

<sup>&</sup>lt;sup>1</sup> Includes Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Saudia Arabia, UAE, Qatar, and Yemen.

### Appendix E-6(c) Prohibited as First Received, but Amended

Country	Take Action	Refuse	Undecided	Total
UNITED KINGDOM				
Number of Requests	0	4	0	4
Dollar Amount (\$000)	0	1,355	0	1,355
FRANCE				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
GERMANY				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
NETHERLANDS				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
BELGIUM				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
SWITZERLAND				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
CANADA				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	16	0	16
ITALY				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0

## Appendix E-6(c) Prohibited as First Received, but Amended(continued)

Country	Take Action	Refuse	Undecided	Total
OTHER EUROPEAN NATIONS				
Number of Requests	0	2	0	2
Dollar Amount (\$000)	0	82	0	82
OTHER ARAB NATIONS <sup>1</sup>				
Number of Requests	0	6	0	6
Dollar Amount (\$000)	0	16,062	0	16,062
ALL OTHER NATIONS				
Number of Requests	2	6	0	8
Dollar Amount (\$000)	50,975	176,190	0	227,165
TOTAL				
Number of Requests	2	19	0	21
Dollar Amount (\$000)	50,975	193,706	0	244,681

<sup>&</sup>lt;sup>1</sup> Includes Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Saudia Arabia, UAE, Qatar, and Yemen.

### **Appendix E-6(d) Exceptions to Prohibitions**

Country	Take Action	Refuse	Undecided	Total
UNITED KINGDOM				
Number of Requests	4	16	0	20
Dollar Amount (\$000)	3,246	17,729	0	20,975
FRANCE				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
GERMANY				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
NETHERLANDS				
Number of Requests	1	0	0	1
Dollar Amount (\$000)	0	0	0	0
BELGIUM				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	404	0	404
SWITZERLAND				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	6,414	0	6,414
CANADA				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
ITALY				
Number of Requests	0	4	0	4
Dollar Amount (\$000)	0	1,783	0	1,783

## **Appendix E-6(d) Exceptions to Prohibitions(continued)**

Country	<b>Take Action</b>	Refuse	Undecided	Total
OTHER EUROPEAN NATIONS				
Number of Requests	0	4	0	4
Dollar Amount (\$000)	0	328	0	328
OTHER ARAB NATIONS <sup>1</sup>				
Number of Requests	4	37	0	41
Dollar Amount (\$000)	406	77,348	0	77,754
ALL OTHER NATIONS				
Number of Requests	31	4	0	35
Dollar Amount (\$000)	3,988	700	0	4,688
TOTAL				
Number of Requests	40	67	0	107
Dollar Amount (\$000)	7,639	104,707	0	112,347

<sup>&</sup>lt;sup>1</sup> Includes Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Saudia Arabia, UAE, Qatar, and Yemen.

### **Appendix E-6(e) Not Prohibited**

Country	Take Action	Refuse	Undecided	Total
UNITED KINGDOM				
Number of Requests	18	4	0	22
Dollar Amount (\$000)	1,088	9,442	0	10,530
FRANCE				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
GERMANY				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	0	0	0
NETHERLANDS				
Number of Requests	0	2	0	2
Dollar Amount (\$000)	0	87	0	87
BELGIUM				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
SWITZERLAND				
Number of Requests	0	4	0	4
Dollar Amount (\$000)	0	526	0	526
CANADA				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
ITALY				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0

## **Appendix E-6(e) Not Prohibited(continued)**

Country	<b>Take Action</b>	Refuse	Undecided	Total
OTHER EUROPEAN NATIONS				
Number of Requests	0	1	0	1
Dollar Amount (\$000)	0	358	0	358
OTHER ARAB NATIONS <sup>1</sup>				
Number of Requests	2	14	0	16
Dollar Amount (\$000)	404	543	0	947
ALL OTHER NATIONS				
Number of Requests	0	0	0	0
Dollar Amount (\$000)	0	0	0	0
TOTAL				
Number of Requests	20	26	0	46
Dollar Amount (\$000)	1,492	10,956	0	12,448

<sup>&</sup>lt;sup>1</sup> Includes Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Saudia Arabia, UAE, Qatar, and Yemen.

## **Office of Antiboycott Compliance**

## **Summary of Cases Closed in Fiscal Year 2005**

Company Name & Location	Date Order Signed	Alleged Violations	Penalty Amount
Alison Transport, Inc. Oceanside, New York	12/22/04	4 violations: 3-760.2(d)[Furnished prohibited business information]; 1-760.5 [Failed to report the receipt of boycott-related request]	\$22,500
Hord Crystal Corporation Pawtucket, Rhode Island	06/15/05	5 Violations: 4-760.2(d)[Furnished prohibited business information]; 1-760.5[Failed to report the receipt of boycott-related request]	\$12,500
H.S. Sheldon & Company Inc. New York, New York	07/27/05	7 Violations: 2-760.2(d)[Furnished prohibited business information]; 5-760.5[Failed to report in a timely manner receipt of boycott-related requests]	\$13,500
National-Oilwell L.P. Houston, Texas	08/09/05	2 Violations: 1-760.2(d)[Furnished prohibited business information]; 1-760.5[Failed to report in a timely manner receipt of boycott-related requests]	\$3,000
Alcoa Europe SA Lausanne, Switzerland	09/30/05	6 Violations: 6-760.5[Failed to report in a timely manner receipt of boycott-related requests]	\$6,000

## **Office of Antiboycott Compliance**

## **Criminal Penalty Imposed During Fiscal Year 2005**

Sentencing Date	Defendant	Charges	Penalty Amount
August 5, 2005	Maine Biological Labs	Three counts of violating the International Emergency Economic Powers Act (15 U.S.C. ß 1701-1705(b)) and 15 C.F.R. ß 760.2(d) and 760.5.	In connection with antiboycott violations and other offenses, Maine Biological Labs a \$500,000 fine.



## U.S. Department of Commerce Bureau of Industry and Security



CCL	Description	<b>Applications</b>	<b>Dollar Value</b>
ALBANIA			
0A984	Shotguns, Buckshot, Shotgun Shells	2	\$1,430
0A987	Optical Sighting Devices for Firearms	1	\$117,000
3A229	Firing Sets and High Current Pulse Generators	1	\$157,500
3A231	Neutron Generator Systems Including Tubes	1	\$540,000
3A232	Detonators/Multipoint Initiation Systems	1	\$105,300
5E001	Technology for Dev/Prod/Use, Etc, of Equip. in 5A0	1	\$2
	Total Applications: 6		
	Total Ccl's: 6		
	Total Dollar Value: \$921,232		

CCL	Description	Applications	Dollar Value
ARMENIA			
1A985	Fingerprinting Powders, Dyes, and Inks	1	\$5,604
3A001	Electronic Devices/Components	1	\$500
	Total Applications: 2		
	Total Ccl's: 2		
	Total Dollar Value: \$6,104		

**Appendix F: Approved Applications for Country Group D:1 and Cuba** 

CCL	Description	<b>Applications</b>	<b>Dollar Value</b>
AZERBAI	JAN		
0A982	Thumbouffs, Leg Irons and Shackles	1	\$2,608
0A984	Shotguns, Buckshot, Shotgun Shells	1	\$6,000
1A985	Fingerprinting Powders, Dyes, and Inks	2	\$57,500
2B350	Chemical Manufacturing Facilities and Equipment	2	\$30,114
3A229	Firing Sets and High Current Pulse Generators	2	\$3,680,000
3A231	Neutron Generator Systems Including Tubes	1	\$742,500
3A232	Detonators/Multipoint Initiation Systems	2	\$1,500,000
3A981	Polygraphs/Fingerprint Analyzers/Cameras/Equipment	1	\$50,000
5D002	Software for Information Security	1	\$65
	Total Applications: 10		
	Total Ccl's: 9		
-	Total Dollar Value: \$6,068,787		

CCL	Description	<b>Applications</b>	Dollar Value
BELARUS			
2B350	Chemical Manufacturing Facilities and Equipment	1	\$290
3D003	Cad Software for Semiconductor Devices/Integrated	7	\$7
3E001	Technology for Dev or Prod of Certain Items in 3a/	7	\$7
3E002	Other Technology for Items in Category 3	7	\$7
4D001	Software for Certain Equipment/Software in 4a-4d	8	\$8
4D002	Software to Support Technology Controlled By 4e	8	\$8
4D003	Specific Software, as Described in This Entry	8	\$8
4E001	Technology for Dev/Prod/Use of Certain Equip/Softw	8	\$8_
5D001	Software for Dev/Prod/Use of Items in 5A001/5B001/	7	\$7
5E001	Technology for Dev/Prod/Use, Etc, of Equip. in 5A0	7	\$7
	Total Applications: 9		
	Total Ccl's: 10		
	Total Dollar Value: \$357		

Appendix F: Approved Applications for Country Group D:1 and Cuba

CCL	Description	<b>Applications</b>	Dollar Value
BULGARIA			
EAR99	Items Subject to the Ear N.e.s.	1	\$42
0A982	Thumbcuffs, Leg Irons and Shackles	2	\$1,920,000
1A001	Components Made from Fluorinated Compounds	1	\$50,000
1A984	Chemical Agents, Including Tear Gas	1	\$39,000
1C111	Propellants and Constituent Chemicals	1	\$8,400
3A001	Electronic Devices/Components	4	\$2,382,604
3A002	General Purpose Electronic Equipment	1	\$36,621
3E002	Other Technology for Items in Category 3	1	\$1
5A002	Systems/Equipment/Integrated Circuits for Info Sec	3	\$68,795
5D002	Software for Information Security	6	\$86,158
5E001	Technology for Dev/Prod/Use, Etc, of Equip. in 5A0	1	\$2
6A003	Cameras	2	\$26,526
	Total Applications: 20		
	Total Ccl's: 12		
	Total Dollar Value: \$4,618,149		

CCL	Description	<b>Applications</b>	<b>Dollar Value</b>
CAMBOD	OIA		
1A985	Fingerprinting Powders, Dyes, and Inks	1	\$50,000
3A981	Polygraphs/Fingerprint Analyzers/Cameras/Equipment	1	\$50,000
	Total Applications: 1		
	Total Ccl's: 2		
	Total Dollar Value: \$100,000		

CCL	Description	Applications	Dollar Value
CHINA			
EAR99	Items Subject to the Ear N.E.S.	19	\$4,287,345
0A979	Police Helmets, Shields and Parts	1	\$7,120
0A984	Shotguns, Buckshot, Shotgun Shells	1	\$208,000
0A987	Optical Sighting Devices for Firearms	5	\$355,600
1A001	Components Made from Fluorinated Compounds	3	\$14,480
1A004	Protective and Detection Equipment	11	\$1,190,949
1A999	Specific Processing Equipment, N.E.S	5	\$1,355,795
1B001	Equipment for Production of Fibers, Preforms or CO	1	\$185,000
1B101	Other Equipment for Production of Fibers/Preforms/	1	\$246,800
1B117	Production Equipment for Testing of Propellants	1	\$27,000
1B201	Filament Winding Machines	2	\$195,500
1B225	Electrolyticcells for Fluorine Production	1	\$400,000
1C003	Magnetic Metals	1	\$5,457,000
1C008	Non-fluorinated Polymeric Substances	13	\$36,921,599
1C010	Fibrous/Filamentary Materials Used in Matrix Struc	7	\$5,471,331
1C111	Propellants and Constituent Chemicals	1	\$3
1C202	Aluminum and Titanium Alloys in the Form of Tubes/	7	\$7,744,594
1C210	Fibrous/Filamentary Materials Not Controlled by 1C	5	\$12,951,180
1C225	Boron and Boron Compounds/Mixtures and Loaded Mate	1	\$4,742
1C231	Hafnium	6	\$1,137,182
1C233	Lithium	1	\$1,276
1C234	Zirconium, With a Hafnium Content	3	\$679,714
1C240	Nickel Powder or Porous Nickel Metal	1	\$960,000
1C350	Chemicals, Precursors for Toxic Chemical Agents	39	\$45,034,341
1C351	Human Pathogens, Zoonoses, and Toxins	7	\$9,033
1C352	Animal Pathogens	1	\$1,400
1E001	Technology for Development of Equipment Under 1A00	6	\$2,250,004
1E201	Technology for Use of 1A002,1A202,1A225 To 1B225	2	\$1
1E350	Technology for Use of 1c350 Chemicals	1	\$1
1E351	Technology for Use of Microbiological Materials	1	\$1
2A001	Ball Bearings/Solid Roller Bearings for Abec 7	1	\$25,000
2A226	Valves Not Controlled By 0b001	1	\$37,000
2A291	Nuclear Reactor and Nuclear Power Plant Related EQ	2	\$69,000
2A983	Explosives or Detonator Detection Equipment	25	\$5,413,719
2B001	Numerical Control Units/Motion Control Boards	6	\$6,343,848

CHINA (CONTINUED)           28005         Processing Equipmentof Inorganic Overlays/Coatings         1         \$2,500,000           28006         Dimensional Inspection/Measuring Systems or Equipm         7         \$809,544           28008         Assemblies/Units/Inserts For Machiner Tools In 2b00         1         \$25,000           28201         Machine Tools for Removing or Cutting Metals         3         \$388,053           28204         Isostatic Presses Not Controlled by 28004 or 2B104         3         \$512,706           28225         Remote Manipulators         1         \$4,000,000           28226         Vacuum and Controlled Environment Induction Furnac         2         \$2,250,000           28230         Pressure Transducers         44         \$1,700,174           28231         Vacuum Pumps         6         \$60,2165           28232         Multistage Light Gas Guns or Other High-velocity S         1         \$34,650           28350         Chemical Manufacturing Facilities and Equipment         216         \$40,498,078           28351         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,39           28352         Equipment for Handling Biological Materials         37         \$4,325,881           28939         Specific Processing Equipmen	CCL	Description	Applications	Dollar Value
2B006         Dimensional Inspection/Measuring Systems or Equipm         7         \$809,544           2B008         Assemblies/Units/Inserts For Machine Tools In 2b00         1         \$25,000           2B201         Machine Tools for Removing or Cutting Metals         3         \$388,053           2B204         Isostatic Presses Not Controlled by 2B004 or 2B104         3         \$512,706           2B225         Remote Manipulators         1         \$4,000,000           2B226         Vacuum and Controlled Environment Induction Furnac         2         \$2,250,000           2B230         Pressure Transducers         44         \$1,700,174           2B231         Vacuum Pumps         6         \$602,165           2B232         Multistage Light Gas Guns or Other High-velocity S         1         \$34,650           2B351         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           2B351         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           2B352         Equipment for Handling Biological Materials         37         \$4,325,843           2B353         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           2B354         Equipment for Handling Biological Materials         37 <th< td=""><td>CHINA (C</td><td>CONTINUED)</td><td></td><td></td></th<>	CHINA (C	CONTINUED)		
2B008         Assemblies/Units/Inserts For Machine Tools In 2b00         1         \$25,000           2B201         Machine Tools for Removing or Cutting Metals         3         \$388,053           2B204         Isostatic Presses Not Controlled by 2B004 or 2B104         3         \$512,706           2B225         Remote Manipulators         1         \$4,000,000           2B226         Vacuum and Controlled Environment Induction Furnac         2         \$2,250,000           2B230         Pressure Transducers         44         \$1,700,174           2B231         Vacuum Pumps         6         \$602,165           2B232         Multistage Light Gas Guns or Other High-velocity S         1         \$34,650           2B350         Chemical Manufacturing Facilities and Equipment         216         \$40,498,078           2B351         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           2B352         Equipment for Handling Biological Materials         37         \$4,325,881           2B352         Equipment for Equipment, N.E.S.         2         \$11         \$500,000           2B353         Specific Processing Equipment, N.E.S.         2         \$11         \$500,000           2B354         Equipment for Equipment in Category 2A/2B         1	2B005	Processing Equipmentof Inorganic Overlays/Coatings	1	\$2,500,000
2B201         Machine Tools for Removing or Cutting Metals         3         \$388,053           2B204         Isostatic Presses Not Controlled by 2B004 or 2B104         3         \$512,706           2B225         Remote Manipulators         1         \$4,000,000           2B226         Vacuum and Controlled Environment Induction Furnac         2         \$2,250,000           2B230         Pressure Transducers         44         \$1,700,174           2B231         Vacuum Pumps         6         \$662,165           2B232         Multistage Light Gas Guns or Other High-velocity S         1         \$34,650           2B350         Chemical Manufacturing Facilities and Equipment         216         \$40,498,078           2B351         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           2B352         Equipment for Handling Biological Materials         37         \$4,325,881           2B353         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           2B352         Equipment for Handling Biological Materials         37         \$4,325,881           2B352         Equipment for Category 2A/2B         1         \$500,000           2B352         Specific Processing Equipment, N.E.S.         2         \$18,174	2B006	Dimensional Inspection/Measuring Systems or Equipm	7	\$809,544
2B204         Isostatic Presses Not Controlled by 2B004 or 2B104         3         \$512,706           2B225         Remote Manipulators         1         \$4,000,000           2B226         Vacuum and Controlled Environment Induction Furnac         2         \$2,250,000           2B230         Pressure Transducers         44         \$1,700,174           2B231         Vacuum Pumps         6         \$602,165           2B232         Multistage Light Gas Guns or Other High-velocity S         1         \$34,650           2B350         Chemical Manufacturing Facilities and Equipment         216         \$40,498,078           2B351         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           2B352         Equipment for Handling Biological Materials         37         \$4,325,881           2B999         Specific Processing Equipment, N.E.S.         2         \$18,124           2D001         Software for Equipment in Category 2A/2B         1         \$500,000           2D002         Adaptive Control/Electronic Device Software         5         \$15,786,310           2D200         Software Specially Designed or Modified for 2A/290/         1         \$11,730           2d883         Equipment Controlleld by 2883         7         \$251,818	2B008	Assemblies/Units/Inserts For Machine Tools In 2b00	1	\$25,000
2B225         Remote Manipulators         1         \$4,000,000           2B226         Vacuum and Controlled Environment Induction Furnac         2         \$2,250,000           2B230         Pressure Transducers         44         \$1,700,174           2B231         Vacuum Pumps         6         \$602,165           2B232         Multistage Light Gas Guns or Other High-velocity S         1         \$34,650           2B350         Chemical Manufacturing Facilities and Equipment         216         \$40,498,650           2B351         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           2B351         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           2B352         Equipment for Handling Biological Materials         37         \$4,325,881           2B999         Specific Processing Equipment, N.E.S.         2         \$18,124           2D001         Software for Equipment in Category 2A/2B         1         \$500,000           2D002         Adaptive Control/Electronic Device Software         5         \$15,786,310           2D290         Software Specially Designed or Modified for 2A290/         1         \$11,730           2d983         Equipment Controlled by 2a83         7         \$251,818	2B201	Machine Tools for Removing or Cutting Metals	3	\$388,053
2B226         Vacuum and Controlled Environment Induction Furnac         2         \$2,250,000           2B230         Pressure Transducers         44         \$1,700,174           2B231         Vacuum Pumps         6         \$602,165           2B232         Multistage Light Gas Guns or Other High-velocity S         1         \$34,650           2B350         Chemical Manufacturing Facilities and Equipment         216         \$40,498,078           2B351         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           2B352         Equipment for Handling Biological Materials         37         \$4,325,881           2B999         Specific Processing Equipment, N.E.S.         2         \$18,124           2D001         Software for Equipment in Category 2A/2B         1         \$500,000           2D002         Adaptive Control/Electronic Device Software         5         \$15,786,310           2D290         Software Specially Designed or Modified for 2A290/         1         \$11,730           2d983         Equipment Controlled by 2a983         7         \$251,818           2e001         Technology Supporting Equipment/Production in 2A/2B/         1         \$2,500,000           2e002         Technology for Use of Commodities Controlled by 2A         3         \$250,00	2B204	Isostatic Presses Not Controlled by 2B004 or 2B104	3	\$512,706
2B230         Pressure Transducers         44         \$1,700,174           2B231         Vacuum Pumps         6         \$602,165           2B232         Multistage Light Gas Guns or Other High-velocity S         1         \$34,650           2B350         Chemical Manufacturing Facilities and Equipment         216         \$40,498,078           2B351         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           2B352         Equipment for Handling Biological Materials         37         \$4,325,881           2B999         Specific Processing Equipment, N.E.S.         2         \$18,124           2D001         Software for Equipment in Category 2A/2B         1         \$500,000           2D002         Adaptive Control/Electronic Device Software         5         \$15,786,310           2D290         Software Specially Designed or Modified for 2A290/         1         \$11,730           2d983         Equipment Controlled by 2a983         7         \$251,818           2e001         Technology Supporting Equipment/Production in 2A/2B/         1         \$2,500,000           2e002         Technology Equipment Equipment Production in 2A/2         4         \$598,101           2e003         Other Technology for Use of Commodities Controlled by 2A         3         \$250	2B225	Remote Manipulators	1	\$4,000,000
2B231         Vacuum Pumps         6         \$602,165           2B232         Multistage Light Gas Guns or Other High-velocity S         1         \$34,650           2B350         Chemical Manufacturing Facilities and Equipment         216         \$40,498,078           2B351         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           2B352         Equipment for Handling Biological Materials         37         \$4,325,881           2B999         Specific Processing Equipment, N.E.S.         2         \$18,124           2D001         Software for Equipment in Category 2A/2B         1         \$500,000           2D002         Adaptive Control/Electronic Device Software         5         \$15,786,310           2D290         Software Specially Designed or Modified for 2A290/         1         \$11,730           2d983         Equipment Controlled by 2a983         7         \$251,818           2e001         Technology Supporting Equipment/Software in 2A/2B/         1         \$2,500,000           2e002         Technology Supporting Equipment/Production in 2A/2         4         \$598,101           2e001         Technology for Use of Commodities Controlled by 2A         3         \$250,000           2e290         Technology for Use of Commodities Controlled by 2A         1 </td <td>2B226</td> <td>Vacuum and Controlled Environment Induction Furnac</td> <td>2</td> <td>\$2,250,000</td>	2B226	Vacuum and Controlled Environment Induction Furnac	2	\$2,250,000
2B232         Multistage Light Gas Guns or Other High-velocity S         1         \$34,650           2B350         Chemical Manufacturing Facilities and Equipment         216         \$40,498,078           2B351         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           2B352         Equipment for Handling Biological Materials         37         \$4,325,881           2B999         Specific Processing Equipment, N.E.S.         2         \$18,124           2D001         Software for Equipment in Category 2A/2B         1         \$500,000           2D002         Adaptive Control/Electronic Device Software         5         \$15,786,310           2D290         Software Specially Designed or Modified for 2A290/         1         \$11,730           2d983         Equipment Controlled by 2a983         7         \$251,818           2e001         Technology Supporting Equipment/Software in 2A/2B/         1         \$2,500,000           2e002         Technology Supporting Equipment/Production in 2A/2         4         \$598,101           2e003         Other Technology         4         \$2           2e201         Technology for Use of Commodities Controlled by 2A         3         \$250,000           2e290         Technology for Use of Commodities Controlled by 2B         6 <td>2B230</td> <td>Pressure Transducers</td> <td>44</td> <td>\$1,700,174</td>	2B230	Pressure Transducers	44	\$1,700,174
28350         Chemical Manufacturing Facilities and Equipment         216         \$40,498,078           28351         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           28352         Equipment for Handling Biological Materials         37         \$4,325,881           28999         Specific Processing Equipment, N.E.S.         2         \$18,124           2D001         Software for Equipment in Category 2A/2B         1         \$500,000           2D002         Adaptive Control/Electronic Device Software         5         \$15,786,310           2D290         Software Specially Designed or Modified for 2A290/         1         \$11,730           2d983         Equipment Controlled by 2a983         7         \$251,818           2e001         Technology Supporting Equipment/Production in 2A/2B/         1         \$2,500,000           2e002         Technology Supporting Equipment/Production in 2A/2         4         \$598,101           2e003         Other Technology         4         \$2           2e201         Technology for Use of Commodities Controlled by 2A         3         \$250,000           2e290         Technology for Use of Commodities Controlled by 2B         6         \$4           2e983         Software Controlled by 2D983         8         \$7	2B231	Vacuum Pumps	6	\$602,165
2B351         Toxic Gas Monitoring Systems & Dedicated Detectors         46         \$1,613,936           2B352         Equipment for Handling Biological Materials         37         \$4,325,881           2B999         Specific Processing Equipment, N.E.S.         2         \$18,124           2D001         Software for Equipment in Category 2A/2B         1         \$500,000           2D002         Adaptive Control/Electronic Device Software         5         \$15,786,310           2D290         Software Specially Designed or Modified for 2A290/         1         \$11,730           2d983         Equipment Controlled by 2a983         7         \$251,818           2e001         Technology Supporting Equipment/Software in 2A/2B/         1         \$2,500,000           2e002         Technology Supporting Equipment/Production in 2A/2         4         \$598,101           2e003         Other Technology         4         \$2           2e201         Technology for Use of Commodities Controlled by 2A         3         \$250,000           2e290         Technology for Use of Commodities Controlled by 2B         6         \$4           2e983         Software Controlled by 2D983         8         \$7           3a001         Electronic Devices/Components         48         \$2,026,358,338	2B232	Multistage Light Gas Guns or Other High-velocity S	1	\$34,650
2B352         Equipment for Handling Biological Materials         37         \$4,325,881           2B999         Specific Processing Equipment, N.E.S.         2         \$18,124           2D001         Software for Equipment in Category 2A/2B         1         \$500,000           2D002         Adaptive Control/Electronic Device Software         5         \$15,786,310           2D290         Software Specially Designed or Modified for 2A290/         1         \$11,730           2d983         Equipment Controlled by 2a983         7         \$251,818           2e001         Technology Supporting Equipment/Software in 2A/2B/         1         \$2,500,000           2e002         Technology Supporting Equipment/Production in 2A/2         4         \$598,101           2e003         Other Technology         4         \$2           2e201         Technology for Use of Commodities Controlled by 2A         3         \$250,000           2e290         Technology for Use of Commodities Controlled by 2B         6         \$4           2e983         Software Controlled by 2D983         8         \$7           3a001         Electronic Devices/Components         48         \$2,026,358,338           3a002         General Purpose Electronic Equipment         14         \$1,840,000           3a23	2B350	Chemical Manufacturing Facilities and Equipment	216	\$40,498,078
28999         Specific Processing Equipment, N.E.S.         2         \$18,124           2D001         Software for Equipment in Category 2A/2B         1         \$500,000           2D002         Adaptive Control/Electronic Device Software         5         \$15,786,310           2D290         Software Specially Designed or Modified for 2A290/         1         \$11,730           2d983         Equipment Controlled by 2a983         7         \$251,818           2e001         Technology Supporting Equipment/Software in 2A/2B/         1         \$2,500,000           2e002         Technology Supporting Equipment/Production in 2A/2         4         \$598,101           2e003         Other Technology         4         \$2           2e201         Technology for Use of Commodities Controlled by 2A         3         \$250,000           2e290         Technology for Use of Commodities Controlled by 2B         6         \$4           2e983         Software Controlled by 2D983         8         \$7           3a001         Electronic Devices/Components         48         \$2,026,358,338           3a002         General Purpose Electronic Equipment         14         \$1,993,638           3a225         Inverters/Converters/Frequency Changers/Generators         5         \$1,999,638 <t< td=""><td>2B351</td><td>Toxic Gas Monitoring Systems &amp; Dedicated Detectors</td><td>46</td><td>\$1,613,936</td></t<>	2B351	Toxic Gas Monitoring Systems & Dedicated Detectors	46	\$1,613,936
2D001         Software for Equipment in Category 2A/2B         1         \$500,000           2D002         Adaptive Control/Electronic Device Software         5         \$15,786,310           2D290         Software Specially Designed or Modified for 2A290/         1         \$11,730           2d983         Equipment Controlled by 2a983         7         \$251,818           2e001         Technology Supporting Equipment/Software in 2A/2B/         1         \$2,500,000           2e002         Technology Supporting Equipment/Production in 2A/2         4         \$598,101           2e003         Other Technology         4         \$2           2e201         Technology for Use of Commodities Controlled by 2A         3         \$250,000           2e290         Technology for Use of Commodities Controlled by 2B         6         \$4           2e983         Software Controlled by 2D983         8         \$7           3a001         Electronic Devices/Components         48         \$2,026,358,338           3a002         General Purpose Electronic Equipment         14         \$1,973,964           3a225         Inverters/Converters/Frequency Changers/Generators         5         \$1,999,638           3a229         Firing Sets and High Current Pulse Generators         1         \$25,100	2B352	Equipment for Handling Biological Materials	37	\$4,325,881
2D002         Adaptive Control/Electronic Device Software         5         \$15,786,310           2D290         Software Specially Designed or Modified for 2A290/         1         \$11,730           2d983         Equipment Controlled by 2a983         7         \$251,818           2e001         Technology Supporting Equipment/Software in 2A/2B/         1         \$2,500,000           2e002         Technology Supporting Equipment/Production in 2A/2         4         \$598,101           2e003         Other Technology         4         \$2           2e201         Technology for Use of Commodities Controlled by 2A         3         \$250,000           2e290         Technology for Use of Commodities Controlled by 2A         1         \$100           2e301         Technology for Use of Commodities Controlled by 2B         6         \$4           2e983         Software Controlled by 2D983         8         \$7           3a001         Electronic Devices/Components         48         \$2,026,358,338           3a002         General Purpose Electronic Equipment         14         \$1,973,964           3a229         Firing Sets and High Current Pulse Generators         5         \$1,999,638           3a230         High Speed Pulse Generators         1         \$1,840,000           3a23	2B999	Specific Processing Equipment, N.E.S.	2	\$18,124
2D290         Software Specially Designed or Modified for 2A290/         1         \$11,730           2d983         Equipment Controlled by 2a983         7         \$251,818           2e001         Technology Supporting Equipment/Software in 2A/2B/         1         \$2,500,000           2e002         Technology Supporting Equipment/Production in 2A/2         4         \$598,101           2e003         Other Technology         4         \$2           2e201         Technology for Use of Commodities Controlled by 2A         3         \$250,000           2e290         Technology for Use of Commodities Controlled by 2B         6         \$4           2e983         Software Controlled by 2D983         8         \$7           3a001         Electronic Devices/Components         48         \$2,026,358,338           3a002         General Purpose Electronic Equipment         14         \$1,973,964           3a225         Inverters/Converters/Frequency Changers/Generators         5         \$1,999,638           3a229         Firing Sets and High Current Pulse Generators         1         \$1,840,000           3a231         Neutron Generator Systems Including Tubes         4         \$1,680,000           3a232         Detonators/Multipoint Initiation Systems         2         \$1,385,500	2D001	Software for Equipment in Category 2A/2B	1	\$500,000
2d983         Equipment Controlled by 2a983         7         \$251,818           2e001         Technology Supporting Equipment/Software in 2A/2B/         1         \$2,500,000           2e002         Technology Supporting Equipment/Production in 2A/2         4         \$598,101           2e003         Other Technology         4         \$2           2e201         Technology for Use of Commodities Controlled by 2A         3         \$250,000           2e290         Technology for Use of Commodities Controlled by 2B         6         \$4           2e301         Technology for Use of Commodities Controlled by 2B         6         \$4           2e983         Software Controlled by 2D983         8         \$7           3a001         Electronic Devices/Components         48         \$2,026,358,338           3a002         General Purpose Electronic Equipment         14         \$1,973,964           3a225         Inverters/Converters/Frequency Changers/Generators         5         \$1,999,638           3a229         Firing Sets and High Current Pulse Generators         1         \$1,840,000           3a230         High Speed Pulse Generators         1         \$25,100           3a231         Neutron Generator Systems Including Tubes         4         \$1,680,000           3a233 <td>2D002</td> <td>Adaptive Control/Electronic Device Software</td> <td>5</td> <td>\$15,786,310</td>	2D002	Adaptive Control/Electronic Device Software	5	\$15,786,310
2e001Technology Supporting Equipment/Software in 2A/2B/1\$2,500,0002e002Technology Supporting Equipment/Production in 2A/24\$598,1012e003Other Technology4\$22e201Technology for Use of Commodities Controlled by 2A3\$250,0002e290Technology for Use of Commodities Controlled by 2A1\$1002e301Technology for Use of Commodities Controlled by 2B6\$42e983Software Controlled by 2D9838\$73a001Electronic Devices/Components48\$2,026,358,3383a002General Purpose Electronic Equipment14\$1,973,9643a225Inverters/Converters/Frequency Changers/Generators5\$1,999,6383a229Firing Sets and High Current Pulse Generators1\$1,840,0003a230High Speed Pulse Generators1\$25,1003a231Neutron Generator Systems Including Tubes4\$1,680,0003a232Detonators/Multipoint Initiation Systems2\$1,385,5003a233Mass Spectrometers14\$1,842,8313a992General Purpose Electronic Equipment8\$104,176	2D290	Software Specially Designed or Modified for 2A290/	1	\$11,730
2e002         Technology Supporting Equipment/Production in 2A/2         4         \$598,101           2e003         Other Technology         4         \$2           2e201         Technology for Use of Commodities Controlled by 2A         3         \$250,000           2e290         Technology for Use of Commodities Controlled by 2A         1         \$100           2e301         Technology for Use of Commodities Controlled by 2B         6         \$4           2e983         Software Controlled by 2D983         8         \$7           3a001         Electronic Devices/Components         48         \$2,026,358,338           3a002         General Purpose Electronic Equipment         14         \$1,973,964           3a225         Inverters/Converters/Frequency Changers/Generators         5         \$1,999,638           3a229         Firing Sets and High Current Pulse Generators         1         \$1,840,000           3a230         High Speed Pulse Generators         1         \$25,100           3a231         Neutron Generator Systems Including Tubes         4         \$1,680,000           3a232         Detonators/Multipoint Initiation Systems         2         \$1,385,500           3a233         Mass Spectrometers         14         \$1,842,831           3a992         Ge	2d983	Equipment Controlled by 2a983	7	\$251,818
2e003         Other Technology         4         \$2           2e201         Technology for Use of Commodities Controlled by 2A         3         \$250,000           2e290         Technology for Use of Commodities Controlled by 2A         1         \$100           2e301         Technology for Use of Commodities Controlled by 2B         6         \$4           2e983         Software Controlled by 2D983         8         \$7           3a001         Electronic Devices/Components         48         \$2,026,358,338           3a002         General Purpose Electronic Equipment         14         \$1,973,964           3a225         Inverters/Converters/Frequency Changers/Generators         5         \$1,999,638           3a229         Firing Sets and High Current Pulse Generators         1         \$1,840,000           3a230         High Speed Pulse Generators         1         \$25,100           3a231         Neutron Generator Systems Including Tubes         4         \$1,680,000           3a232         Detonators/Multipoint Initiation Systems         2         \$1,385,500           3a233         Mass Spectrometers         14         \$1,842,831           3a992         General Purpose Electronic Equipment         8         \$104,176	2e001	Technology Supporting Equipment/Software in 2A/2B/	1	\$2,500,000
2e201Technology for Use of Commodities Controlled by 2A3\$250,0002e290Technology for Use of Commodities Controlled by 2A1\$1002e301Technology for Use of Commodities Controlled by 2B6\$42e983Software Controlled by 2D9838\$73a001Electronic Devices/Components48\$2,026,358,3383a002General Purpose Electronic Equipment14\$1,973,9643a225Inverters/Converters/Frequency Changers/Generators5\$1,999,6383a229Firing Sets and High Current Pulse Generators1\$1,840,0003a230High Speed Pulse Generators1\$25,1003a231Neutron Generator Systems Including Tubes4\$1,680,0003a232Detonators/Multipoint Initiation Systems2\$1,385,5003a233Mass Spectrometers14\$1,842,8313a992General Purpose Electronic Equipment8\$104,176	2e002	Technology Supporting Equipment/Production in 2A/2	4	\$598,101
2e290Technology for Use of Commodities Controlled by 2A1\$1002e301Technology for Use of Commodities Controlled by 2B6\$42e983Software Controlled by 2D9838\$73a001Electronic Devices/Components48\$2,026,358,3383a002General Purpose Electronic Equipment14\$1,973,9643a225Inverters/Converters/Frequency Changers/Generators5\$1,999,6383a229Firing Sets and High Current Pulse Generators1\$1,840,0003a230High Speed Pulse Generators1\$25,1003a231Neutron Generator Systems Including Tubes4\$1,680,0003a232Detonators/Multipoint Initiation Systems2\$1,385,5003a233Mass Spectrometers14\$1,842,8313a992General Purpose Electronic Equipment8\$104,176	2e003	Other Technology	4	\$2
2e301         Technology for Use of Commodities Controlled by 2B         6         \$4           2e983         Software Controlled by 2D983         8         \$7           3a001         Electronic Devices/Components         48         \$2,026,358,338           3a002         General Purpose Electronic Equipment         14         \$1,973,964           3a225         Inverters/Converters/Frequency Changers/Generators         5         \$1,999,638           3a229         Firing Sets and High Current Pulse Generators         1         \$1,840,000           3a230         High Speed Pulse Generators         1         \$25,100           3a231         Neutron Generator Systems Including Tubes         4         \$1,680,000           3a232         Detonators/Multipoint Initiation Systems         2         \$1,385,500           3a233         Mass Spectrometers         14         \$1,842,831           3a992         General Purpose Electronic Equipment         8         \$104,176	2e201	Technology for Use of Commodities Controlled by 2A	3	\$250,000
2e983         Software Controlled by 2D983         8         \$7           3a001         Electronic Devices/Components         48         \$2,026,358,338           3a002         General Purpose Electronic Equipment         14         \$1,973,964           3a225         Inverters/Converters/Frequency Changers/Generators         5         \$1,999,638           3a229         Firing Sets and High Current Pulse Generators         1         \$1,840,000           3a230         High Speed Pulse Generators         1         \$25,100           3a231         Neutron Generator Systems Including Tubes         4         \$1,680,000           3a232         Detonators/Multipoint Initiation Systems         2         \$1,385,500           3a233         Mass Spectrometers         14         \$1,842,831           3a992         General Purpose Electronic Equipment         8         \$104,176	2e290	Technology for Use of Commodities Controlled by 2A	1	\$100
3a001Electronic Devices/Components48\$2,026,358,3383a002General Purpose Electronic Equipment14\$1,973,9643a225Inverters/Converters/Frequency Changers/Generators5\$1,999,6383a229Firing Sets and High Current Pulse Generators1\$1,840,0003a230High Speed Pulse Generators1\$25,1003a231Neutron Generator Systems Including Tubes4\$1,680,0003a232Detonators/Multipoint Initiation Systems2\$1,385,5003a233Mass Spectrometers14\$1,842,8313a992General Purpose Electronic Equipment8\$104,176	2e301	Technology for Use of Commodities Controlled by 2B	6	\$4
3a002General Purpose Electronic Equipment14\$1,973,9643a225Inverters/Converters/Frequency Changers/Generators5\$1,999,6383a229Firing Sets and High Current Pulse Generators1\$1,840,0003a230High Speed Pulse Generators1\$25,1003a231Neutron Generator Systems Including Tubes4\$1,680,0003a232Detonators/Multipoint Initiation Systems2\$1,385,5003a233Mass Spectrometers14\$1,842,8313a992General Purpose Electronic Equipment8\$104,176	2e983	Software Controlled by 2D983	8	\$7
3a225Inverters/Converters/Frequency Changers/Generators5\$1,999,6383a229Firing Sets and High Current Pulse Generators1\$1,840,0003a230High Speed Pulse Generators1\$25,1003a231Neutron Generator Systems Including Tubes4\$1,680,0003a232Detonators/Multipoint Initiation Systems2\$1,385,5003a233Mass Spectrometers14\$1,842,8313a992General Purpose Electronic Equipment8\$104,176	3a001	Electronic Devices/Components	48	\$2,026,358,338
3a229Firing Sets and High Current Pulse Generators1\$1,840,0003a230High Speed Pulse Generators1\$25,1003a231Neutron Generator Systems Including Tubes4\$1,680,0003a232Detonators/Multipoint Initiation Systems2\$1,385,5003a233Mass Spectrometers14\$1,842,8313a992General Purpose Electronic Equipment8\$104,176	3a002	General Purpose Electronic Equipment	14	\$1,973,964
3a230High Speed Pulse Generators1\$25,1003a231Neutron Generator Systems Including Tubes4\$1,680,0003a232Detonators/Multipoint Initiation Systems2\$1,385,5003a233Mass Spectrometers14\$1,842,8313a992General Purpose Electronic Equipment8\$104,176	3a225	Inverters/Converters/Frequency Changers/Generators	5	\$1,999,638
3a231Neutron Generator Systems Including Tubes4\$1,680,0003a232Detonators/Multipoint Initiation Systems2\$1,385,5003a233Mass Spectrometers14\$1,842,8313a992General Purpose Electronic Equipment8\$104,176	3a229	Firing Sets and High Current Pulse Generators	1	\$1,840,000
3a232Detonators/Multipoint Initiation Systems2\$1,385,5003a233Mass Spectrometers14\$1,842,8313a992General Purpose Electronic Equipment8\$104,176	3a230	High Speed Pulse Generators	1	\$25,100
3a233Mass Spectrometers14\$1,842,8313a992General Purpose Electronic Equipment8\$104,176	3a231	Neutron Generator Systems Including Tubes	4	\$1,680,000
3a992 General Purpose Electronic Equipment 8 \$104,176	3a232	Detonators/Multipoint Initiation Systems	2	\$1,385,500
	3a233	Mass Spectrometers	14	\$1,842,831
3b001 Epitaxial Equipment for Semiconductors 47 \$97,536,231	3a992	General Purpose Electronic Equipment	8	\$104,176
	3b001	Epitaxial Equipment for Semiconductors	47	\$97,536,231

CHINA (CONTINUED)           3B991         Other Mfg/Test Equipment Not Controlled by 3B         1         \$10,800,000           3C002         Resist Materials         29         \$3,665,000           3C003         Organo-inorganic Compounds Described in This Entry         10         \$6,136,140           3C004         Hydrides of Phosphorus, Arsenic, or Antimony         21         \$23,723,672           3D002         Software for Use of Certain Equipment Controlled B         4         \$4           3D003         Cad Software for Semiconductor Devices/Integrated         35         \$35           3D991         General Purpose Electronic Equipment for 3A992         2         \$13,764           3E001         Technology for Dev or Prod of Certain Items in 3A991         150         \$665           3E002         Other Technology for Items in Category 3         95         \$94           3E911         Technology for the Use of Certain Items in 3A         5         \$204           4A003         Digital Computers/Assemblies and Related Equipment         6         \$2,308,826           4A094         Items Not Controlled by 4A001/4902/4A003         2         \$13,195           4D001         Software to Support Technology Controlled by 4E         40         \$44           4D002         Software for Certa	CCL	Description	Applications	Dollar Value
3C002         Resist Materials         29         \$3.655,000           3C003         Organo-inorganic Compounds Described in This Entry         10         \$6,136,140           3C004         Hydrides of Phosphrorus, Arsenic, or Antimony         21         \$23,723,672           3D002         Software for Use of Certain Equipment Controlled B         4         \$4           3D003         Cad Software for Semiconductor Devices/Integrated         35         \$35           3D903         General Purpose Electronic Equipment for 3A992         2         \$13,764           3E001         Technology for Dev or Prod of Certain Items in 3a/         150         \$666           3E002         Other Technology for Items in Category 3         95         \$94           3E201         Technology for the Use of Certain Items in 3A         5         \$204           3E991         Manufacturing and Test Equipment For 3B991/92         3         \$5,055           4A003         Digital Computers/Assemblies and Related Equipment         6         \$2,308,826           4A994         Items Not Controlled by 4A001/4*002/4A003         2         \$31,394           4D001         Software for Certain Equipment/Software in 4A-4D         43         \$43           4D002         Software to Support Technology Controlled by 4E         40	CHINA (C	CONTINUED)		
3C003         Organo-inorganic Compounds Described in This Entry         10         \$6,136,140           3C004         Hydrides of Phosphorus, Arsenic, or Antimony         21         \$23,723,672           3D002         Software for Use of Certain Equipment Controlled B         4         \$4           3D003         Cad Software for Semiconductor Devices/Integrated         35         \$35           3D091         General Purpose Electronic Equipment for 3A992         2         \$13,764           3E001         Technology for Dev or Prod of Certain Items in 3A//         150         \$665           3E002         Other Technology for Items in Category 3         95         \$94           3E201         Technology for the Use of Certain Items in 3A         5         \$204           3E991         Manufacturing and Test Equipment For 3B991/92         3         \$5,055           4A003         Digital Computers/Assemblies and Related Equipment         6         \$2,308,826           4A994         Items Not Controlled by 4A001/4*002/4A003         2         \$13,195           4D001         Software to Support Technology Controlled by 4E         40         \$40           4D002         Software to Support Technology Controlled by 4E         40         \$40           4D003         Specific Software, as Described in this Entry	3B991	Other Mfg/Test Equipment Not Controlled by 3B	1	\$10,800,000
3C004         Hydrides of Phosphorus, Arsenic, or Antimony         21         \$23,723,672           3D002         Software for Use of Certain Equipment Controlled B         4         \$4           3D003         Cad Software for Semiconductor Devices/Integrated         35         \$35           3D991         General Purpose Electronic Equipment for 3A992         2         \$13,764           3E001         Technology for Dev or Prod of Certain Items in 3a/         150         \$665           3E002         Other Technology for Items in Category 3         95         \$94           3E201         Technology for the Use of Certain Items in 3A         5         \$204           3E991         Manufacturing and Test Equipment For 3B991/92         3         \$5,055           4A003         Digital Computers/Assemblies and Related Equipment         6         \$2,308,826           4A994         Items Not Controlled by 4A001/4*002/4A003         2         \$13,195           4D001         Software for Certain Equipment/Software in 4A-4D         43         \$43           4D002         Software to Support Technology Controlled by 4E         40         \$40           4D003         Specific Software, as Described in this Entry         47         \$47           4B001         Technology for Dev/Prod/Use of Items in 4A994/4B994/	3C002	Resist Materials	29	\$3,655,000
3D002         Software for Use of Certain Equipment Controlled B         4         \$4           3D003         Cad Software for Semiconductor Devices/Integrated         35         \$35           3D991         General Purpose Electronic Equipment for 3A992         2         \$13,764           3E001         Technology for Dev or Prod of Certain Items in 3a/         150         \$665           3E002         Other Technology for Items in Category 3         95         \$94           3E201         Technology for the Use of Certain Items in 3A         5         \$204           3E991         Manufacturing and Test Equipment For 3B991/92         3         \$5,055           4A003         Digital Computers/Assemblies and Related Equipment         6         \$2,308,826           4A994         Items Not Controlled by 4A001/4*002/4A003         2         \$13,195           4D001         Software for Certain Equipment/Software in 4A-4D         43         \$43           4D002         Software to Support Technology Controlled by 4E         40         \$40           4D003         Specific Software, as Described in this Entry         47         \$47           4D001         Software for Dev/Prod/Use of Items in 4A994/4B994/         2         \$26,295           4E001         Technology for Dev/Prod/Use of Items in 5A001         6	3C003	Organo-inorganic Compounds Described in This Entry	10	\$6,136,140
3D003         Cad Software for Semiconductor Devices/Integrated         35         \$35           3D991         General Purpose Electronic Equipment for 3A992         2         \$13,764           3E001         Technology for Dev or Prod of Certain Items in 3a/         150         \$665           3E002         Other Technology for Items in Category 3         95         \$94           3E201         Technology for the Use of Certain Items in 3A         5         \$204           3E991         Manufacturing and Test Equipment For 3B991/92         3         \$550,655           4A003         Digital Computers/Assemblies and Related Equipment         6         \$2,308,826           4A094         Items Not Controlled by 4A001/4902/4A003         2         \$13,195           4D001         Software for Certain Equipment/Software in 4A-4D         43         \$43           4D002         Software for Certain Equipment/Software in 4A-4D         43         \$43           4D001         Software for Certain Equipment/Software in 4A-4D         43         \$43           4D002         Software to Support Technology Controlled by 4E         40         \$40           4D003         Specific Software, as Described in this Entry         47         \$47           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/	3C004	Hydrides of Phosphorus, Arsenic, or Antimony	21	\$23,723,672
3D991         General Purpose Electronic Equipment for 3A992         2         \$13,764           3E001         Technology for Dev or Prod of Certain Items in 3a/         150         \$665           3E002         Other Technology for Items in Category 3         95         \$94           3E201         Technology for the Use of Certain Items in 3A         5         \$204           3E991         Manufacturing and Test Equipment For 3B991/92         3         \$5,055           4A003         Digital Computers/Assemblies and Related Equipment         6         \$2,308,826           4A994         Items Not Controlled by 4A001/4*002/4A003         2         \$13,193           4D001         Software for Certain Equipment/Software in 4A-4D         43         \$43           4D002         Software to Support Technology Controlled by 4E         40         \$40           4D003         Specific Software, as Described in this Entry         47         \$47           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         2         \$26,295           4E001         Technology for Dev/Prod/Use of Ecrtain Equip/Softw         101         \$101           4E992         Technology for Dev/Prod/Use of Ha994/4B994/4C994         1         \$10           5A001         Telecommunications/Transmission Equipment         1 </td <td>3D002</td> <td>Software for Use of Certain Equipment Controlled B</td> <td>4</td> <td>\$4</td>	3D002	Software for Use of Certain Equipment Controlled B	4	\$4
3E001         Technology for Dev or Prod of Certain Items in 3a/         150         \$665           3E002         Other Technology for Items in Category 3         95         \$94           3E201         Technology for the Use of Certain Items in 3A         5         \$204           3E991         Manufacturing and Test Equipment For 3B991/92         3         \$5,055           4A003         Digital Computers/Assemblies and Related Equipment         6         \$2,308,826           4A994         Items Not Controlled by 4A001/4°002/4A003         2         \$13,195           4D001         Software for Certain Equipment/Software in 4A-4D         43         \$43           4D002         Software for Support Technology Controlled by 4E         40         \$40           4D003         Specific Software, as Described in this Entry         47         \$47           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         2         \$26,295           4E001         Technology for Dev/Prod/Use of A4994/4B994/4C994         1         \$10           5A001         Telecommunications/Transmission Equipment         1         \$25,000           5A002         Systems/Equipment/Integrated Circuits for Info Sec         42         \$9,189,289           5A991         Transmission Items Not W/I Parameters in 5A001         <	3D003	Cad Software for Semiconductor Devices/Integrated	35	\$35
3E002         Other Technology for Items in Category 3         95         \$94           3E201         Technology for the Use of Certain Items in 3A         5         \$204           3E991         Manufacturing and Test Equipment For 3B991/92         3         \$5,055           4A003         Digital Computers/Assemblies and Related Equipment         6         \$2,308,826           4A994         Items Not Controlled by 4A001/4³002/4A003         2         \$13,195           4D001         Software for Certain Equipment/Software in 4A-4D         43         \$43           4D002         Software for Certain Equipment/Software in 4A-4D         43         \$44           4D003         Specific Software, as Described in this Entry         47         \$47           4D904         Software for Dev/Prod/Use of Items in 4A994/4B994/         2         \$26,295           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         101         \$101           4E992         Technology for Dev/Prod/Use of A994/4B994/4C994         1         \$10           5A001         Telecommunications/Transmission Equipment         1         \$25,000           5A002         Systems/Equipment/Integrated Circuits for Info Sec         42         \$9,189,289           5A991         Transmission Items Not W/I Parameter in 5A001 <td< td=""><td>3D991</td><td>General Purpose Electronic Equipment for 3A992</td><td>2</td><td>\$13,764</td></td<>	3D991	General Purpose Electronic Equipment for 3A992	2	\$13,764
3E201         Technology for the Use of Certain Items in 3A         5         \$204           3E991         Manufacturing and Test Equipment For 3B991/92         3         \$5,055           4A003         Digital Computers/Assemblies and Related Equipment         6         \$2,308,826           4A994         Items Not Controlled by 4A001/4°002/4A003         2         \$13,195           4D001         Software for Certain Equipment/Software in 4A-4D         43         \$43           4D002         Software to Support Technology Controlled by 4E         40         \$40           4D003         Specific Software, as Described in this Entry         47         \$47           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         2         \$26,295           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         101         \$101           4E992         Technology for Dev/Prod/Use of A4994/4B994/4C994         1         \$10           5A001         Telecommunications/Transmission Equipment         1         \$25,000           5A002         Systems/Equipment/Integrated Circuits for Info Sec         42         \$9,189,289           5A991         Transmission Items Not W/I Parameters in 5A001         6         \$776,076           5D002         Software for Information Security         4	3E001	Technology for Dev or Prod of Certain Items in 3a/	150	\$665
3E991         Manufacturing and Test Equipment For 3B991/92         3         \$5,055           4A003         Digital Computers/Assemblies and Related Equipment         6         \$2,308,826           4A994         Items Not Controlled by 4A001/4°002/4A003         2         \$13,195           4D001         Software for Certain Equipment/Software in 4A-4D         43         \$43           4D002         Software to Support Technology Controlled by 4E         40         \$40           4D003         Specific Software, as Described in this Entry         47         \$47           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         2         \$26,295           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         101         \$101           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$10           5A001         Telecommunications/Transmission Equipment         1         \$25,000           5A002         Systems/Equipment/Integrated Circuits for Info Sec         42         \$9,189,289           5A991         Transmission Items Not W/I Parameters in 5A001         6         \$776,076           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         42         \$42           5D992         Software Not Controlled by 5D002         <	3E002	Other Technology for Items in Category 3	95	\$94
4A003         Digital Computers/Assemblies and Related Equipment         6         \$2,308,826           4A994         Items Not Controlled by 4A001/4°002/4A003         2         \$13,195           4D001         Software for Certain Equipment/Software in 4A-4D         43         \$43           4D002         Software to Support Technology Controlled by 4E         40         \$40           4D003         Specific Software, as Described in this Entry         47         \$47           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         2         \$26,295           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         101         \$101           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$10           5A001         Telecommunications/Transmission Equipment         1         \$25,000           5A002         Systems/Equipment/Integrated Circuits for Info Sec         42         \$9,189,289           5A991         Transmission Items Not W/I Parameters in 5A001         6         \$776,076           5D001         Software for Information Security         48         \$3,079,627           5D992         Software Not Controlled by 5D002         1         \$23,604           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         2	3E201	Technology for the Use of Certain Items in 3A	5	\$204
4A994         Items Not Controlled by 4A001/4°002/4A003         2         \$13,195           4D001         Software for Certain Equipment/Software in 4A-4D         43         \$43           4D002         Software to Support Technology Controlled by 4E         40         \$40           4D003         Specific Software, as Described in this Entry         47         \$47           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         2         \$26,295           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         101         \$101           4E992         Technology for Dev/Prod/Use of AA994/4B994/4C994         1         \$10           5A001         Telecommunications/Transmission Equipment         1         \$25,000           5A002         Systems/Equipment/Integrated Circuits for Info Sec         42         \$9,189,289           5A991         Transmission Items Not W/I Parameters in 5A001         6         \$776,076           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         42         \$42           5D002         Software for Information Security         48         \$3,079,627           5D992         Software Not Controlled by 5D002         1         \$23,604           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         249 <td>3E991</td> <td>Manufacturing and Test Equipment For 3B991/92</td> <td>3</td> <td>\$5,055</td>	3E991	Manufacturing and Test Equipment For 3B991/92	3	\$5,055
4D001         Software for Certain Equipment/Software in 4A-4D         43         \$43           4D002         Software to Support Technology Controlled by 4E         40         \$40           4D003         Specific Software, as Described in this Entry         47         \$47           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         2         \$26,295           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         101         \$101           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$10           5A001         Telecommunications/Transmission Equipment         1         \$25,000           5A002         Systems/Equipment/Integrated Circuits for Info Sec         42         \$9,189,289           5A991         Transmission Items Not W/I Parameters in 5A001         6         \$776,076           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         42         \$42           5D002         Software Not Controlled by 5D002         1         \$23,604           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         249         \$643           5E002         Technology for Dev/Prod/Use of Information Securit         48         \$52           6A001         Acoustics         1         \$372	4A003	Digital Computers/Assemblies and Related Equipment	6	\$2,308,826
4D002         Software to Support Technology Controlled by 4E         40         \$40           4D003         Specific Software, as Described in this Entry         47         \$47           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         2         \$26,295           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         101         \$101           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$10           5A001         Telecommunications/Transmission Equipment         1         \$25,000           5A002         Systems/Equipment/Integrated Circuits for Info Sec         42         \$9,189,289           5A991         Transmission Items Not W/I Parameters in 5A001         6         \$776,076           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         42         \$42           5D002         Software Not Controlled by 5D002         1         \$23,604           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         249         \$643           5E002         Technology for Dev/Prod/Use of Information Securit         48         \$52           6A001         Acoustics         1         \$372           6A002         Optical Sensors         2         \$29,500	4A994	Items Not Controlled by 4A001/4a002/4A003	2	\$13,195
4D003         Specific Software, as Described in this Entry         47         \$47           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         2         \$26,295           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         101         \$101           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$10           5A001         Telecommunications/Transmission Equipment         1         \$25,000           5A002         Systems/Equipment/Integrated Circuits for Info Sec         42         \$9,189,289           5A991         Transmission Items Not W/I Parameters in 5A001         6         \$776,076           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         42         \$42           5D002         Software for Information Security         48         \$3,079,627           5D992         Software Not Controlled by 5D002         1         \$23,604           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         249         \$643           5E002         Technology for Dev/Prod/Use of Information Securit         48         \$52           6A001         Acoustics         1         \$372           6A002         Optical Sensors         2         \$29,500           6A003 </td <td>4D001</td> <td>Software for Certain Equipment/Software in 4A-4D</td> <td>43</td> <td>\$43</td>	4D001	Software for Certain Equipment/Software in 4A-4D	43	\$43
4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         2         \$26,295           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         101         \$101           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$10           5A001         Telecommunications/Transmission Equipment         1         \$25,000           5A002         Systems/Equipment/Integrated Circuits for Info Sec         42         \$9,189,289           5A991         Transmission Items Not W/I Parameters in 5A001         6         \$776,076           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         42         \$42           5D002         Software Not Controlled by 5D002         1         \$23,604           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         249         \$643           5E002         Technology for Dev/Prod/Use of Information Securit         48         \$52           6A001         Acoustics         1         \$372           6A002         Optical Sensors         2         \$29,500           6A003         Cameras         22         \$603,256           6A005         Optical Equipment (Lasers)         3         \$287,725           6A203         Cameras/Components Not Cont	4D002	Software to Support Technology Controlled by 4E	40	\$40
4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         101         \$101           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$10           5A001         Telecommunications/Transmission Equipment         1         \$25,000           5A002         Systems/Equipment/Integrated Circuits for Info Sec         42         \$9,189,289           5A991         Transmission Items Not W/I Parameters in 5A001         6         \$776,076           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         42         \$42           5D002         Software for Information Security         48         \$3,079,627           5D992         Software Not Controlled by 5D002         1         \$23,604           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         249         \$643           5E002         Technology for Dev/Prod/Use of Information Securit         48         \$52           6A001         Acoustics         1         \$372           6A002         Optical Sensors         2         \$29,500           6A003         Cameras         22         \$603,256           6A005         Optical Equipment (Lasers)         3         \$287,725           6A203         Cameras/Components Not Controlled by Ecc	4D003	Specific Software, as Described in this Entry	47	\$47
4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$10           5A001         Telecommunications/Transmission Equipment         1         \$25,000           5A002         Systems/Equipment/Integrated Circuits for Info Sec         42         \$9,189,289           5A991         Transmission Items Not W/I Parameters in 5A001         6         \$776,076           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         42         \$42           5D002         Software for Information Security         48         \$3,079,627           5D992         Software Not Controlled by 5D002         1         \$23,604           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         249         \$643           5E002         Technology for Dev/Prod/Use of Information Securit         48         \$52           6A001         Acoustics         1         \$372           6A002         Optical Sensors         2         \$29,500           6A003         Cameras         22         \$603,256           6A005         Optical Equipment (Lasers)         3         \$287,725           6A203         Cameras/Components Not Controlled by Eccn 6a003         4         \$200,862           6E001         Technology for Development Controlled by	4D994	Software for Dev/Prod/Use of Items in 4A994/4B994/	2	\$26,295
5A001         Telecommunications/Transmission Equipment         1         \$25,000           5A002         Systems/Equipment/Integrated Circuits for Info Sec         42         \$9,189,289           5A991         Transmission Items Not W/I Parameters in 5A001         6         \$776,076           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         42         \$42           5D002         Software for Information Security         48         \$3,079,627           5D992         Software Not Controlled by 5D002         1         \$23,604           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         249         \$643           5E002         Technology for Dev/Prod/Use of Information Securit         48         \$52           6A001         Acoustics         1         \$372           6A002         Optical Sensors         2         \$29,500           6A003         Cameras         22         \$603,256           6A005         Optical Equipment (Lasers)         3         \$287,725           6A203         Cameras/Components Not Controlled by Eccn 6a003         4         \$200,862           6E001         Technology for Development of Equipment/Materials/         1         \$1           6E201         Technology for Equipment Controlled by 6	4E001	Technology for Dev/Prod/Use of Certain Equip/Softw	101	\$101
5A002         Systems/Equipment/Integrated Circuits for Info Sec         42         \$9,189,289           5A991         Transmission Items Not W/I Parameters in 5A001         6         \$776,076           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         42         \$42           5D002         Software for Information Security         48         \$3,079,627           5D992         Software Not Controlled by 5D002         1         \$23,604           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         249         \$643           5E002         Technology for Dev/Prod/Use of Information Securit         48         \$52           6A001         Acoustics         1         \$372           6A002         Optical Sensors         2         \$29,500           6A003         Cameras         22         \$603,256           6A005         Optical Equipment (Lasers)         3         \$287,725           6A203         Cameras/Components Not Controlled by Eccn 6a003         4         \$200,862           6E001         Technology for Development of Equipment/Materials/         1         \$1           6E201         Technology for Equipment Controlled by 6a003,6a005         1         \$0	4E992	Technology for Dev/Prod/Use of 4A994/4B994/4C994	1	\$10
5A991         Transmission Items Not W/I Parameters in 5A001         6         \$776,076           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         42         \$42           5D002         Software for Information Security         48         \$3,079,627           5D992         Software Not Controlled by 5D002         1         \$23,604           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         249         \$643           5E002         Technology for Dev/Prod/Use of Information Securit         48         \$52           6A001         Acoustics         1         \$372           6A002         Optical Sensors         2         \$29,500           6A003         Cameras         22         \$603,256           6A005         Optical Equipment (Lasers)         3         \$287,725           6A203         Cameras/Components Not Controlled by Eccn 6a003         4         \$200,862           6E001         Technology for Development of Equipment/Materials/         1         \$1           6E201         Technology for Equipment Controlled by 6a003,6a005         1         \$0	5A001	Telecommunications/Transmission Equipment	1	\$25,000
5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         42         \$42           5D002         Software for Information Security         48         \$3,079,627           5D992         Software Not Controlled by 5D002         1         \$23,604           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         249         \$643           5E002         Technology for Dev/Prod/Use of Information Securit         48         \$52           6A001         Acoustics         1         \$372           6A002         Optical Sensors         2         \$29,500           6A003         Cameras         22         \$603,256           6A005         Optical Equipment (Lasers)         3         \$287,725           6A203         Cameras/Components Not Controlled by Eccn 6a003         4         \$200,862           6E001         Technology for Development of Equipment/Materials/         1         \$1           6E201         Technology for Equipment Controlled by 6a003,6a005         1         \$0	5A002	Systems/Equipment/Integrated Circuits for Info Sec	42	\$9,189,289
5D002         Software for Information Security         48         \$3,079,627           5D992         Software Not Controlled by 5D002         1         \$23,604           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         249         \$643           5E002         Technology for Dev/Prod/Use of Information Securit         48         \$52           6A001         Acoustics         1         \$372           6A002         Optical Sensors         2         \$29,500           6A003         Cameras         22         \$603,256           6A005         Optical Equipment (Lasers)         3         \$287,725           6A203         Cameras/Components Not Controlled by Eccn 6a003         4         \$200,862           6E001         Technology for Development of Equipment/Materials/         1         \$1           6E201         Technology for Equipment Controlled by 6a003,6a005         1         \$0	5A991	Transmission Items Not W/I Parameters in 5A001	6	\$776,076
5D992         Software Not Controlled by 5D002         1         \$23,604           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         249         \$643           5E002         Technology for Dev/Prod/Use of Information Securit         48         \$52           6A001         Acoustics         1         \$372           6A002         Optical Sensors         2         \$29,500           6A003         Cameras         22         \$603,256           6A005         Optical Equipment (Lasers)         3         \$287,725           6A203         Cameras/Components Not Controlled by Eccn 6a003         4         \$200,862           6E001         Technology for Development of Equipment/Materials/         1         \$1           6E201         Technology for Equipment Controlled by 6a003,6a005         1         \$0	5D001	Software for Dev/Prod/Use of Items in 5A001/5B001/	42	\$42
5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5A0         249         \$643           5E002         Technology for Dev/Prod/Use of Information Securit         48         \$52           6A001         Acoustics         1         \$372           6A002         Optical Sensors         2         \$29,500           6A003         Cameras         22         \$603,256           6A005         Optical Equipment (Lasers)         3         \$287,725           6A203         Cameras/Components Not Controlled by Eccn 6a003         4         \$200,862           6E001         Technology for Development of Equipment/Materials/         1         \$1           6E201         Technology for Equipment Controlled by 6a003,6a005         1         \$0	5D002	Software for Information Security	48	\$3,079,627
5E002         Technology for Dev/Prod/Use of Information Securit         48         \$52           6A001         Acoustics         1         \$372           6A002         Optical Sensors         2         \$29,500           6A003         Cameras         22         \$603,256           6A005         Optical Equipment (Lasers)         3         \$287,725           6A203         Cameras/Components Not Controlled by Eccn 6a003         4         \$200,862           6E001         Technology for Development of Equipment/Materials/         1         \$1           6E201         Technology for Equipment Controlled by 6a003,6a005         1         \$0	5D992	Software Not Controlled by 5D002	1	\$23,604
6A001       Acoustics       1       \$372         6A002       Optical Sensors       2       \$29,500         6A003       Cameras       22       \$603,256         6A005       Optical Equipment (Lasers)       3       \$287,725         6A203       Cameras/Components Not Controlled by Eccn 6a003       4       \$200,862         6E001       Technology for Development of Equipment/Materials/       1       \$1         6E201       Technology for Equipment Controlled by 6a003,6a005       1       \$0	5E001	Technology for Dev/Prod/Use, Etc, of Equip. in 5A0	249	\$643
6A002         Optical Sensors         2         \$29,500           6A003         Cameras         22         \$603,256           6A005         Optical Equipment (Lasers)         3         \$287,725           6A203         Cameras/Components Not Controlled by Eccn 6a003         4         \$200,862           6E001         Technology for Development of Equipment/Materials/         1         \$1           6E201         Technology for Equipment Controlled by 6a003,6a005         1         \$0	5E002	Technology for Dev/Prod/Use of Information Securit	48	\$52
6A003Cameras22\$603,2566A005Optical Equipment (Lasers)3\$287,7256A203Cameras/Components Not Controlled by Eccn 6a0034\$200,8626E001Technology for Development of Equipment/Materials/1\$16E201Technology for Equipment Controlled by 6a003,6a0051\$0	6A001	Acoustics	1	\$372
6A005Optical Equipment (Lasers)3\$287,7256A203Cameras/Components Not Controlled by Eccn 6a0034\$200,8626E001Technology for Development of Equipment/Materials/1\$16E201Technology for Equipment Controlled by 6a003,6a0051\$0	6A002	Optical Sensors	2	\$29,500
6A203 Cameras/Components Not Controlled by Eccn 6a003 4 \$200,862 6E001 Technology for Development of Equipment/Materials/ 1 \$1 6E201 Technology for Equipment Controlled by 6a003,6a005 1 \$0	6A003	Cameras	22	\$603,256
6E001 Technology for Development of Equipment/Materials/ 1 \$1 6E201 Technology for Equipment Controlled by 6a003,6a005 1 \$0	6A005	Optical Equipment (Lasers)	3	\$287,725
6E201 Technology for Equipment Controlled by 6a003,6a005 1 \$0	6A203	Cameras/Components Not Controlled by Eccn 6a003	4	\$200,862
	6E001	Technology for Development of Equipment/Materials/	1	\$1
7A103 Instrumentation, Navigation Equipment/Systems Not 21 \$12,930,977	6E201	Technology for Equipment Controlled by 6a003,6a005	1	\$0
	7A103	Instrumentation, Navigation Equipment/Systems Not	21	\$12,930,977

CCL	Description	Applications	Dollar Value
CHINA (C	ontinued)		
7D003	Other Software	1	\$0
7E004	Other Technology	1	\$0
7E101	Technology for Equipment/Software Controlled By 7A	4	\$400
8C001	Syntactic Foam for Underwater Use	1	\$416,360
9B002	On-line Control Systems for Gas Turbine Engines	1	\$1
9B106	Environmental Chambers and Anechoic Chambers	1	\$256,000
9D001	Software for Dev of Certain Equip/Technology In 9A	2	\$2
9D003	Software for Use of Fadec for Certain Propulsion S	2	\$2
9D004	Software for Vibration Test Equipment	1	\$1
9E003	Other Technology	4	\$5
	Total Applications: 1303		
	Total Ccl's: 115		
	Total Dollar Value: \$2,427,410,706		

CCL	Description	Applications	Dollar Value
CUBA			
EAR99	Items Subject to the Ear N.E.S.	435	\$3,081,187,737
0A018	Items on the International Munitions List	2	\$9,362,166
0A982	Thumbcuffs, Leg Irons and Shackles	1	\$1,631
2A994	Portable Electric Generators and Specially Designe	1	\$0
4A994	Items Not Controlled by 4A001/4A002/4A003	4	\$344,270
4C994	Items for Assemblies for Hard Disk Drives	1	\$18,000
5A001	Telecommunications/Transmission Equipment	1	\$9,000
5A991	Transmission Items Not W/I Parameters in 5A001	4	\$37,117
5A992	Information Security Equipment	2	\$93,500
5B991	Telecommunications Test Equipment	1	\$1,200
5D002	Software for Information Security	2	\$7,520
5D991	Software for Dev/Prod/Use With 5B994 Test Equipmen	1	\$15
5D992	Software Not Controlled by 5D002	2	\$158,865
8A992	Underwater Systems or Equipment	32	\$139,730,019
9A991	Aircraft and Certain Gas Turbine Engines N.E.S.	11	\$31,300,000
	Total Applications: 483		
	Total Ccl's: 15		
	Total Dollar Value: \$3,262,251,040		

**Appendix F: Approved Applications for Country Group D:1 and Cuba** 

CCL	Description	Applications	Dollar Value
ESTONIA			
0A982	Thumbcuffs, Leg Irons and Shackles	3	\$1,920,922
1C230	Beryllium	1	\$3,600
3A001	Electronic Devices/Components	1	\$618,000
6A003	Cameras	1	\$12,000
	Total Applications: 6		
	Total Ccl's: 4		
	Total Dollar Value: \$2,554,522		

CCL	Description	<b>Applications</b>	<b>Dollar Value</b>
GEORGIA			
0A982	Thumbouffs, Leg Irons and Shackles	1	\$270
0A984	Shotguns, Buckshot, Shotgun Shells	1	\$15,000
1A985	Fingerprinting Powders, Dyes, and Inks	1	\$75,000
1C350	Chemicals, Precursors for Toxic Chemical Agents	1	\$2,000,000
3A981	Polygraphs/Fingerprint Analyzers/Cameras/Equipment	1	\$75,000
5D002	Software for Information Security	1	\$2,922
9A018	Commodities on the International Munitions List	2	\$887,765
	Total Applications: 7		
	Total Ccl's: 7		
	Total Dollar Value: \$3,055,957		

CCL	Description	<b>Applications</b>	Dollar Value
KAZAKHS	STAN		
EAR99	Items Subject to the Ear N.E.S.	2	\$50,089
0A987	Optical Sighting Devices for Firearms	2	\$100,050
1C350	Chemicals, Precursors for Toxic Chemical Agents	1	\$10,698
2A292	Piping/Fittings/Valves Made/Lined With Named Alloy	1	\$372,000
2B350	Chemical Manufacturing Facilities and Equipment	1	\$13,600
2B351	Toxic Gas Monitoring Systems & Dedicated Detectors	1	\$289,925
3A001	Electronic Devices/Components	1	\$22,500
3A002	General Purpose Electronic Equipment	2	\$228,572
3A981	Polygraphs/Fingerprint Analyzers/Cameras/Equipment	1	\$59,500
3D003	Cad Software for Semiconductor Devices/Integrated	1	\$1

CCL	Description	Applications	Dollar Value
KAZAKH	STAN (Continued)		
3E001	Technology for Dev or Prod of Certain Items in 3A/	1	\$1
3E002	Other Technology for Items in Category 3	1	\$1
4a994	Items Not Controlled by 4A001/4A002/4A003	2	\$161,367
4d001	Software for Certain Equipment/Software in 4A-4D	1	\$1_
4d002	Software to Support Technology Controlled By 4E	1	\$1
4d003	Specific Software, as Described in this Entry	1	\$1
4e001	Technology for Dev/Prod/Use of Certain Equip/Softw	1	\$1_
5a001	Telecommunications/Transmission Equipment	1	\$4,122
5a002	Systems/Equipment/Integrated Circuits for Info Sec	4	\$91,442
5a991	Transmission Items Not W/I Parameters in 5A001	2	\$184,150
5d001	Software for Dev/Prod/Use of Items in 5A001/5B001/	1	\$1_
5d002	Software for Information Security	5	\$160,732
5d992	Software Not Controlled by 5D002	2	\$46,394
5e001	Technology for Dev/Prod/Use, Etc, of Equip. in 5A0	1	\$1
6a003	Cameras	1	\$9,800
6d003	Other Software	1	\$6,050,000
9a004	Spacecraft	2	\$1,640,000
9a018	Commodities on the International Munitions List	1	\$120,000
	Total Applications: 23		
	Total Ccl's: 28		
	Total Dollar Value: \$9,614,950		

CCL	Description	<b>Applications</b>	<b>Dollar Value</b>
KOREA D	EMOCRATIC PEO		
EAR99	Items Subject to the Ear N.E.S.	1	\$668
4A994	Items Not Controlled by 4A001/4A002/4A003	1	\$6,100
4E992	Technology for Dev/Prod/Use Of 4A994/4B994/4C994	1	\$1
5A991	Transmission Items Not W/I Parameters In 5A001	1	\$6,653
5A992	Information Security Equipment	1	\$2,241
5D992	Software Not Controlled By 5D002	1	\$0
5E992	Technology for Information Security/Cryptology	1	\$1
8A992	Underwater Systems or Equipment	1	\$1
	Total Applications: 3		
	Total Ccl's: 8		
	Total Dollar Value: \$15,665		

CCL	Description	<b>Applications</b>	<b>Dollar Value</b>
KYRGYZ	STAN		
3A981	Polygraphs/Fingerprint Analyzers/Cameras/Equipment	1	\$59,500
4E001	Technology for Dev/Prod/Use of Certain Equip/Softw	1	\$1
	Total Applications: 2		
	Total Ccl's: 2		
	Total Dollar Value: \$59,501		

CCL	Description	Applications	Dollar Value
LAOS			
	Total Applications: 0		
	Total Ccl's: 0		
	Total Dollar Value: \$0		

CCL	Description	Applications	Dollar Value
LATVIA			
0A987	Optical Sighting Devices For Firearms	1	\$3,450
3A001	Electronic Devices/Components	4	\$1,701,348
5D002	Software For Information Security	2	\$3,501
6A003	Cameras	5	\$112,000
	Total Applications: 12		
	Total Ccl's: 4		
	Total Dollar Value: \$1,820,299		

CCL	Description	Applications	Dollar Value
LITHUANIA	· ·		
0A985	Discharge Type Arms	1	\$32,500
1A004	Protective and Detection Equipment	2	\$6,590
1A984	Chemical Agents, Including Tear Gas	1	\$195
5D002	Software for Information Security	2	\$40,901
6E003	Cameras	4	\$83,800
	Total Applications: 9		
	Total Ccl's: 5		
	Total Dollar Value: \$163,986		

CCL	Description	<b>Applications</b>	Dollar Value
MOLDOVA			
5A002	Systems/Equipment/Integrated Circuits for info Sec	1	\$36,386
5D002	Software for Information Security	1	\$3,300
	Total Applications: 1		
	Total Ccl's: 2		
	Total Dollar Value: \$39,686		

CCL	Description	Applications	Dollar Value
MONGOL	IA		
3D980	Software for Dev/Prod/Use of Items in 3A980 and 3A	1	\$1,440
	Total Applications: 1		
	Total Ccl's: 1		
	Total Dollar Value: \$1,440		

CCL	Description	<b>Applications</b>	<b>Dollar Value</b>
ROMANIA			
EAR99	Items Subject to the Ear N.E.S.	2	\$22,658
0A985	Discharge Type Arms	1	\$31,500
1E001	Technology for Development of Equipment Under 1a00	2	\$2
2B001	Numerical Control Units/Motion Control Boards	2	\$214,814
2B351	Toxic Gas Monitoring Systems & Dedicated Detectors	1	\$38,702
2D983	Equipment Controlled by 2a983	1	\$20,000
3A001	Electronic Devices/Components	1	\$6,395
3D002	Software for Use of Certain Equipment Controlled B	1	\$1
3D003	Cad Software for Semiconductor Devices/Integrated	1	\$1
3E001	Technology for Dev or Prod of Certain Items in 3A/	7	\$7
3E002	Other Technology for Items in Category 3	5	\$5
4D003	Specific Software, as Described in This Entry	1	\$1
4E001	Technology for Dev/Prod/Use of Certain Equip/Softw	4	\$4
5A002	Systems/Equipment/Integrated Circuits for Iinfo Sec	4	\$201,071
5D002	Software for Information Security	7	\$59,506
5E001	Technology for Dev/Prod/Use, Etc, of Equip. in 5A0	3	\$4
5E002	Technology for Dev/Prod/Use of Information Securit	3	\$2
6A003	Cameras	1	\$50,000

**Appendix F: Approved Applications for Country Group D:1 and Cuba** 

CCL	Description	<b>Applications</b>	<b>Dollar Value</b>
ROMANIA	A (Continued)		
9A018	Commodities on the International Munitions List	2	\$218,448
9E003	Other Technology	3	\$3
	Total Applications: 36		
	Total Ccl's: 20		
	Total Dollar Value: \$863,124		

CCL	Description	<b>Applications</b>	Dollar Value
RUSSIA F	EDERATION		
EAR99	Items Subject to the Ear N.E.S.	29	\$2,812,258
0A979	Police Helmets, Shields and Parts	2	\$172,000
0A982	Thumbcuffs, Leg Irons and Shackles	1	\$5,010
0A984	Shotguns, Buckshot, Shotgun Shells	4	\$227,023
0A986	Shotgun Shells (Except Buckshot Shells) and Parts	1	\$3,990
0A987	Optical Sighting Devices for Firearms	20	\$2,272,536
0D999	Specific Software	2	\$1,750
1A001	Components Made from Fluorinated Compounds	1	\$500,000
1A003	Manufactures of Non-fluorinated Polymeric Substanc	1	\$1,984
1A005	Body Armor	2	\$240,000
1A985	Fingerprinting Powders, Dyes, and Inks	1	\$5,150,000
1A999	Specific Processing Equipment, N.E.S	9	\$402,493
1C006	Fluids and Lubricating Materials	1	\$22,000
1C008	Non-fluorinated Polymeric Substances	1	\$4961
1C231	HAFNIUM	1	\$391,3461
1D002	Software Utilized for Development ff Organic Matri	1	\$27,3471
1E001	Technology for Development of Equipment Under 1A00	3	\$2
1E101	Technology for Development of Equipment Under 1A10	3	\$2
2A291	Nuclear Reactor and Nuclear Power Plant Related Eq	2	\$170,000
2A983	Explosives or Detonator Detection Equipment	5	\$2,162,2855
2B350	Chemical Manufacturing Facilities and EquipmentT	4	\$4,020,7299
2B3511	Toxic Gas Monitoring Systems & Dedicated Detectors	1	\$62,8566
2D2900	Software Specially Designed or Modified for 2A290/	1	\$139,0000
2D9838	Equipment Controlled by 2A983	2	\$250,0010
2E9839	Software Controlled by 2D983	2	\$1
3A0010	Electronic Devices/Components	36	\$1,842,870

Name	CCL	Description	Applications	Dollar Value
3A101         Electronic Equipment/Devices Not Controlled by 3A0         1         \$810           3A228         Switching Devices         1         \$40,000           3A231         Neutron Generator Systems Including Tubes         1         \$200,000           3A981         Polygraphs/Fingerprint Analyzers/Cameras/Equipment         7         \$112,700           3A992         General Purpose Electronic Equipment         9         \$789,597           3A999         Specific Processing Equipment, N.E.S.         3         \$103,609           3D002         Software for Use of Certain Equipment Controlled B         1         \$1           3D003         Cad Software for Semiconductor Devices/Integrated         6         \$6           3D991         General Purpose Electronic Equipment for 3a992         2         \$4,226           3E001         Technology for Dev or Prod Oof Certain Items in 3A/         18         \$18           3E002         Other Technology in Items in Category 3         12         \$12           3E201         Technology for Items in Category 3         12         \$12           3E201         Technology for Items in Category 3         12         \$12           3E201         Technology for Items in Category 3         12         \$12           4A980         C	RUSSIA I	FEDERATION (Continued)		
3A228         Switching Devices         1         \$40,000           3A231         Neutron Generator Systems Including Tubes         1         \$200,000           3A981         Polygraphs/Fingerprint Analyzers/Cameras/Equipment         7         \$112,700           3A992         General Purpose Electronic Equipment         9         \$789,597           3A999         Specific Processing Equipment, N.E.S.         3         \$103,609           3D002         Software for Use of Certain Equipment Controlled B         1         \$1           3D003         Cad Software for Semiconductor Devices/Integrated         6         \$6           3D991         General Purpose Electronic Equipment for 3a992         2         \$4,226           3E001         Technology for Dev or Prod Oof Certain Items in 3A/         18         \$18           3E002         Other Technology or Items in Category 3         12         \$12           3E201         Technology for Use of Certain Items in 3A         2         \$5,000           3E991         Manufacturing and Test Equipment for 3B991/92         1         \$0           4A980         Computers for Fingerprint Equipment, N.E.S.         2         \$250,000           4A994         Items Not Controlled by 4A001/4A002/4A003         7         \$186,555 <t< td=""><td>3A002</td><td>General Purpose Electronic Equipment</td><td>3</td><td>\$468,874</td></t<>	3A002	General Purpose Electronic Equipment	3	\$468,874
3A231         Neutron Generator Systems Including Tubes         1         \$200,000           3A981         Polygraphs/Fingerprint Analyzers/Cameras/Equipment         7         \$112,700           3A992         General Purpose Electronic Equipment         9         \$789,597           3A999         Specific Processing Equipment, N.E.S.         3         \$103,609           3D002         Software for Use of Certain Equipment Controlled B         1         \$1           3D003         Cad Software for Semiconductor Devices/Integrated         6         \$6           3D991         General Purpose Electronic Equipment for 3a992         2         \$4,226           3E001         Technology for Dev or Prod Oof Certain Items in 3A/         18         \$18           3E002         Other Technology or Items in Category 3         12         \$12           3E2001         Technology for Items in Category 3         12         \$12           3E201         Technology for Items and Test Equipment for 3B991/92         1         \$0           3E201         Technology for Item Use of Certain Items in 3A         2         \$5,000           3E991         Manufacturing and Test Equipment for 3B991/92         1         \$0           4A980         Computers for Fingerprint Equipment and Fexical Items in 3A         2         \$2	3A101	Electronic Equipment/Devices Not Controlled by 3A0	1	\$810
3A981         Polygraphs/Fingerprint Analyzers/Cameras/Equipment         7         \$112,700           3A992         General Purpose Electronic Equipment         9         \$789,597           3A999         Specific Processing Equipment, N.E.S.         3         \$103,609           3D002         Software for Use of Certain Equipment Controlled B         1         \$1           3D003         Cad Software for Semiconductor Devices/Integrated         6         \$6           3D991         General Purpose Electronic Equipment for 3a992         2         \$4,226           3E001         Technology for Dev or Prod Oof Certain Items in 3A/         18         \$18           3E002         Other Technology for Items in Category 3         12         \$12           3E003         Other Technology for Items in Category 3         12         \$12           3E001         Technology for the Use of Certain Items in 3A         2         \$5,000           3E991         Manufacturing and Test Equipment for 3B991/92         1         \$0           4A980         Computers for Fingerprint Equipment N.E.S.         2         \$250,000           4A994         Items Not Controlled by 4A001/4A002/4A003         7         \$186,555           4D001         Software for Certain Equipment/Software in 4A-4D         4         \$4	3A228	Switching Devices	1	\$40,000
3A992         General Purpose Electronic Equipment         9         \$789,597           3A999         Specific Processing Equipment, N.E.S.         3         \$103,609           3D002         Software for Use of Certain Equipment Controlled B         1         \$1           3D003         Cad Software for Semiconductor Devices/Integrated         6         \$6           3D991         General Purpose Electronic Equipment for 3a992         2         \$4,226           3E001         Technology for Dev or Prod Oof Certain Items in 3A/         18         \$18           3E002         Other Technology for Items in Category 3         12         \$12           3E003         Other "Technology for Ite Use of Certain Items in 3A         2         \$5,000           4B201         Technology for the Use of Certain Items in 3A         2         \$5,000           4A980         Computers for Fingerprint Equipment for 3B991/92         1         \$0           4A980         Computers for Fingerprint Equipment, N.E.S.         2         \$250,000           4A994         Items Not Controlled by 4A001/4A002/4A003         7         \$186,555           4D001         Software for Certain Equipment/Software in 4A-4D         4         \$4           4D002         Software To Support Technology Controlled by 4E         3         \$3<	3A231	Neutron Generator Systems Including Tubes	1	\$200,000
3A999         Specific Processing Equipment, N.E.S.         3         \$103,609           3D002         Software for Use of Certain Equipment Controlled B         1         \$1           3D003         Cad Software for Semiconductor Devices/Integrated         6         \$6           3D991         General Purpose Electronic Equipment for 3a992         2         \$4,226           3E001         Technology for Dev or Prod Oof Certain Items in 3A/         18         \$18           3E002         Other Technology for Items in Category 3         12         \$12           3E003         Other "Technology for Items in Category 3         1         \$1           3E201         Technology for the Use of Certain Items in 3A         2         \$5,000           3E991         Manufacturing and Test Equipment for 3B991/92         1         \$0           4A980         Computers for Fingerprint Equipment, N.E.S.         2         \$250,000           4A994         Items Not Controlled by 4A001/4A002/4A003         7         \$186,555           4D001         Software for Certain Equipment/Software in 4A-4D         4         \$4           4D002         Software for Dev/Prod/Use of Items in 4A994/4B994/         1         \$112,334           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         20         \$20	3A981	Polygraphs/Fingerprint Analyzers/Cameras/Equipment	7	\$112,700
3D002         Software for Use of Certain Equipment Controlled B         1         \$1           3D003         Cad Software for Semiconductor Devices/Integrated         6         \$6           3D991         General Purpose Electronic Equipment for 3a992         2         \$4,226           3E001         Technology for Dev or Prod Oof Certain Items in 3A/         18         \$18           3E002         Other Technology for Items in Category 3         12         \$12           3E003         Other "Technology"         1         \$1           3E201         Technology for the Use of Certain Items in 3A         2         \$5,000           3E991         Manufacturing and Test Equipment for 3B991/92         1         \$0           4A980         Computers for Fingerprint Equipment, N.E.S.         2         \$250,000           4A994         Items Not Controlled by 4A001/4A002/4A003         7         \$186,555           4D001         Software for Certain Equipment/Software in 4A-4D         4         \$4           4D002         Software for Deuprot Technology Controlled by 4E         3         \$3           4D003         Specific Software, as Described in this Entry         7         \$7           4D994         Software for Dev/Prod/Use of Certain Equip/Softw         20         \$20	3A992	General Purpose Electronic Equipment	9	\$789,597
3D003         Cad Software for Semiconductor Devices/Integrated         6         \$6           3D991         General Purpose Electronic Equipment for 3a992         2         \$4,226           3E001         Technology for Dev or Prod Oof Certain Items in 3A/         18         \$18           3E002         Other Technology for Items in Category 3         12         \$12           3E003         Other "Technology"         1         \$1           3E201         Technology for the Use of Certain Items in 3A         2         \$5,000           3E991         Manufacturing and Test Equipment for 3B991/92         1         \$0           4A980         Computers for Fingerprint Equipment, N.E.S.         2         \$250,000           4A994         Items Not Controlled by 4A001/4A002/4A003         7         \$186,555           4D001         Software for Certain Equipment/Software in 4A-4D         4         \$4           4D002         Software To Support Technology Controlled by 4E         3         \$3           4D003         Specific Software, as Described in this Entry         7         \$7           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         1         \$112,334           4E001         Technology for Dev/Prod/Use of A4994/4B994/         1         \$112,334	3A999	Specific Processing Equipment, N.E.S.	3	\$103,609
3D991         General Purpose Electronic Equipment for 3a992         2         \$4,226           3E001         Technology for Dev or Prod Oof Certain Items in 3A/         18         \$18           3E002         Other Technology for Items in Category 3         12         \$12           3E003         Other "Technology"         1         \$1           3E201         Technology for the Use of Certain Items in 3A         2         \$5,000           3E991         Manufacturing and Test Equipment for 3B991/92         1         \$0           4A980         Computers for Fingerprint Equipment, N.E.S.         2         \$250,000           4A994         Items Not Controlled by 4A001/4A002/4A003         7         \$186,555           4D001         Software for Certain Equipment/Software in 4A-4D         4         \$4           4D002         Software To Support Technology Controlled by 4E         3         \$3           4D003         Specific Software, as Described in this Entry         7         \$7           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         1         \$112,334           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         20         \$20           4E992         Technology for Dev/Prod/Use of A994/4B994/4C994         1         \$14	3D002	Software for Use of Certain Equipment Controlled B	1	\$1
3E001         Technology for Dev or Prod Oof Certain Items in 3A/         18         \$18           3E002         Other Technology for Items in Category 3         12         \$12           3E003         Other "Technology"         1         \$1           3E201         Technology for the Use of Certain Items in 3A         2         \$5,000           3E991         Manufacturing and Test Equipment for 3B991/92         1         \$0           4A980         Computers for Fingerprint Equipment, N.E.S.         2         \$250,000           4A994         Items Not Controlled by 4A001/4A002/4A003         7         \$186,555           4D001         Software for Certain Equipment/Software in 4A-4D         4         \$4           4D002         Software To Support Technology Controlled by 4E         3         \$3           4D003         Specific Software, as Described in this Entry         7         \$7           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         1         \$112,334           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         20         \$20           4E992         Technology for Dev/Prod/Use of AA994/4B994/4C994         1         \$14           5A002         Systems/Equipment/Integrated Circuits for Info Sec         6         \$16,399,366	3D003	Cad Software for Semiconductor Devices/Integrated	6	\$6
3E002         Other Technology for Items in Category 3         12         \$12           3E003         Other "Technology"         1         \$1           3E201         Technology for the Use of Certain Items in 3A         2         \$5,000           3E991         Manufacturing and Test Equipment for 3B991/92         1         \$0           4A980         Computers for Fingerprint Equipment, N.E.S.         2         \$250,000           4A994         Items Not Controlled by 4A001/4A002/4A003         7         \$186,555           4D001         Software for Certain Equipment/Software in 4A-4D         4         \$4           4D002         Software To Support Technology Controlled by 4E         3         \$3           4D003         Specific Software, as Described in this Entry         7         \$7           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         1         \$112,334           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         20         \$20           4E994         Technology for Dev/Prod/Use of A4994/4B994/4C994         1         \$14           5A002         Systems/Equipment/Integrated Circuits for Info Sec         6         \$16,399,366           5A991         Transmission Items Not W/I Parameters in 5A001         3         \$29,818	3D991	General Purpose Electronic Equipment for 3a992	2	\$4,226
3E003         Other "Technology"         1         \$1           3E201         Technology for the Use of Certain Items in 3A         2         \$5,000           3E991         Manufacturing and Test Equipment for 3B991/92         1         \$0           4A980         Computers for Fingerprint Equipment, N.E.S.         2         \$250,000           4A994         Items Not Controlled by 4A001/4A002/4A003         7         \$186,555           4D001         Software for Certain Equipment/Software in 4A-4D         4         \$4           4D002         Software for Certain Equipment/Software in 4A-4D         4         \$4           4D003         Specific Software, as Described in this Entry         7         \$7           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         1         \$112,334           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         20         \$20           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$14           5A002         Systems/Equipment/Integrated Circuits for Info Sec         6         \$16,399,366           5A991         Transmission Items Not W/I Parameters in 5A001         3         \$29,818           5D001         Software for Information Security         11         \$511,962	3E001	Technology for Dev or Prod Oof Certain Items in 3A/	18	\$18
3E201         Technology for the Use of Certain Items in 3A         2         \$5,000           3E991         Manufacturing and Test Equipment for 3B991/92         1         \$0           4A980         Computers for Fingerprint Equipment, N.E.S.         2         \$250,000           4A994         Items Not Controlled by 4A001/4A002/4A003         7         \$186,555           4D001         Software for Certain Equipment/Software in 4A-4D         4         \$4           4D002         Software To Support Technology Controlled by 4E         3         \$3           4D003         Specific Software, as Described in this Entry         7         \$7           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         1         \$112,334           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         20         \$20           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$14           5A002         Systems/Equipment/Integrated Circuits for Info Sec         6         \$16,399,366           5A991         Transmission Items Not W/I Parameters in 5A001         3         \$29,818           5D001         Software for Information Security         11         \$51,962           5D992         Software for Information Security         5         \$5,334<	3E002	Other Technology for Items in Category 3	12	\$12
3E991         Manufacturing and Test Equipment for 3B991/92         1         \$0           4A980         Computers for Fingerprint Equipment, N.E.S.         2         \$250,000           4A994         Items Not Controlled by 4A001/4A002/4A003         7         \$186,555           4D001         Software for Certain Equipment/Software in 4A-4D         4         \$4           4D002         Software To Support Technology Controlled by 4E         3         \$3           4D003         Specific Software, as Described in this Entry         7         \$7           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         1         \$112,334           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         20         \$20           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$14           5A002         Systems/Equipment/Integrated Circuits for Info Sec         6         \$16,399,366           5A991         Transmission Items Not W/I Parameters in 5A001         3         \$29,818           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         3         \$3           5D092         Software for Information Security         11         \$511,962           5D992         SOFTWARE NOT CONTROLLED BY 5D002         5         \$5,334	3E003	Other "Technology"	1	\$1
4A980         Computers for Fingerprint Equipment, N.E.S.         2         \$250,000           4A994         Items Not Controlled by 4A001/4A002/4A003         7         \$186,555           4D001         Software for Certain Equipment/Software in 4A-4D         4         \$4           4D002         Software To Support Technology Controlled by 4E         3         \$3           4D003         Specific Software, as Described in this Entry         7         \$7           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         1         \$112,334           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         20         \$20           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$14           5A002         Systems/Equipment/Integrated Circuits for Info Sec         6         \$16,399,366           5A991         Transmission Items Not W/I Parameters in 5A001         3         \$29,818           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         3         \$3           5D002         Software for Information Security         11         \$511,962           5D992         SOFTWARE NOT CONTROLLED BY 5D002         5         \$5,334           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5a0         9         <	3E201	Technology for the Use of Certain Items in 3A	2	\$5,000
4A994         Items Not Controlled by 4A001/4A002/4A003         7         \$186,555           4D001         Software for Certain Equipment/Software in 4A-4D         4         \$4           4D002         Software To Support Technology Controlled by 4E         3         \$3           4D003         Specific Software, as Described in this Entry         7         \$7           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         1         \$112,334           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         20         \$20           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$14           5A002         Systems/Equipment/Integrated Circuits for Info Sec         6         \$16,399,366           5A991         Transmission Items Not W/I Parameters in 5A001         3         \$29,818           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         3         \$3           5D002         Software for Information Security         11         \$511,962           5D992         SOFTWARE NOT CONTROLLED BY 5D002         5         \$5,334           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5a0         9         \$10           6A002         Optical Sensors         3         \$16,168 <tr< td=""><td>3E991</td><td>Manufacturing and Test Equipment for 3B991/92</td><td>1</td><td>\$0</td></tr<>	3E991	Manufacturing and Test Equipment for 3B991/92	1	\$0
4D001         Software for Certain Equipment/Software in 4A-4D         4         \$4           4D002         Software To Support Technology Controlled by 4E         3         \$3           4D003         Specific Software, as Described in this Entry         7         \$7           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         1         \$112,334           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         20         \$20           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$14           5A002         Systems/Equipment/Integrated Circuits for Info Sec         6         \$16,399,366           5A991         Transmission Items Not W/I Parameters in 5A001         3         \$29,818           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         3         \$3           5D002         Software for Information Security         11         \$511,962           5D992         SOFTWARE NOT CONTROLLED BY 5D002         5         \$5,334           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5a0         9         \$10           6A001         Acoustics         4         \$1,994,000           6A002         Optical Sensors         3         \$16,168           6A003	4A980	Computers for Fingerprint Equipment, N.E.S.	2	\$250,000
4D002         Software To Support Technology Controlled by 4E         3         \$3           4D003         Specific Software, as Described in this Entry         7         \$7           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         1         \$112,334           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         20         \$20           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$14           5A002         Systems/Equipment/Integrated Circuits for Info Sec         6         \$16,399,366           5A991         Transmission Items Not W/I Parameters in 5A001         3         \$29,818           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         3         \$3           5D002         Software for Information Security         11         \$511,962           5D992         SOFTWARE NOT CONTROLLED BY 5D002         5         \$5,334           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5a0         9         \$10           6A001         Acoustics         4         \$1,994,000           6A002         Optical Sensors         3         \$16,168           6A003         Cameras         37         \$1,997,186           6A006         Magnetometers/Magnetic Gr	4A994	Items Not Controlled by 4A001/4A002/4A003	7	\$186,555
4D003         Specific Software, as Described in this Entry         7         \$7           4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         1         \$112,334           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         20         \$20           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$14           5A002         Systems/Equipment/Integrated Circuits for Info Sec         6         \$16,399,366           5A991         Transmission Items Not W/I Parameters in 5A001         3         \$29,818           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         3         \$3           5D002         Software for Information Security         11         \$511,962           5D992         SOFTWARE NOT CONTROLLED BY 5D002         5         \$5,334           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5a0         9         \$10           6A001         Acoustics         4         \$1,994,000           6A002         Optical Sensors         3         \$16,168           6A003         Cameras         37         \$1,997,186           6A006         Magnetometers/Magnetic Gradiometers/Compensation S         5         \$260,000	4D001	Software for Certain Equipment/Software in 4A-4D	4	\$4
4D994         Software for Dev/Prod/Use of Items in 4A994/4B994/         1         \$112,334           4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         20         \$20           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$14           5A002         Systems/Equipment/Integrated Circuits for Info Sec         6         \$16,399,366           5A991         Transmission Items Not W/I Parameters in 5A001         3         \$29,818           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         3         \$3           5D002         Software for Information Security         11         \$511,962           5D992         SOFTWARE NOT CONTROLLED BY 5D002         5         \$5,334           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5a0         9         \$10           6A001         Acoustics         4         \$1,994,000           6A002         Optical Sensors         3         \$16,168           6A003         Cameras         37         \$1,997,186           6A006         Magnetometers/Magnetic Gradiometers/Compensation S         5         \$260,000	4D002	Software To Support Technology Controlled by 4E	3	\$3
4E001         Technology for Dev/Prod/Use of Certain Equip/Softw         20         \$20           4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$14           5A002         Systems/Equipment/Integrated Circuits for Info Sec         6         \$16,399,366           5A991         Transmission Items Not W/I Parameters in 5A001         3         \$29,818           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         3         \$3           5D002         Software for Information Security         11         \$511,962           5D992         SOFTWARE NOT CONTROLLED BY 5D002         5         \$5,334           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5a0         9         \$10           6A001         Acoustics         4         \$1,994,000           6A002         Optical Sensors         3         \$16,168           6A003         Cameras         37         \$1,997,186           6A006         Magnetometers/Magnetic Gradiometers/Compensation S         5         \$260,000	4D003	Specific Software, as Described in this Entry	7	\$7
4E992         Technology for Dev/Prod/Use of 4A994/4B994/4C994         1         \$14           5A002         Systems/Equipment/Integrated Circuits for Info Sec         6         \$16,399,366           5A991         Transmission Items Not W/I Parameters in 5A001         3         \$29,818           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         3         \$3           5D002         Software for Information Security         11         \$511,962           5D992         SOFTWARE NOT CONTROLLED BY 5D002         5         \$5,334           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5a0         9         \$10           6A001         Acoustics         4         \$1,994,000           6A002         Optical Sensors         3         \$16,168           6A003         Cameras         37         \$1,997,186           6A006         Magnetometers/Magnetic Gradiometers/Compensation S         5         \$260,000	4D994	Software for Dev/Prod/Use of Items in 4A994/4B994/	1	\$112,334
5A002         Systems/Equipment/Integrated Circuits for Info Sec         6         \$16,399,366           5A991         Transmission Items Not W/I Parameters in 5A001         3         \$29,818           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         3         \$3           5D002         Software for Information Security         11         \$511,962           5D992         SOFTWARE NOT CONTROLLED BY 5D002         5         \$5,334           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5a0         9         \$10           6A001         Acoustics         4         \$1,994,000           6A002         Optical Sensors         3         \$16,168           6A003         Cameras         37         \$1,997,186           6A006         Magnetometers/Magnetic Gradiometers/Compensation S         5         \$260,000	4E001	Technology for Dev/Prod/Use of Certain Equip/Softw	20	\$20
5A991         Transmission Items Not W/I Parameters in 5A001         3         \$29,818           5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         3         \$3           5D002         Software for Information Security         11         \$511,962           5D992         SOFTWARE NOT CONTROLLED BY 5D002         5         \$5,334           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5a0         9         \$10           6A001         Acoustics         4         \$1,994,000           6A002         Optical Sensors         3         \$16,168           6A003         Cameras         37         \$1,997,186           6A006         Magnetometers/Magnetic Gradiometers/Compensation S         5         \$260,000	4E992	Technology for Dev/Prod/Use of 4A994/4B994/4C994	1	\$14
5D001         Software for Dev/Prod/Use of Items in 5A001/5B001/         3         \$3           5D002         Software for Information Security         11         \$511,962           5D992         SOFTWARE NOT CONTROLLED BY 5D002         5         \$5,334           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5a0         9         \$10           6A001         Acoustics         4         \$1,994,000           6A002         Optical Sensors         3         \$16,168           6A003         Cameras         37         \$1,997,186           6A006         Magnetometers/Magnetic Gradiometers/Compensation S         5         \$260,000	5A002	Systems/Equipment/Integrated Circuits for Info Sec	6	\$16,399,366
5D002         Software for Information Security         11         \$511,962           5D992         SOFTWARE NOT CONTROLLED BY 5D002         5         \$5,334           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5a0         9         \$10           6A001         Acoustics         4         \$1,994,000           6A002         Optical Sensors         3         \$16,168           6A003         Cameras         37         \$1,997,186           6A006         Magnetometers/Magnetic Gradiometers/Compensation S         5         \$260,000	5A991	Transmission Items Not W/I Parameters in 5A001	3	\$29,818
5D992         SOFTWARE NOT CONTROLLED BY 5D002         5         \$5,334           5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5a0         9         \$10           6A001         Acoustics         4         \$1,994,000           6A002         Optical Sensors         3         \$16,168           6A003         Cameras         37         \$1,997,186           6A006         Magnetometers/Magnetic Gradiometers/Compensation S         5         \$260,000	5D001	Software for Dev/Prod/Use of Items in 5A001/5B001/	3	\$3
5E001         Technology for Dev/Prod/Use, Etc, of Equip. in 5a0         9         \$10           6A001         Acoustics         4         \$1,994,000           6A002         Optical Sensors         3         \$16,168           6A003         Cameras         37         \$1,997,186           6A006         Magnetometers/Magnetic Gradiometers/Compensation S         5         \$260,000	5D002	Software for Information Security	11	\$511,962
6A001       Acoustics       4       \$1,994,000         6A002       Optical Sensors       3       \$16,168         6A003       Cameras       37       \$1,997,186         6A006       Magnetometers/Magnetic Gradiometers/Compensation S       5       \$260,000	5D992	SOFTWARE NOT CONTROLLED BY 5D002	5	\$5,334
6A002         Optical Sensors         3         \$16,168           6A003         Cameras         37         \$1,997,186           6A006         Magnetometers/Magnetic Gradiometers/Compensation S         5         \$260,000	5E001	Technology for Dev/Prod/Use, Etc, of Equip. in 5a0	9	\$10
6A003 Cameras 37 \$1,997,186 6A006 Magnetometers/Magnetic Gradiometers/Compensation S 5 \$260,000	6A001	Acoustics	4	\$1,994,000
6A006 Magnetometers/Magnetic Gradiometers/Compensation S 5 \$260,000	6A002	Optical Sensors	3	\$16,168
	6A003	Cameras	37	\$1,997,186
6A007 Gravity Meters (Gravimeters)/Gravity Gradiometers 1 \$300,000	6A006	Magnetometers/Magnetic Gradiometers/Compensation S	5	\$260,000
	6A007	Gravity Meters (Gravimeters)/Gravity Gradiometers	1	\$300,000

CCL	Description	<b>Applications</b>	Dollar Value
RUSSIA I	FEDERATION (Continued)		
6A225	Velocity Interferometers for Measuring Velocities	1	\$126,000
7A101	Accelerometers, other than Those in 7A001	1	\$12,800
7A103	Instrumentation, Navigation Equipment/Systems Not	3	\$1,806,000
7D003	Other Software	2	\$0
7E004	Other Technology	2	\$0
7E101	Technology For Equipment/Software Controlled By 7A	2	\$200
9A001	Aero Gas Turbine Engines	1	\$3,000,000
9A004	Spacecraft	7	\$6,671,189
9A018	Commodities on the International Munitions List	3	\$368,200
9B002	On-line Control Systems for Gas Turbine Engines	1	\$90,000
9B990	Vibration Test Equipment	1	\$5,208
9D003	Software for Use of Fadec for Certain Propulsion S	2	\$4,752,050
9D004	Software for Vibration Test Equipment	1	\$840
9E003	Other Technology	2	\$9,648,050
	Total Applications: 246		
	Total Ccl's: 74		
	Total Dollar Value: \$71,146,154		

CCL	Description	Applications	Dollar Value
TAJIKIST	TAN		
	Total Applications: 0		
	Total Ccl's: 0		
	Total Dollar Value: \$0		

CCL	Description	<b>Applications</b>	<b>Dollar Value</b>
TURKME	TURKMENISTAN		
1A995	Protective and Detection Equipment	1	\$75,000
2A983	Explosives or Detonator Detection Equipment	1	\$102,197
3A231	Neutron Generator Systems Including Tubes	1	\$270,000
3A981	Polygraphs/Fingerprint Analyzers/Cameras/Equipment	1	\$75,000
	Total Applications: 3		
	Total Ccl's: 4		
	Total Dollar Value: \$522,197		
	Total Applications: 3 Total Ccl's: 4		

CCL	Description	Applications	Dollar Value
UKRAINE			
0A982	Thumbcuffs, Leg Irons and Shackles	2	\$2,382
0A984	Shotguns, Buckshot,Shotgun Shells	6	\$435,645
0A987	Optical Sighting Devices for Firearms	9	\$2,058,800
2A983	Explosives or Detonator Detection Equipment	2	\$1,022,000
2B350	Chemical Manufacturing Facilities and Equipment	1	\$24,635
2E003	Other Technology	1	\$1
3A001	Electronic Devices/Components	2	\$3,689
3A002	General Purpose Electronic Equipment	2	\$61,390
3A981	Polygraphs/Fingerprint Analyzers/Cameras/Equipment	4	\$136,850
3D003	Cad Software for Semiconductor Devices/Integrated	7	\$7
3E001	Technology for Dev or Prod of Certain Items in 3A/	8	\$8
3E002	Other Technology for Items in Category 3	7	\$7
4D001	Software for Certain Equipment/Software in 4A-4D	7	\$7
4D002	Software to Support Technology Controlled By 4E	7	\$7
4D003	Specific Software, as Described in this Entry	8	\$8
4E001	Technology for Dev/Prod/Use of Certain Equip/Softw	9	\$9
5D001	Software for Dev/Prod/Use of Items in 5A001/5B001/	7	\$7
5E001	Technology for Dev/Prod/Use, Etc, of Equip. in 5A0	7	\$7
5E002	Technology for Dev/Prod/Use of Information Securit	1	\$1,000
6A003	Cameras	1	\$7,853
6A008	Radar Systems/Equipment/Assemblies	1	\$61,570
9E003	Other Technology	1	\$2
	Total Applications: 41		
	Total Ccl's: 22		
	Total Dollar Value: \$3,815,884		

CCL	Description	<b>Applications</b>	<b>Dollar Value</b>
UZBEKISTAN			
2B001	Numerical Control Units/Motion Control Boards	1	\$101,500
3A002	General Purpose Electronic Equipment	1	\$61,390
	Total Applications: 2		
	Total Ccl's: 2		
	Total Dollar Value: \$162,890		

CCL	Description	<b>Applications</b>	<b>Dollar Value</b>
VIETNAM			
0A979	Police Helmets, Shields and Parts	3	\$335,063
1A985	Fingerprinting Powders, Dyes, and Inks	1	\$706
1C234	Zirconium, with a Hafnium Content	1	\$687
2A983	Explosives or Detonator Detection Equipment	2	\$108,180
2B350	Chemical Manufacturing Facilities and Equipment	5	\$28,116
2B351	Toxic Gas Monitoring Systems & Dedicated Detectors	2	\$1,030
3A002	General Purpose Electronic Equipment	2	\$61,390
3A229	Firing Sets and High Current Pulse Generators	1	\$1,840,000
3A231	Neutron Generator Systems Including Tubes	1	\$337,500
3A232	Detonators/Multipoint Initiation Systems	2	\$794,500
3A981	Polygraphs/Fingerprint Analyzers/Cameras/Equipment	1	\$48,000
3E002	Other Technology for Items in Category 3	1	\$1
5A002	Systems/Equipment/Integrated Circuits for Info Sec	4	\$56,711
5A991	Transmission Items Not W/I Parameters in 5a001	3	\$86,807
5D002	Software for Information Security	9	\$185,834
5D992	Software Not Controlled by 5D002	1	\$4,551
5E001	Technology for Dev/Prod/Use, Etc, of Equip. in 5a0	1	\$2
	Total Applications: 32		
	Total Ccl's: 17		
	Total Dollar Value: \$3,889,078		



## **U.S. Department of Commerce Bureau of Industry and Security**



## Appendix G: Report on Domestic Impact of U.S. Exports to Controlled Countries

In accordance with Section 14(e) of the Export Administration Act of 1979 (EAA), as amended, the Bureau of Industry and Security (BIS) continues to assess the impact on U.S. industry and employment of output from "controlled countries" resulting, in particular, from the use of U.S. exports of turnkey plants and manufacturing facilities.

Section 14(e), which was added as an amendment to the Act in 1985, requires the following:

- "...a detailed description of the extent of injury to U.S. industry and the extent of job displacement caused by U.S. exports of goods and technology to controlled countries."
- "... a full analysis of the consequences of exports of turnkey plants and manufacturing facilities to controlled countries ... to produce goods for export to the United States or compete with U.S. products in export markets."

#### **Turnkey Plants and Facilities Exports**

The Export Administration Regulations (EAR) require a license to export certain turnkey plants and facilities (and related software and technology) to controlled destinations. In Fiscal Year 2005, BIS did not process any license applications for export of turnkey plants to a controlled country.

As a result of several revisions to the EAR in recent years, an increasing number of turnkey plants and facilities (and related software and technology) have become eligible for export to controlled destinations either without a license or under a license exception. For example, a license is generally not required for exports to controlled destinations (except Cuba) of turnkey plants and facilities (and related software and technology) that are classified as EAR99 (the designation for items that are subject to the EAR but not specifically listed on the Commerce Control List). In addition, certain turnkey plants and facilities (and related software and technology) may be listed in a Commerce Control List entry where the applicable reason for control does not require a license to one or more controlled destinations, as indicated in the appropriate Reason for Control column of the Commerce Country Chart. Other turnkey plants and facilities (and related technology and software) may be eligible for export to controlled destinations under a license exception, such as License Exception CIV, which authorizes exports of certain national security controlled items to civil endusers, for civil end-uses, in most controlled countries, except Cuba and North Korea, or License Exception TSU, which authorizes exports of operation technology and software, sales technology, and software updates, subject to certain conditions.

BIS does not maintain data on actual U.S. exports, regardless of whether or not a license is required. In addition, U.S. export data that are available from the Bureau of the Census do not provide the level of specificity needed to identify exports of turnkey plants and facilities. These factors preclude a thorough assessment of the impact of U.S. exports of turnkey plants and facilities to controlled countries. However, the small number of such

<sup>&</sup>lt;sup>1</sup> For the purpose of this section, "controlled countries" are: Albania; Armenia; Azerbaijan; Belarus; Bulgaria; Cambodia; China (PRC); Cuba; Estonia; Georgia; Iraq; Kazakhstan; Kyrgystan; Laos; Latvia; Lithuania; Macao; Moldova; Mongolia; North Korea; Romania; Russia; Tajikistan; Turkmenistan; Ukraine; Uzbekistan; and Vietnam

exports in the past, coupled with the low percentage of U.S. exports destined for controlled countries (see below), make it reasonable to conclude that the ultimate impact on U.S. production is insignificant.

## **Goods and Technology Exports**

Historically, the dollar value of trade with controlled destinations has been low. In calendar year 2004, U.S. exports to these countries totaled \$41 billion, which represents an increase of \$6 billion from 2002 levels, and about 6 percent of total U.S. exports. China is the largest single export market among the controlled country group, with 80 percent of the total. Russia ranks second with 7 percent of the total. A breakdown of exports by commodity category indicates that capital goods items, including machinery and transportation equipment, represented about half of the total U.S. exports to controlled countries, especially China. Given the small share of U.S. exports to controlled countries, relative to total U.S. exports, the overall adverse impact through injury to U.S. industry and job displacement is probably minimal.

Controlled Calendar Year 20 Destination U.S. Exports (in millions of doll	
Albania	\$19.6
Armenia	\$73.8
Azerbaijan	\$158.0
Belarus	\$31.1
Bulgaria	\$165.6
Cambodia	\$57.2
China	\$32,606.3
Cuba	\$399.3
Estonia	\$125.6
Georgia	\$224.4
Iraq	\$829.2
Kazakstan	\$314.2
Kyrgystan	\$29.6
Laos	\$5.6
Latvia	\$113.9
Lithuania	\$264.0

Macao	\$79.5
Moldova	\$39.1
Mongolia	\$27.8
North Korea	\$23.8
Romania	\$481.7
Russia	\$2,755.0
Tajikistan	\$55.1
Turkmenistan	\$294.5
Ukraine	\$369.5
Uzbekistan	\$229.3
Vietnam	\$1,121.9
TOTAL, CONTROLLED DESTINATIONS	\$40,894.6
TOTAL, U.S. EXPORTS WORLDWIDE	\$727,183.0
U.S. Exports to Controlled Destinations as a Percent of Overall U.S. Exports	5.6%

Although the bases for our export controls are national security, foreign policy, and short supply, BIS, as part of its defense industrial base monitoring responsibilities, reviews, on an ongoing basis, the potential impact of U.S. technology transfers. In this regard, in 1999 BIS conducted a study that examines the extent to which access to the Chinese market is conditioned upon technology transfers, including those related to the establishment of turnkey plants and facilities. The study found that the Chinese Government routinely seeks to obtain technology from foreign bidders through formal and informal means. Such technology transfer occurs in the form of local content requirements, investment requirements, establishment of research and development facilities, and other concessions. U.S. and other Western companies accede to these demands in order to capture the sale or establish a joint venture. Such trade-related investment requirements and commercial offset demands are not limited to China, but are contrary to free trade principles adhered to by members of the World Trade Organization (WTO). It is yet to be seen what the impact of China's recent accession to the WTO will be on such requirements.

U.S. and other Western firms also choose to establish production facilities in China for competitive reasons, such as to take advantage of China's large pool of quality labor, to be close to the market for their products, and in response to business incentives created by Chinese local and national governments. The United States runs a trade deficit with China (\$163.6 billion in 2004), and more than 50 percent of China's exports originate from foreign-invested enterprises. Thus, these practices and trends raise concerns with regard to their impact on the competitiveness of U.S. industry and employment over the long term.

While few full turnkey plants could be identified, a review of export licenses applied for China in the past fiscal years shows that a significant number involve exports of components, manufacturing equipment, and/or technology for use in foreign invested production facilities. Among the components being exported (for incorporation into products manufactured in China) are fibrous materials, aircraft bearings, microprocessors for personal com-

puters, and aluminum forgings. Examples of equipment are vacuum measurement equipment, semiconductor production and test equipment, milling machines, and oscilloscopes. Again, many other types of components, equipment, and technology are doubtless exported without the need for an export license (i.e., because they are not controlled for national security reasons or are eligible for shipment under a license exception).

BIS also monitors certain forms of technology transfer as part of its overall responsibilities for the defense industrial base. These responsibilities include reviewing the impact of offsets on defense trade, participating in the Treasury Department-chaired Committee on Foreign Investment in the United States (CFIUS) and assessing the health and competitiveness of strategic industry sectors. Further information on these activities, including copies of the industrial sector assessments, is available from BIS's Office of Strategic Industries and Economic Security (SIES) webpage at www.bis.doc.gov/OSIES/.



## **U.S. Department of Commerce Bureau of Industry and Security**



## **Appendix H: Agricultural Supply Tables and Information**

Note: All data for this appendix was provided by the U.S. Department of Agriculture (USDA) and was valid as of December 9, 2005.

Note: Beginning February 7, 2006, there will be three ways to access updated World Agricultural Supply and Demand Estimates (WASDE) report:

http://www.usda.gov/oce/commodity/wasde
PDF File: http://www.usda.gov/oce/commodity/wasde/latest.pdf
Text File: http://www.usda.gov/oce/commodity/wasde/latest.txt

WHEAT: No changes are made to projected U.S. 2005/06 all wheat production, imports, domestic use, and exports; leaving ending stocks at 530 million bushels. Relative to last month, Hard Red Winter (HRW) wheat exports are up 5 million bushels, while Durum exports are down 5 million. HRW and Hard Red Spring (HRS) domestic use are lowered 3 and 2 million bushels respectively, but Durum domestic use is up 5 million. Ending stocks of HRW fall 2 million bushels to 173 million, 20 million less than the previous year. HRS ending stocks rise 2 million to 121 million bushels, but are 38 million less than the previous year. The projected 2005/06 price range is \$3.25 to \$3.50 per bushel, down 5 cents on the upper end from last month, compared with \$3.40 for 2004/05.

Global wheat production in 2005/06 is up nearly 5 million tons from last month; consumption rises nearly 2 million; exports and imports increase slightly; and ending stocks increase nearly 4 million. Foreign production rises due primarily to larger crops in Australia, Canada, China, Uzbekistan, and Kazakhstan. Projected global imports are up fractionally due to larger imports by Pakistan, Brazil, South Africa, and the Philippines. Imports by China are down 0.5 million tons to just 2 million, well below the previous year's imports of 6.75 million. Forecast exports rise for Australia, Canada, and Brazil but fall for Syria.

Consumption is up in a number of countries, with the largest month-to-month increases occurring in Pakistan, Brazil, Australia, Canada, and Uzbekistan. Due mostly to higher ending stocks in Australia, Canada, China, and Kazakhstan, global 2005/06 wheat ending stocks rise to 143.4 million tons, up 3.8 million from last month, but down nearly 7 million from the previous year.

COARSE GRAINS: Projected 2005/06 U.S. corn stocks rise from last month due to a drop in exports. No changes are made to projected U.S. 2005/06 corn production, imports, or domestic use. Corn exports are down 100 million bushels from last month due primarily to increased corn exports by China and Ukraine. Corn ending stocks are up 100 million bushels to 2,418 million, 307 million higher than the previous year. The projected 2005/06 price range for corn is \$1.60 to \$2.00 per bushel, unchanged from last month, compared with \$2.06 for 2004/05.

Projected 2005/06 U.S. grain sorghum stocks rise from last month due to a drop in exports. No changes are made to projected U.S. 2005/06 grain sorghum production, imports, or domestic use. Grain sorghum exports are 170 million bushels, down 10 million bushels from last month due to smaller-than- expected purchases by Mexico and the smallest in over 30 years. Grain sorghum ending stocks are up 10 million bushels to 60 million bushels, 3

million higher than the previous year. Grain sorghum prices in 2005/06 are projected to average \$1.45 to \$1.85, unchanged from last month, compared with \$1.79 for 2004/05.

Projected 2005/06 barley imports decline 5 million bushels from last month while exports increase 5 million. Barley ending stocks fall 10 million bushels to 101 million, 27 million less than the previous year. This month, the projected range of barley prices is narrowed 5 cents on each end to \$2.35 to \$2.55, compared to \$2.48 for 2004/05. Projected 2005/06 oat imports decline 10 million bushels from last month and ending stocks fall 10 million bushels to 46 million, 12 million less than the previous year. This month, the projected range of oat prices is narrowed 5 cents on each end to \$1.50 to \$1.60, compared to \$1.48 for 2004/05.

The outlook for global coarse grains in 2005/06 is for larger production, increased consumption, slight changes in trade, and higher stocks relative to last month. Foreign production is up 7.4 million tons with the largest increases projected in China, Canada, and Australia. These gains are partially offset by smaller crops in South Africa and Kazakhstan. Foreign 2005/06 coarse grain consumption is up 3.2 million tons with large increases projected in Canada, Morocco, Iraq, and Iran as well as other countries. Consumption falls in Mexico and Kazakhstan. Global 2005/06 imports are little changed from last month. Imports are projected down for Canada and Mexico but up for Iran, Morocco, and several other countries. Global 2005/06 exports are up nearly 1 million tons from last month with large increases projected for China and Australia. In addition to the lower projected exports from the United States, exports decline for South Africa, Iraq, and Kazakhstan. Global 2005/06 ending stocks rise 5.4 million tons from last month with foreign stocks up nearly 3 million. The largest increases in foreign stocks occur in China, Canada, Australia, Romania, and Ukraine. Stock declines are projected for South Africa, Morocco, India, and several other countries.

**RICE:** Only minor changes are made to the U.S. 2005/06 rice supply and use projections from a month ago. On the

supply side, imports are lowered 1 million cwt to 14 million cwt, due to a slower-than-expected import pace early in the marketing year. No changes are made on the use side. As a result, ending stocks are lowered 1 million cwt to 25.2 million cwt, which are down 12.5 million cwt from a year earlier. The season-average farm price is lowered 10 cents per cwt on each end to \$7.65 to \$7.95 per cwt and compares to \$7.33 per cwt in 2004/05.

Global 2005/06 rice production, imports, and ending stocks are raised from last month, while consumption and exports are nearly unchanged from a month ago. The increase in global rice production is due to larger crops projected for Australia, Pakistan, Thailand, and Turkey. Global imports are raised due primarily to increases for Indonesia, Malaysia, and Nigeria while imports for the United States were reduced slightly. Global exports are raised slightly from a month ago with increases for Australia, Pakistan, and South Korea nearly offset by a reduction for Thailand. World rice ending stocks for 2005/06 are projected at 65.8 million tons, up 1.2 million tons from last month, but down 7.1 million tons from 2004/05, and the lowest stocks since 1982/83.

OILSEEDS: Total U.S. oilseed production is projected at 95.1 million tons, up slightly due to increased cottonseed production. Soybean exports are reduced 55 million bushels to 1,020 million bushels as competition from South American soybean exports continues to limit U.S. trade prospects, especially to EU-25 and China. U.S. export commitments (shipments plus outstanding sales) through early December are at the lowest level since 1998. With projected soybean crush unchanged, 2005/06 ending stocks are increased to 405 million bushels. Although soybean crush is unchanged, soybean oil production and ending stocks are raised based on a sharply higher oil extraction rate.

U.S. season-average soybean prices for 2005/06 are projected at \$5.00 to \$5.70 compared with \$4.95 to \$5.75 last month. Soybean meal prices are unchanged at \$155 to \$180 per short ton. Soybean oil prices are projected at 20.5 to 23.5 cents per pound, down 1.5 cents on each end of the range.

Global oilseed production for 2005/06 is projected at 387.0 million tons, up 1.7 million tons from last month. Foreign oilseed production accounts for most of the change with increases for rapeseed, sunflowerseed, and soybeans more than offsetting reductions for cottonseed. Canadian rapeseed production is raised 1.2 million tons to a record 9.7 million tons, based on the latest survey results from Statistics Canada. Canada's soybean crop is also increased this month based on the survey. Ukraine sunflowerseed production is increased 0.3 million tons to 4.6 million tons reflecting increased harvested area and yields. Other changes include higher rapeseed production for Australia and reduced cottonseed production for India.

Global oilseed trade is little changed this month with reduced U.S. soybean exports largely offset by increases for Brazil. Global oilseed ending stocks for 2005/06 are raised primarily due to increased soybean stocks in the United States and increased rapeseed stocks in Canada.

SUGAR: Projected U.S. sugar supply for 2005/06 is increased 728,000 short tons, raw value, from last month. Production is increased 146,000 tons, mainly due to higher beet sugar production, based on processors' reports compiled by the Farm Service Agency. Imports are increased 590,000 tons, mostly due to higher tariff rate quota (TRQ) imports. Shortfall in filling the TRQ is increased 15,000 tons. Imports of high-tier sugar from Mexico are increased 130,000 tons while other non-program imports are increased 25,000 tons. Use is unchanged and ending stocks are increased to 1.4 million tons, or 13.4 percent of use.

For 2004/05, revisions to preliminary year-end data from processors result in supply increasing 35,000 tons and use increasing 43,000 tons. Ending stocks are decreased to 1.35 million tons, or 12.8 percent of use.

LIVESTOCK, POULTRY, AND DAIRY: NOTE: Due to uncertainties as to the length of the bans on trade in ruminants and ruminant products because of the discovery of BSE in the United States and Canada, forecasts for 2005 and 2006 assume a continuation of policies currently in place among U.S. trading partners. Subsequent forecasts will reflect any announced changes.

The total U.S. meat production forecasts for 2005 and 2006 are little changed from last month. Beef production is forecast fractionally lower in the fourth quarter because of the continued slow pace of cattle slaughter. But the decline in beef output is limited by heavier average carcass weights. In 2006, beef production is raised slightly as marketings pick up in the first quarter. Pork and poultry meat production forecasts are unchanged in both 2005 and 2006.

Forecast beef imports in 2005 are reduced because shipments from Oceania are expected to be lower than forecast last month. Beef imports in 2006 are lowered to reflect a continued slow pace of shipments. Beef exports in 2005 and 2006 are raised due to expected increased shipments to markets currently open to U.S. beef. This beef forecast still assumes that Asian markets, particularly Japan and Korea, remain closed to U.S. beef. Pork exports in 2005 are reduced slightly. Broiler exports in 2005 are reduced because third quarter shipments were lower than expected.

Forecast cattle prices for the fourth quarter 2005 are increased as supplies of Choice grade cattle remain tight. Prices in the first half of 2006 are also raised as cattle supplies remain relatively tight into 2006. The hog price for 2005 is increased because of recent stronger prices. This strength is expected to continue into next year, resulting in a slightly higher first quarter price. Broiler prices in 2005 and 2006 are reduced as current broiler prices have weakened.

Forecast milk production for 2005 and 2006 is slightly lower than last month. Compared with last month's forecast, the herds are reduced marginally, and the milk per cow growth rate is slightly lower. Relatively large supplies of butter are pressuring butter prices and forecast prices are reduced to reflect further pressure through early 2006. Cheese, nonfat dry milk, and whey price forecasts are raised from last month as demand is expected to remain firm. Class IV prices are lowered in 2005 but the Class III price is unchanged. The forecast for both 2006 Class III and Class IV prices are raised from last month. The all milk price for 2005 is forecast lower at \$15.10 to \$15.20 per cwt, but the 2006 forecast is raised to \$13.35 to \$14.15 per cwt.

**COTTON:** This month's U.S. forecasts for 2005/06 include higher production, exports, and ending stocks compared with last month. Production is raised 2 percent to a record 23.7 million bales, due mainly to increases for Texas and Georgia. Domestic mill use is unchanged and exports are raised 200,000 bales to a record 16.4 million bales. Ending stocks are raised 6 percent to 6.9 million bales.

The world 2005/06 forecasts include modest increases in all categories. Beginning stocks are raised for India and Pakistan, due to prior year adjustments. World production is slightly higher, as increases for the United States, Pakistan, Australia, Syria, and Burkina Faso more than offset reductions for India, Turkey, and others. Consumption is raised mainly in China, based on recent yarn production. World trade is also raised slightly as higher imports by China and Turkey are partially offset by lower imports by Pakistan. World ending stocks are forecast 1.5 percent above last month.



## U.S. Department of Commerce Bureau of Industry and Security



## **Appendix I: Editor's Note**

The contents of this report cover the activities of the Bureau of Industry and Security during Fiscal Year 2005. Some of the photographs depict events which occurred after the close of Fiscal Year 2005, but which accurately reflect the Bureau's current activities and leadership.