# U.S. Department of Commerce

# Bureau of Industry and Security

Annual Report to the Congress for Fiscal Year 2012

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**Bureau of Industry and Security Fiscal Year 2012 Annual Report**

This report summarizes the activities of the Department of Commerce's Bureau of Industry and Security (BIS) during Fiscal Year 2012, from October 1, 2011, through September 30, 2012.

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*"Transparency and predictability have been key elements of export control reform. These are virtues not only for their own sake, but also because it is vital to our national and economic security that American companies be reliable and predictable suppliers of products."*

*Under Secretary Eric L. Hirschhorn*

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## Background on BIS

BIS advances U.S. national security, foreign policy, and economic objectives by ensuring an effective export control and treaty compliance system, and by promoting continued U.S. leadership in strategic technologies. BIS accomplishes its mission by maintaining and strengthening adaptable, efficient, and effective export control and treaty compliance systems.

Items subject to BIS's regulatory jurisdiction have chiefly commercial uses, but can also be used in conventional arms or weapons of mass destruction, terrorist activities, or human rights abuses. These items are generally referred to as dual-use items. BIS has primary responsibility, in coordination with several other agencies, for implementing U.S. export control policy on dual-use commodities, software, and technology. To accomplish its objectives, BIS administers, and amends as necessary, the Export Administration Regulations (EAR). The EAR set forth license requirements and licensing policy for the exports of dual-use items.

Enforcement is an essential aspect of the BIS mission.

Enforcement efforts encourage compliance, prevent and deter violations, disrupt illicit activities, and bring violators to justice. BIS achieves these important objectives through a law enforcement program focused on parties engaged in the export of sensitive commodities, software, and technology to end uses, end users, and destinations of concern.

BIS plays a significant role in the four major multilateral export control regimes and three treaties which deal in different industry sectors: the Australia Group (chemical and biological nonproliferation), the Missile Technology Control Regime, the Nuclear Suppliers Group, the Wassenaar Arrangement (conventional arms and related

dual-use goods, software, and technologies), the Chemical Weapons Convention (chemical weapons nonproliferation), the Additional Protocol to the U.S.-International Atomic Energy Agency Safeguards Agreement (nuclear weapons nonproliferation), and the Biological Weapons Convention (biological weapons nonproliferation).

*"Creating the right balance between commerce and security poses some challenges, but not ones that can't be overcome. Boosting exports and complying with export controls go hand and hand. And a smart, predictable and transparent export control regime is central to a company's ability to compete in the global marketplace."*

*Deputy Under Secretary Daniel O. Hill*

BIS consults closely with industry on the development of regulatory policy through its Technical Advisory Committees (TACs). The TACs provide valuable industry input on trends in technology and the practicality and likely impact of export controls. BIS also conducts numerous outreach events throughout the United States and overseas to educate and update the public on export controls and policy.

**Export Control Reform Update**

During Fiscal Year 2012, BIS published one final and nine proposed Export Control Reform (ECR) rules. The final rule established a new Export Control Classification Number (ECCN) to temporarily control emerging technologies. The proposed rules covered the new "600" series ECCNs to control items to be transferred from the United States Munitions List (USML) to the Commerce Control List (CCL). The proposed rules also covered transition issues and the key definition of "specially designed."

On March 7, 2012, the Administration took another step towards implementation of the President's Export Control Reform Initiative through the establishment of the interagency Information Triage Unit (ITU), hosted and administered by BIS. The ITU is responsible for assembling, analyzing, and disseminating information from all sources, including intelligence, to inform agencies about the bona fides of transaction parties to license applications. This streamlined multi-agency process is designed to ensure that agencies receive comprehensive and objective information from which to make licensing decisions. The ITU became operational in May 2012 and in FY 2012 produced over 650 analytical products in support of the licensing process.

*(Please see Appendix H, page 67, for additional export control reform information.)*

## Export Control Policy and Regulations

*"Reforming our export control system, including the munitions, dual-use, and sanctions regulations, is a national security imperative. We need a system that increases interoperability with our close allies, reduces the current incentives for allies to design out or avoid U.S.-origin content, in order to strengthen the defense industrial base, and allows the Government to focus its resources on the transactions that matter most.*

*Assistant Secretary for Export Administration Kevin J. Wolf*

## Foreign Policy-Based Controls

### Entity List-related Developments

In FY 2012, BIS implemented the decisions of the End-User Review Committee (ERC), the interagency group that administers the Entity List, and published nine Entity List-related rules. Through publication of these rules, 67 persons (in 88 separate entries) were added to the Entity List, 64 on an ad hoc basis and three as a result of the annual review. Additionally, 26 persons were removed from the Entity List - four in response to an appeal, and 22 as a result of the ERC's annual review of the Entity List. Finally, 61 amendments were made to existing entries on the Entity List, 56 as a result of the annual review and five on an ad hoc basis.

## Export Licensing

### Export License Processing

In FY 2012, BIS processed 23,229 export license applications for transactions valued at approximately $204.1 billion. This marked a slight decrease from the 25,093 applications processed in FY 2011. BIS approved 19,817 license applications (85 percent), returned 3,197 applications without action (14 percent), and denied 143 applications (less than one percent). In FY 2012, BIS's average processing time to review a license application was 26 days. This includes time for reviews by other agencies.

The export of crude oil was the category of license applications with the highest transaction value, totaling $113.6 billion. The greatest number of license application approvals under a single commodity classification was for chemical manufacturing facilities and equipment (ECCN 2B350), with 2,777 approved applications for exports and reexports worth $348.5 million.

### Exports under License

BIS obtains data from the Bureau of the Census (Census) on exports subject to BIS licensing requirements to evaluate the economic impact that export controls are having on U.S. interests. For calendar year 2011 (the most recent data available to BIS

for this report), U.S. companies exported $4.6 billion of licensed items (of which 2.9 percent were exported under a special comprehensive license), and $20.2 billion of items under a license exception, representing 0.3 percent and 1.3 percent, respectively, of overall U.S. trade. Between 2009 and 2011, companies exported approximately 48.5 percent of the items that they were authorized to export under BIS licenses.

BIS continues to work with Census and the Department of Homeland Security's U.S. Customs and Border Protection to improve the Automated Export System (AES) and to increase exporter compliance with the EAR. In FY 2012, BIS made additional changes to AES to prevent errors on exports involving a BIS license or items exported under the designation "No License Required."

**License Applications Escalated for Interagency Resolution**

Under Executive Order 12981, BIS's Operating Committee (OC) – with membership including the Departments of Commerce, Defense, Energy, and State – is tasked with resolving interagency disagreement on specific license applications. In FY 2011, 242 cases were escalated to the OC for dispute resolution. Of those 242 cases, 26 were further escalated to the Assistant Secretary-level Advisory Committee on Export Policy for resolution.

**Commodity Classifications**

To ascertain whether an export license is required from BIS, an exporter needs to classify the item to be exported by determining the ECCN and may request an official classification from BIS. In FY 2012, BIS processed 6,107 classification request applications, including encryption requests, in an average of 34.4 days.

**Commodity Classification Determinations and Licensing of Encryption Items**

The FY 2010 removal of the commodity classification determination requirements for less sensitive encryption items resulted in a 58 percent decrease in the number of encryption commodity classification requests completed from 3,192 in FY 2010 to 1,332 in FY 2012. The encryption registration process, which replaced encryption reviews for many items, continued at a steady pace of approximately 100 encryption registrations per month with 1,273 encryption registrations filed in FY 2012. BIS also approved more than 1,900 licenses for encryption items in FY 2012. This was an increase of 18.8 percent over the number approved in FY 2010. Although the number of commodity classification requests has decreased significantly, the number of license applications for encryption items continues to increase.

**Commodity Jurisdiction Determinations**

A commodity jurisdiction (CJ) request is used to determine whether an item or service is subject to the export licensing authority of the Department of Commerce or the Department of State, Directorate of Defense Trade Controls (DDTC). Exporters may request a CJ determination by submitting the request to DDTC, which has final jurisdiction determination authority. In FY 2012, BIS provided recommendations to the State Department on 1,292 CJ requests in an average of 22 days.

**Special Comprehensive Licenses, Internal Control Program Reviews, and Export Compliance Programs**

In an effort to streamline licensing procedures while protecting U.S. national security, BIS administers special license and authorization programs.

In FY 2012, BIS conducted one on-site review and two desk audits of holders of Special Comprehensive Licenses (SCL), which are issued to qualified exporters and consignees in place of individual export licenses. BIS also conducted 22 Export Management and Compliance Program (EMCP) reviews of corporate written compliance programs and conducted one two-day and two one-day seminars on how to develop an EMCP, in various U.S. cities.

During FY 2012, BIS conducted 26 deemed export license on-site compliance reviews to confirm implementation of technology control plans and other conditions associated with those licenses. In addition, in FY 2012, BIS initiated a compliance program to review exports made under the new license exception Strategic Trade Authorization (STA). Fifty desk reviews were conducted by BIS's Export Management and Compliance Division (EMCD). Of these exports 44 were completely compliant with STA requirements, and 6 involved minor technical errors. In addition to these 50 desk reviews, EMCD completed 4 on-site document reviews of STA in FY2012. These additional on-site reviews did not uncover any compliance issues and provided BIS an opportunity to discuss compliance procedures related to the license exception with some of the larger users during this first year.

**License Determinations**

License Determinations (LDs) are used to support BIS enforcement actions connected with potential violations of the EAR. In FY 2012, BIS completed 442 enforcement LDs in an average of 37 days. In addition, BIS processed 194 LDs for the Federal Bureau of Investigation and 452 LDs for the Department of Homeland Security in support of criminal investigations of potential unlawful exports.

## Export Enforcement

*"We in Export Enforcement are dedicated to our national security mission in this very challenging global environment. We want to make it crystal clear to bad actors, whether they contemplate diverting U.S. products, getting access to controlled U.S. technology, or circumventing U.S. embargoes, that we can and will catch up with them, and impose penalties to the fullest extent of the law."*

*Assistant Secretary for Export Enforcement David W. Mills*

On July 1, 2010, the President signed the Comprehensive Iran Sanctions, Accountability, and Divestment Act, Pub. Law 111-195, 124 Stat. 1312, which under Section 305 provides, for the first time, permanent law enforcement authorities to Special Agents in BIS's Office of Export Enforcement. These permanent authorities enhance the ability of our Special Agents to investigate and prosecute violators of the EAR.

**Penalties**

BIS investigations in FY 2012 resulted in the criminal conviction of 27 individuals and businesses for export violations, as compared to 39 convictions in FY 2011. The penalties for these convictions came to $4,786,500 in criminal fines, more than $5 million in forfeitures, and more than 187 months of imprisonment, compared to $20,214,000 in criminal fines, more than $2.1 million in forfeitures, and more than 572 months of imprisonment in FY 2011**.**

In FY 2012, BIS investigations resulted in the completion of 42 administrative export and antiboycott cases against individuals and businesses and $7,442,600 in civil penalties, as compared to 47 cases and more than $8,508,300 in civil penalties in FY 2011. Of the 42 cases closed in FY 2012, 10 involved antiboycott violations that resulted in total civil penalties of $142,600.

**Antiboycott Activities**

During FY 2012, 10 companies agreed to pay civil penalties totaling $142,600 to settle allegations that they violated the antiboycott provisions of the EAR, as compared to eight antiboycott cases that involved $129,300 in penalties in FY 2011.

In FY 2012, BIS responded to 981 requests from companies for guidance on compliance with the antiboycott provisions of the EAR. BIS continued to reach out to exporters, manufacturers, freight forwarders, bankers, and attorneys involved in international trade, and to provide extensive counseling to individual companies with specific boycott problems. The Office of Antiboycott Compliance (OAC) also provided export counseling to three U.S. firms seeking to remove boycott-related language from tenders originating in the UAE. OAC continued to work with the U.S. Embassy in Baghdad to assist U.S. firms seeking to register their trademarks in Iraq and to remove boycott-related language from tenders.

The U.S. position against the Arab League boycott of Israel remains in force. Over the past year, U.S. officials, including those from State, Commerce, and the Office of the U.S. Trade Representative, continued to remind Arab League governments that perpetuating the boycott of Israel is not only an obstacle to Mideast peace, but also a barrier to participating in the global economy, attracting foreign investment, and expanding trade in the region. As part of this reminder, the United States opposed the Arab League's 2011 application to the World Trade Organization for permanent observership status on the basis of its continued sponsorship of the Arab League Boycott Office, which is charged with coordinating the various aspects of its boycott against Israel. In addition, U.S. Embassies throughout the Mideast continue to brief host governments on the boycott-related requests made by local companies and government agencies in contracts and commercial documents sent to U.S. firms.

Officials from OAC conducted two antiboycott compliance assessment trips in

FY 2012. These trips are designed to assess Arab League boycott compliance and to provide in-country training and support to U.S. Embassy and U.S. Foreign Commercial Service officials on the Antiboycott regulations. OAC officials traveled to the UAE in February 2012 and met with senior UAE officials to assess progress in removing boycott-related language from documents sent to U.S. companies by UAE entities. Both countries agreed to establish a bilateral arrangement whereby OAC would utilize the auspices of the UAE's Commercial Attaché in Washington to resolve boycott-specific problems. OAC forwarded boycott-related language contained in a registration form from the Emirates Identity Authority (EIA) (which is required to do business in the UAE). In July 2012, the UAE agreed to delete the boycott clause and U.S. companies are no longer asked to provide boycott information when they apply to the EIA.

OAC also conducted two outreach seminars before the Abu Dhabi Chamber of Commerce and the American Business Council of Dubai in February 2012.

In August 2012, OAC officials traveled to Oman and Qatar for a review of efforts to remove boycott language from commercial documentation and meetings with U.S. Embassy and Foreign Commercial Service officials.

**Preventive Enforcement**

In FY 2012, BIS continued to emphasize its enforcement activities that focus on prevention and compliance. Export Enforcement officials participate in the export licensing process by making recommendations on license applications, detaining shipments that may have been undertaken in violation of the EAR, and in some significant cases seeking the issuance of Temporary Denial Orders to prevent imminent export violations.

End-use checks continue to serve as a valuable safeguard and preventive enforcement tool for verifying the bona fides of foreign end users, ensuring that exported items have been or will be properly used as authorized, and that license conditions are adhered to. BIS end-use checks have been effective in revealing unauthorized end-uses, including improper or unauthorized diversion, of items subject to BIS jurisdiction.

In FY 2012, BIS completed 994 end-use checks in more than 50 countries. This represents a 10 percent increase above the previous year's performance. Of these, 136 were Pre-License Checks (PLCs), which are conducted to prevent the release of sensitive items to unreliable parties, and 858 were Post-Shipment Verifications (PSVs), which assist the U.S. government in monitoring such transactions to conclusion. Approximately 56 percent of the checks were conducted by BIS Export Control Officers (ECOs) stationed at U.S. Embassies and consulates in Moscow, Beijing, Hong Kong, New Delhi, Abu Dhabi, and Singapore with regional responsibilities. The remaining checks were conducted by Office of Export Enforcement Special Agents and analysts deployed from the United States to conduct end-use checks in certain countries or by Foreign Commercial Service Officers and support personnel stationed at various U.S. Embassies. BIS used the results of the negative checks to prevent future exports to unsuitable end users and to take enforcement action where appropriate.

In situations where BIS cannot make a recommendation on an end-use check

because the U.S. Government was unable to conduct the check or was otherwise unable to verify the existence or authenticity of the end user, the end user may be considered for inclusion on the Entity List or the Unverified List. The presence of an end user on the Entity List provides notice to the public that certain exports, reexports, and transfers (in-country) to the identified parties are subject to licensing requirements and policies supplemental to those found elsewhere in the EAR and that availability of license exceptions in such transactions is limited. Any transaction in which an end user listed on the Unverified List is a party will be deemed by BIS to raise a red flag with respect to such a transaction within the meaning of the guidance set forth in Supplement No. 3 to 15 C.F.R. Part 732.

BIS completed a significant number of additional preventive enforcement actions in FY 2012, including the issuance of 231 warning letters, 199 detentions, and 48 seizures. Temporary Denial Orders were issued against 16 companies and eight individuals, while 14 denial orders were imposed in closed enforcement cases; 12 denial orders were issued under Section 11(h) of the EAA (which authorizes denial of export privileges of parties convicted under certain Federal statutes); and 1,335 outreach contacts were made with industry.

*For additional information related to significant BIS enforcement activities, see Appendices C and D.*

## Industry Outreach Activities

### Seminars and Conferences

BIS export outreach and education constitute the first line in BIS's contact with U.S. exporters and provides guidance and transparency to new and experienced exporters regarding the Export Administration Regulations (EAR). BIS counseling operations have been instrumental in assisting the exporting community in understanding and complying with critical national security and foreign policy-based regulations. Each year, counselors in the BIS Office of Exporter Services' (OExS) Outreach and Educational Services Division and Western Regional Office provide regulatory, policy and process guidance to tens of thousands of exporters, forwarders, universities and individuals, enabling them to meet their obligations under the EAR.

In FY 2012, BIS expanded the scope of its outreach and education in furtherance of the Export Control Reform Initiative and related regulatory developments. The regulated community was asked to comment on proposed regulations relating to Export Control Reform. BIS initiated a series of outreach activities designed to educate industry on these proposed regulations. BIS's activities included webinars, teleconferences, and on-location panel sessions at various conferences. For example, Assistant Secretary Wolf spoke weekly via teleconference with industry representatives on the then-proposed License Exception Strategic Trade Authorization and the July 15 rule, proposing how items previously on the U.S. Munitions List would be controlled on the Commerce Control List. These weekly teleconferences allowed BIS to address specific questions from the business community. These calls educated the regulated community on the proposed rules, thereby helping it to focus its attention on key issues when submitting formal comments to BIS.

One-on-one counseling assistance is provided on both coasts for extended periods

of operation each day. In addition, counselors conduct dozens of highly regarded and cost-effective seminars throughout the United States in the high technology communities most affected by these regulations. Over the past few years, BIS has developed additional capabilities to offer training online. These services have been particularly useful for small and medium-sized businesses that operate with more limited compliance resources.

In FY 2012, BIS reached more than 4,500 people through 25 domestic export control seminars conducted in 13 states and the District of Columbia. These seminars provided guidance to new and experienced exporters regarding the EAR, changes in export policy, and licensing procedures, as well as encryption and technical data issues. Ninety-four percent of attendees rated the seminars either "good" or "excellent" in FY 2012. BIS also participated as a speaker or with organized information booths at several dozen additional events hosted by other organizations.

BIS held its 25th annual Update Conference on Export Controls and Policy between July 17, 2012 and July 19, 2012 in Washington, DC. The conference attracted over 1,300 participants. Under Secretary of Commerce for Industry and Security Eric L. Hirschhorn and Assistant Secretary of Commerce for Export Administration Kevin J. Wolf provided updates on the progress of the Export Control Reform Initiative. One of the highlights of the conference was the address on July 19 by Federal Bureau of Investigation Director, Robert S. Mueller III, who discussed the threat of illegal exports and forging private sector partnerships to combat this problem. A new feature of Update 2012 was a series of open fora that permitted participants to interact on issues relating to U.S. Munitions List (USML) and Commerce Control List (CCL) changes, industry advisory committee perspectives, and export controls and services for small and medium size enterprises. Update 2012 Conference information, including speeches, videos and presentations, is available on the BIS website.

BIS also holds an annual Export Control Forum in California. This past year it was held on February 27-28, 2012 and attracted approximately 300 attendees, many of whom were from technology firms.

BIS also provides an introductory series of easy-to-use training modules. Six of those modules mirror content provided in the "Complying with U.S. Export Controls" seminars that BIS currently offers around the United States. This service offers exporters and reexporters - particularly small and medium-sized enterprises - a cost-saving mechanism to learn about U.S. dual-use export controls. The training modules were viewed over 46,000 times in FY 2012.

During FY 2012, BIS began developing new approaches, tools and partners in support of Export Control Reform (ECR). In addition to Assistant Secretary Kevin Wolf's weekly ECR conference calls, the Office of Exporter Services worked with representatives from the President's Export Council Subcommittee on Export Administration and trade associations to identify and propose actions to educate industry on the existing and anticipated changes to the Export Administration Regulations that have been proposed pursuant to ECR. BIS is making use of teleconferencing, webinars, interactive web-based tools, and specialized workshops to reach the exporters that will be most affected by these changes.

BIS has established a network of non-profit organizations with whom it partners in furtherance of the regulatory compliance objectives of ECR. For example, BIS has teamed up with the Society for International Affairs to address how defense-related firms will be affected by the transfer of items from the U.S. Munitions List (USML) to the Commerce Control List (CCL). BIS officials have spoken at the National Defense Industries Association's Small Business Conference in Chicago that attracts many parts and components suppliers whose products are among those proposed to transfer to BIS for export license review. This is significant because it represents a broad and systematic effort to reach defense exporters who may benefit from the transfer of their militarily less sensitive parts and components from the licensing jurisdiction of the USML to the CCL.

BIS continued increasing its regulatory compliance education programs in the critical area of deemed exports. In FY 2012, BIS conducted approximately 30 outreach programs with special focus on the university and research technology communities. BIS, together with the University of Washington, conducted the first day-long focus session on deemed exports that attracted over thirty representatives from educational institutions, bio-medical laboratories and technical institutions. Additional discussions were held with representatives from the Association of University Export Compliance Officers. The President's Export Council Subcommittee on Export Administration and its Outreach Sub-committee continued to be a valuable source of program development for deemed exports. Finally, BIS continued its association with the U.S. Department of Homeland Security and participated in a major outreach event in Redmond, Washington attracting firms in the Pacific Northwest new to export controls. The event included content on the I-129 form - the Petition for a Non-Immigrant Worker - that now has an export control certification provision regarding the release of controlled technology to foreign nationals.

BIS supports the interagency Trade Promotion Coordinating Committee (TPCC) as part of the TPCC's U.S. Export Pavilion and Trade Officer Training Conference. It also participates on its own in a number of trade related events. In FY 2012 BIS participated in 14 such events, including the District Export Council Conference, the Chemical Show, the Shot Show, the International Compliance Professionals Association Conference, and events involving the American Association of Exporters and Importers and the Association Small Business Development Centers.

BIS continued to support the Census Bureau's coordinated Automated Export System (AES) compliance seminars. In FY 2012, BIS presented in 13 U.S. cities on how to properly determine licensing requirements and report export control requirements in the AES.

The expansion of outreach activities went beyond Export Control Reform and had the effect of educating parties who are new to export controls. This includes small and medium sized companies, freight forwarders, immigration attorneys, human relations managers, and government personnel from the Department of Homeland Security.
In addition, BIS continued to focus on the enforcement aspects of expanded outreach and deemed export compliance involving individuals and companies that had not previously submitted applications for actual or deemed export licenses. In FY 2012,

BIS's Office of Export Enforcement conducted more than 721 enforcement outreach visits to such individuals and companies. BIS also initiated 46 leads and cases involving allegations of deemed export licensing violations.

**Project Guardian**

BIS maintains a constructive and cooperative relationship with the business community through outreach programs sponsored by BIS's Export Enforcement arm. BIS's Project Guardian focuses on specific goods and technologies that illicit proliferation networks actively seek to acquire. BIS contacts U.S. manufacturers and exporters of these goods and technologies to apprise them of these acquisition threats and to solicit cooperation in identifying and responding to suspicious purchase requests. In FY 2012, BIS conducted 72 Project Guardian outreach contacts.

**Counseling**

BIS received more than 44,400 phone and email inquiries through its counseling programs at BIS's Outreach and Educational Services Division in Washington, DC, and at the Western Regional Office in California. Through these programs, BIS provides guidance on regulations, policies, and practices and helps to increase compliance with U.S. export control regulations.

**International Cooperation**

BIS staff participated in bilateral discussions with the Republic of Korea and Hong Kong, as well as in the U.S.'s annual Counterproliferation Task Force Meeting with the UAE in Dubai. BIS also hosted management and procurement officials from the United Nations Development Program for a briefing on U.S. export control requirements for sanctioned and embargoed countries.

BIS also participated in 23 programs organized by the Department of State's Export Control and Border Security (EXBS) program in more than 60 different countries.

# International Regimes and Treaty Compliance

BIS plays an important role in the U.S. Government's efforts to develop and refine the control lists and operational guidelines for the four major multilateral 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).

**Australia Group**

The Australia Group (AG), a multilateral export control regime, was formed in 1985 to help stem the proliferation of chemical and biological weapons through harmonized export controls. The AG now includes 40 countries and the European Union.

The AG meets annually and communicates between meetings to review and refine the list of controlled chemicals, biological agents, and related equipment and technology. The 2012 Plenary Meeting was held from June 11-15 in Paris, France. BIS published a final rule amending the Export Administration Regulations (EAR) to implement the understandings reached at the June 2011 plenary meeting. These regulatory changes are described in Appendix A of this report.

In FY 2012, BIS approved 4,467 license applications valued at $11.9 billion for the export or reexport of items controlled by the AG. BIS denied 10 license applications valued at $1.03 million, and returned without action 308 license applications valued at $116.9 million.

**Missile Technology Control Regime**

The United States is a member of the Missile Technology Control Regime (MTCR), a multilateral export control regime established in 1987. The MTCR currently includes 34 member countries that have agreed to coordinate their national export controls to prevent missile proliferation.

The MTCR held an intersessional Technical Experts Meeting in November 2011 to discuss changes to the MTCR control list, including changes to the controls on maraging steel, technology for liquid propellant tanks, and the definition of "specially designed". These changes to the MTCR Annex were accepted by MTCR member countries at the December 2011 Reinforced Points of Contact (RPOC) meeting in Paris. BIS is currently drafting a rule amending the EAR to implement these changes.

In FY 2012, BIS approved 1,064 applications valued at $2.2 billion, for the export or reexport of missile technology-controlled items. In addition, BIS rejected 11 applications valued at $15.8 million and returned without action 51 applications valued at $149.6 million.

**Nuclear Suppliers Group (NSG)**

The NSG is a multilateral export control regime that was formally established in 1992 and now includes 47 members. The regime seeks to impede the proliferation of nuclear weapons through the implementation of guidelines for the control of nuclear and nuclear-related exports. Members pursue the aims of the NSG through voluntary adherence to the NSG Guidelines, which are adopted either by consensus or through exchanges of information on developments of nuclear proliferation concern.

The 2012 Nuclear Suppliers Group (NSG) Plenary, Consultative Group (CG), Information Exchange (IEM) and Licensing and Enforcement Experts (LEEM) meetings were held in Seattle, Washington, during the week of June 18-22, 2012. Deputy Secretary of Energy Daniel Poneman chaired the Plenary for the United States.

The CG reached consensus, confirmed by the Plenary, on approval of the U.S. proposal to include under the Supporting Activities section of the Part 1 Guidelines a new paragraph 12 entitled "Support for Access to Nuclear Material for Peaceful Purposes." There were vigorous and detailed discussions in the CG and the Plenary of the second U.S. "Food for Thought" paper on NSG Membership for India. The Plenary approved 26 proposals from the Dedicated Meeting of Technical Experts (DMTE) for amendment of the NSG Trigger and Dual-Use Lists, as well as procedural implementation proposals recommended by the CG Chair. BIS has reviewed these proposals and is preparing a rule to implement the changes pertaining to the EAR.

Mexico and Serbia were invited to participate as observers in the Plenary. The Plenary agreed that Mexico had completed all the necessary steps for consideration of membership and that the intersessional procedure should begin to confirm consensus.

In FY 2012, BIS approved 2,277 applications, valued at $2.13 billion, for the export or reexport of items controlled for nuclear nonproliferation reasons. In addition, BIS rejected 11 applications valued at $2.9 million and returned without action 119 applications valued at $30.3 million.

**Wassenaar Arrangement**

The Wassenaar Arrangement (Wassenaar) is a multilateral arrangement addressing export controls on conventional arms and sensitive dual-use goods and technologies. Wassenaar was founded in 1996 to replace the East-West technology control program under the Coordinating Committee (COCOM) regime that ended in 1994. With the addition of Mexico in 2012, there are currently 41 countries participating in Wassenaar.

Members are required to report approvals, transfers, and denials of certain items controlled under the Wassenaar Arrangement. Reporting denials helps to bring to the attention of member countries attempts to obtain strategic items that may undermine the objectives of Wassenaar.

At the December 2011 Plenary, Wassenaar concluded its fourth assessment which consisted of a wide-ranging review and evaluation of the Arrangement's overall functioning and its contribution to regional and international security and stability. Since the last assessment in 2007, Wassenaar sought to keep pace with advances in technology and market trends. It continued its efforts to contribute to international and regional security and stability, although it was recognized that further work was needed to address new challenges. Wassenaar members continued to make the existing control lists more readily understood and user-friendly for licensing authorities and exporters, and to ensure the detection and denial of undesirable exports.

Significant efforts have been undertaken to promote the Arrangement and to encourage voluntary adherence to the Arrangement's standards by non-Participating States.

The 2011 Wassenaar Plenary adopted *Best Practices Guidelines on Internal Compliance Programmes for Dual-Use Goods and Technologies*, *Best Practices Guidelines on Subsequent Transfer (Re-Export) Controls for Conventional Weapons Systems*, revised *Elements for Objective Analysis and Advice concerning Potentially Destabilising Accumulations of Conventional Weapons*, and *Elements for Controlling Transport of Conventional Arms between Third Countries*, and introduced a number of amendments to the control lists – notably in the areas of electronics, information security (encryption) and acoustic sensing equipment.

Wassenaar continues to undertake outreach in support of its aims and objectives, in particular through post-Plenary briefings, interaction with industry, and bilateral dialogue with non-Participating States. For instance, members held a technical briefing on recent changes to the Wassenaar Arrangement control lists for a number of non-Participating States in 2012.

The December 2011 Wassenaar Plenary reiterated that Wassenaar membership is open to all states who comply with the agreed membership criteria.

The regulatory changes resulting from the Wassenaar plenary are described in Appendix A of this report.

In FY 2012, BIS approved 4,939 applications valued at $3.4 billion, for the export or reexport of items controlled by Wassenaar. In addition, BIS rejected 18 applications valued at $5.5 million and returned without action 437 applications valued at $482.2 million.

## Treaty Compliance

BIS also administers the industry compliance program for the Chemical Weapons Convention (CWC), serves as a lead agency for implementation of the Additional Protocol (AP), and participates in activities associated with the Biological Weapons Convention (BWC).

### 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 (the Chemical Weapons Convention, or CWC) on April 25, 1997. There are 188 States Parties to the CWC. The CWC bans the development, production, stockpiling, and use of chemical weapons and provides for an extensive verification regime to ensure adherence to its terms. BIS works actively with the Department of State, other CWC States Parties and the Technical Secretariat of the Organization for the Prohibition of Chemical Weapons to ensure that all 188 States Parties to the CWC are implementing the CWC's provisions in a rigorous, analytically sound, and equitable manner.

The CWC requires certain commercial chemical facilities to submit data declarations that include information on chemical production, processing, consumption, and import/export activities. In the United States, BIS collects this information, compiles it, and forwards it to the Department of State for transmittal to the Organization for the Prohibition of Chemical Weapons (OPCW) Technical Secretariat (TS), which is charged with carrying out verification functions under the CWC.

During FY 2012, BIS collected declarations and reports from 561 facilities and trading companies in the United States and submitted them to the Department of State for submission to the OPCW. BIS also provided advice and support to 19 chemical plant sites in the United States that were selected for inspection by the OPCW, hosted the inspections, and protected the sites' confidential business information while demonstrating their compliance with the CWC. Most of these companies had never been inspected before and benefited from BIS's efforts to guide them through the process. BIS also responded to two requests from industry by providing site assistance visits to companies with plant sites subject to inspection.

In FY 2012, BIS gathered the necessary data and prepared the congressionally-mandated reports regarding the implementation of the CWC. These reports include: (1) an annual report on the cost of inspections to both industry and the government; and (2) an annual statement regarding the impact of the treaty on availability of Schedule 1 chemicals and toxins to industry, with a particular focus on adding salts of Schedule 1 chemicals to the Annex of Chemicals and the intermediate use of Schedule 1 chemicals in the production of some other chemical.

BIS provided support for meetings of the Executive Council and the Conference of States Parties, as well as other meetings of the policy-making organs of the OPCW, and

provided an Alternate Permanent Representative on the U.S. Delegation to the OPCW.

**U.S. Additional Protocol to the U.S.-International Atomic Energy Agency (IAEA) Safeguards Agreement**

The Additional Protocol is a bilateral treaty that supplements and amends verification arrangements under the existing "Agreement Between the United States of America and the International Atomic Energy Agency for the Application of Safeguards in the United States" of November 18, 1977 (U.S.-IAEA Safeguards Agreement). The Additional Protocol augments the U.S.-IAEA Safeguards Agreement by requiring the United States to provide the IAEA with information on certain civil nuclear and nuclear-related items, materials, and activities not currently covered by the Safeguards Agreement.

The Additional Protocol entered into force in the United States on January 6, 2009. Under Executive Order 13458, BIS is the lead agency for all subject commercial activities and locations not licensed by the Nuclear Regulatory Commission (NRC) or an NRC Agreement State, and not located on certain other government locations. BIS published its final Additional Protocol Regulation (APR) on October 31, 2008.

BIS administers the compliance program involving private sector nuclear fuel cycle activities that are not subject to the jurisdiction of the NRC. BIS receives declarations from industry, the NRC and the Department of Energy, and assembles the U.S. national declaration and other reports to the IAEA.

BIS compiled the Additional Protocol declaration on behalf of all U.S. Government agencies and prepared the annual declaration to the IAEA, which was submitted on May 15, 2012. This declaration contains 333 changes and/or new activities. During FY 2012, BIS also submitted four quarterly reports for the export of nuclear equipment. There were 30 exports in the first quarter, 38 exports in the second quarter, 34 exports in the third quarter, and 37 exports in the fourth quarter.

**Biological Weapons Convention**

The Biological Weapons Convention (BWC) prohibits developing, producing, stockpiling, or otherwise acquiring or retaining biological agents or toxins for non-peaceful purposes. The BWC entered into force in 1975. In FY 2012, BIS actively supported U.S. Government efforts, in accordance with the *National Strategy for Countering Biological Threats*, to prepare for and participate at the three-week 7th Review Conference of States Parties to the BWC, which occurs every five years to consider measures to more effectively implement the treaty. BIS also participated in the annual Meeting of Experts to work with the international community on a number of issues related to implementation of the Convention. BIS led the effort to bring the U.S. industry's perspective into discussions on the full range of issues pertinent to the BWC through consultations with its Materials Technical Advisory Committee and various trade and professional associations.

**Short Supply Controls**

BIS implements short supply controls on western red cedar, as required by section 7(i) of the EAA. Section 3(2)(c) of the EAA also 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." BIS does not currently maintain any export controls or monitor items under sections 7(a) or (b), which authorize the imposition of controls and monitoring, respectively, on any commodities in short supply. BIS also 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.

## U.S. Defense Industrial and Technological Base Programs and Advocacy Activities

BIS's mission includes supporting continued U.S. technology leadership in industries that are essential to U.S. national security. Activities in this regard include:

### 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 abroad, meeting critical national defense and homeland security requirements, and facilitating recovery from natural disasters.

The Defense Production Act (DPA), the statutory authority for the DPAS, was reauthorized on September 30, 2009 for five years. The 2009 legislation required that all delegate agencies develop rules for the use of their priorities and allocations authority. The 2009 legislation also established an interagency committee to advise the President on the effective use of DPA authority. In FY 2012, BIS worked with relevant federal agencies to take steps to implement the requirements contained in the 2009 legislation.

In FY 2012, in cooperation with the Department of Defense, BIS expedited the delivery of items critical to military operations in Afghanistan. BIS also provided DPAS guidance in support of interagency emergency preparedness activities.

### Committee on Foreign Investment in the United States

BIS participates in the Committee on Foreign Investment in the United States (CFIUS) by evaluating export control equities in transactions that could result in foreign control of a U.S. business. In FY 2012, BIS worked closely with the Department of Commerce's International Trade Administration (ITA) and interagency CFIUS partners to review 103 CFIUS filings to determine the effects of those transactions on the national security of the United States. The filings are reviewed pursuant to the Foreign Investment and National Security Act of 2007, and the CFIUS implementing regulations published by the Department of the Treasury on November 21, 2008.

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

In FY 2012, BIS completed two assessments:

- Aeronautics and Space Administration's (NASA) Human Space Flight Industrial Base in the Post-Space Shuttle/Constellation Environment: documented the economic health and competitiveness of NASA suppliers for

Human Space Flight Missions, and the impact of the Space Shuttle and Constellation Programs' terminations.

The Shuttle retirement and Constellation Program cancellation will affect future NASA Human Space Flight (HSF) programs through a loss of select suppliers that offered unique skills, capabilities, products, and services. The assessment highlights and prioritizes immediate areas of concern for NASA, with a focus on the 150 survey respondents that identified themselves as dependent on NASA. It was recommended that NASA closely examine the roles of the 46 NASA-dependent companies that reported negative net profit margins for at least one year during 2007-2010. Without continued NASA-related business opportunities, these 46 companies have the highest potential of shutting down.

The assessment also identified areas of opportunity for future NASA action, including: increasing communication and outreach with the HSF supply chain; coordinating efforts with regional, state, local, educational, and non-profit organizations and institutions; working with other U.S. Government agencies to address interdependency issues; finding commonalities and leveraging mutual interests to support the industrial base; and directing more Federal Government research and development funds to smaller companies.

- U.S. Information Network Infrastructure (Telecommunications): examined information network carrier operational practices, maintenance and procurement methods, and the current and projected replacement cycles for equipment in domestic long-haul and metro access network segments. A compilation of survey data collected along with findings was provided to the Department of Defense for review and possible action.

BIS also continued work on three assessments:

- Cartridge and Propellant Actuated Device Industry: assesses the current and long-term health and economic competitiveness of the industry and develops recommendations for the U.S. Navy to ensure the continued ability of industry to support defense missions and programs. A draft report has been prepared and a final report will be released in FY 2013.

- U.S. Space Industrial Supply Chain: examines the health of supply chains in the space industry—including satellites, ground systems, and launch, with particular emphasis on government program participation and suppliers from lower tiers. The survey, developed with NASA, National Reconnaissance Office, and the U.S. Air Force, was distributed to approximately 9,150 organizations, including companies, universities, non-profits, and U.S. Government agencies. Findings and conclusions will be released in FY 2013.

- U.S. Infrastructure for Underwater Acoustic Transduction Systems: benchmarks the Underwater Acoustics industry to better understand the complicated industrial supply chain supporting critical U.S. Navy missions and programs. Industry surveys will be distributed in early FY 2013.

BIS initiated the following two assessments in FY 2012:

- Consumers of U.S. Commercial Electro-Optical (EO) Satellite Imagery: analyzes the size and market behavior of the U.S. industry that directly or indirectly utilizes U.S. commercial EO imagery. The survey responses have been received and are currently being analyzed. A completed assessment requested by the National Oceanic and Atmospheric Administration and the National Geospatial-Intelligence Agency is expected in FY 2013.

- Defense Supply Chain Network—Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR): provides a sector-by-sector, tier-by-tier (S2T2) evaluation of the defense industrial base with a specific focus on the C4ISR systems acquired by the Department of Defense. The aim of this study is to better understand and define specific supply chains as well as any potential cross-cutting supplier dependences that may arise for two or more C4ISR systems. Over 3,000 industry surveys were distributed during FY 2012. A completed database is expected in FY 2013.

BIS also completed its sixteenth congressionally mandated report on the impact of offsets in defense trade. On December 23, 2009, BIS published a final rule to update its offset reporting requirement regulation in order to enhance the assessment of the economic effects of offsets. These changes were reflected in the sixteenth report to Congress.

In FY 2012, BIS reviewed 61 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 whether these transfers would interfere with the ongoing sales or marketing activities of U.S. industry. BIS also reviewed 147 proposed international armament cooperative agreements and provided the Department of Defense with comments on these agreements' commercial implications and potential effects on the international competitive position of the U.S. defense industrial and technological base.

During FY 2012, BIS continued to co-chair the interagency National Defense Stockpile Market Impact Committee (MIC) with the Department of State's Bureau of Energy Resources. The MIC advises the Defense National Stockpile Center whether proposed plans to sell portions of the remaining material held in the stockpile, no longer needed to support national defense purposes, and new material research and development projects would cause an undue disruption in the usual markets of producers, processors, and consumers of such materials.

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

In FY 2012, BIS continued to administer the Department of Commerce's North Atlantic Treaty Organization (NATO) Security Investment Program (NSIP), a certification requirement for U.S. companies interested in competing to supply goods and services in NSIP-funded procurements.

During FY 2012, BIS vetted and approved 220 U.S. firms that were interested in participating in NATO procurement competitions.

# Appendix A: Regulatory Changes in Fiscal Year 2012

BIS published 34 notices, rules or other items in the *Federal Register* during FY 2012, including the following:

**Export Control Reform**

Throughout FY 2012, BIS published nine rules proposing controls under the EAR for items that the President determines no longer warrant control on the United States Munitions List in the following categories: aircraft, gas turbine engines, military vehicles, vessels, submersible vessels and oceanographic equipment, energetic materials, auxiliary and miscellaneous items, personal protective equipment and shelters, and military training equipment.
On June 21, 2012, BIS published a rule proposing measures to implement the transition associated with export control reform.

On June 19, 2012, BIS published a rule proposing a revised definition of "specially designed" and an advance notice of proposed rulemaking soliciting public comment on the feasibility of enumerating "specially designed" components on the Commerce Control List.

On April 13, 2012, BIS published a rule establishing the 0Y521 series of "holding" classifications on the Commerce Control List.

**Entity List**

In FY 2012, BIS implemented the decisions of the End-User Review Committee (the interagency group that administers the Entity List) and published nine Entity List-related rules. Within the nine rules, 67 persons were added to the Entity List, the majority on the basis that they were engaging in activities contrary to U.S. national security or foreign policy interests. Additionally, 26 persons were removed from the Entity List. Finally, numerous amendments were made in order to clarify existing entries on the Entity List.

**Country Policy**

On July 23, 2012, BIS published a rule revising controls on Rwanda and countries subject to United Nations sanctions.

On February 3, 2012, BIS published a rule regarding the licensing policy for applications involving persons sanctioned under the Iran Sanctions Act.

On December 12, 2011, BIS published a rule facilitating enhanced public understanding of the provisions that implement the comprehensive U.S. sanctions on Syria.

On November 14, 2011, BIS revised controls on exports and reexports to the Principality of Liechtenstein.

**Wassenaar Arrangement**

On July 2, 2012, BIS published a rule amending the Commerce Control List to implement the agreement reached at the December 2011 plenary meeting of the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual Use Goods and Technologies. This rule revised control

list entries in most categories and added Mexico as a new participating state.

**Chemical and Biological Weapons**

On July 2, 2012, BIS implemented changes to the Commerce Control List resulting from the 2011 Australia Group plenary meeting.

**Validated End-Users**

In FY 2012, BIS implemented the decisions of the End-User Review Committee (the interagency group that administers the Validated End-User Program) and published five rules modifying the list of Validated End-Users in the People's Republic of China and India.

**Controlled Items**

On January 9, 2012, BIS published a rule imposing license requirements on certain microwave and millimeter wave electronic components.

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

## Performance Based Programs

BIS has continued to develop performance-based budgets based on OMB guidance. BIS budget submissions continue to be directly tied to the Bureau's performance goals and measures, and BIS will continue to develop performance-based budgets that display the cost of achieving its performance goals. Budget requests are integrated with performance goals and describe the anticipated effects of resource requirements on performance.

In the area of Strategic Management the Bureau continues to use the Department's balanced score card approach to management. This approach focuses on themes that reflect the priorities of the Department and BIS. BIS contributes to the Department's programmatic theme of Economic Growth and the three management themes of Customer Service, Organizational Excellence, and Workforce Excellence.

The Export Control Reform initiative combines the efforts of the Export Control Automated Support System Redesign (ECASS-R) program and a collaborative effort with the Department of Defense to incorporated their USXPorts system for dual use licensing process. This effort has initiated mulitple projects to support the building and expansion of the BIS mission critical technology platform and orderly retirement of the ECASS mainframe. As part of this effort, several subprojects are either completed or under way:

1. Simplified Network Application Process Redesign (SNAP-R) enhancements to support submission of Special Comphersensive Licenses (SCL),

2. Migration of entity coding in the Investigative Management System Redesign (IMS-R) application,

3. Establishment of a technology platform to support various self-managed business applications such as CFIUS, OffSet, DAPAS, and Consolidated List.

4. Implementation of SIPRNet for the headquarters office and the BIS field offices

The fully deployed collaborative system will provide BIS business users with a modernized export licensing system while protecting mission critical export control system applications and data from foreign intrusions.

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

BIS program controls are sound and recommendations resulting from the Government Accountability Office (GAO) and the Department of Commerce's Office of Inspector General (OIG) are being addressed. BIS continues to work with GAO and OIG on their studies of BIS programs and control systems, as well as to address audit findings and recommendations. During FY 2012, we submitted periodic reports to the Office of

the CFO and Assistant Secretary for Administration on the status of BIS corrective actions of all open GAO and OIG recommendations. BIS management also monitored the progress of corrective actions on the basis of these reports.

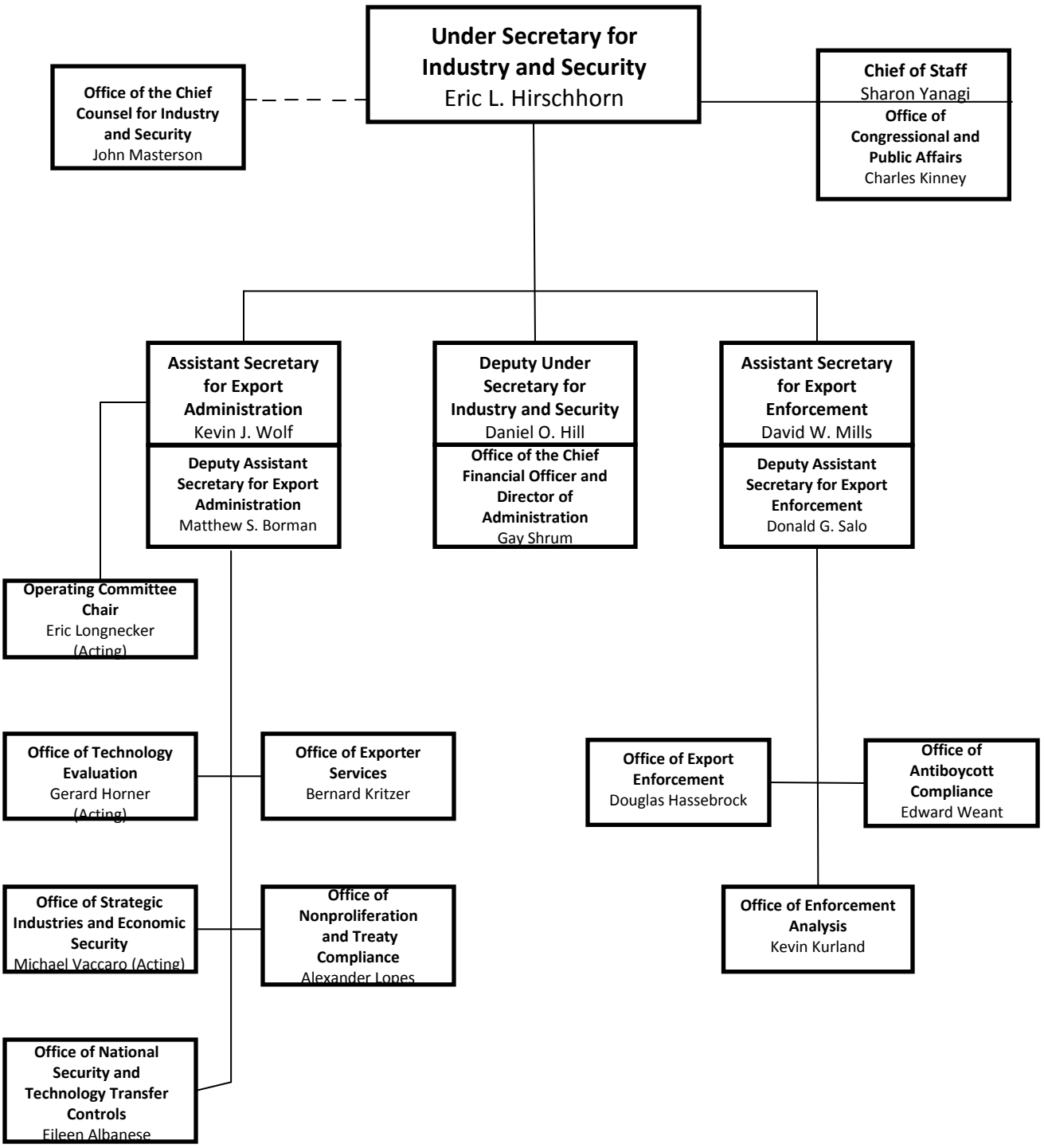
Four GAO studies addressing BIS programs and activities were completed in FY 2012. These studies were:

1) IT Supply Chain Management (Job Code 311064),
2) Proliferation of Unmanned Aerial Vehicles (Job Code 320817),
3) Transforming Export Controls (Job Code 320806), and
4) Export Control Enforcement (Job Code 120966).

At the end of the fiscal year, eight GAO studies addressing BIS programs and activities are pending final report:

1) Foreign Sales of U.S. Manufactured Tactical Wheeled Vehicles (Job Code 121026),
2) U.S. Manufacturing Policy (Job Code 131128),
3) U.S. Munitions List (Job Code 121068),
4) Foreign Boycotts on the Defense Industrial Base (Job Code 121067),
5) Department of Commerce's Strategic Trade Authorization (STA) License Exemption (Job Code 320903),
6) Militarily Critical Technologies List (Job Code 121070),
7) Foreign Equipment in U.S. Telecommunications Networks (Job Code 543299), and
8) Titanium Procurement Restrictions on Domestic Manufacturers (Job Code 121092).

# U.S. DEPARTMENT OF COMMERCE
## Bureau of Industry and Security



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

### *Table 1*
### *Criminal Convictions During Fiscal Year 2012*

| *Sentencing Date* | *Defendant* | *Criminal Charges* | *Criminal Sanctions* | *Case Details* |
|---|---|---|---|---|
| 10/26/11 | Michael Todd | One count of conspiracy to violate the Arms Export Control Act, International Traffic in Arms Act, the International Emergency Economic Powers Act, and the Iranian Transaction Regulations in violation of 18 U.S.C. 371 | 46 months in prison, three years of supervised release, a $10,000 criminal fine and a $160,362 forfeiture (shared with The Parts Guys) | Export of aircraft parts to Iran via the United Arab Emirates and France |
| 10/26/11 | The Parts Guys | One count of conspiracy to violate the Arms Export Control Act, International Traffic in Arms Act, the International Emergency Economic Powers Act, and the Iranian Transaction Regulations in violation of 18 U.S.C. 371 | $160,362 forfeiture (shared with Michael Todd) | Export of aircraft parts to Iran via the United Arab Emirates and France |
| 12/16/11 | Fung Yang | One count of violating the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705 | Nine months in prison, three years of supervised release, and a $5,000 criminal fine | Export of microwave integrated circuits to China via Hong Kong |
| 1/6/12 | Nadeem Akhtar | One count of conspiracy to commit export violations and defraud the United States in violation of 18 U.S.C. 371 and 50 U.S.C. 1705 | 37 months in prison and two years of supervised release | Export of nuclear-related commodities to PAEC, a listed entity in Pakistan |
| 1/24/12 | Matt Kallgren | One count of conspiracy to violate export laws in violation of 50 U.S.C. 1705 and 18 U.S.C. 371 | Three years of probation and a $1,000 criminal fine | Export of engine parts to Syria via the United Arab Emirates |
| 2/6/12 | Maple Pacific Corporation | One count of violating the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705 | Two years of probation and a $5,000 criminal fine | Export of valve parts to Iran via Italy |
| 2/6/12 | Andrew Hsu | One count of making false statements in violation of 18 U.S.C. 1001 | Two years of probation, a $5,000 criminal fine, and 100 hours of community service | False statements related to the export of valve parts to Iran via Italy |

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| 2/17/12 | Jeng Shih | One count of conspiracy to unlawfully export U.S.-origin goods to Iran and defraud the United States in violation of 18 U.S.C. 371 | 18 months in prison, two years of supervised release and a $1.25 million forfeiture (shared with Sunrise Technologies and Trading) | Export of computers and electronics to Iran via the United Arab Emirates |
| 2/17/12 | Sunrise Technologies and Trading | One count of conspiracy to unlawfully export U.S.-origin goods to Iran and defraud the United States in violation of 18 U.S.C. 371 | Two years of probation and a $1.25 million forfeiture (shared with Jeng Shih) | Export of computers and electronics to Iran via the United Arab Emirates |
| 3/27/12 | International Veneer Corporation | One count of smuggling goods from the United States in violation of 18 U.S.C. 554 | A $50,000 criminal fine and a $2 million forfeiture | Export of wood veneer products to Syria via Germany |
| 4/16/12 | Dan Tran Dang | One count of conspiracy in violation of 18 U.S.C. 371; three counts of illegal export of defense articles in violation of 22 U.S.C. 2778; and one count of aiding and abetting in violation of 22 U.S.C. 2778 and 18 U.S.C. 2 | Time served in prison, three years of supervised release, and 50 hours of community service | Export of night vision goggles to Vietnam |
| 4/16/12 | Liem Duc Huynh | One count of conspiracy in violation of 18 U.S.C. 371; three counts of illegal export of defense articles in violation of 22 U.S.C. 2778; and one count of aiding and abetting in violation of 22 U.S.C. 2778 and 18 U.S.C. 2 | Time served in prison, three years of supervised release, a $1,500 criminal fine, and 50 hours of community service | Export of night vision goggles to Vietnam |
| 4/23/12 | Jason Jian Liang | One count of exporting controlled items without a license in violation of 50 U.S.C. 1705; and one count of aiding, abetting and causing an act to be done in violation of 18 U.S.C. 2 | 46 months in prison, and three years of supervised release | Export of infrared cameras to China |
| 5/12/12 | Dennis Nielsen | One count of making false statements in violation of 18 U.S.C. 1001 | Time served in prison | Export of computers and parts to Iran via the United Arab Emirates and Germany |
| 5/15/12 | Ulrich Davis | One count of conspiracy to defraud the United States in violation of 18 U.S.C. 371 | Time served in prison and a $2,000 criminal fine | Export of U.S.-origin goods to Iran via the Netherlands |
| 5/17/12 | Online Micro LLC | One count of conspiracy to unlawfully export U.S.-origin goods to Iran and defraud the United States in violation of 18 U.S.C. 371 | One day of probation | Export of computers to the Iran via the United Arab Emirates |

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|---|---|---|---|---|
| 5/17/12 | Massoud Habibion | One count of conspiracy to unlawfully export U.S.-origin goods to Iran and defraud the United States in violation of 18 U.S.C. 371 | 13 months in prison and two years of supervised release | Export of computers to the Iran via the United Arab Emirates |
| 5/17/12 | Mohsen Motamedian | One count of obstruction of justice in violation of 18 U.S.C. 1512 | Time served in prison, three years of supervised release, and a $5,000 criminal fine | Export of computers to the Iran via the United Arab Emirates |
| 6/8/12 | Brian Vanhandel | One count of conspiracy in violation of 18 U.S.C. 371 | Three years of probation and a $500 criminal fine | Fraudulent recordkeeping |
| 6/20/12 | Robert Kraaipoel | One count of conspiracy to violate the International Emergency Economic Powers Act and the Iranian Transactions Regulations in violation of 18 U.S.C. 371 | Five years of probation | Export U.S.-origin goods to Iran via the Netherlands |
| 6/20/12 | Niels Kraaipoel | One count of conspiracy to violate the International Emergency Economic Powers Act and the Iranian Transactions Regulations in violation of 18 U.S.C. 371 | Five years of probation | Export U.S.-origin goods to Iran via the Netherlands |
| 6/20/12 | Aviation Services International, B.V., d/b/a Delta Logistics B.V. | One count of conspiracy to violate the International Emergency Economic Powers Act and the Iranian Transactions Regulations in violation of 18 U.S.C. 371 | Five years of probation, and a $100,000 criminal fine | Export U.S.-origin goods to Iran via the Netherlands |
| 6/21/12 | Andrew Barnes | One count of conspiracy in violation of 18 U.S.C. 371 | Three years of probation and a $500 criminal fine | Fraudulent recordkeeping |
| 6/21/12 | Mitchell Totty | One count of conspiracy in violation of 18 U.S.C. 371 | Two years of probation and a $500 criminal fine | Fraudulent recordkeeping |
| 6/28/12 | United Technologies Corporation/ Hamilton Sundstrand/ Pratt and Whitney Canada | One count of violating the Arms Export Control Act, 22 U.S.C. 2778 (unauthorized export of defense articles)(PWC); one count of making false statements in violation of 18 U.S.C. 1001 (UTC, HSC, and PWC); one count of failure to inform the DDTC of an export of a defense article without a license[1] (PWC and HSC) | A $4.6 million criminal fine, a $2.3 million forfeiture, two years of probation, a $55 million civil penalty to State Department, and a $13.8 million deferred prosecution agreement penalty | Export to People's Republic of China defense articles (software) to test and operate engines for a military attack helicopter |

[1] One conviction is not included in this charge because the information has been sealed by the court.

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| 7/25/12 | Joseph Garcia | One count of receiving stolen property in violation of 18 U.S.C. 641 | 18 months in prison, three years of supervised release and a $500 criminal fine | Export of defense articles to various countries |

***Table 2***
***Department of Commerce Export Enforcement Cases During Fiscal Year 2012***

| ***Order Date*** | ***Respondent*** | ***Charges*** | ***Sections Violated [number of charges]*** | ***Result*** |
|---|---|---|---|---|
| 10/11/11 | Jeng Shih, a/k/a Jay Shih | Conspired to export U.S.-origin computer equipment, items controlled on anti-terrorism grounds and valued at approximately $830,000, to Iran, through the United Arab Emirates, without the required U.S. Government authorization, and took actions to evade the Regulations. (Export Control Classification Number ("ECCN") 5A992) | 764.2(d) [1]<br>764.2(h) [3] | Settlement Agreement – denial of export privileges for 10 years, all of which is suspended provided the respondent complies with the conditions of the 10-year probationary period under the order. |
| 10/11/11 | Sunrise Technologies and Trading Corporation, a/k/a Sunrise, a/k/a ST&T | Conspired to export U.S.-origin computer equipment, items controlled on anti-terrorism grounds and valued at approximately $830,000, to Iran, through the United Arab Emirates, without the required U.S. Government authorization and with knowledge that violations of the Regulations would occur. (ECCN 5A992) | 764.2(d) [1]<br>764.2(e) [3] | Settlement Agreement – denial of export privileges for 10 years, all of which is suspended provided the respondent complies with the conditions of the 10-year probationary period under the order. |
| 11/16/11 | Xun Wang | Conspired to export high performance epoxy paint and epoxy paint thinner (certified as meeting "Level 1" nuclear industry standards) for use in the reactor and core of a nuclear power plant under construction in Islamabad, Pakistan, and under the ownership and control of the Pakistan Atomic Energy Commission (PAEC), an entity on the BIS Entity List, without the required license. (EAR99) | 764.2(d) [1] | Settlement Agreement – civil penalty of $250,000, and a denial of export privileges for 10 years from the date of the order. Of the civil penalty amount, $50,000 is suspended for a period of five years from the date of the order provided the respondent complies with the conditions of this probationary period. The denial order is active for five years from the date of the order, with the remaining five years suspended provided the respondent complies with the conditions of this second probationary period under the order. |

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|---|---|---|---|---|
| 12/06/11 | Federal Express Corporation | Aided and abetted the attempted unlicensed export of electronic peripheral equipment (ECCN 5A991), and the attempted unlicensed export of an Intel PC Dialogic Board, to Mayrow General Trading in Dubai, U.A.E., in violation of General Order No. 3; aided and abetted the unlicensed export of flight simulation software to Beijing University of Aeronautics and Astronautics (BUAA) a/k/a Beihang University, a PRC entity on BIS's Entity List; and aided and abetted three unlicensed exports of printing equipment to Syria, in violation of General Order No. 2. (ECCN 5A991 and EAR99) | 764.2(b) [6] | Settlement Agreement – civil penalty of $370,000. (Litigated case) |
| 12/19/11 | PPG Industries, Inc. | On 16 occasions, exported triethanolamine, with 99% purity, an item that was controlled for chemical and biological weapons proliferation reasons and had a total value of approximately $58,000, to Brazil, without the required licenses. (ECCN 1C350.c.9) | 764.2(a) [16] | Settlement Agreement – civil penalty of $275,000. |
| 12/30/11 | Nelson Galgoul | Conspired to export an engineering software program from the United States to Iran, via Brazil, without the required U.S. Government authorization, as part of a scheme to market, sell, and service the engineering software program to or for Iranian clients. (ECCN 8D992) | 764.2(d) [1] | Settlement Agreement – export privileges denied for three years. |
| 02/02/12 | Kok Tong Lim | Underlying criminal conviction for conspiring to illegally export to the China Academy of Space Technology wound carbon fiber, items subject to the Regulations and controlled on nuclear non-proliferation and national security grounds. (ECCNs 1C010 and 1C210) | Sections 1705(a) and (c) of IEEPA | Export privileges denied until October 9, 2019, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA). |

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|---|---|---|---|---|
| 02/14/12 | PRC Laser Corporation | Sold and/or transported an industrial laser that was exported or was to be exported from the United States to Iran, via the United Arab Emirates, with knowledge that a violation of the Regulations would occur. (EAR99) | 764.2(e) [1] | Settlement Agreement – civil penalty of $42,000. |
| 02/14/12 | 3M Attenti, Ltd. | Exported crime control commodities, technology and software to China without the required licenses; deemed export of crime control technology to an Israeli national without the required license. (ECCNs 3A981, 3D980 and 3E980) | 764.2(a) [21] | Settlement Agreement – civil penalty of $230,000. |
| 02/15/12 | Mahan Airways; Zarand Aviation a/k/a GIE Zarand Aviation; Gatewick LLC; Pejman Mahmood Kosarayanifard a/k/a Kosarian Fard; Mahmoud Amini; Kerman Aviation a/k/a GIE Kerman Aviation; Sirjanco Trading LLC; and Ali Eslamian | Temporary denial order (TDO) originally issued based on showing of imminent violations in matter involving the re-export of three U.S.-origin Boeing 747 aircraft to Iran and the intended re-export of three additional 747s, false statements to BIS regarding the ultimate destination and end-user of the aircraft, and a failure to comply with a BIS order to return the three additional aircraft to the U.S. This matter also has involved exports or reexports of a McDonnell Douglas MD-82, two Airbus A310 aircraft with U.S-origin engines, and other items. | | TDO Renewal Order issued renewing denial of export privileges for 180 days. |
| 02/22/12 | Online Micro, LLC. | Conspired to export U.S.-origin computer equipment controlled on anti-terrorism grounds to Iran, through the United Arab Emirates, without the required U.S. Government authorization and with knowledge that violations would occur. (ECCN 5A992) | 764.2(d) [1]<br>764.2(e) [3] | Settlement Agreement – export privileges denied for 10 years, all of which is suspended provided respondent complies with the terms of the criminal plea agreement and sentence and does not commit any export violations during the 10-year probationary period under the settlement agreement and order. |

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| 02/22/12 | Massoud Habibion | Conspired to export U.S.-origin computer equipment to Iran, through the United Arab Emirates, without the required U.S. Government authorization and with knowledge that violations would occur. (ECCN 5A992) | 764.2(d) [1]<br>764.2(e) [3] | Settlement Agreement – export privileges denied for 10 years, all of which is suspended provided respondent complies with the terms of the criminal plea agreement and sentence and does not commit any export violations during the 10-year probationary period under the settlement agreement and order. |
| 02/22/12 | Mohsen Motamedian | Solicited a false or misleading statement to federal law enforcement agents. | 764.2(c) [1] | Settlement Agreement - civil penalty of $50,000. |
| 02/25/12 | Delfin Group USA LLC, Marcos Baghdasarian, Bagdel Corporation, Naren Sachanandani, Do-It FZC | TDO issued based on showing of imminent violations in matter involving conspiracy to export and the export and attempted export of polymers and lubricating oils and oil additives, including aviation engine lubricating oils, from the United States to Iran, via transshipment through the United Arab Emirates, without obtaining the required authorization from the U.S. Government. | | Initial TDO Order issued denying export privileges for 180 days. |
| 03/08/12 | Matthew Kallgren | Took actions to evade the Regulations to export and attempt to export diesel engine parts to Syria via the United Arab Emirates. (EAR99) | 764.2(h) [2] | Settlement Agreement – civil penalty of $75,000, all of which is suspended; export privileges denied for three years, all of which is suspended. |
| 03/08/12 | Powerline Components Industries, LLC. | Sold diesel engine parts for export to Syria, via the United Arab Emirates, without the required licenses and with knowledge that violations would occur. (EAR99) | 764.2(e) [2] | Settlement Agreement – civil penalty of $60,000; export privileges denied for three years, all of which is suspended. |
| 03/08/12 | R.I.M. Logistics, Ltd. | Caused, aided or abetted the export and attempted export of diesel engines parts to Syria, via the United Arab Emirates, without the required licenses. (EAR99) | 764.2(b) [2] | Settlement Agreement – civil penalty of $50,000. |

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| 03/19/12 | Prime Technology Corporation | Conspired to export carbon fiber, items controlled on nuclear non-proliferation and national security grounds, to China without the required licenses. (ECCNs 1C010.b and 1C210.a) | 764.2(d) [1] | Settlement Agreement – civil penalty of $125,000, with $75,000 of that amount suspended; export privileges denied for two years, all of which is suspended; complete two external audits of its export control compliance program within, respectively, 15 months and 30 months; complete export compliance training programs within 12 months; and for a period of two years, retain an Item Classification Sheet for every item exported or to be exported from the United States. |
| 03/19/12 | Ping Cheng | Conspired to export carbon fiber, items controlled on nuclear non-proliferation and national security grounds, to China without the required licenses. (ECCN 1C010.b and 1C210.a) | 764.2(d)[1] | Settlement Agreement – civil penalty of $125,000, with $75,000 of that amount suspended; export privileges denied for two years, all of which is suspended; complete an export compliance training program within 12 months. |
| 03/27/12 | Marc Knapp | Underlying criminal conviction for knowingly and willfully attempting to export, causing the attempted export, and causing the attempted supply to Iran of an F-5B Tiger II fighter jet and other defense articles, without obtaining the required authorization from the Office of Foreign Assets Control, in violation of the International Emergency Economic Powers Act (IEEPA); and knowingly and willfully attempting to export and causing the attempted export to Iran of an F-5B Tiger II fighter jet and other defense articles designated on the United States Munitions List, without having first obtained from the Department of State a license for such exports or written authorization for such exports, in violation of the Arms Export Control Act (AECA). | Section 1702 and 1705(a) of IEEPA and Section 38 of the AECA | Export privileges denied until September 13, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA). |

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| 03/28/12 | Dresser, Inc. | Exported control valves, items controlled on chemical and biological weapons proliferation grounds, to various destinations without the required licenses; made false statements to the U.S. Government in connection with the submission of export control documents. (ECCN 2B350) | 764.2(a) [10]<br>764.2(g) [10] | Settlement Agreement – civil penalty of $88,000. |
| 03/28/12 | GrafTech USA LLC, f/k/a C/G Electrodes LLC | Exported graphite electrodes controlled for nuclear non-proliferation reasons to Libya without the required licenses. (ECCN 1C298) | 764.2(a) [23] | Settlement Agreement – civil penalty of $275,000. |
| 04/09/12 | Mahan Airways; Zarand Aviation a/k/a GIE Zarand Aviation; Gatewick LLC; Pejman Mahmood Kosarayanifard a/k/a Kosarian Fard; Mahmoud Amini; Kerman Aviation a/k/a GIE Kerman Aviation; Sirjanco Trading LLC; Ali Eslamian; Mahan Air General Trading LLC; Skyco (UK) Ltd.; and Equipco (UK) Ltd. | Temporary denial order (TDO) originally issued based on showing of imminent violations in matter involving the re-export of three U.S.-origin Boeing 747 aircraft to Iran and the intended re-export of three additional 747s, false statements to BIS regarding the ultimate destination and end-user of the aircraft, and a failure to comply with a BIS order to return the three additional aircraft to the U.S. This matter also has involved exports or reexports of a McDonnell Douglas MD-82, two Airbus A310 aircraft with U.S-origin engines, and other items. | | Modified the February 15, 2012 TDO to add related persons Mahan Air General Trading LLC, Skyco (UK) Ltd., and Equipco (UK) Ltd. |

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| 04/23/12 | Sayegh Group Aviation; Aban Air; Sam Air Corporation Limited; Aviation Legacy (Gambia) Limited; Abdullah Khaled Ramadan; Ali Mahdavi; Mahmoud Khali Hamze (a/k/a Mahmoud Khalil a/k/a Mahmoud Hamza Khalil); and Everex Global Cargo and Courier | TDO issued based on showing of imminent violations in matter involving reexporting, or intending to reexport to Iran, three U.S.-origin Boeing 747 aircraft without the required U.S. Government authorization. | | Initial TDO Order issued denying export privileges for 180 days. |
| 04/30/12 | Mattson Technology, Inc. | Sold, transferred or otherwise serviced, in whole or in part, items exported from the United States with knowledge that violations of the Regulations would occur. (ECCN 2B230) | 764.2(e) [47] | Settlement Agreement – civil penalty of $850,000, with $600,000 of that amount suspended. |
| 05/03/12 | Davoud Baniameri a/k/a Davoud Baniamery a/k/a David Baniameri a/k/a David Baniamery | Underlying criminal conviction for conspiring to export goods and technology to Iran and knowingly and willfully attempting to export defense articles designated on the U.S. Munitions List without the required U.S. Government authorization. | Section 1702 (a) and (c) of IEEPA and Section 38 of the AECA | Export privileges denied until August 21, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA). |

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| 05/24/12 | Ericsson de Panama S.A. | Took actions with the intent to evade the Regulations in connection with the export of telecommunications equipment from the United States to Cuba, via Panama; caused, aided or abetted unlicensed exports of telecommunications equipment from the United States to Cuba, via Panama; reexported telecommunications equipment from Panama to Cuba without the required license. (ECCN 5A002, 4A994, 5A991, 5B991 and EAR99) | 764.2(h) [138]<br>764.2(b) [123]<br>764.2(a) [1] | Settlement Agreement - civil penalty of $1,753,000, and (in conjunction with the Trade Compliance Operations Group for its ultimate parent company and its ultimate parent company's other subsidiaries and affiliates) complete an external compliance audit and submit an audit report covering transactions that involve the export or reexport to Cuba of any items subject to U.S. export control laws by or on behalf of Ericsson de Panama, its ultimate parent company, or any of its ultimate parent company's other subsidiaries or affiliates. |
| 06/04/12 | Chitron Electronics, Inc.; Chitron Electronics Company Limited a/k/a Chi-Chuang Electronics Company Limited and a/k/a Shenzhen Chitron Electronics Company Limited; and Chitron (HK) Electronics Company Limited a/k/a C.I.C. Electronics (HK) Limited | Underlying criminal conviction for illegally exporting various electronic components and other items to end-users in China between 2004 and 2007, including entities on the BIS Entity List, and for military end-uses; illegally exporting military electronic components designated on the U.S. Munitions List to China through Hong Kong between 2004 and 2007. | Section 1705 of IEEPA and Section 38 of the AECA | Export privileges denied until January 28, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA). |

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| 06/04/12 | Yufeng Wei a/k/a Annie Wei | Underlying criminal conviction for illegally exporting various electronic components and other items to end-users in China between 2004 and 2007, including entities on the BIS Entity List, and for military end-uses; illegally exporting military electronic components designated on the U.S. Munitions List to China through Hong Kong between 2004 and 2007. | Section 1705 of IEEPA and Section 38 of the AECA | Export privileges denied until January 28, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA). |
| 06/04/12 | Zhen Zhou Wu a/k/a Alex Wu | Underlying criminal conviction for illegally exporting various electronic components and other items to end-users in China between 2004 and 2007, including entities on the BIS Entity List, and for military end-uses; illegally exporting military electronic components designated on the U.S. Munitions List to China through Hong Kong between 2004 and 2007. | Section 1705 of IEEPA and Section 38 of the AECA | Export privileges denied until January 26, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA). |
| 06/06/12 | Mohammad Reza Vaghari a/k/a Mitch Vaghari; and Saamen Company, LLC | Underlying criminal conviction for willfully and knowingly aiding and abetting in the illegal export of ultrasonic liquid processors, stimulus isolators and laboratory equipment to Iran, via the United Arab Emirates, without obtaining the required U.S. Government authorization. | Section 1705 of IEEPA | Export privileges denied until June 3, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA). |
| 06/06/12 | Akrion Systems, LLC | Exported valves, pumps and components to China, Malaysia, Singapore, and Taiwan, without the required licenses. (ECCN 2B350) | 764.2(a) [144] | Settlement Agreement – civil penalty of $900,000, with $800,000 of that amount suspended. |

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| 06/12/12 | General Technology Systems Integration Corporation | Ordered, bought, and sold design and testing technologies controlled on national security grounds for export from the United States to the People's Republic of China, with knowledge that a violation had occurred or was about or intended to occur. (ECCN 3E001) | 764.2(e) [1] | Settlement Agreement – civil penalty of $300,000, with $250,000 of that amount suspended for a two-year probationary period; a 12-year suspended denial of export privileges; complete three external audits of its export control compliance program covering, in total, the period of April 1, 2012 through April 1, 2018; and complete export compliance training on the Regulations within twelve months. |
| 06/12/12 | Leping Huang a/k/a Nicole Huang a/k/a Nicola Huang | Conspired to export technologies controlled on national security grounds from the United States to the People's Republic of China, without the required U.S. Government authorization. (ECCN 3E001) | 764.2(d) [1] | Settlement Agreement – civil penalty of $300,000, with $250,000 of that amount suspended for a two-year probationary period; a 12-year suspended denial of export privileges; and complete export compliance training on the Regulations within twelve months. |
| 06/12/12 | York Yuan Chang a/k/a York Chang a/k/a David Zhang a/k/a Yuan Zhang | Conspired to export technologies controlled on national security grounds from the United States to the People's Republic of China, without the required U.S. Government authorization. (ECCN 3E001) | 764.2(d) [1] | Settlement Agreement – civil penalty of $300,000, with $250,000 of that amount suspended for a two-year probationary period; a 12-year suspended denial of export privileges; and complete export compliance training on the Regulations within twelve months. |
| 07/09/12 | Humane Restraint, Inc. | Exported and attempted to export various types of restraint devices controlled for crime control reasons to a number of countries without the required licenses and with knowledge that violations would occur. (ECCN 0A982) | 764.2(a) [27]<br>764.2(c) [1]<br>764.2(e) [4] | Settlement Agreement – civil penalty of $465,000, with $415,000 suspended for two years; export privileges denied for two years to all destinations other than Canada and exports under currently valid Bureau of Industry licenses allowed. |

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| 07/24/12 | Technetics Group Singapore Pte. Ltd. | Made deemed reexports of national security controlled production technology (manufacturing instructions for certain edge-welded metal bellows used in semiconductor manufacturing equipment) to two PRC nationals in Singapore, with knowledge that violations of the Regulations had occurred or would occur; and sold, transferred or forwarded for reexport from Singapore to the PRC edge-welded metal bellows that were controlled for national security reasons and were the foreign-manufactured direct product of U.S.-origin technology that required a written assurance as a pre-condition for the use of License Exception Technology and Software under Restriction ("TSR"), with knowledge that a violations of the Regulations had occurred or would occur. (ECCNs 3E001, 3B001, 3E991 and 3B991). | 764.2(e) [5] | Settlement Agreement -civil penalty of $110,000; complete an audit (in conjunction with its parent company, Technetics Group Daytona, Inc.) of its export controls compliance program and submit an audit report within 15 months. |
| 07/24/12 | Kesco Shipping Corporation and Multi-link Container Line, LLC | Kesco and Multi-link, acting as freight forwarders, each separately caused, aided and abetted the export of scrap steel to People's Steel Mills, an entity in Pakistan listed on BIS's Entity List. (EAR99). | 764.2 (b) [1] (each) | Settlement Agreement – Kesco and Multi-link jointly and severally liable for a civil penalty of $28,000; Kesco and Multi-link shall each complete export compliance training on the Regulations within twelve months. |
| 07/27/12 | Universal Industries Limited, Inc. | Underlying criminal conviction for knowingly and willfully attempting to export from the United States to Singapore military aircraft parts which are designated as defense articles on the United States Munitions List, without having first obtained from the Department of State a license for such export or written authorization for such export. | Section 38 of the AECA | Export privileges denied until August 19, 2014, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA). |

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| 07/27/12 | Steven Neal Greenoe | Underlying criminal conviction for knowingly and willfully exporting and causing to be exported from the United States to England firearms designated as defense articles on the United States Munitions List, without having first obtained from the Department of State a license or written authorization for such export. | Section 38 of the AECA | Export privileges denied until January 10, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA). |
| 08/06/12 | Global Metcorp LLC | Exported and attempted to export scrap steel to People's Steel Mills, an entity in Pakistan listed on BIS's Entity List. (EAR99). | 764.2(a) [1] 764.2(c) [1] | Settlement Agreement – civil penalty of $50,000, of which $40,000 is suspended; complete export compliance training on the Regulations within 12 months. |
| 08/09/12 | Mahan Airways; Zarand Aviation a/k/a GIE Zarand Aviation; Gatewick LLC; Pejman Mahmood Kosarayanifard a/k/a Kosarian Fard; Mahmoud Amini; Kerman Aviation a/k/a GIE Kerman Aviation; Sirjanco Trading LLC; Ali Eslamian; Mahan Air General Trading LLC; Skyco (UK) Ltd.; and Equipco (UK) Ltd. | Temporary denial order (TDO) originally issued based on showing of imminent violations in matter involving the re-export of three U.S.-origin Boeing 747 aircraft to Iran and the intended re-export of three additional 747s, false statements to BIS regarding the ultimate destination and end-user of the aircraft, and a failure to comply with a BIS order to return the three additional aircraft to the U.S. This matter also has involved exports or reexports of a McDonnell Douglas MD-82, Airbus aircraft with U.S-origin engines, and other items subject to the Regulations. | | TDO Renewal. Order issued renewing denial of export privileges for 180 days. |

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| 9/27/12 | Anna Fermanova | Underlying criminal conviction for knowingly and willfully attempting to export from the United States to Russia night sighting equipment specifically designed, modified and configured for military use and designated as defense articles on the United States Munitions List, without having first obtained the required license or written authorization from the State Department. | Section 38 of the AECA | Export privileges denied until October 24, 2016, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA). |
| 9/27/12 | Phillip Andro Jamison | Underlying criminal conviction for knowingly and willfully exporting from the United States to England a weapon sighting device designated as a defense article on the United States Munitions List, without having first obtained the required license or written authorization from the State Department. | Section 38 of the AECA | Export privileges denied until November 4, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA). |
| 9/27/12 | Jirair Avanessian, a/k/a Jirair Hijiabadi Avanessian, a/k/a Jirair H. Avanessian, a/k/a Jerry Avanessian, a/k/a Jerry Avanes | Underlying criminal conviction for knowingly and willfully violating and causing to be violated the U.S. trade embargo against Iran by exporting and attempting to export vacuum pumps and related equipment parts to Iran, via the U.A.E., without first having obtained the required license or authorization from the Office of Foreign Assets Control. | IEEPA | Export privileges denied until July 6, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA). |
| 9/27/12 | Cargo-Partner Network, B.V. | Caused, aided or abetted the unlicensed export to Iran of a fuel control unit and two altitude directional indicators controlled for anti-terrorism reasons; violated the terms of a Temporary Denial Order that had been issued relating to Lavantia Ltd. (ECCNs 9A991 and 7A994). | 764.2(b) [1] 764.2(k) [2] | Settlement Agreement – civil penalty of $98,000, and Cargo-Partner Network, B.V.'s New York affiliate shall perform an audit of its compliance with U.S. export control laws and submit an audit report within 15 months. |
| 9/27/12 | Muscle Gauge Nutrition, LLC | Took actions with intent to evade the Regulations in connection with an attempted export of whey protein supplements to Iran via the U.A.E. (EAR99). | 764.2(h) [1] | Settlement Agreement – civil penalty of $62,500, of which $17,500 is suspended. |

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| 9/27/12 | Robert Reed | Made a false statement to the BIS in the course of an investigation. | 764.2(g) [1] | Settlement Agreement – civil penalty of $37,500, of which $15,500 is suspended. |
| 09/28/12 | PhibroChem, Inc. | Sold sodium fluoride, an item controlled for chemical and biological weapons non-proliferation reasons, for export to Mexico with knowledge that a violation would occur. (ECCN 1C350). | 764.2(e) [1] | Settlement Agreement – civil penalty of $31,000. |

***Table 3***
***Summary of Antiboycott Cases Closed in Fiscal Year 2012***

| ***Company Name & Location*** | ***Date Order Signed*** | ***Alleged Violations*** | ***Settlement Amount*** |
|---|---|---|---|
| Weiss-Rohlig USA | 10/04/11 | 1 x 760.2(d) Furnishing information about business relationships with or in a boycotted country<br><br>1 x 760.5 Failure to report receipt of a boycott request in a timely manner | $8,000 |
| JAS Forwarding (USA) Inc. | 10/06/11 | 3 x 760.2(d) Furnishing information about business relationships with or in a boycotted country | $19,200 |
| Rexnord Industries | 10/24/11 | 1 x 760.2(d) Furnishing information about business relationships with or in a boycotted country<br><br>4 x 760.5 Failure to report receipt of a boycott request in a timely manner | $8,000 |

| ***Company Name & Location*** | ***Date Order Signed*** | ***Alleged Violations*** | ***Settlement Amount*** |
|---|---|---|---|
| Parfums De Coeur Ltd. | 01/12/12 | 3 x 760.2(d) Furnishing information about business relationships with or in a boycotted country<br><br>6 x 760.5 Failure to report receipt of a boycott request in a timely manner | $27,000 |
| Banco Sabadell SA (Miami Branch) | 01/23/12 | 2 x 760.2(d) Furnishing information about business relationships with or in a boycotted country | $14,000 |
| Samuel Shapiro & Company Inc. | 03/08/12 | 5 x 760.5 Failure to report receipt of a boycott request in a timely manner | $10,000 |
| Steel Summit International Inc. | 04/12/12 | 4 x 760.2(d) Furnishing information about business relationships with or in a boycotted country | $14,400 |
| Polk Audio | 07/31/12 | 1 x 760.2(d) Furnishing information about business relationships with or in a boycotted country<br><br>1 x 760.5 Failure to report receipt of a boycott request in a timely manner | $8,000 |

| ***Company Name & Location*** | ***Date Order Signed*** | ***Alleged Violations*** | ***Settlement Amount*** |
|---|---|---|---|
| Dover Energy | 09/12/12 | 4 x 760.2(d) Furnishing information about business relationships with or in a boycotted country<br><br>6 x 760.5 Failure to report receipt of a boycott request in a timely manner | $22,000 |
| W.W. Grainger | 9/25/12 | 12 x 760.5 Failure to report receipt of a boycott request in a timely manner | $12,000 |

## Appendix D:
## Boycott Requests reported to the
## Office of Antiboycott Compliance, U.S. Department of Commerce

| Country | Prohibited Boycott Requests | Permissible Boycott-Related Requests | Amended Boycott Requests | Boycott Exceptions | Totals |
|---|---|---|---|---|---|
| Algeria | 0 | 0 | 0 | 5 | 5 |
| Bahrain | 7 | 8 | 1 | 1 | 17 |
| Iraq | 68 | 0 | 2 | 0 | 70 |
| Jordan | 0 | 0 | 0 | 0 | 0 |
| Kuwait | 5 | 5 | 4 | 22 | 36 |
| Lebanon | 3 | 13 | 1 | 1 | 18 |
| Libya | 2 | 14 | 6 | 2 | 24 |
| Oman | 9 | 11 | 4 | 8 | 32 |
| Qatar | 7 | 73 | 3 | 45 | 128 |
| Saudi Arabia | 28 | 11 | 7 | 18 | 64 |
| Syria | 7 | 1 | 0 | 0 | 8 |
| United Arab Emirates | 104 | 121 | 20 | 114 | 359 |
| Yemen | 2 | 4 | 0 | 0 | 6 |
| Total (Arab League members) | 242 | 261 | 48 | 216 | 767 |
| Bangladesh | 1 | 4 | 2 | 18 | 25 |
| Iran | 0 | 0 | 0 | 0 | 0 |
| Malaysia | 1 | 0 | 1 | 67 | 69 |
| Nigeria | 0 | 0 | 0 | 1 | 1 |
| Pakistan | 1 | 0 | 0 | 32 | 33 |
| All other Countries | 2 | 9 | 0 | 18 | 57 |
| Total (All counties & Arab League members) | 247 | 274 | 51 | 352 | 924 |

**Prohibited requests** describe those requests to take an action that would be prohibited under section 760.2 of the EAR, mainly actions to enforce the secondary and tertiary aspects of a foreign unsanctioned boycott.

**Permissible boycott-related requests** are for actions that fall outside the prohibitions of the EAR but nonetheless still require compliance with some level of a foreign unsanctioned boycott.

**Amended requests** were ones that were prohibited as an initial matter but were subsequently adjusted and reclassified as permissible requests or as exceptions under the EAR.

**Exceptions** are requests to take actions that would be prohibited, but for a specific provision in the EAR that allows the actions.

## Appendix E: Approved Applications for Country Group D:1 and Cuba

| CCL | DESCRIPTION | APPLICATIONS | DOLLAR VALUE |
|---|---|---|---|
| **ALBANIA** | | | |
| 0A982 | THUMBCUFFS, LEG IRONS AND SHACKLES | 1 | $769 |
| 1A007 | DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES | 1 | $171,496,000 |
| 3A231 | NEUTRON GENERATOR SYSTEMS INCLUDING TUBES | 1 | $1,350,000 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 5 | $169,826 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 1 | $6 |
| | TOTAL APPLICATIONS: 8 | | |
| | TOTAL CCL'S: 5 | | |
| | TOTAL DOLLAR VALUE: $173,016,601 | | |
| **ARMENIA** | | | |
| 0A987 | OPTICAL SIGHTING DEVICES FOR FIREARMS | 2 | $82,500 |
| 1A985 | FINGERPRINTING POWDERS, DYES, AND INKS | 1 | $100,000 |
| 3A101 | ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 | 1 | $480,000 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 5 | $218,049 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 4 | $5,010 |
| 5E001 | TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 | 1 | $2 |
| 5E002 | TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT | 2 | $2 |
| 7A103 | INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT | 1 | $170,955 |
| | TOTAL APPLICATIONS: 13 | | |
| | TOTAL CCL'S: 8 | | |
| | TOTAL DOLLAR VALUE: $1,056,518 | | |
| **AZERBAIJAN** | | | |
| EAR99 | ITEMS SUBJECT TO THE EAR N.E.S. | 1 | $20 |
| 0A984 | SHOTGUNS, BUCKSHOT,SHOTGUN SHELLS | 1 | $8,500 |
| 0A987 | OPTICAL SIGHTING DEVICES FOR FIREARMS | 1 | $27,800 |
| 1A004 | PROTECTIVE AND DETECTION EQUIPMENT | 3 | $49,879 |
| 1A007 | DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES | 1 | $171,496,000 |
| 2B350 | CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT | 1 | $2,740 |
| 3A101 | ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 | 2 | $3,323,704 |
| 3A233 | MASS SPECTROMETERS | 1 | $105,237 |
| 3E001 | TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ | 2 | $120 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 11 | $266,818 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 3 | $26,003 |
| 5E001 | TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 | 1 | $2 |
| 6A003 | CAMERAS | 3 | $14,317 |
| 9A018 | COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST | 1 | $220,000 |
| | TOTAL APPLICATIONS: 29 | | |
| | TOTAL CCL'S: 14 | | |
| | TOTAL DOLLAR VALUE: $175,541,140 | | |

| CCL | DESCRIPTION | APPLICATIONS | DOLLAR VALUE |
|---|---|---|---|
| BELARUS | | | |
| 0A984 | SHOTGUNS, BUCKSHOT,SHOTGUN SHELLS | 1 | $9,340 |
| 0A987 | OPTICAL SIGHTING DEVICES FOR FIREARMS | 5 | $31,458 |
| 2B350 | CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT | 2 | $8,062 |
| 3A001 | ELECTRONIC DEVICES/COMPONENTS | 1 | $9,500 |
| 3A981 | POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT | 1 | $22,920 |
| 4D001 | SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D | 1 | $1 |
| 4E001 | TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW | 1 | $1 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 4 | $5,289 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 4 | $1,195 |
| 5E001 | TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 | 1 | $3 |
| | TOTAL APPLICATIONS: 17 | | |
| | TOTAL CCL'S: 10 | | |
| | TOTAL DOLLAR VALUE: $87,769 | | |
| BURMA | | | |
| 5E001 | TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 | 1 | $2 |
| | TOTAL APPLICATIONS: 1 | | |
| | TOTAL CCL'S: 1 | | |
| | TOTAL DOLLAR VALUE: $2 | | |
| CAMBODIA | | | |
| 1A005 | BODY ARMOR | 2 | $1,480 |
| 1A007 | DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES | 2 | $172,066,500 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 3 | $9 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 1 | $6 |
| 9A018 | COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST | 3 | $241,000 |
| | TOTAL APPLICATIONS: 10 | | |
| | TOTAL CCL'S: 5 | | |
| | TOTAL DOLLAR VALUE: $172,308,995 | | |

| CCL | DESCRIPTION | APPLICATIONS | DOLLAR VALUE |
|---|---|---|---|
| CHINA | | | |
| EAR99 | ITEMS SUBJECT TO THE EAR N.E.S. | 20 | $1,493,653 |
| 0A987 | OPTICAL SIGHTING DEVICES FOR FIREARMS | 15 | $639,223 |
| 1A001 | COMPONENTS MADE FROM FLUORINATED COMPOUNDS | 18 | $381,827 |
| 1A004 | PROTECTIVE AND DETECTION EQUIPMENT | 67 | $13,668,114 |
| 1A007 | DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES | 6 | $174,596,890 |
| 1A999 | SPECIFIC PROCESSING EQUIPMENT, N.E.S | 1 | $4,300 |
| 1B001 | EQUIPMENT FOR PRODUCTION OF FIBERS, PREFORMS OR CO | 2 | $19,046,391 |
| 1B118 | CONTINUOUS MIXERS | 1 | $2,288,000 |
| 1B119 | FLUID ENERGY MILLS | 1 | $38,498 |
| 1B201 | FILAMENT WINDING MACHINES | 2 | $140,479 |
| 1B225 | ELECTROLYTICCELLS FOR FLUORINE PRODUCTION | 1 | $8,000,000 |
| 1C001 | MATERIALS USED AS ELECTROMAGNETIC WAVE ABSORBERS/P | 2 | $3,200,000 |
| 1C006 | FLUIDS AND LUBRICATING MATERIALS | 7 | $382,380 |
| 1C008 | NON-FLUORINATED POLYMERIC SUBSTANCES | 28 | $183,515,439 |
| 1C010 | FIBROUS/FILAMENTARY MATERIALS USED IN MATRIX STRUC | 5 | $3,330,052 |
| 1C011 | METALS AND COMPOUNDS | 1 | $3 |
| 1C107 | GRAPHITE AND CERAMIC MATERIALS | 1 | $15,600,000 |
| 1C111 | PROPELLANTS AND CONSTITUENT CHEMICALS | 7 | $182,000 |
| 1C202 | ALUMINUM AND TITANIUM ALLOYS IN THE FORM OF TUBES/ | 35 | $6,700,097 |
| 1C210 | FIBROUS/FILAMENTARY MATERIALS NOT CONTROLLED BY 1C | 20 | $43,191,304 |
| 1C216 | MARAGING STEEL NOT CONTROLLED BY 1C116 | 1 | $5,726 |
| 1C225 | BORON AND BORON COMPOUNDS/MIXTURES AND LOADED MATE | 2 | $3,916,060 |
| 1C227 | CALCIUM CONTAINING BORON AND OTHER IMPURITIES | 1 | $460 |
| 1C228 | MAGNESIUM CONTAINING IMPURITIES OTHER THAN CALCIUM | 4 | $4,140 |
| 1C229 | HIGH PURITY BISMUTH WITH LOW SILVER CONTENT | 3 | $1,200 |
| 1C231 | HAFNIUM | 27 | $1,541,104 |
| 1C233 | LITHIUM | 8 | $64,844 |
| 1C234 | ZIRCONIUM, WITH A HAFNIUM CONTENT | 20 | $9,011,720 |
| 1C238 | CHLORINE TRIFLUORIDE | 1 | $2,227,500 |
| 1C240 | NICKEL POWDER OR POROUS NICKEL METAL | 1 | $6,300,000 |
| 1C350 | CHEMICALS, PRECURSORS FOR TOXIC CHEMICAL AGENTS | 22 | $13,156,964 |
| 1C351 | HUMAN PATHOGENS, ZOONOSES, AND TOXINS | 32 | $135,192 |
| 1C352 | ANIMAL PATHOGENS | 6 | $47,010 |
| 1C353 | GENETICALLY MODIFIED MICROORGANISMS | 1 | $16 |
| 1C981 | CRUDE PETROLEUM/TAR SANDS/CRUDE SHALE | 1 | $5,000,000,000 |
| 1D002 | SOFTWARE UTILIZED FOR DEVELOPMENT OF ORGANIC MATRI | 1 | $3,500 |
| 1D003 | SOFTWARE DESIGNED FOR EQPT CONTROLLED UNDER 1A004 | 8 | $22,400 |
| 1D101 | SOFTWARE USED FOR ITEMS CONTROLLED BY 1A/1B/1C MIS | 1 | $1 |
| 1D201 | SOFTWARE DESIGNED FOR ITEMS CONTROLLED IN 1B101 OR | 1 | $15,000 |
| 1E001 | TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT UNDER 1A00 | 9 | $2,750,003 |
| 1E101 | TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT UNDER 1A10 | 1 | $1 |
| 1E201 | TECHNOLOGY FOR USE OF 1A002,1A202,1A225 TO 1B225 | 1 | $1 |
| 1E350 | TECHNOLOGY FOR USE OF 1C350 CHEMICALS | 1 | $900,000 |
| 1E351 | TECHNOLOGY FOR USE OF MICROBIOLOGICAL MATERIALS | 1 | $0 |
| 2A001 | BALL BEARINGS/SOLID ROLLER BEARINGS FOR ABEC 7 | 1 | $274 |
| 2A101 | RADIAL BALL BEARINGS | 1 | $274 |
| 2A226 | VALVES NOT CONTROLLED BY 0B001 | 2 | $28,015 |
| 2A983 | EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT | 9 | $13,467,000 |
| 2B001 | NUMERICAL CONTROL UNITS/MOTION CONTROL BOARDS | 48 | $72,574,747 |
| 2B005 | PROCESSING EQUIPMENTOF INORGANIC OVERLAYS/COATINGS | 1 | $43,500 |
| 2B006 | DIMENSIONAL INSPECTION/MEASURING SYSTEMS OR EQUIPM | 44 | $3,637,573 |
| 2B008 | ASSEMBLIES/UNITS/INSERTS FOR MACHINE TOOLS IN 2B00 | 20 | $1,078,278 |
| 2B009 | PRINTED CIRCUIT BOARDS/ROTARY TABLES FOR TOOLS IN | 1 | $1,400,000 |
| 2B204 | ISOSTATIC PRESSES NOT CONTROLLED BY 2B004 OR 2B104 | 1 | $498,500 |

| CCL | DESCRIPTION | APPLICATIONS | DOLLAR VALUE |
|---|---|---|---|
| 2B206 | DIMENSIONAL INSPECTION MACHINES,DEVICES OR SYSTEMS | 20 | $1,216,814 |
| 2B226 | VACUUM AND CONTROLLED ENVIRONMENT INDUCTION FURNAC | 5 | $6,620,474 |
| 2B227 | VACUUM AND CONTROLLED ATMOSPHERE MELTING/CASTING F | 2 | $37,393,600 |
| 2B230 | PRESSURE TRANSDUCERS | 165 | $13,551,949 |
| 2B231 | VACUUM PUMPS | 12 | $467,458 |
| 2B350 | CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT | 353 | $50,069,794 |
| 2B351 | TOXIC GAS MONITORING SYSTEMS & DEDICATED DETECTORS | 4 | $333,717 |
| 2B352 | EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS | 92 | $18,086,221 |
| 2D001 | SOFTWARE FOR EQUIPMENT IN CATEGORY 2A/2B | 2 | $186,361 |
| 2D002 | ADAPTIVE CONTROL/ELECTRONIC DEVICE SOFTWARE | 26 | $75,895 |
| 2D983 | EQUIPMENT CONTROLLED BY 2A983 | 9 | $3,927,600 |
| 2E001 | TECHNOLOGY SUPPORTING EQUIPMENT/SOFTWARE IN 2A/2B/ | 7 | $1,005 |
| 2E002 | TECHNOLOGY SUPPORTING EQUIPMENT/PRODUCTION IN 2A/2 | 7 | $5 |
| 2E003 | OTHER TECHNOLOGY | 4 | $54 |
| 2E201 | TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2A | 2 | $1 |
| 2E301 | TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B | 3 | $1 |
| 2E983 | SOFTWARE CONTROLLED BY 2D983 | 6 | $9,050 |
| 3A001 | ELECTRONIC DEVICES/COMPONENTS | 163 | $2,052,482,857 |
| 3A002 | GENERAL PURPOSE ELECTRONIC EQUIPMENT | 22 | $1,617,615 |
| 3A225 | INVERTERS/CONVERTERS/FREQUENCY CHANGERS/GENERATORS | 3 | $56,862 |
| 3A230 | HIGH SPEED PULSE GENERATORS | 2 | $70,763 |
| 3A231 | NEUTRON GENERATOR SYSTEMS INCLUDING TUBES | 8 | $8,506,406 |
| 3A233 | MASS SPECTROMETERS | 317 | $46,788,016 |
| 3A981 | POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT | 1 | $2,483,314 |
| 3A999 | SPECIFIC PROCESSING EQUIPMENT, N.E.S. | 1 | $3,276 |
| 3B001 | EPITAXIAL EQUIPMENT FOR SEMICONDUCTORS | 81 | $934,674,805 |
| 3B991 | OTHER MFG/TEST EQUIPMENT NOT CONTROLLED BY 3B | 1 | $351,350 |
| 3B992 | EQUIPMENT FOR THE INSPECTION/TESTING OF COMPONENTS | 2 | $3,625,000 |
| 3C001 | HETERO-EPITAXIAL MATERIALS | 4 | $29,124 |
| 3C002 | RESIST MATERIALS | 4 | $8,234,850 |
| 3C003 | ORGANO-INORGANIC COMPOUNDS DESCRIBED IN THIS ENTRY | 89 | $832,004,800 |
| 3C004 | HYDRIDES OF PHOSPHORUS, ARSENIC, OR ANTIMONY | 61 | $172,610,591 |
| 3C006 | SUBSTRATES SPECIFIED IN 3C005 | 1 | $1 |
| 3D001 | SOFTWARE FOR DEV OR PROD OF EQUIP CERTAIN ITEMS IN | 9 | $9 |
| 3D002 | SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B | 87 | $87 |
| 3D003 | CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED | 78 | $78 |
| 3E001 | TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ | 234 | $2,001,619 |
| 3E002 | OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 | 277 | $277 |
| 3E003 | OTHER "TECHNOLOGY" | 79 | $79 |
| 3E201 | TECHNOLOGY FOR THE USE OF CERTAIN ITEMS IN 3A | 5 | $13,004 |
| 4A003 | DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT | 2 | $13,690 |
| 4D001 | SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D | 49 | $49 |
| 4D002 | SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E | 36 | $36 |
| 4E001 | TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW | 95 | $95 |
| 5A001 | TELECOMMUNICATIONS/TRANSMISSION EQUIPMENT | 3 | $31,026 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 50 | $49,345,760 |
| 5A991 | TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 | 1 | $0 |
| 5B002 | TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S | 3 | $3 |
| 5D001 | SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ | 55 | $51 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 29 | $9,646,471 |
| 5D992 | SOFTWARE NOT CONTROLLED BY 5D002 | 2 | $10,745 |
| 5E001 | TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 | 435 | $2,884 |
| 5E002 | TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT | 82 | $290,077 |

| CCL | DESCRIPTION | APPLICATIONS | DOLLAR VALUE |
|---|---|---|---|
| 5E991 | TECHNOLOGY FOR DEV/PROD/USE OF 5B994 OR 5D991 | 1 | $0 |
| 6A001 | ACOUSTICS | 4 | $892,605 |
| 6A002 | OPTICAL SENSORS | 3 | $396,840 |
| 6A003 | CAMERAS | 16 | $741,446 |
| 6A005 | OPTICAL EQUIPMENT (LASERS) | 26 | $3,970,505 |
| 6A006 | MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S | 8 | $150,000 |
| 6A203 | CAMERAS/COMPONENTS NOT CONTROLLED BY ECCN 6A003 | 16 | $692,102 |
| 6A205 | LASERS, OTHER THAN THOSE SPECIFIED IN 6A005 | 3 | $822,000 |
| 6E001 | TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT/MATERIALS/ | 4 | $4 |
| 6E002 | TECHNOLOGY FOR PRODUCTION OF EQUIPMENT/MATERIALS I | 3 | $3 |
| 6E201 | TECHNOLOGY FOR EQUIPMENT CONTROLLED BY 6A003,6A005 | 2 | $1 |
| 7A001 | ACCELEROMETERS FOR USE IN NAVIGATION OR GUIDANCE S | 1 | $17,850 |
| 7A103 | INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT | 29 | $42,533,392 |
| 7D003 | OTHER SOFTWARE | 5 | $4,010,006 |
| 7D101 | SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004, | 2 | $501 |
| 7E001 | TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A | 5 | $11,003 |
| 7E004 | OTHER TECHNOLOGY | 7 | $18,343,011 |
| 7E101 | TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A | 2 | $5,500 |
| 8A002 | SYSTEMS OR EQUIPMENT FOR SUBMERSIBLE VEHICLES | 1 | $2,364,000 |
| 9A001 | AERO GAS TURBINE ENGINES | 3 | $2,486,200 |
| 9A012 | UNMANNED AIR VEHICLE SYSTEMS | 1 | $177,078 |
| 9B106 | ENVIRONMENTAL CHAMBERS AND ANECHOIC CHAMBERS | 4 | $825,115 |
| 9E003 | OTHER TECHNOLOGY | 4 | $3 |

TOTAL APPLICATIONS: 2854
TOTAL CCL'S: 130
TOTAL DOLLAR VALUE: $9,944,504,487

CUBA

| | | | |
|---|---|---|---|
| EAR99 | ITEMS SUBJECT TO THE EAR N.E.S. | 234 | $3,576,855,925 |
| 1A995 | PROTECTIVE AND DETECTION EQUIPMENT | 2 | $0 |
| 1C992 | OIL WELL PERFORATORS | 2 | $0 |
| 2A994 | PORTABLE ELECTRIC GENERATORS AND SPECIALLY DESIGNE | 8 | $193,720 |
| 2B350 | CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT | 3 | $1,395,520 |
| 2B999 | SPECIFIC PROCESSING EQUIPMENT, N.E.S. | 4 | $67,180 |
| 3A992 | GENERAL PURPOSE ELECTRONIC EQUIPMENT | 1 | $0 |
| 4A994 | ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 | 6 | $242,164 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 1 | $0 |
| 5A991 | TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 | 6 | $6,014,555 |
| 5A992 | INFORMATION SECURITY EQUIPMENT | 112 | $758,446,731 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 3 | $10,060 |
| 5D992 | SOFTWARE NOT CONTROLLED BY 5D002 | 15 | $571,681 |
| 5E002 | TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT | 1 | $1 |
| 5E992 | TECHNOLOGY FOR INFORMATION SECURITY/CRYPTOLOGY | 1 | $1 |
| 6A991 | MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT | 2 | $0 |
| 7A003 | INERTIAL NAVIGATION SYSTEMS (GIMBALLED/STRAPDOWN) | 1 | $0 |
| 7A994 | OTHER NAVIGATION/AIRBORNE COMMUNICATION EQUIPMENT | 14 | $0 |
| 7E994 | OTHER TECHNOLOGY RELATED TO NAVIGATION OR AVIONICS | 1 | $0 |
| 8A001 | SUBMERSIBLE VEHICLES OR SURFACE VESSELS | 3 | $0 |

| CCL | DESCRIPTION | APPLICATIONS | DOLLAR VALUE |
|---|---|---|---|
| 8A002 | SYSTEMS OR EQUIPMENT FOR SUBMERSIBLE VEHICLES | 5 | $0 |
| 8A992 | VESSELS, MARINE SYSTEMS, EQUIPMENT NOT 8A001/8A002 | 46 | $1,176,195 |
| 9A991 | AIRCRAFT AND CERTAIN GAS TURBINE ENGINES N.E.S. | 24 | $1 |
| 9E991 | TECHNOLOGY FOR THE DEV/PROD/USE WITH ITEMS IN 9A99 | 11 | $0 |

TOTAL APPLICATIONS: 379
TOTAL CCL'S: 24
TOTAL DOLLAR VALUE: $4,344,973,734

GEORGIA

| | | | |
|---|---|---|---|
| 0A984 | SHOTGUNS, BUCKSHOT,SHOTGUN SHELLS | 3 | $163,865 |
| 0A987 | OPTICAL SIGHTING DEVICES FOR FIREARMS | 2 | $102,781 |
| 1A985 | FINGERPRINTING POWDERS, DYES, AND INKS | 1 | $50,000 |
| 2B018 | EQUIPMENT ON THE INTERNATIONAL MUNITIONS LIST | 1 | $65,420 |
| 2B352 | EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS | 1 | $145,000,000 |
| 2E301 | TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B | 1 | $2,000,000 |
| 3A101 | ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 | 2 | $2,275,000 |
| 3A981 | POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT | 1 | $13,990 |
| 3D101 | SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B | 1 | $10,000 |
| 3D980 | SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A | 1 | $0 |
| 4A003 | DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT | 1 | $13,000 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 7 | $93,872 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 1 | $75,000 |
| 5D991 | SOFTWARE FOR DEV/PROD/USE WITH 5B994 TEST EQUIPMEN | 1 | $8 |
| 9A018 | COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST | 2 | $110,749 |

TOTAL APPLICATIONS: 22
TOTAL CCL'S: 15
TOTAL DOLLAR VALUE: $149,973,685

IRAQ

| | | | |
|---|---|---|---|
| EAR99 | ITEMS SUBJECT TO THE EAR N.E.S. | 1 | $750,000 |
| 0A018 | ITEMS ON THE INTERNATIONAL MUNITIONS LIST | 2 | $15,009,830 |
| 0A978 | SAPS | 1 | $55,200 |
| 0A979 | POLICE HELMETS, SHIELDS AND PARTS | 7 | $652,950 |
| 0A985 | DISCHARGE TYPE ARMS | 1 | $200,000 |
| 1A004 | PROTECTIVE AND DETECTION EQUIPMENT | 11 | $2,152,090 |
| 1A005 | BODY ARMOR | 17 | $3,516,153 |
| 1A006 | DISPOSAL OF IMPROVISED EXPLOSIVE DEVICES | 3 | $21,597 |
| 1A007 | DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES | 14 | $814,375,000 |
| 1B999 | SPECIFIC PROCESSING EQUIPMENT, N.E.S. | 7 | $5,261,372 |
| 1C992 | OIL WELL PERFORATORS | 25 | $2,211,311,554 |
| 1C999 | SPECIFIC MATERIALS, N.E.S. | 1 | $4,122 |
| 1E001 | TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT UNDER 1A00 | 1 | $1,000 |
| 2A291 | NUCLEAR REACTOR AND NUCLEAR POWER PLANT RELATED EQ | 1 | $50,000 |

| CCL | DESCRIPTION | APPLICATIONS | DOLLAR VALUE |
|---|---|---|---|
| 2A983 | EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT | 1 | $2,000,000 |
| 2B350 | CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT | 7 | $504,079 |
| 2E983 | SOFTWARE CONTROLLED BY 2D983 | 1 | $4,000 |
| 3A101 | ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 | 2 | $7,865,574 |
| 3A231 | NEUTRON GENERATOR SYSTEMS INCLUDING TUBES | 8 | $9,977,952 |
| 3A292 | OSCILLOSCOPES AND TRANSIENT RECORDERS | 2 | $407,600 |
| 3D101 | SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B | 1 | $0 |
| 3E201 | TECHNOLOGY FOR THE USE OF CERTAIN ITEMS IN 3A | 3 | $2,200 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 11 | $81,215,126 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 2 | $5,148 |
| 6A003 | CAMERAS | 3 | $1,457,269 |
| 6A006 | MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S | 2 | $494,750 |
| 8A002 | SYSTEMS OR EQUIPMENT FOR SUBMERSIBLE VEHICLES | 2 | $155,612 |
| 9A018 | COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST | 2 | $633,204,676 |

TOTAL APPLICATIONS: 107
TOTAL CCL'S: 28
TOTAL DOLLAR VALUE: $3,790,654,854

KAZAKHSTAN

| | | | |
|---|---|---|---|
| 0A979 | POLICE HELMETS, SHIELDS AND PARTS | 2 | $276,390 |
| 0A982 | THUMBCUFFS, LEG IRONS AND SHACKLES | 1 | $100,000 |
| 0A984 | SHOTGUNS, BUCKSHOT,SHOTGUN SHELLS | 1 | $87,500 |
| 0A985 | DISCHARGE TYPE ARMS | 3 | $1,334,277 |
| 0A987 | OPTICAL SIGHTING DEVICES FOR FIREARMS | 57 | $1,793,909 |
| 1A004 | PROTECTIVE AND DETECTION EQUIPMENT | 1 | $46,544 |
| 1A005 | BODY ARMOR | 4 | $2,302,520 |
| 1A007 | DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES | 1 | $179,974,000 |
| 1A984 | CHEMICAL AGENTS, INCLUDING TEAR GAS | 1 | $1,002 |
| 1A985 | FINGERPRINTING POWDERS, DYES, AND INKS | 2 | $300,000 |
| 2A983 | EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT | 1 | $500,000 |
| 2B350 | CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT | 5 | $272,542 |
| 2B352 | EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS | 1 | $96,486 |
| 2D983 | EQUIPMENT CONTROLLED BY 2A983 | 1 | $10,000 |
| 3A001 | ELECTRONIC DEVICES/COMPONENTS | 1 | $1 |
| 3A101 | ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 | 4 | $8,808,200 |
| 3D101 | SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B | 4 | $50,000 |
| 3E001 | TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ | 1 | $1 |
| 5A001 | TELECOMMUNICATIONS/TRANSMISSION EQUIPMENT | 1 | $1 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 8 | $114,385 |
| 5B001 | EQUIPMENT FOR DEV/PROD OR USE OF ITEMS IN 5A001 | 1 | $1 |
| 5D001 | SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ | 1 | $1 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 2 | $56 |
| 5E001 | TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 | 3 | $5 |
| 6A003 | CAMERAS | 1 | $4,723 |
| 9A004 | SPACECRAFT | 2 | $174,625 |
| 9A018 | COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST | 1 | $692,330 |

TOTAL APPLICATIONS: 100
TOTAL CCL'S: 27
TOTAL DOLLAR VALUE: $196,939,499

| CCL | DESCRIPTION | APPLICATIONS | DOLLAR VALUE |
|---|---|---|---|
| KOREA DEMOCRATIC PEOPLES REPUBLIC | | | |
| EAR99 | ITEMS SUBJECT TO THE EAR N.E.S. | 19 | $10,826,931 |
| 2A994 | PORTABLE ELECTRIC GENERATORS AND SPECIALLY DESIGNE | 1 | $20,000 |
| 4A994 | ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 | 1 | $3,598 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 1 | $12,210 |
| 5A991 | TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 | 1 | $551 |
| 5A992 | INFORMATION SECURITY EQUIPMENT | 5 | $10,356 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 1 | $690 |
| 5D992 | SOFTWARE NOT CONTROLLED BY 5D002 | 5 | $951 |
| | TOTAL APPLICATIONS: 22 | | |
| | TOTAL CCL'S: 8 | | |
| | TOTAL DOLLAR VALUE: $10,875,287 | | |
| KYRGYZSTAN | | | |
| 0A978 | SAPS | 1 | $744 |
| 0A987 | OPTICAL SIGHTING DEVICES FOR FIREARMS | 3 | $4,625 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 2 | $27,685 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 1 | $8 |
| 9A018 | COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST | 1 | $160,000 |
| | TOTAL APPLICATIONS: 7 | | |
| | TOTAL CCL'S: 5 | | |
| | TOTAL DOLLAR VALUE: $193,062 | | |
| LAOS | | | |
| 1A001 | COMPONENTS MADE FROM FLUORINATED COMPOUNDS | 5 | $2,105 |
| 2B350 | CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT | 2 | $24,174 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 1 | $31 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 1 | $8 |
| 7A103 | INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT | 1 | $202,661 |
| 7D101 | SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004, | 1 | $500 |
| 7E101 | TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A | 1 | $500 |
| | TOTAL APPLICATIONS: 9 | | |
| | TOTAL CCL'S: 7 | | |
| | TOTAL DOLLAR VALUE: $229,979 | | |

| CCL | DESCRIPTION | APPLICATIONS | DOLLAR VALUE |
|---|---|---|---|
| LIBYA | | | |
| 1A004 | PROTECTIVE AND DETECTION EQUIPMENT | 1 | $5,538,125 |
| 1A006 | DISPOSAL OF IMPROVISED EXPLOSIVE DEVICES | 1 | $7,200 |
| 1A007 | DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES | 2 | $170,141,250 |
| 1A985 | FINGERPRINTING POWDERS, DYES, AND INKS | 1 | $1,000,000 |
| 2A292 | PIPING/FITTINGS/VALVES MADE/LINED WITH NAMED ALLOY | 1 | $90,475 |
| 3A231 | NEUTRON GENERATOR SYSTEMS INCLUDING TUBES | 1 | $4,792,500 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 2 | $0 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 1 | $0 |
| 7A103 | INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT | 1 | $358,950 |
| | TOTAL APPLICATIONS: 10 | | |
| | TOTAL CCL'S: 9 | | |
| | TOTAL DOLLAR VALUE: $181,928,500 | | |
| MACAO | | | |
| 1C350 | CHEMICALS, PRECURSORS FOR TOXIC CHEMICAL AGENTS | 2 | $150 |
| 1C351 | HUMAN PATHOGENS, ZOONOSES, AND TOXINS | 1 | $590 |
| 3A001 | ELECTRONIC DEVICES/COMPONENTS | 1 | $13,820 |
| 3A002 | GENERAL PURPOSE ELECTRONIC EQUIPMENT | 3 | $424,909 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 11 | $468,448 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 1 | $0 |
| 5E001 | TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 | 1 | $2 |
| | TOTAL APPLICATIONS: 19 | | |
| | TOTAL CCL'S: 7 | | |
| | TOTAL DOLLAR VALUE: $907,919 | | |
| MOLDOVA | | | |
| 1A001 | COMPONENTS MADE FROM FLUORINATED COMPOUNDS | 1 | $10,000 |
| 3A101 | ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 | 2 | $960,000 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 6 | $94,779 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 2 | $8 |
| | TOTAL APPLICATIONS: 9 | | |
| | TOTAL CCL'S: 4 | | |
| | TOTAL DOLLAR VALUE: $1,064,787 | | |

| CCL | DESCRIPTION | APPLICATIONS | DOLLAR VALUE |
|---|---|---|---|
| MONGOLIA | | | |
| 0A987 | OPTICAL SIGHTING DEVICES FOR FIREARMS | 5 | $115,658 |
| 1A001 | COMPONENTS MADE FROM FLUORINATED COMPOUNDS | 2 | $10,363 |
| 2B350 | CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT | 1 | $5,255 |
| 3A233 | MASS SPECTROMETERS | 2 | $227,570 |
| 4A003 | DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT | 1 | $499,909 |
| 4A994 | ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 | 1 | $6,846 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 2 | $44,327 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 2 | $17,313 |
| 6A003 | CAMERAS | 1 | $7,753 |
| | TOTAL APPLICATIONS: 14 | | |
| | TOTAL CCL'S: 9 | | |
| | TOTAL DOLLAR VALUE: $934,994 | | |
| RUSSIA FEDERATION | | | |
| EAR99 | ITEMS SUBJECT TO THE EAR N.E.S. | 32 | $8,310,400 |
| 0A979 | POLICE HELMETS, SHIELDS AND PARTS | 5 | $1,908,900 |
| 0A980 | HORSES BY SEA | 1 | $290,000 |
| 0A982 | THUMBCUFFS, LEG IRONS AND SHACKLES | 7 | $26,350 |
| 0A984 | SHOTGUNS, BUCKSHOT,SHOTGUN SHELLS | 15 | $1,517,963 |
| 0A985 | DISCHARGE TYPE ARMS | 1 | $100,000 |
| 0A986 | SHOTGUN SHELLS (EXCEPT BUCKSHOT SHELLS) AND PARTS | 1 | $17,041 |
| 0A987 | OPTICAL SIGHTING DEVICES FOR FIREARMS | 965 | $23,749,211 |
| 1A001 | COMPONENTS MADE FROM FLUORINATED COMPOUNDS | 5 | $190,000 |
| 1A004 | PROTECTIVE AND DETECTION EQUIPMENT | 20 | $6,022,073 |
| 1A005 | BODY ARMOR | 1 | $87,500 |
| 1A007 | DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES | 1 | $169,600,000 |
| 1A985 | FINGERPRINTING POWDERS, DYES, AND INKS | 1 | $2,000,000 |
| 1A999 | SPECIFIC PROCESSING EQUIPMENT, N.E.S | 6 | $83,617 |
| 1B119 | FLUID ENERGY MILLS | 2 | $59,703 |
| 1C006 | FLUIDS AND LUBRICATING MATERIALS | 6 | $56,984 |
| 1C008 | NON-FLUORINATED POLYMERIC SUBSTANCES | 5 | $318,120 |
| 1C230 | BERYLLIUM | 1 | $15,440 |
| 1C350 | CHEMICALS, PRECURSORS FOR TOXIC CHEMICAL AGENTS | 1 | $15,563 |
| 1C352 | ANIMAL PATHOGENS | 1 | $10 |
| 1C353 | GENETICALLY MODIFIED MICROORGANISMS | 1 | $9,600 |
| 1D003 | SOFTWARE DESIGNED FOR EQPT CONTROLLED UNDER 1A004 | 2 | $4,230 |
| 1E001 | TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT UNDER 1A00 | 2 | $1,001 |
| 1E350 | TECHNOLOGY FOR USE OF 1C350 CHEMICALS | 1 | $1 |
| 1E351 | TECHNOLOGY FOR USE OF MICROBIOLOGICAL MATERIALS | 1 | $1 |
| 2A983 | EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT | 6 | $5,378,488 |
| 2B001 | NUMERICAL CONTROL UNITS/MOTION CONTROL BOARDS | 17 | $13,759,598 |
| 2B004 | HOT ISOSTATIC/PRESSES/DIES/MOULDS/COMPONENTS/ACCES | 1 | $287,500 |
| 2B008 | ASSEMBLIES/UNITS/INSERTS FOR MACHINE TOOLS IN 2B00 | 4 | $220,960 |
| 2B225 | REMOTE MANIPULATORS | 1 | $2,200,000 |
| 2B350 | CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT | 21 | $584,226 |
| 2B352 | EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS | 5 | $165,266 |

| CCL | DESCRIPTION | APPLICATIONS | DOLLAR VALUE |
|---|---|---|---|
| 2B991 | NUMERICAL CONTROL UNITS FOR MACHINE TOOLS | 1 | $183,000 |
| 2D002 | ADAPTIVE CONTROL/ELECTRONIC DEVICE SOFTWARE | 4 | $4 |
| 2D983 | EQUIPMENT CONTROLLED BY 2A983 | 3 | $2,020 |
| 2E983 | SOFTWARE CONTROLLED BY 2D983 | 2 | $3,000 |
| 3A001 | ELECTRONIC DEVICES/COMPONENTS | 89 | $14,796,527 |
| 3A002 | GENERAL PURPOSE ELECTRONIC EQUIPMENT | 9 | $1,088,054 |
| 3A101 | ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 | 3 | $8,914,290 |
| 3A233 | MASS SPECTROMETERS | 1 | $184,659 |
| 3A981 | POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT | 13 | $763,250 |
| 3A991 | ELECTRONIC DEVICES AND COMPONENTS | 1 | $20,000 |
| 3A992 | GENERAL PURPOSE ELECTRONIC EQUIPMENT | 1 | $10,585 |
| 3A999 | SPECIFIC PROCESSING EQUIPMENT, N.E.S. | 5 | $313,742 |
| 3B001 | EPITAXIAL EQUIPMENT FOR SEMICONDUCTORS | 4 | $2,238,553 |
| 3B002 | ION IMPLANTATION EQUIPMENT FOR SEMICONDUCTORS | 2 | $114,624 |
| 3B992 | EQUIPMENT FOR THE INSPECTION/TESTING OF COMPONENTS | 1 | $92,259 |
| 3C001 | HETERO-EPITAXIAL MATERIALS | 2 | $285,000 |
| 3C002 | RESIST MATERIALS | 2 | $316,000 |
| 3C004 | HYDRIDES OF PHOSPHORUS, ARSENIC, OR ANTIMONY | 2 | $1,481,980 |
| 3C006 | SUBSTRATES SPECIFIED IN 3C005 | 1 | $22,449 |
| 3D002 | SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B | 2 | $2 |
| 3D003 | CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED | 1 | $1 |
| 3D004 | DEVELOPMENT OF EQUIPMENT CONTROLLED BY 3A003 | 1 | $132,480 |
| 3D101 | SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B | 2 | $84,000 |
| 3D980 | SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A | 11 | $4 |
| 3E001 | TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ | 12 | $11 |
| 3E002 | OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 | 16 | $16 |
| 3E003 | OTHER "TECHNOLOGY" | 1 | $1 |
| 4A003 | DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT | 2 | $13,019,266 |
| 4A994 | ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 | 4 | $224,294 |
| 4D001 | SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D | 12 | $12 |
| 4D002 | SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E | 6 | $6 |
| 4E001 | TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW | 12 | $12 |
| 4E992 | TECHNOLOGY FOR DEV/PROD/USE OF 4A994/4B994/4C994 | 3 | $70,000 |
| 5A001 | TELECOMMUNICATIONS/TRANSMISSION EQUIPMENT | 1 | $197,595 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 17 | $1,288,175 |
| 5A991 | TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 | 2 | $19,200 |
| 5A992 | INFORMATION SECURITY EQUIPMENT | 4 | $1,228,480 |
| 5B991 | TELECOMMUNICATIONS TEST EQUIPMENT | 1 | $89,440 |
| 5D001 | SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ | 7 | $12 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 26 | $5,712,468 |
| 5D992 | SOFTWARE NOT CONTROLLED BY 5D002 | 7 | $94,419,545 |
| 5E001 | TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 | 12 | $17 |
| 5E002 | TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT | 11 | $9 |
| 5E991 | TECHNOLOGY FOR DEV/PROD/USE OF 5B994 OR 5D991 | 2 | $20,000 |
| 6A001 | ACOUSTICS | 6 | $18,689,349 |
| 6A002 | OPTICAL SENSORS | 2 | $164,782 |
| 6A003 | CAMERAS | 35 | $2,033,032 |
| 6A005 | OPTICAL EQUIPMENT (LASERS) | 1 | $780,000 |
| 7A001 | ACCELEROMETERS FOR USE IN NAVIGATION OR GUIDANCE S | 1 | $14,175 |
| 7A003 | INERTIAL NAVIGATION SYSTEMS (GIMBALLED/STRAPDOWN) | 1 | $140,000 |
| 7A103 | INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT | 10 | $87,309,010 |
| 7D003 | OTHER SOFTWARE | 1 | $1 |
| 7D101 | SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004, | 1 | $1 |

| CCL | DESCRIPTION | APPLICATIONS | DOLLAR VALUE |
|---|---|---|---|
| 7E001 | TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A | 2 | $2 |
| 7E004 | OTHER TECHNOLOGY | 1 | $2 |
| 7E101 | TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A | 1 | $1 |
| 9A004 | SPACECRAFT | 44 | $6,644,649 |
| 9A018 | COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST | 1 | $183,000 |

TOTAL APPLICATIONS: 1417
TOTAL CCL'S: 90
TOTAL DOLLAR VALUE: $500,272,792

TAJIKISTAN

| | | | |
|---|---|---|---|
| 0A987 | OPTICAL SIGHTING DEVICES FOR FIREARMS | 7 | $3,810 |
| 3A101 | ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 | 1 | $240,000 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 2 | $16,845 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 1 | $8 |

TOTAL APPLICATIONS: 10
TOTAL CCL'S: 4
TOTAL DOLLAR VALUE: $260,663

TURKMENISTAN

| | | | |
|---|---|---|---|
| 1A007 | DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES | 1 | $172,523,500 |
| 3A101 | ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 | 2 | $720,000 |
| 3A231 | NEUTRON GENERATOR SYSTEMS INCLUDING TUBES | 1 | $1,620,000 |
| 3A980 | VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT | 1 | $13,990 |
| 3A981 | POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT | 1 | $13,500 |
| 3D980 | SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A | 2 | $0 |
| 3E001 | TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ | 1 | $0 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 6 | $430,671 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 2 | $2,708 |
| 6A003 | CAMERAS | 1 | $120,000 |
| 7A103 | INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT | 1 | $561,776 |

TOTAL APPLICATIONS: 16
TOTAL CCL'S: 11
TOTAL DOLLAR VALUE: $176,006,145

| CCL | DESCRIPTION | APPLICATIONS | DOLLAR VALUE |
|---|---|---|---|
| UKRAINE | | | |
| 0A982 | THUMBCUFFS, LEG IRONS AND SHACKLES | 3 | $8,818 |
| 0A984 | SHOTGUNS, BUCKSHOT,SHOTGUN SHELLS | 15 | $2,188,572 |
| 0A987 | OPTICAL SIGHTING DEVICES FOR FIREARMS | 66 | $2,019,590 |
| 1A001 | COMPONENTS MADE FROM FLUORINATED COMPOUNDS | 2 | $100,000 |
| 1A004 | PROTECTIVE AND DETECTION EQUIPMENT | 4 | $417,340 |
| 2B001 | NUMERICAL CONTROL UNITS/MOTION CONTROL BOARDS | 1 | $135,900 |
| 2B350 | CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT | 1 | $21,000 |
| 3A001 | ELECTRONIC DEVICES/COMPONENTS | 4 | $45,702 |
| 3A101 | ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 | 2 | $1,200,000 |
| 3A981 | POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT | 4 | $136,900 |
| 3D002 | SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B | 1 | $1 |
| 3D003 | CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED | 1 | $1 |
| 3D980 | SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A | 4 | $532 |
| 3E001 | TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ | 2 | $2 |
| 3E002 | OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 | 2 | $2 |
| 3E003 | OTHER "TECHNOLOGY" | 1 | $1 |
| 4D001 | SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D | 2 | $2 |
| 4D002 | SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E | 1 | $1 |
| 4E001 | TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW | 2 | $1 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 2 | $5 |
| 5D001 | SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ | 1 | $1 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 2 | $148,000 |
| 5E001 | TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 | 1 | $1 |
| 5E002 | TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT | 1 | $1 |
| 6A003 | CAMERAS | 5 | $117,773 |
| 6A005 | OPTICAL EQUIPMENT (LASERS) | 1 | $9,110 |
| 9A018 | COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST | 3 | $486,200 |

TOTAL APPLICATIONS: 118
TOTAL CCL'S: 27
TOTAL DOLLAR VALUE: $7,035,456

| | | | |
|---|---|---|---|
| UZBEKISTAN | | | |
| 1A004 | PROTECTIVE AND DETECTION EQUIPMENT | 1 | $42,458 |
| 2B001 | NUMERICAL CONTROL UNITS/MOTION CONTROL BOARDS | 1 | $112,000 |
| 3A231 | NEUTRON GENERATOR SYSTEMS INCLUDING TUBES | 1 | $135,000 |
| 3A981 | POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT | 1 | $236,000 |
| 4D001 | SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D | 1 | $1 |
| 4E001 | TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW | 1 | $1 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 2 | $215,916 |

TOTAL APPLICATIONS: 7
TOTAL CCL'S: 7
TOTAL DOLLAR VALUE: $741,376

| CCL | DESCRIPTION | APPLICATIONS | DOLLAR VALUE |
|---|---|---|---|
| VIETNAM | | | |
| 0A978 | SAPS | 1 | $2,921 |
| 0A979 | POLICE HELMETS, SHIELDS AND PARTS | 1 | $120,000 |
| 0A982 | THUMBCUFFS, LEG IRONS AND SHACKLES | 1 | $1,761 |
| 0E984 | TECHNOLOGY FOR SHOTGUNS/SHOTGUN SHELLS CONTROLLED | 1 | $29 |
| 1A001 | COMPONENTS MADE FROM FLUORINATED COMPOUNDS | 7 | $46,211 |
| 1A004 | PROTECTIVE AND DETECTION EQUIPMENT | 2 | $437,910 |
| 1A005 | BODY ARMOR | 1 | $11,882 |
| 1A007 | DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES | 2 | $342,947,500 |
| 1C008 | NON-FLUORINATED POLYMERIC SUBSTANCES | 1 | $3,901 |
| 1C225 | BORON AND BORON COMPOUNDS/MIXTURES AND LOADED MATE | 1 | $738 |
| 1C230 | BERYLLIUM | 1 | $740 |
| 1C231 | HAFNIUM | 2 | $20,250 |
| 1C233 | LITHIUM | 1 | $967 |
| 1C350 | CHEMICALS, PRECURSORS FOR TOXIC CHEMICAL AGENTS | 2 | $30,720 |
| 1C351 | HUMAN PATHOGENS, ZOONOSES, AND TOXINS | 1 | $1,419,000 |
| 1E001 | TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT UNDER 1A00 | 1 | $1,000 |
| 2A983 | EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT | 1 | $498,000 |
| 2B001 | NUMERICAL CONTROL UNITS/MOTION CONTROL BOARDS | 4 | $1,189,600 |
| 2B006 | DIMENSIONAL INSPECTION/MEASURING SYSTEMS OR EQUIPM | 2 | $220,945 |
| 2B206 | DIMENSIONAL INSPECTION MACHINES,DEVICES OR SYSTEMS | 1 | $98,000 |
| 2B350 | CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT | 11 | $316,843 |
| 2B352 | EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS | 2 | $7,691 |
| 2D983 | EQUIPMENT CONTROLLED BY 2A983 | 1 | $1,000 |
| 2E983 | SOFTWARE CONTROLLED BY 2D983 | 1 | $1,000 |
| 3A001 | ELECTRONIC DEVICES/COMPONENTS | 8 | $614,907 |
| 3A101 | ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 | 3 | $1,895,428 |
| 3A233 | MASS SPECTROMETERS | 11 | $1,163,656 |
| 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/ | 4 | $10,003 |
| 3E002 | OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 | 6 | $8 |
| 3E003 | OTHER "TECHNOLOGY" | 1 | $1 |
| 4D001 | SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D | 2 | $2 |
| 4D002 | SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E | 2 | $2 |
| 4E001 | TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW | 2 | $2 |
| 5A002 | SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC | 9 | $4,410,792 |
| 5D001 | SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ | 2 | $2 |
| 5D002 | SOFTWARE FOR INFORMATION SECURITY | 7 | $28,005 |
| 5E001 | TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 | 11 | $27 |
| 5E002 | TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT | 5 | $4 |
| 6A001 | ACOUSTICS | 1 | $144,000 |
| 6A003 | CAMERAS | 2 | $12,142 |
| 7A003 | INERTIAL NAVIGATION SYSTEMS (GIMBALLED/STRAPDOWN) | 1 | $372,124 |
| 7A103 | INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT | 2 | $1,007,218 |
| 7A994 | OTHER NAVIGATION/AIRBORNE COMMUNICATION EQUIPMENT | 1 | $41,379 |
| 9A004 | SPACECRAFT | 2 | $1,339 |
| 9A018 | COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST | 1 | $250,000 |

TOTAL APPLICATIONS: 104
TOTAL CCL'S: 47
TOTAL DOLLAR VALUE: $357,329,652

## Appendix F: 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"[2] 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 United States industry and the extent of job displacement caused by United States exports of goods and technology to controlled countries;" and
- "... 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 to compete with United States products in export markets."

### Goods and Technology Exports

In calendar year 2011, U.S. exports to controlled countries totaled $125 billion, which represents a 16.2 percent increase from 2010 levels of $107.4 billion and about 8.4% of total U.S. worldwide exports. Historically, the dollar value of trade with controlled destinations, other than the People's Republic of China (PRC or China), has been low. China is the largest single export market among the controlled country group, with roughly 83 percent of the total. Russia ranks second with roughly 7 percent of the total. An analysis of exports by commodity category indicates that computer and electronic products, transportation equipment, machinery, chemicals, and waste and scrap represented more than half of the total U.S. exports to controlled countries, especially China. The small share of U.S. exports to controlled countries relative to total U.S. exports (8.4%) suggests that the overall adverse impact through injury to U.S. industry and job displacement is not large, although controls do have greater impact on certain industry sectors and companies.

| Controlled Destinations | Calendar Year 2011 U.S. Exports (in millions) |
|---|---|
| Albania | $47 |

[2] For the purpose of this section, "controlled countries" are: Albania; Armenia; Azerbaijan; Belarus; Cambodia; China (PRC); Cuba; Georgia; Iraq; Kazakhstan; Kyrgyzstan; Laos; Macao; Moldova; Mongolia; North Korea; Russia; Tajikistan; Turkmenistan; Ukraine; Uzbekistan; and Vietnam.

| | |
|---|---|
| Armenia | $94 |
| Azerbaijan | $337 |
| Belarus | $156 |
| Cambodia | $186 |
| China (PRC) | $103,939 |
| Cuba | $363 |
| Georgia | $579 |
| Iraq | $2,411 |
| Kazakhstan | $826 |
| Kyrgyzstan | $105 |
| Laos | $26 |
| Macao | $291 |
| Moldova | $39 |
| Mongolia | $314 |
| North Korea | $9 |
| Russia | $8,286 |
| Tajikistan | $178 |
| Turkmenistan | $71 |
| Ukraine | $2,137 |
| Uzbekistan | $100 |
| Vietnam | $4,309 |
| Total Exports to Controlled Destinations | $124,803 |
| Total Exports to All Countries | $1,480,430 |
| U.S. Exports to Controlled Destinations as a Percent of Overall U.S. Exports | 8.4% |
| Percent of U.S. Exports to Controlled Destinations Requiring a BIS License | 0.6% |
| Percent of U.S. Exports to Controlled Destinations Subject to a BIS License Requirement | 3.1% |

Although the basis for BIS's export controls are reasons of national security, foreign policy, and short supply, BIS—as part of its defense industrial base monitoring responsibilities—reviews on an ongoing basis the potential domestic impact of U.S. technology transfers. U.S. and other Western firms choose to establish production facilities in China for a variety of reasons, including technology transfer requirements imposed by China; a desire to take advantage of

China's large pool of labor; the desire for proximity to the market for their products; and a desire to take advantage of business incentives created by Chinese local and national governments. The United States runs a trade deficit with China ($295.4 billion in 2011), 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.

A review of licenses applications for exports to China in the past year shows that a significant number involve manufacturing equipment and facilities, electronics, and/or components for use in foreign-invested production facilities. Among the top-valued manufacturing equipment exported in 2011 were equipment for semiconductors, chemical manufacturing facilities, acoustics and electronic components. Examples of the top-valued components are mass spectrometers, integrated circuits and pressure transducers. Many other types of products, such as aircraft, computers and other electronic components are likely 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). U.S. government policy is to encourage exports to China of commercial items for civil end uses and end users but not to export military items or commercial items for military end uses.

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, 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 website at www.bis.doc.gov.

**Critical Technology Assessments**

BIS conducts critical technology assessments to examine the impact of export controls on key existing or emerging technologies subject to the Export Administration Regulations (EAR). These technologies are dual-use, meaning they have both civilian and military applications. For a given technology, BIS evaluates the scope and impact of current U.S. export controls, foreign export control practices, the sector's economic status, and the foreign availability (i.e., availability-in-fact, non-U.S. source, sufficient quantity, and comparable quality) of product substitutes.

BIS completed one assessment in FY 2012. The assessment, entitled *Critical Technology Assessment: Night Vision Focal Plane Arrays, Sensors, and Cameras*, examines the nature of night vision equipment that is controlled under two ECCNs in Category 6 of the Commerce Control List and Category XII of the United States Munitions List.

**Turnkey Plants and Facilities Exports**

The Export Administration Regulations (EAR) require a license to export certain items for turnkey plants and facilities to controlled destinations. As a result of several revisions to the EAR in recent years, more items for turnkey plants and facilities have become eligible for export to controlled destinations without a license or under a license exception. For example, a license is generally not required for exports to controlled countries (except Cuba and North Korea) of items for turnkey plants and facilities that are designated as EAR99 (the designation for items that are subject to the EAR but not listed on the Commerce Control List). In addition, certain items for turnkey plants and facilities 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 items for turnkey plants and facilities may be eligible for export to controlled destinations under a license exception, such as License Exception CIV (Civil End-Users), which authorizes exports of certain national security-controlled items to civil end users, for civil end uses, in most controlled countries, except Cuba and North Korea; or License Exception TSU (Technology and Software-Unrestricted), which authorizes exports of operation technology and software, sales technology, and software updates, subject to certain conditions.

U.S. export data that are available from the U.S. Census Bureau do not provide the level of specificity needed to identify exports of turnkey plants or items for turnkey plants and facilities. This precludes a thorough assessment of the impact of U.S. exports of items for turnkey plants and facilities to controlled countries. However, the small number of such exports in the past, coupled with the low percentage of U.S. exports destined for controlled countries and items subject to a license requirement, make it reasonable to conclude that the ultimate impact on U.S. production is not significant.

## Appendix G: Agricultural Supply Tables and Information

The U.S. Department of Agriculture (USDA) regularly updates the World Agricultural Supply and Demand Estimates (WASDE) report. The most recent report may be accessed at:

http://www.usda.gov/oce/commodity/wasde

## Appendix H: Export Control Reform Fact Sheets, Speeches, and Testimony

### Fact Sheets

ECR Dashboard, *June 2012*

http://export.gov/static/Export%20Control%20Reform%20Dashboard%20with%20Next%20Steps%20for%20website%20062112_Latest_eg_main_044971.pdf

ECR Fact Sheet Series, *March 20, 2012*

http://export.gov/ecr/eg_main_023180.asp

### Speeches

Prepared Remarks of Eric L. Hirschhorn Under Secretary for Industry and Security
U.S. Department of Commerce Practicing Law Institute Washington DC, December 10, 2012

http://www.bis.doc.gov/news/2012/hirschhorn_practicing_law_institute_12_10_2012.htm

Remarks of Acting Commerce Secretary Rebecca Blank at Update 2012 Conference, July 17, 2012

http://www.commerce.gov/news/acting-secretary-speeches/2012/07/17/remarks-bis-update-conference-export-controls-and-policy

Remarks of Under Secretary of Commerce Eric L. Hirschhorn at Update 2012 Conference, July 17, 2012
http://www.bis.doc.gov/news/2012/hirschhorn_update_2012.htm

Assistant Secretary of Commerce Kevin Wolf Remarks to BIS Update Conference,

http://www.bis.doc.gov/news/2012/wolf_update_2012.htm

Commerce Assistant Secretary David W. Mills Remarks to BIS Update Conference,
July 18, 2012
http://www.bis.doc.gov/news/2012/mills_update_2012.htm