
2008 REPORT ON FOREIGN POLICY-BASED EXPORT CONTROLS

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

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CHAPTER 1

Introduction

Export controls maintained for foreign policy purposes require annual extension according to the provisions of Section 6 of the Export Administration Act of 1979, as amended (the Act). Section 6(f) of the Act requires the President to submit a report to Congress to extend the controls. Such authority has been delegated to the Secretary of Commerce. Sections 6(b) and 6(f) of the Act require the report to include certain considerations¹ and determinations² with respect to the criteria established in those sections. This report complies with all of the requirements set out in the Act for extending, amending, or imposing foreign policy controls.

The Department of Commerce is acting under the authority conferred by Executive Order 13222 of August 17, 2001 (Executive Order), as extended by the Notice of August 15, 2007 (72 FR 46137 (Aug. 16, 2007)). In that Executive Order, the President, by reason of the expiration of the Act, invoked his authority, including authority under the International Emergency Economic Powers Act (IEEPA), to continue in effect the system of controls that had been maintained under the Act. Under a policy of conforming actions under the Executive Order to those under the Act, the Department of Commerce, insofar as appropriate, is following the provisions of Section 6 of the Act with regard to extending foreign policy controls.

With this report, all foreign policy export controls discussed herein are hereby extended for the period from January 21, 2008, to January 20, 2009. The Bureau of Industry and Security (BIS) of the Department of Commerce is taking this action pursuant to the recommendation of the Secretary of State. As further authorized by the Act, foreign policy export controls remain in effect for replacement parts and for parts contained in goods subject to such controls. The controls administered in accordance with procedures established pursuant to Section 309(c) of the Nuclear Nonproliferation Act of 1978 similarly remain in effect.

Each chapter of this report describes a particular category of foreign policy controls and delineates modifications that have taken place over the past year. Although this report covers the 2007 calendar year, most of the statistical data presented in the report are based on

¹ Section 6(b)(2) requires the Secretary to consider the criteria set forth in Section 6(b)(1) when extending controls in effect prior to July 12, 1985. In addition, the report must include the elements set forth in Sections 6(f)(2)(A) (purpose of the controls); 6(f)(2)(C) (consultation with industry and other countries); 6(f)(2)(D) (alternative means attempted); and 6(f)(2)(E) (foreign availability).

² Section 6(b)(1) requires the Secretary to make determinations regarding the criteria set forth therein when imposing, extending, or expanding controls. The report must also contain the additional information required in Section 6(f)(2)(A), (C)-(E) (as set forth in footnote 1, *supra*).

Fiscal Year 2007 export licensing statistics, unless otherwise noted. BIS generates this data from the computer system it uses to process and track export license activity. Due to the tabulating procedures used by the system in accounting for occasional license applications that list more than one country or destination, the system has certain limitations as a means of gathering data. In addition, BIS bases the data in this report on values contained in issued export licenses. Such values may not represent the values of actual shipments made against those licenses, because in some cases an exporter may ship only a portion of the value of an approved license or may not ship at all.

Certain goods, technology, and software described in this report also may require a license for national security purposes for export to certain destinations in accordance with Section 5 of the Act.

Part I: Highlights in the 2008 Report

Anti-Terrorism (AT) Controls on Designated Terrorist States

North Korea

On January 26, 2007, as a result of North Korea's test launch of ballistic missiles in July 2006, and testing of a nuclear device in October 2006, and consistent with United Nations Security Council Resolutions (UNSCRs) 1695 and 1718, the Department published in the *Federal Register* an amendment to the Export Administration Regulations (15 C.F.R. 730-774 (2007)) (EAR) implementing changes in export controls with respect to North Korea (72 FR 3722). This amendment implemented license requirements for the export and reexport of all items subject to EAR to North Korea, with limited exceptions.

Iran

On July 12, 2007, the Department published in the *Federal Register* an amendment to the EAR to add five Iranian entities to the Entity List. The Department determined that three of these entities were involved in nuclear-related proliferation activities described in Section 744.2 of the EAR and two entities were involved in prohibited activities related to rocket systems and unmanned aerial vehicles described in Section 744.3 of the EAR. This determination was based upon the fact that all five entities are subject to sanctions pursuant to United Nations Security Council Resolution 1737 and Executive Order 13382.

Embargoes and Other Special Controls

Burma

On October 24, 2007, the Department published in the *Federal Register* an amendment to the EAR imposing licensing requirements on items subject to the EAR for certain persons in Burma designated in Executive Order 13448 (72 FR 60248). The President issued Executive Order 13448 in response to Burma's continued repression of democratic

opposition. The amendment also moved Burma from Country Group B to Country Group D:1 and from Computer Tier 1 to Tier 3.

Chemical and Biological Controls

Changes Resulting from the 2007 Australia Group Plenary

On September 12, 2007, the Department of Commerce published a final rule in the *Federal Register* (72 FR 52000) implementing changes made to the Commerce Control List (CCL) deriving from understandings reached at the June 2007 Australia Group (AG) Plenary meeting. Among other changes, the rule made conforming changes to the EAR and CCL as a result of Croatia joining the AG; and clarified treatment of exports to Macau as being identical to treatments of exports to China for export control purposes.

Missile Technology Controls

Changes Resulting from the 2006 Missile Technology Control Regime Plenary

On May 7, 2007, the Department published in the *Federal Register* an amendment to the EAR to implement changes to the Missile Technology Control Regime (MTCR) Annex that member countries agreed to at the October 2006 Plenary in Copenhagen, Denmark (72 FR 25680). The amendment clarified the control parameters on several dual-use items to make clear that the items were controlled when used in rockets, missiles, and unmanned aerial vehicles capable of a range of at least 300 kilometers, regardless of the payload. The amendment also added a new export control classification number (ECCN) -- 7A107 -- to control three axis magnetic heading sensors designed or modified to be integrated with flight control and navigation systems.

Export Enforcement

BIS export enforcement efforts focus on the most significant international threats facing U.S. national and homeland security, foreign policy, and economic interests: the proliferation of weapons of mass destruction (WMD), international terrorism and state sponsors of terrorism, and diversions of U.S. dual-use goods and technologies to unauthorized military end-uses. The ability of the United States to enforce the foreign policy controls that it imposes is one of the criteria that this report examines. Below are summaries of some of the more significant foreign policy-related enforcement cases that have occurred recently.

Terrorist Dealings/Computer Exports to Libya and Syria

In October 2006, sentences were handed down in connection with prior convictions at trial of Infocom Corporation and its principals, the Elashi brothers, for dealing in the funds of a Specially Designated Terrorist, a high ranking official of the terrorist organization Hamas; and conspiracy to export computers and computer equipment to Libya and Syria. Basman Elashi was sentenced to 80 months imprisonment on October 13, 2006; Ghassan Elashi was sentenced to 80 months imprisonment on October 12, 2006; and Infocom itself was sentenced to two years probation on October 11, 2006.

Two other Infocom principals were previously sentenced in January 2006. Hazim Elashi was sentenced to 60 months imprisonment, two years probation, and deportation from the United States on January 24, 2006; and Ihsan Elashi was sentenced to 72 months in prison and two years probation on January 25, 2006. At the time of his sentencing, Ihsan Elashi was serving a 48 month prison sentence following his 2002 conviction for violating a BIS Temporary Denial Order. BIS's Office of Export Enforcement (OEE) conducted this investigation as a member of the North Texas Joint Terrorism Task Force.

Aircraft Parts to Iran

On July 30, 2007, Ali Khan, owner of TurboAnalysis, Phoenix, Arizona, was sentenced in U.S. District Court, Eastern District of New York, Brooklyn, in connection with his role in a conspiracy to illegally export aircraft components to Iran. Khan was sentenced by Judge John Gleeson to serve five years probation, perform 300 hours of community service, pay \$1.4 million in forfeiture, and \$100,000 in criminal fines. Khan previously pled guilty to one count of conspiracy to violate the International Emergency Economic Powers Act (Title 50 U.S.C. Sections 1701-1706), in violation of Title 18 U.S.C. Section 371, in September of 2005. Khan also paid a \$110,000 administrative fine pursuant to a Final Order signed on August 8, 2005, in connection with the aforementioned shipments.

Payments to a Terrorist Organization

On September 17, 2007, Chiquita Brands International Inc. was sentenced to pay a \$25 million criminal fine and five years probation to include an effective compliance and ethics program. The investigation of Chiquita involved illegal payments to a terrorist organization. From 1997 through 2004, Chiquita made monthly payments through its wholly owned Colombian subsidiary C.I. Bananos de Exportacion S.A. to the right wing paramilitary group Autodefensas de Columbia (AUC). The AUC was first designated as a Foreign Terrorist Organization by the State Department on September 10, 2001. The AUC was later designated as a Specially Designated Global Terrorist by the Office of Foreign Assets Control in October 2001. These designations made it a federal crime for Chiquita, as a U.S. corporation, to provide money to the AUC. In April 2003, Chiquita made a voluntary self-disclosure to the government of its payments to the AUC, giving rise to this investigation.

Part II: Format of Analysis Used in Chapters 2-13 of this Report

Chapters 2-13 of this report describe the various export control programs maintained by the Department of Commerce for foreign policy reasons. Each of these programs is extended for another year. The analysis required for such an extension is provided in each chapter in the format described below.

Export Control Program Description and Licensing Policy

This section defines the export controls maintained for a particular foreign policy purpose that are imposed or extended for the year 2007. Each of the following chapters describes the licensing requirements and policy applicable to a particular control.

Analysis of Controls as Required by Section 6(f) of the Act

Section 6(f)(2) of the Act requires that the Secretary of Commerce describe the purpose of the controls and consider or determine whether to impose or extend foreign policy controls based on specified criteria, including consultation efforts, economic impact, alternative means, and foreign availability. For each control program, the Department of Commerce's conclusions are based on the following required criteria:

A. The Purpose of the Controls

This section provides the foreign policy purpose and rationale for each particular control.

B. Considerations and/or Determinations of the Secretary of Commerce

This section describes the Secretary's determinations or considerations with respect to the following criteria:

- 1. *Probability of Achieving the Intended Foreign Policy Purpose.*** Whether such controls are likely to achieve the intended foreign policy purpose in light of other factors, including the availability from other countries of the goods or technology subject to control, and whether the foreign policy purpose can be achieved through negotiations or other alternative means.
- 2. *Compatibility with Foreign Policy Objectives.*** Whether the controls are compatible with the foreign policy objectives of the United States and with overall U.S. policy toward the country or the proscribed end-use subject to the controls.
- 3. *Reaction of Other Countries.*** Whether the reaction of other countries to the extension of such export controls by the United States is likely to render the controls ineffective in achieving the intended foreign policy purpose or to be counterproductive to other U.S. foreign policy interests.
- 4. *Economic Impact on United States Industry.*** Whether the effect of the controls on the export performance of the United States, its competitive position in the international economy, the international reputation of the United States as a reliable supplier of goods and technology, or the economic well-being of individual U.S. companies exceeds the benefit to U.S. foreign policy objectives.³

³ *Limitations exist when assessing the economic impact of certain controls because of the unavailability of data or because of the influence of other factors, e.g., currency values, foreign economic activity, or foreign political regimes, which may restrict imports of U.S. products more stringently than the United States restricts exports.*

5. ***Effective Enforcement of Controls.*** Whether the United States has the ability to enforce the controls. Some enforcement problems are common to all foreign policy controls.⁴ Other enforcement problems are associated with only one or a few controls. Each control has been assessed to determine if it has presented, or is expected to present, an uncharacteristic enforcement problem.

C. Consultation with Industry

This section discusses the results of consultations with industry leading to the extension or imposition of controls. In a September 5, 2007, *Federal Register* notice (72 FR 50912), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-based export controls. In addition, comments were solicited from the public via the BIS website. Comments from the Department's six Technical Advisory Committees are solicited on an ongoing basis and are not specific to this report. The comment period closed on October 5, 2007, and three comments were received. A detailed review of all public comments received can be found in Appendix I.

D. Consultation with Other Countries

This section reflects consultations on the controls with countries that cooperate with the United States on multilateral controls and with other countries as appropriate.

E. Alternative Means

This section specifies the nature and results of any alternative means attempted to accomplish the foreign policy purpose, or the reasons for extending the controls without attempting any such alternative means.

F. Foreign Availability

This section considers the availability from other countries of goods or technology comparable to those subject to the proposed export control. It also describes the nature and results of the efforts made pursuant to Section 6(h) of the Act to secure the cooperation of foreign governments in controlling the foreign availability of such comparable goods or technology. In accordance with the Act, foreign availability considerations do not apply to export controls in effect prior to June 12, 1985, to export controls maintained for human rights and anti-terrorism reasons, or to export controls in support of the international obligations of the United States.

⁴ *When the United States implements controls without the imposition of corresponding restrictions by other countries, it is difficult to prevent reexports from third countries to the target country, to secure third country cooperation in enforcement efforts, and to detect violations abroad and initiate proper enforcement action.*

CHAPTER 2

Crime Control/Human Rights (Sections 742.7, 742.11, 742.17)¹

Export Control Program Description and Licensing Policy

As required by Section 6(n) of the Export Administration Act of 1979, as amended, the United States controls the exports of crime control and detection items because of human rights concerns in various countries. The U.S. Government requires a license to export most crime control and detection instruments, equipment, related technology, and software to all destinations, except Australia, Japan, New Zealand, and members of the North Atlantic Treaty Organization (NATO). A license is required to export certain crime control items, including restraint type devices (such as handcuffs) and discharge type arms (such as tasers) to all destinations except Canada. Specially designed implements of torture and thumbscrews, which are part of the crime control category, require a license for export to all destinations. In addition, the U.S. Government maintains concurrent export license requirements for certain crime control items in furtherance of the Inter-American Convention Against the Illicit Manufacturing of and Trafficking in Firearms, Ammunition, Explosives, and other Related Materials.

The Department is currently reviewing items controlled for crime control reasons to ensure that export controls are up to date with new products and technologies that are primarily or exclusively used for crime control and detection. The Department will consult with the Congress, other agencies, and the public as it conducts this review.

Summary of 2007 Changes

On March 6, 2007, the Department published in the *Federal Register* an amendment to the EAR to allow crime control items to be exported to any destination under License Exception GOV if consigned to and for the official use of a U.S. government agency (72 FR 9847). The amendment also moved thumbcuffs from ECCN 0A982 to ECCN 0A983, which controls specially designed implements of torture and thumbscrews. The significance of the change is that under Section 741.11 of the EAR, items controlled under ECCN 0A983 are subject to a general policy of denial. It also added language explicitly stating that no license exception may be used to export or reexport specially designed implements of torture and thumbscrews. Finally, the amendment added

¹ Citations following each of the foreign policy control programs refer to sections of the Export Administration Regulations (EAR), 15 CFR Parts 730-774, that describe the control program.

language explicitly stating that the geographic restriction on the use of License Exceptions applies to all crime control items, including software and technology.

Licensing Policy

Crime Control/Implements of Torture

The U.S. Government has a general policy of denial for license applications to export crime control items to a country in which the government engages in a consistent pattern of gross violations of internationally recognized human rights. For other countries, the U.S. Government will consider applications for crime control items favorably, on a case-by-case basis, unless there is civil disorder in the country or region of concern, or there is evidence that the government may have violated human rights and that the judicious use of export controls would be helpful in minimizing regional instability, deterring the development of a consistent pattern of such violations, or in demonstrating U.S. Government opposition to such violations.

The U.S. Government has a policy of denial for any license application to export specially designed implements of torture and thumbscrews.

China

Following the 1989 military assault on demonstrators by the People's Republic of China (PRC) in Tiananmen Square, the U.S. Government imposed constraints on the export to the PRC of certain items on the Commerce Control List (CCL). Section 902(a)(4) of the Foreign Relations Authorization Act for Fiscal Year 1990-1991, Public Law 101-246, suspends the issuance of licenses under Section 6(n) of the Act for the export of any crime control or detection instruments or equipment to the PRC. The President may terminate the suspension by reporting to Congress that China has made progress on political reform or that it is in the national interest of the United States to terminate the suspension. The President has not exercised his authority to terminate this suspension.

Indonesia

The U.S. Government denies applications to export certain crime control items to Indonesia, subject to narrow exceptions, consistent with Section 582 of the Foreign Operations, Export Financing and Related Programs 1995 Appropriations and 1994 Supplemental Appropriations Act (Public Law 103-306). This restriction could be lifted if the Secretary of State determines and reports to Congress that there has been significant progress made on human rights in East Timor and elsewhere in Indonesia.

Rwanda

The U.S. Government maintains an embargo on the sale or supply of arms and related materiel to certain entities in Rwanda, consistent with United Nations Security Council Resolution 918 and the United Nations Participation Act. As a result, applications to export items controlled for crime control and detection reasons on the CCL to such entities are subject to a general policy of denial.

Ivory Coast

The U.S. Government maintains an embargo on the sale or supply of arms and related material to Ivory Coast (known formally as Côte d'Ivoire), consistent with United Nations Security Council Resolution 1572 and the United Nations Participation Act (see the Department of State's Public Notice of December 14, 2004, published in the *Federal Register* (69 FR 74560)). The Department of Commerce already required a license to export items controlled on the CCL for crime control or regional stability reasons to Ivory Coast, under a licensing policy requiring case-by-case review.

NATO

Certain crime control and detection instruments, equipment, related technology, and software may be exported to Australia, Japan, New Zealand, and members of the North Atlantic Treaty Organization (NATO) without a specific license, consistent with Section 6(n) of the Export Administration Act.

Organization of American States Member Countries

In April 1999, the Department of Commerce published a rule implementing the provisions of the Organization of American States (OAS) Model Regulations for the Control of the International Movement of Firearms. The Department designed these regulations to harmonize import and export controls on the legal international movement of firearms among OAS member states and to establish procedures to prevent the illegal trafficking of firearms among these countries.

Under these provisions, the Department maintains foreign policy controls on exports of Commerce-controlled firearms, including shotguns with a barrel length of 18 inches or over and parts, buckshot shells, shotgun shells and parts, and optical sighting devices to all OAS member countries, including Canada. Items subject to these controls are identified by "FC Column 1" in the "License Requirements" section of the corresponding Export Control Classification Numbers. In support of the OAS Model Regulations, the U.S. Government requires an Import Certificate (IC) for the export to all OAS member countries of those items affected by the regulations. In general, the Department approves license applications for the export of firearms to OAS member countries if the application is supported by an IC. The Department denies applications that involve end-uses linked to drug trafficking, terrorism, international organized crime, and other criminal activities.

Other Licensing Considerations

The Department of State annually compiles the *Country Reports on Human Rights Practices*. The Department of State prepares these reports in accordance with Sections 116(d) and 502B(b) of the Foreign Assistance Act of 1961, as amended, for submission to Congress. The factual information presented in these reports is a significant element in licensing recommendations made by the Department of State. In accordance with the

Foreign Assistance Act, there is a policy of denial for license applications to export crime control items to any country in which the government engages in a consistent pattern of gross violations of human rights. The most recent report, published in March 2007, marked several countries not otherwise subject to sanctions or embargoes for the intensity of their human rights problems, including Saudi Arabia, Russia, and Venezuela. Of note, targeted sanctions are currently in place against Belarusian and Zimbabwean regime officials and their supporters. Applications to export crime control items to these countries that are not otherwise sanctioned or embargoed have been flagged for additional scrutiny in response. The Department of State reviews all license applications for these countries on a case-by-case basis and makes recommendations to Commerce as it considers appropriate.

The International Religious Freedom Act of 1998 (IRFA) calls for the President to take diplomatic or other appropriate action with respect to any country that engages in or tolerates violations of religious freedom. IRFA also provides for the imposition of economic measures or commensurate actions when a country has engaged in systematic, ongoing, egregious violations of religious freedom accompanied by flagrant denials of the rights to life, liberty, or the security of persons, such as torture, enforced and arbitrary disappearances, or arbitrary prolonged detention. For such countries, IRFA provides that the Department of Commerce, with Department of State concurrence, shall include items on the CCL for reasons of crime control or detection, and require export licenses for, items that are being used, or are intended for use, directly and in significant measure, to carry out particularly severe violations of religious freedom. In addition, the International Religious Freedom Act requires that those countries that engage in particularly severe violations of religious freedom be designated as Countries of Particular Concern (CPC). In May 2007, the Secretary of State redesignated eight countries as Countries of Particular Concern: Burma, China, the Democratic People's Republic of Korea, Eritrea, Iran, Saudi Arabia, Sudan, and Uzbekistan. These are countries where governments have engaged in or tolerated particularly severe violations of religious freedom over the past year. Applications to export crime control items to those countries that are not otherwise sanctioned or embargoed have been flagged for additional scrutiny in response. The Department of State reviews all license applications for those countries on a case-by-case basis and makes recommendations to Commerce as appropriate. The non-embargoed or sanctioned destinations will receive similar treatment in 2008.

Analysis of Controls as Required by Section 6(f) of the Act

A. The Purpose of the Controls

These controls seek to ensure that U.S.-origin crime control equipment is not exported to countries where governments fail to respect internationally recognized human rights, or where civil disorder is prevalent. Denial of export license applications to such countries

helps to prevent human rights violations and clearly signals U.S. concerns about human rights in these countries. The license requirements for most destinations allow for close monitoring of exports of certain crime control items that could be misused to commit human rights violations. Controls on implements of torture similarly help to ensure that such items are not exported from the United States.

B. Considerations and/or Determinations of the Secretary of Commerce

- 1. *Probability of Achieving the Intended Foreign Policy Purpose.*** The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose, in light of other factors, including availability of relevant items from other countries, and that the foreign policy purpose cannot fully be achieved through negotiations or other alternative means. The lack of complementary controls by other producer nations limits the effectiveness of these controls in preventing human rights violations. However, the controls restrict human rights violators' access to U.S.-origin goods and provide important evidence of U.S. support for the principles of human rights. In addition, the imposition of stringent licensing requirements for crime control items enables the U.S. Government to monitor closely items that could be used in human rights violations.
- 2. *Compatibility with Foreign Policy Objectives.*** The Secretary has determined that these controls are compatible with U.S. foreign policy objectives and that the extension of this control program will not have any significant adverse foreign policy consequences. This control program is fully consistent with U.S. policy in support of internationally recognized human rights, as expressed by successive Administrations and by Congress.
- 3. *Reaction of Other Countries.*** The Secretary has determined that any adverse reaction to these controls is not likely to render the controls ineffective, nor will any adverse reaction by other countries be counter-productive to U.S. foreign policy interests. These controls are unique, serve a distinct foreign policy purpose, and arise out of deeply held convictions of the U.S. Government. Currently, other countries do not have equivalent regulations, but many have restrictions on exports of lethal products to areas of civil unrest.
- 4. *Economic Impact on U.S. Industry.*** The Secretary has determined that any adverse effect of these controls on the economy of the United States, including on the competitive position of the United States in the international economy, does not exceed the benefit to U.S. foreign policy objectives. In Fiscal Year 2007, the Department of Commerce approved 3,364 export license applications valued at over \$759 million for crime control items. Table 1 lists the total number and value (by ECCN) of export licenses that the U.S. Government issued for crime control items during Fiscal Year 2007.

Table 1: CRIME CONTROL APPLICATIONS APPROVED (FY 2007)

ECCN	Items Controlled	Applications Approved	\$ Value
0A978	Saps	2	\$45,050
0A979	Police helmets and shields	145	\$17,600,741
0A982	Restraint devices, e.g., leg irons, shackles, handcuffs	390	\$77,471,513
0A983	Specially designed implements of torture	0	\$0
0A984	Shotguns	665	\$44,592,102
0A985	Discharge type arms (stun guns, shock batons, etc.)	307	\$272,103,188
0A986	Shotgun shells	212	\$45,584,048
0A987	Optical sighting devices	697	\$71,772,567
0E982	Technology for items under 0A982/0A985	1	\$100
0E984	Technology for items under 0A984	0	\$0
1A984	Chemical agents including tear gas containing 1% or less of CS or CN	108	\$13,357,738
1A985	Fingerprinting powders, dyes, and inks	208	\$91,918,912
3A980	Voice print identification and analysis equipment	3	\$8,143
3A981	Polygraphs, fingerprint analyzers, cameras, and equipment	382	\$82,133,986
3D980	Software for items under 3A980 and 3A981	191	\$30,600,811
3E980	Technology for items under 3A980 and 3A981	12	\$255,766
4A003*	Digital computers for computerized fingerprint equipment only	0	\$0
4A980	Computers for fingerprint equipment	10	\$8,433,750

ECCN	Items Controlled	Applications Approved	\$ Value
4D001*	Software for items under 4A003 only	0	\$0
4D980	Software for items under 4A980	12	\$2,358,820
4E001*	Technology for items under 4A003 and 4D001 only	0	\$0
4E980	Technology for items under 4A980	3	\$2,502
6A002.c*	Police-model infrared viewers only	8	\$811,685
6E001*	Technology for development of items under 6A002c only	4	\$1,402
6E002*	Technology for production of items under 6A002c only	4	\$7,210
9A980	Mobile crime science laboratories	0	\$0
TOTAL		3,364	\$759,060,034

NOTES: (1) To give the reader the broadest perspective of the items covered, Table 1 lists all crime control ECCNs including those for which no license applications were submitted. (2) Those ECCNs marked with an asterisk (*) list items that are controlled for crime control reasons and for other reasons, but the corresponding statistics represent only the crime control items within the ECCN.

In Fiscal Year 2007, the Department of Commerce denied 35 applications for crime control items with a total value of \$3,039,718. The largest number of denials (9) was for shotguns controlled under ECCN 0A984, with a total value of \$23,733.

Table 2: CRIME CONTROL APPLICATIONS DENIED (FY 2007)

ECCN	Description	Applications Denied	\$ Value
0A979	Police helmets and shields	3	\$120,365
0A982	Restraint devices, e.g., leg irons, shackles, handcuffs	2	\$36,337
0A984	Shotguns	9	\$23,733
0A985	Discharge type arms (stun guns, shock batons, etc.)	4	\$94,350
0A986	Shotgun shells	2	\$150
0A987	Optical sighting devices	6	\$111,383
0E982	Technology for items under 0A982/0A985	1	\$1000
1A984	Chemical agents including tear gas containing 1% or less of CS or CN	1	\$150,000
1A985	Fingerprinting powders, dyes, and inks	2	\$57,500
3A980	Voice print identification and analysis equipment	1	\$99,950
3A981	Polygraphs, fingerprint analyzers, cameras, and equipment	1	\$99,950
3D980	Software for items under 3A980 and 3A981	1	\$1,200,000
3E980	Technology for items under 3A980 and 3A981	1	\$870,000
4A980	Computers for fingerprint equipment	1	\$175,000
TOTAL		35	\$3,039,718

In Fiscal Year 2007, the Department of Commerce approved 869 export license applications valued at slightly over \$108 million for items affected by the foreign policy controls on firearms and ammunition instituted in 1999 in support of the OAS Model Regulations. The Department issued more licenses for Canada than for any other country, with 565 license applications approved in Fiscal Year 2007. The table below lists the number and value of export licenses that the Department of Commerce issued for firearms, ammunition, sights, and related items affected by the foreign policy controls applied to OAS countries in Fiscal Year 2007.

TABLE 3: APPLICATIONS FOR FIREARMS, AMMUNITION, AND SIGHTS TO OAS COUNTRIES APPROVED IN FY 2007

ECCN	Items Controlled	Applications Approved	\$ Value
0A984	Shotguns and buckshot shotgun shells	462	\$36,089,471
0A986	Other shotgun shells	202	\$45,311,954
0A987	Optical sighting devices for firearms	205	\$26,918,957
TOTAL*		869	\$108,320,382

* NOTE: Items in 0A986 are controlled only for Firearms Convention reasons. Items in 0A984 and 0A987, however, are controlled both for Firearms Convention and Crime Control reasons. The statistics in this table for 0A984 and 0A987 are a subset of the Crime Control statistics provided in Table 1 of this chapter.

5. *Effective Enforcement of Controls.* The Secretary has determined that the United States has the ability to enforce these controls effectively. Crime control items and implements of torture are easily recognizable and do not present special enforcement problems related to detecting violations or verifying use. However, enforcement cooperation with other countries generally is difficult in cases involving unilaterally controlled items such as these, and often depends on the type and quantity of goods in question. In addition, enforcement of controls on reexports is challenging and rests in large part on the willingness of the recipient to abide by the terms of the export license. The U.S. Government conducts post-shipment verifications to ensure that the listed end-user has received the exports and to confirm that the end-user is using the controlled items in a way consistent with the license conditions.

C. Consultation with Industry

The Department of Commerce consults with the Regulations and Procedures Technical Advisory Committee (RPTAC), one of six technical advisory committees that advise the Bureau of Industry and Security (BIS), in preparation for publication of major regulatory changes affecting crime control. In addition, the Department of Commerce has consulted with exporters of crime control items and with human rights groups concerned about the potential for misuse of such items in various parts of the world. The Department has frequent consultations with exporters about specific items proposed for export to specific end-users and for specific end-uses.

In a September 5, 2007, *Federal Register* notice (72 FR 50912), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-based export controls. In addition, comments were solicited from the public via the BIS website. Comments from the Department's six Technical Advisory Committees are solicited on an ongoing basis and are not specific to this report. The comment period closed on October 5, 2007. A detailed review of all public comments received can be found in Appendix I.

D. Consultation with Other Countries

Most other countries that supply crime control and detection items have not imposed similar export controls. The United Kingdom and Canada maintain controls similar to U.S. controls on certain crime control commodities. Certain European Union member-states prohibit or impose an authorization requirement on the export of dual-use items not covered by the multilateral export control regimes for reasons of public security or human rights considerations.

E. Alternative Means

Section 6(n) of the Act requires the Department of Commerce to maintain export controls on crime control and detection equipment. Attempting to achieve the purposes of the crime control restrictions through negotiations or other alternative means would not meet this requirement. The U.S. Government does, however, use diplomatic efforts, sanctions, and other means to convey its concerns about the human rights situation in various countries.

F. Foreign Availability

The foreign availability provision does not apply to Section 6(n) of the Act.² Congress has recognized the usefulness and symbolic value of these controls in supporting U.S. Government policy on human rights issues, foreign availability notwithstanding.

² *Provisions pertaining to foreign availability do not apply to export controls in effect before July 12, 1985, under Sections 6(i) (International Obligations), 6(j) (Countries Supporting International Terrorism), and 6(n) (Crime Control Instruments). See the Export Administration Amendments Act of 1985, Public Law No. 99-64, Section 108(g)(2), 99 Stat. 120, 134-35. Moreover, Sections 6(i), 6(j), and 6(n) require that controls be implemented under certain conditions without consideration of foreign availability.*

CHAPTER 3

Regional Stability (Section 742.6)

Export Control Program Description and Licensing Policy

Regional stability (RS) controls ensure that exports and reexports of controlled items do not contribute to the destabilization of the region to which the items are destined. These controls traditionally cover items specially designed or modified for military purposes and certain dual-use commodities that can be used to manufacture military equipment.

Licensing Policy

Section 742.6 of the Export Administration Regulations (EAR) requires a license for RS reasons to export certain image-intensifier tubes, infrared focal plane arrays, as well as certain software and technology for inertial navigation systems, gyroscopes, and accelerometers, to all destinations except Canada. The U.S. Government reviews all license applications for these items on a case-by-case basis to determine whether the export could contribute, directly or indirectly, to a country's military capabilities in a manner that would destabilize or alter a region's military balance contrary to U.S. foreign policy interests.

Section 742.6 of the EAR also requires a license for RS reasons to export explosive detection equipment and related software and technology, military-related items (e.g., certain vehicles and trainer aircraft), and certain commodities used to manufacture military equipment to all destinations except member nations of NATO, Australia, Japan, and New Zealand. The U.S. Government will generally consider applications for such licenses favorably, on a case-by-case basis, unless the export would significantly affect regional stability.

In addition, there are regional stability controls in place for certain items exported to Iraq (or transferred within Iraq). These items are covered under the following Export Control Classification Numbers (ECCNs): 0B999 (specific processing equipment such as hot cells and glove boxes suitable for use with radioactive materials), ECCN 0D999 (specific software for neutronic calculations, radiation transport calculations, and hydrodynamic calculations/modeling), ECCN 1B999 (specific processing equipment, such as electrolytic cells for fluorine production and particle accelerators), ECCN 1C992 (commercial charges containing energetic materials, n.e.s.), ECCN 1C995 (certain mixtures and testing kits), ECCN 1C997 (ammonium nitrate), ECCN 1C999 (specific materials, n.e.s.), and ECCN 6A992 (optical sensors not controlled under ECCN 6A002).

Analysis of Controls as Required by Section 6(f) of the Act

A. The Purpose of the Controls

Regional stability controls provide a mechanism for the U.S. Government to monitor the export of controlled items, to restrict their use in instances that would adversely affect regional stability or the military balance within a region, and to protect the national security and foreign policy interests of the United States.

B. Considerations and/or Determinations of the Secretary of Commerce

1. *Probability of Achieving the Intended Foreign Policy Purpose.* The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose, in light of other factors, including foreign availability, and that the foreign policy purpose cannot fully be achieved through negotiations or other alternative means. The Secretary has also determined that most of the items subject to these controls are also controlled, as a result of international negotiations, by U.S. partners in the Wassenaar Arrangement and the Missile Technology Control Regime (MTCR). Regional stability controls contribute to U.S. national security and foreign policy objectives by enabling the United States to restrict the use or availability of certain sensitive U.S.-origin goods and technologies that would adversely affect regional stability or the military balance in certain areas.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that these controls are compatible with U.S. foreign policy objectives and that the extension of these controls will not have any significant adverse foreign policy consequences. Regional stability controls are consistent with U.S. foreign policy goals to promote peace and stability and prevent U.S. exports that might contribute to weapons production, destabilizing military capabilities, or acts of terrorism.

3. *Reaction of Other Countries.* The Secretary has determined that any adverse reaction to these controls is not likely to render the controls ineffective, nor will any adverse reaction by other countries be counter-productive to U.S. foreign policy interests. A number of other countries limit exports of items and technologies with military applications to areas of concern, recognizing that such items and technologies could adversely affect regional stability and military balances. For example, the United States and other member countries of the Wassenaar Arrangement each have their own national controls on the export of certain night vision devices. All members of the MTCR maintain controls on software and technology related to missile guidance and control devices. Although other countries may object to new unilateral RS controls, allies and partners of the United States support U.S. efforts against regional conflict and terrorism and appreciate the need to keep certain equipment and technologies from those who could misuse the items to destabilize countries or regions.

4. Economic Impact on U.S. Industry. While the Secretary has determined that the adverse effect of these controls on the economy of the United States, including on the competitive position of the United States in the international economy, generally does not exceed the benefit to U.S. foreign policy objectives, the controls on cameras controlled by ECCN 6A003, which exceed the controls on similar products imposed by other producing countries, have significantly and adversely impacted the competitiveness of the affected industry sector. Items controlled for regional stability reasons generally require licenses for export to all destinations except NATO countries, Australia, Japan, and New Zealand. Certain RS-controlled items, including those controlled concurrently for missile technology reasons and cameras controlled under ECCN 6A003, however, require licenses for export to all destinations except Canada. Cameras controlled by ECCN 6A003 account for a large percentage of regional stability-controlled exports. Controls on these cameras have resulted in declining sales for U.S. companies in a rapidly growing global market.

In Fiscal Year 2007, the Department of Commerce approved 3,066 license applications for items controlled for RS reasons, with a total value of \$681 million. Eight applications were denied (three license applications for cameras controlled under ECCN 6A003; three license applications for military trainer aircraft and related equipment controlled under ECCN 9A018; and one license application each for power control searchlights or bayonets controlled under ECCN 0A918), with a total value of \$423,845.

Licensing volume for items controlled for RS reasons is somewhat lower than that for Fiscal Year 2006, during which the Department approved 3,421 license applications. This decline is attributable to fewer exports of cameras controlled under ECCN 6A003, which fell from 2,663 applications to 2,198. The value of RS-related licenses decreased from \$1.0 billion in Fiscal Year 2006 to \$681 million in Fiscal Year 2007, due to a significant decline in the value of exports of military trainers controlled under ECCN 9A018.

The table that follows lists the total number and value by ECCN of export licenses that the Department of Commerce issued for regional stability items during Fiscal Year 2007:

Regional Stability Applications Approved (Fiscal Year 2007)

ECCN	Description	Number of Applications	Dollar Value
0A918	Power control searchlights and bayonets	3	\$26,915
0B999*	Specific processing equipment such as hot cells and glove boxes for use with radioactive materials	0	\$0
0D999*	Specific software for neutronic calculations, et al.	0	\$0

ECCN	Description	Number of Applications	Dollar Value
0E918	Technology for development/production of bayonets	0	\$0
1B018.a	Equipment for the production of military explosives and solid propellants	2	\$82,698
1B999*	Specific processing equipment such as electrolytic cells for fluorine production et al.	0	\$0
1C992*	Commercial charges containing energetic materials, n.e.s.	2	\$28,840,000
1C995*	Certain mixtures and testing kits	3	\$353,010
1C997*	Ammonium nitrate	0	\$0
1C999*	Specific materials, n.e.s.	0	\$0
2A983	Explosives detection equipment	276	\$170,978,627
2B018	Equipment on the International Munitions List	0	\$0
2D983	Software for equipment in 2A983	46	\$479,781
2E983	Technology for equipment in 2A983	29	\$35,029
6A002.a.1, a.2, a.3, c, e	Optical detectors and direct view imaging equipment incorporating image intensifier tubes or focal plane arrays	14	\$837,642
6A003.b.3,b.4	Imaging cameras incorporating image intensifiers or focal plane arrays	2,198	\$138,597,004
6A008.j.1	Space qualified LIDAR equipment	4	\$7,429,014
6A992*	Optical sensors not controlled under 6A002 (gravity meters)	3	\$2,465,250
6A998.b	Space-qualified LIDAR equipment for meteorological observation	0	\$0
6D001	Software for development/production of 6A008.j.1	0	\$0
6D002	Software for the use of 6A008.j.1	0	\$0
6D991	Software for development/production/use of 6A998.b	0	\$0
6E001	Technology for the development of equipment, materials, or software controlled by 6A, 6B, 6C, or 6D	5	\$1,403
6E002	Technology for the production of equipment or materials controlled by 6A, 6B, or 6C	4	\$7,210

ECCN	Description	Number of Applications	Dollar Value
6E991	Technology for production, development or use of items in 6A998.b	0	\$0
7D001	Software for the development or production of equipment in 7A or 7B	6	\$63,001
7E001	Technology for the development of items in 7A, 7B, or 7D	31	\$6,304,483
7E002	Technology for the production of items in 7A or 7B	3	\$12,501
7E101	Technology for the use of items in 7A, 7B, or 7D	56	\$173,934
8A918	Marine boilers	0	\$0
9A018.a, b	Military trainer aircraft and vehicles designed or modified for military use	361	\$322,440,368
9E018	Technology for the development of items in 9A018.a, b	20	\$1,432,578
TOTAL		3,066	\$680,560,448

* Regional Stability control applies to exports to Iraq only, as do statistics

NOTE: For ECCNs for which only a portion is subject to RS controls, the total number of licenses and dollar value for the complete ECCN are given. In most cases, the sub-categories under these ECCNs that are not controlled for regional stability reasons are minimal.

5. *Effective Enforcement of Controls.* The Secretary has determined that the United States has the ability to enforce these controls effectively. Image intensifier tubes, infrared focal plane arrays, certain software and technology for inertial navigation systems, gyroscopes, and accelerometers, and other items controlled for regional stability purposes, are almost all subject to multilateral controls for either national security or missile technology reasons. The multilateral nature of these controls aids in enforcement. The Department of Commerce effectively enforces RS controls by focusing on preventive enforcement, using regular outreach efforts to keep businesses informed of U.S. concerns, and gathering leads on activities of concern. Given the enhanced anti-terrorism efforts of the U.S. Government, it is expected that industry will continue to support enforcement efforts.

C. Consultation with Industry

In a September 5, 2007, *Federal Register* notice (72 FR 50912), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-

based export controls. In addition, comments were solicited from the public via the BIS website. Comments from the Department's six Technical Advisory Committees are solicited on a regular basis and are not specific to this report. In particular, the Department holds quarterly consultations with the Sensors and Instrumentation Technical Advisory Committee (SITAC). The SITAC frequently addresses the RS controls on thermal imaging cameras and related items and technology. The comment period closed on October 5, 2007. A detailed review of all public comments received can be found in Appendix I.

D. Consultation with Other Countries

The United States imposes RS controls on items that either are controlled, or were at one time controlled, through the Wassenaar Arrangement. The Wassenaar Arrangement member countries hold extensive consultations, and certain member countries hold bilateral discussions regarding items on the Wassenaar control list. During 2007, the U.S. Government engaged in extensive consultations with its Wassenaar partners. Wassenaar participating states have agreed to incorporate the Wassenaar Dual-Use Control List into their own national export controls to prevent exports that could contribute to destabilizing buildups of conventional arms.

E. Alternative Means

The United States has undertaken a wide range of actions to support and encourage regional stability and has specifically encouraged efforts to limit the flow of arms and militarily useful goods and other special equipment to regions of conflict and tension. U.S. regional stability export controls remain an important element in U.S. efforts to enhance regional stability. The United States opposes the use of U.S. origin items to destabilize legitimate political regimes or fuel regional conflicts, notwithstanding the availability of such items from other sources. Accordingly, there are no alternative means to achieve this policy objective.

F. Foreign Availability

Some military vehicles and other military-type equipment that are controlled for regional stability purposes may be obtained from foreign sources, but there are overlapping multilateral national security (NS) controls on many RS-controlled items. These overlapping controls support the U.S. efforts to enhance regional stability by limiting foreign availability. In fact, most of the commodities and related software and technology controlled for regional stability purposes are also subject to multilateral controls for either national security or missile technology reasons under multilateral regimes.

Manufacturers of imaging cameras controlled in ECCN 6A003 have voiced complaints to the Department of Commerce that there is considerable foreign availability of these items

from Europe, Japan and China. The Department completed a comprehensive study of the industry's condition, including the extent of foreign availability in 2006. It found that there is a growing commercial market for thermal imaging cameras, including the areas of astronomy, fire fighting, medical imaging, hunting, and wildlife observation, which represent increasing opportunities in the field. The study also found that U.S. exports of imaging and sensor products have grown steadily since 2001, but there is increasing competition from the European Union and Japan, resulting in a decline in U.S. market share. In addition, the study found that one category, uncooled infrared (thermal) imaging cameras, has seen a sharp decline in the value of exports from the United States where the global market for such products has steadily increased. These cameras are used in the commercial electronics, medical and automotive industries, and also for fire fighting, search and rescue and industrial safety. U.S. manufacturers cite overly restrictive U.S. export controls as a key reason for this decline, noting that foreign competitors face far less restrictive licensing requirements. The Department is exploring options with other agencies to address the issues raised in the study.

CHAPTER 4

Anti-Terrorism Controls (Sections 742.8, 742.9, 742.10, 742.19, 746.2)

Export Control Program Description and Licensing Policy

Pursuant to Section 6(j) of the Export Administration Act (the Act), the Secretary of State has designated five countries – Cuba, Iran, North Korea, Sudan, and Syria – as nations with governments that have repeatedly provided support for acts of international terrorism. Further, the United States maintains broader controls, in some cases comprehensive embargoes, on exports and reexports to Cuba, Iran, North Korea, Sudan, and Syria. The broader controls applicable to such countries are discussed in Chapter 5 of this report.

Since December 1993, the United States has applied Section 6(j) of the Act to license applications involving the export or reexport of five categories of dual-use items to certain sensitive end-users within Cuba, Iran, North Korea, Sudan, and Syria because these transactions meet the criteria set forth in Section 6(j)(1)(B) of the Act. Specifically, on December 28, 1993, the Acting Secretary of State determined that these items, if exported to military, police, or intelligence organizations, or to other sensitive end-users in a designated terrorist-supporting country, could make a significant contribution to that country's military potential or could enhance its ability to support acts of international terrorism. As a result, any such export is subject to a 30-day congressional notification period prior to approval. The United States continues to control exports and reexports of such items to other end-users, as well as exports and reexports of other items not specifically included in these five categories, within designated state sponsors of terrorism for general foreign policy purposes under Section 6(a). Such transactions are also reviewed against the Section 6(j) standard on a case-by-case basis. These controls are identified in the Export Administration Regulations (EAR) as anti-terrorism (AT) controls.

License Requirements and Licensing Policy

Pursuant to the 1993 determination of the Acting Secretary of State, and subsequent action consistent with such determination, certain items are controlled for anti-terrorism (AT) reasons pursuant to Section 6(j) of the Act, while others are controlled pursuant to Section 6(a). The Department of Commerce refers all license applications for items controlled for AT reasons to the Department of State for review. With respect to items controlled pursuant to Section 6(a) (including exports or reexports of CCL items to non-sensitive end-users), a determination is made regarding whether the requirements of

Section 6(j) apply. If the Secretary of State determines that the particular export “could make a significant contribution to the military potential of the destination country, including its military logistics capability, or could enhance the ability of such country to support acts of international terrorism,” the Department of Commerce and the Department of State must notify the appropriate congressional committees 30 days before issuing a license, consistent with the provisions of Section 6(j) of the Act. Transactions not subject to such requirements are generally reviewed on a case-by-case basis.

The following items are controlled pursuant to Section 6(j) to military, police, intelligence and other sensitive end-users in all designated terrorist-supporting countries:

- All items on the CCL subject to national security controls;
- All items on the CCL subject to chemical and biological weapons proliferation controls;
- All items on the CCL subject to missile proliferation controls;
- All items on the CCL subject to nuclear weapons proliferation controls; and
- All military-related items on the CCL (items controlled by CCL entries ending with the number 18).

Transactions involving exports or reexports of items controlled pursuant to Section 6(j) to military or other sensitive end-users in all five designated terrorist-supporting countries are subject to a general policy of denial. Pursuant to Section 6(a) of the Act, the Department of Commerce requires a license for the export or reexport of the items specified above to non-sensitive end-users in all five designated terrorist-supporting countries for AT reasons. Such exports or reexports are generally reviewed on a case-by-case basis.

Pursuant to Section 6(a) of the Act, the Department of Commerce requires a license for the export of certain items on the CCL to all end-users in all five designated terrorist-supporting countries, and for the reexport of certain items on the CCL to all five designated terrorist-supporting countries for AT reasons. Additionally, certain other items on the CCL require a license for export and/or reexport to one or more of the five designated terrorist-supporting countries for AT reasons. The applicable controls are contained in the relevant EAR sections applicable to each country. All export controls presently maintained for AT reasons pursuant to either Section 6(j) or Section 6(a) continue in force.

Moreover, as described further in Chapter 5, the United States maintains comprehensive controls on exports and reexports to Cuba, Iran, Sudan, and Syria. As a result, the U.S. Government reviews license applications for exports and reexports of most items to these countries under a general policy of denial, with certain very limited exceptions. The Department of Commerce continues to maintain AT controls with respect to these

countries, though such controls and the related licensing policies are secondary to the comprehensive embargoes in place.

Analysis of Controls as Required by Section 6(f) of the Act

A. The Purpose of the Controls

Anti-terrorism controls are intended to prevent acts of terrorism and to distance the United States from nations that have repeatedly supported acts of international terrorism and from individuals and organizations that commit terrorist acts. The controls demonstrate U.S. resolve not to trade with nations or entities that fail to adhere to acceptable norms of international behavior. The policy provides the United States with the means to control U.S. goods or services that might contribute to the military potential of designated countries and to limit the availability of such goods for use in support of international terrorism. U.S. foreign policy objectives are also furthered by ensuring that items removed from multilateral regime lists continue to be controlled to designated terrorist-supporting countries. With respect to exports and reexports to Cuba, Iran, North Korea, Sudan, and Syria, anti-terrorism controls are maintained as part of broader U.S. sanctions discussed in Chapter 5.

B. Considerations and/or Determinations of the Secretary of Commerce

1. *Probability of Achieving the Intended Foreign Policy Purpose.* The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose, in light of other factors, including the availability of these AT-controlled items from other countries. The Secretary has further determined that the foreign policy purpose cannot be achieved through negotiations or other alternative means. Although widespread availability of comparable goods from foreign sources limits the effectiveness of these controls, the controls do restrict access by these countries and persons to U.S.-origin commodities, technology, and software, and demonstrates U.S. determination to oppose and distance the United States from international terrorism.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that these controls are compatible with U.S. foreign policy objectives and specifically with overall U.S. policy toward the designated terrorist-supporting countries. The Secretary has further determined that the extension of these controls will not have any significant adverse foreign policy consequences. These controls affirm the U.S. commitment to restrict the flow of items and other forms of material support to countries, individuals, or groups for terrorist purposes.

3. *Reaction of Other Countries.* The Secretary has determined that any adverse reaction to these controls is not likely to render the controls ineffective, nor will any adverse reaction by other countries be counter-productive to U.S. foreign policy interests.

Most countries are generally supportive of U.S. efforts to fight terrorism and stop the proliferation of weapons of mass destruction in countries of concern.

4. *Economic Impact on United States Industry.* The Secretary has determined that the adverse effect of these controls on the economy of the United States, including on the competitive position of the United States in the international economy, does not exceed the benefit to United States foreign policy objectives. The AT controls maintained on designated terrorist-supporting countries as a whole have had some impact on U.S. industry. The economic impact of broader controls maintained on Cuba, Iran, North Korea, Sudan, and Syria is described further in Chapter 5. On the whole, the impact on U.S. industry is modest while stopping state sponsorship of terrorism is a very high priority of the U.S. Government.

5. *Effective Enforcement of Controls.* The Secretary has determined the United States has the ability to effectively enforce these controls. Because of the well-publicized involvement of these countries in acts of international terrorism, there is public knowledge of and support for U.S. controls, which facilitates enforcement. The large number of items exported in normal trade to other countries, including some aircraft items and consumer goods that have many producers and end-users around the world, creates innumerable procurement opportunities for brokers, agents, and front companies working for these countries. In addition, differences in export laws and standards of evidence for violations complicate law enforcement cooperation between countries.

Nonetheless, the overriding foreign policy objective of maintaining these controls outweighs the difficulties of effective enforcement. The Department of Commerce views these controls as a key enforcement priority, and uses outreach efforts and other programs to keep businesses informed of concerns, gather leads on activities of concern, and conduct sentinel visits to verify end-use and end-users of U.S. commodities. The Department is moving to implement a strong program to address procurement by or for designated terrorist-supporting countries. This program includes enhanced agent training, development of a targeted outreach program to familiarize U.S. businesses with concerns, and close cooperation with lead agencies working on terrorism issues.

A number of enforcement actions regarding non-compliance with these export controls occurred during Fiscal Year 2007. For example:

Terrorist Dealings/Computer Exports to Libya and Syria: In October 2006, sentences were handed down in connection with prior convictions at trial of Infocom Corporation and its principals, the Elashi brothers, for dealing in the funds of a Specially Designated Terrorist, a high ranking official of the terrorist organization Hamas; and conspiracy to export computers and computer equipment to Libya and Syria.³ Basman Elashi was

³ *Libya was formerly designated as a State Sponsor of Terrorism by the Secretary of State; this designation was rescinded in 2006.*

sentenced to 80 months imprisonment on October 13, 2006; Ghassan Elashi was sentenced to 80 months imprisonment on October 12, 2006; and Infocom itself was sentenced to two years probation on October 11, 2006. Two other Infocom principals were previously sentenced in January 2006. Hazim Elashi was sentenced to 60 months imprisonment, two years probation, and deportation from the United States on January 24, 2006; and Ihsan Elashi was sentenced to 72 months in prison and two years probation on January 25, 2006. At the time of his sentencing, Ihsan Elashi was serving a 48 month prison sentence following his 2002 conviction for violating a BIS Temporary Denial Order. OEE conducted this investigation as a member of the North Texas Joint Terrorism Task Force.

Computer Equipment to Iraq: On July 18, 2007, Darrin Hanna and Dawn Hanna were indicted in the Eastern District of Michigan on counts of violating the International Emergency Economic Powers Act, conspiracy, money laundering, and false statements related to the exports of sensitive computer, communications, and GPS equipment to Iraq. At the time of these transactions, Iraq was designated as a terrorist-supporting country. The items alleged to have been exported without authorization were controlled under the EAR for anti-terrorism reasons.

C. Consultation with Industry

In a September 5, 2007, *Federal Register* notice (72 FR 50912), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-based export controls. In addition, comments were solicited from the public via the BIS website. Comments from the Department's six Technical Advisory Committees are solicited on an ongoing basis and are not specific to this report. In particular, the Department has engaged in an ongoing dialog with the Regulations and Policy Technical Advisory Committee (RPTAC) concerning the relevance of items controlled only for anti-terrorism (AT) reasons. The RPTAC has noted that many such items are widely available from foreign sources, and therefore, has questioned the effectiveness of the controls. The RPTAC also has noted that every country currently subject to AT controls is also subject comprehensive sanctions or embargo. The comment period closed on October 5, 2007. A detailed review of all public comments received can be found in Appendix I.

D. Consultation with Other Countries

The United States continues to consult with a number of countries, both on a bilateral and a multilateral basis, on activities of designated terrorist-supporting countries. In general, most countries are supportive of U.S. anti-terrorism efforts but do not implement export control programs similar to that of the United States.

E. Alternative Means

The United States has taken a wide range of diplomatic, political, and security-related steps, in addition to economic measures such as export controls, to persuade certain countries to stop their support for terrorist activities. The methods that the United States uses against a country, terrorist organization, or individual vary and are dictated by the circumstances prevailing at any given time. In general, the United States believes that maintenance of AT controls is an appropriate method to demonstrate the obligation of each of the designated terrorist-supporting countries to act against terrorist elements within their jurisdiction or control.

F. Foreign Availability

The foreign availability provision does not apply to items determined by the Secretary of State to require control under Section 6(j) of the Act⁴. Congress specifically excluded AT controls from foreign availability assessments otherwise required by the Act, due to the value of such controls in emphasizing the U.S. position on countries supporting international terrorism. However, the Department of Commerce has considered foreign availability of items controlled to designated terrorist-supporting countries under Section 6(a). Although there are numerous foreign sources for commodities similar to those subject to control, the continued maintenance of sanctions by many other countries limits foreign availability for some destinations more than for others. In addition, the continued U.S. Government anti-terrorism controls serve foreign policy interests that override the impact of foreign availability.

⁴ *Provisions pertaining to foreign availability do not apply to export controls in effect before July 12, 1985, under sections 6(i) (International Obligations), 6(j) (Countries Supporting International Terrorism), and 6(n) (Crime Control Instruments). See the Export Administration Amendments Act of 1985, Public Law 99-64, section 108(g)(2), Stat. 120, 134-35. Moreover, sections 6(i), 6(j), and 6(n) require that controls be implemented under certain conditions without consideration of foreign availability.*

CHAPTER 5

Embargoes and Other Special Controls (Sections 744.12, 744.13, 744.14, 744.18, 744.20, 744.22, 746.2, 746.3, 746.4, 746.7, and General Orders No. 2 & No. 3 of Part 736)

Export Control Program Description

This chapter discusses the Department of Commerce's implementation of comprehensive and partial embargoes and other special controls maintained by the U.S. Government pursuant to the Export Administration Regulations (EAR), either unilaterally or to implement United Nations Security Council (UNSC) Resolutions. Specifically, the U.S. Government maintains comprehensive economic embargoes on Cuba, Iran, Sudan, Syria, and certain designated terrorist persons or groups. The U.S. Government also maintains certain special export control programs, including programs relating to Rwanda, Iraq, and North Korea, consistent with international obligations. Finally, the U.S. Government maintains special controls on certain persons or entities, including those engaged in the proliferation of weapons of mass destruction.

Summary of 2007 Changes:

North Korea

On January 26, 2007, as a result of North Korea's test launch of ballistic missiles in July 2006, and testing of a nuclear device in October 2006, and consistent with United Nations Security Council Resolutions (UNSCRs) 1695 and 1718, the Department published in the *Federal Register* an amendment to the EAR implementing changes in export controls with respect to North Korea (72 FR 3722). This amendment implemented license requirements for the export and reexport of all items subject to EAR to North Korea, with limited exceptions.

Mayrow General Trading and Related Entities

On June 8, 2007, the Department published in the *Federal Register* an amendment to General Order No. 3 imposing license requirements on the export and reexport of all items subject to the EAR to 16 entities affiliated with or conducting business with Mayrow General Trading, a United Arab Emirates (UAE) company, or who have acquired electronic components and devices capable of being used to construct improvised explosive devices (IEDs) which would be used against U.S. and Coalition Forces in Iraq and Afghanistan (72 FR 31716).

Iran

On July 12, 2007, the Department published in the *Federal Register* an amendment to the EAR to add five Iranian entities to the Entity List (72 FR 38008). The Department

determined that three of these entities were involved in nuclear-related proliferation activities described in Section 744.2 of the EAR and two entities were involved in prohibited activities related to rocket systems and unmanned aerial vehicles described in Section 744.3 of the EAR. All five entities are also subject to sanctions maintained by the Department of the Treasury pursuant to Executive Order 13382 and United Nations Security Council Resolution 1737.

Burma

On October 24, 2007, the Department published in the *Federal Register* an amendment to the EAR imposing licensing requirements on items subject to the EAR for certain persons designated in or pursuant to Executive Order 13448 (72 FR 60248). The President issued Executive Order 13448 in response to Burma's continued repression of democratic opposition. The amendment also moved Burma from Country Group B to Country Group D:1 and from Computer Tier 1 to Tier 3.

Licensing Requirements and Licensing Policy

Burma

In response to the Government of Burma's repression of the democratic opposition in that country, the United States enacted an arms embargo against Burma in 1993; a ban on new investments in Burma in 1997 (Executive Order 13047); and a ban on the import of goods from Burma, the export of financial services to Burma, and the blocking of certain Burmese property in 2003 (Executive Order 13310). Given continuing Government repression, the President issued Executive Order (E.O.) 13448 on October 18, 2007, blocking additional property and prohibiting certain transactions related to Burma. E.O. 13448 designated certain persons in Burma as subject to sanctions administered by the Department of the Treasury, Office of Foreign Assets Control (OFAC). Consistent with E.O. 13448 and with E.O. 13310, the Department amended the EAR to impose a license requirement for exports, reexports or transfers of items subject to the EAR to persons designated in or pursuant to E.O. 13448 or E.O. 13310. This amendment created a new §744.22 to set forth this new license requirement. Further, in part 740 of the EAR (License Exceptions), this rule moved Burma from Computer Tier 1 to Computer Tier 3, restricting access to high-performance computers and related technology and software under License Exception APP (Section 740.7). In Supplement No. 1 to part 740 (Country Groups), this amendment moved Burma from Country Group B to Country Group D:1, which further limits the number of license exceptions available for exports to Burma. Burma will also remain in Country Group D:3.

Cuba

The Department of Commerce requires a license for export or reexport to Cuba of virtually all commodities, technology, and software subject to the EAR, with a few narrow exceptions including:

- certain exports to meet basic human needs;
- some types of personal baggage;
- certain foreign-origin items in transit through the United States;
- shipments for U.S. Government personnel and agencies; and
- gift parcels including medicine, medical supplies and devices, receive-only radio equipment, and batteries for such equipment and food (including vitamins), provided that the value of non-food items does not exceed \$200.⁵

The Department generally denies license applications for exports or reexports to Cuba. However, the Department considers applications for the following on a case-by-case basis:

- exports from foreign countries of non-strategic, foreign-made products containing 20 percent or less U.S.-origin parts, components, or materials, provided the exporter is not a U.S.-owned or controlled foreign firm in a third country;
- exports of telecommunications equipment, to the extent permitted as part of a telecommunications project approved by the Federal Communications Commission, necessary to deliver a signal to an international telecommunications gateway in Cuba;
- exports of business and office equipment destined to human rights organizations or to individuals and non-governmental organizations that promote independent activity;
- certain commodities and software for U.S. news bureaus in Cuba;
- exports of certain agricultural items not eligible for License Exception Agricultural Commodities (AGR); and
- certain vessels and aircraft on temporary sojourn to Cuba.

The Department reviews applications for exports of donated and commercially supplied medicine or medical devices to Cuba on a case-by-case basis, pursuant to the provisions of Section 6004 of the Cuban Democracy Act of 1992. The United States does not restrict exports of these items, except in the following cases:

- to the extent Section 5(m) of the Act or Section 203(b)(2) of the International Emergency Economic Powers Act (IEEPA) would permit such restrictions;
- when there is a reasonable likelihood the item to be exported will be used for purposes of torture or other human rights abuses;
- when there is a reasonable likelihood the item to be exported will be reexported;
- when the item to be exported could be used in the production of any biotechnological product; or
- when the U.S. Government determines it would be unable to verify, by on-site inspection and other appropriate means, that the item to be exported will be only for

⁵ An individual donor does not require a license to send a gift parcel addressed to an individual donee. A gift parcel consolidator who exports multiple parcels in a single shipment for delivery to Cuba does require a license. (See note to Section 740.12 (a) of the EAR.)

The Department authorizes the use of License Exception Agricultural Commodities (AGR) for U.S. exports and certain reexports of agricultural commodities to Cuba. Section 906(a)(1) of the Trade Sanctions Reform and Export Enhancement Act of 2000 (Title IX of Pub. L. 106-387), as amended (TSRA), requires the expedited review of proposed exports of agricultural commodities to Cuba. Under License Exception AGR, an exporter must submit prior notification of a proposed transaction to the Department of Commerce. The exporter may proceed with the shipment when the Department confirms that no reviewing agency has raised an objection (generally within 12 business days), provided the transaction meets all of the other requirements of the license exception. This expedited review includes the screening of the ultimate recipient of the commodities to ensure that the ultimate recipient is not involved in promoting international terrorism. Exports of medicines and medical devices to Cuba are not eligible for License Exception AGR and continue to be subject to the license application and review requirements of Section 6004 of the Cuban Democracy Act of 1992.

Iran

The Department of the Treasury's Office of Foreign Assets Control (OFAC) administers the U.S. Government's comprehensive trade and investment embargo against Iran. No person may export or reexport items subject to both the EAR and OFAC's Iranian Transactions Regulations without prior OFAC authorization.

The U.S. Government has a general policy of denial for all items controlled for chemical, biological, missile, and nuclear proliferation reasons; military-related items controlled for national security or regional stability reasons (ECCNs ending in the number 18); and all other items controlled for national security or foreign policy reasons for all end-users in Iran.⁶ Pursuant to Executive Order 12959 of May 6, 1995, Executive Order 13059 of August 19, 1997, and the Iran-Iraq Arms Non-Proliferation Act of 1992 (as amended), the Department of the Treasury maintains comprehensive trade restrictions on exports and reexports of Commerce Control List (CCL) items to Iran and is responsible for licensing: (1) exports from the United States to Iran; (2) exports and reexports by U.S. persons to Iran, including agricultural and medical items classified as EAR99 (items not on the CCL but subject to the EAR) under the provisions of TSRA; and (3) reexports of CCL items by any person to Iran. The Department of Commerce has licensing responsibility for reexports of EAR99 items to Iran by non-U.S. persons for instances where there is a proliferation or terrorism concern, and for the deemed export of technology subject to the EAR to Iranian nationals in the United States. To reinforce

⁶ *The general policy of denial stated in the EAR is superseded by a policy of denial pursuant to the Iran-Iraq Arms Nonproliferation Act of 1992.*

controls administered by the Department of the Treasury, it is also a violation of the EAR to export or reexport to Iran any item that is subject to the Treasury Department's regulations, and also subject to the EAR, without Treasury's authorization.

On July 12, 2007, the Department published in the *Federal Register* an amendment to the EAR to add five Iranian entities to the Entity List (72 FR 38008). The Department determined that three of these entities were involved in nuclear-related proliferation activities described in Section 744.2 of the EAR. These entities are the Atomic Energy Organization of Iran, Kala Electric Company, and Mesbah Energy Company. Two additional entities – Shahid Bakeri Industrial Group and Shahid Hemmat Industrial Group – were determined to be involved in prohibited rocket systems and unmanned aerial vehicle activities described in Section 744.3 of the EAR. All five entities are also subject to sanctions maintained by the Department of the Treasury pursuant to Executive Order 13382 and United Nations Security Council Resolution 1737. A license is required for the export or reexport of all items subject to the EAR to these entities.

Iraq

Pursuant to controls related to United Nations Security Council Resolution 1483, which retains restrictions on the sale or supply to Iraq of arms and related material, the Department of Commerce requires a license for the export or reexport to Iraq, or transfer within Iraq, of:

- any item that is destined for use in Iraqi civil nuclear or military nuclear activity (except for use of isotopes for medical, industrial, or agricultural purposes);
- machine tools controlled for national security (NS) or nuclear non-proliferation (NP) reasons; and
- any item controlled for crime control (CC) or United Nations (UN) reasons, or any item controlled under an ECCN ending in the number "018," that would make a material contribution to the production, research, design, development, support, maintenance, or manufacture of Iraqi weapons of mass destruction, ballistic missiles or arms and related materiel.

The Department reviews license applications for these items under a general policy of denial.

In addition, the Department requires a license for the export, reexport, or transfer of items subject to the EAR if the exporter knows, has reason to know, or is informed by the Department that the item will be, or is intended to be, used in Iraq for a "military end-use" or a "military end-user," as defined in Section 746.3 of the EAR. As defined specifically for Iraq, a military end-user is any person or entity whose actions or functions are intended to support "military end-uses" and who is not recognized as a legitimate military organization by the U.S. Government. "Military end-use" is the incorporation of an item into a military item described on the U.S. Munitions List

(USML) (22 CFR part 121, International Traffic in Arms Regulations), or the Wassenaar Arrangement Munitions List (WAML); or use, development, or deployment of military items described on the USML or the WAML. The Department reviews license applications destined to such end-users under a policy of denial.

Unless already authorized by the Department of the Treasury, the Department of Commerce requires a license for exports, reexports, or transfers of any item subject to the EAR to persons listed in the Annex to Executive Order 13315, as amended (“Blocking Property of the Former Iraqi Regime, Its Senior Officials and Their Family Members, and Taking Certain Other Actions”), as well as persons subsequently designated by the Secretary of the Treasury pursuant to that executive order. License applications for such transactions are reviewed under a general policy of denial by the Department.

Mayrow General Trading and Related Entities

Pursuant to General Order No. 3, a license is required for the export and reexport of all items subject to the EAR destined to Mayrow General Trading, a United Arab Emirates (UAE) company, or certain affiliated companies identified in General Order No. 3. The Department published the General Order on the basis of information, which gave the U.S. Government reason to believe that Mayrow and its affiliated companies had acquired electronic components and devices capable of being used to construct improvised explosive devices (IEDs) to be used against U.S. and Coalition Forces in Iraq and Afghanistan.

On June 7, 2007, the Department published in the *Federal Register* an amendment to General Order No. 3 imposing license requirements on the export and reexport of all items subject to the EAR to 16 additional entities affiliated with or conducting business with Mayrow General Trading or who had acquired electronic components and devices capable of being used to construct improvised explosive devices (IEDs) to be used against U.S. and Coalition Forces in Iraq and Afghanistan (72 FR 31716).

North Korea

On July 4, 2006, in defiance of international calls for restraint, North Korea test-launched a series of ballistic missiles. In response to these actions, on July 15, 2006, the United Nations Security Council adopted Security Council Resolution 1695 (UNSCR 1695) demanding that North Korea suspend all ballistic missile-related activity and reinstate a moratorium on missile launches. UNSCR 1695 requires all United Nations Member States to exercise vigilance and prevent, in accordance with their national legal authorities and legislation consistent with international law, (1) the transfer of missile and missile-related items, materials, goods and technology to North Korea’s missile or weapons of mass destruction programs; (2) the procurement of such items and technology from North Korea; and (3) the transfer of financial resources in relation to such programs.

On October 9, 2006, North Korea tested a nuclear device. In response, on October 14, 2006, the United Nations Security Council adopted UNSCR 1718 condemning the nuclear test and expressing grave concern over the threat the test constituted to the Treaty on Non-Proliferation of Nuclear Weapons, to regional peace and stability, and to international efforts to strengthen global non-proliferation. UNSCR 1718 requires all UN Member States to prevent the supply, sale, or transfer of: (1) certain arms and related materiel, including spare parts; (2) items listed in UN documents S/2006/814, S/2006/815, and S/2006/853, as well as other items, as determined by the UN Security Council or the 1718 Sanctions Committee, that could contribute to North Korea's nuclear, ballistic missile, and other weapons of mass destruction-related programs; and (3) luxury goods. UNSCR 1718 decided that North Korea must, in a verifiable and irreversible manner, abandon all nuclear weapons, existing nuclear programs, and all other existing weapons of mass destruction and ballistic missile programs, and must suspend all ballistic missile activities. The Resolution also demanded that North Korea return to the Treaty on the Non-Proliferation of Nuclear Weapons and International Atomic Energy Agency (IAEA) safeguards.

Consistent with UNSCRs 1695 and 1718, on January 26, 2007, the Department of Commerce published in the *Federal Register* an amendment to the EAR implementing changes in U.S. export controls with respect to North Korea (72 FR 3722). This amendment implemented license requirements for exports and reexports of all items subject to the EAR to North Korea, with the exception of food and EAR99 medicines (i.e., medicines subject to the EAR but not controlled on the Commerce Control List (CCL)), with a few narrow exceptions including:

- gift parcels not including luxury items;
- some types of personal baggage;
- items for personal or official use by personnel and agencies of the U.S. Government, the International Atomic Energy Agency, or the European Atomic Energy Community

The Department also revised its license review policy for certain classes of exports and reexports to North Korea. Items requiring a license are subject to case-by-case review, except as follows:

- luxury goods (e.g., luxury automobiles; yachts; jewelry; designer clothing; luxury watches; electronic entertainment software and equipment; recreational sports equipment; tobacco; alcoholic beverages; musical instruments; art; antiques and collectibles) are subject to a general policy of denial;
- arms and related material are subject to a general policy of denial;
- most items listed on the Commerce Control List (CCL) are subject to a general policy of denial; and

- humanitarian items (e.g., blankets, basic footwear, heating oil, and other items meeting subsistence needs) intended for the benefit of the North Korean people are subject to a general policy of approval.

Persons Sanctioned for Proliferation-related Activities

Pursuant to Section 744.20 of the EAR, and the Iran, North Korea, and Syria Nonproliferation Act, the Department prohibits the export and reexport of items requiring a license to certain entities determined to have transferred equipment and/or technology controlled under the multilateral export control lists (the Missile Technology Control Regime, the Australia Group, the Chemical Weapons Convention, the Nuclear Suppliers' Group, and the Wassenaar Arrangement) or otherwise having the potential to make a material contribution to the development of weapons of mass destruction (WMD) or cruise or ballistic missile systems to inappropriate end-users in Iran, North Korea, and Syria. The latter category of items includes (a) items of the same kind as those on multilateral lists but falling below the control list parameters, when it is determined that such items have the potential of making a material contribution to WMD or cruise or ballistic missile systems, (b) other items with the potential of making such a material contribution, when added through case-by-case decisions, and (c) items on the U.S. national control lists for WMD or missile reasons that are not on the multilateral lists.

Sudan

Pursuant to Executive Orders 13067 (November 3, 1997) and 13412 (October 13, 2006), the Department of the Treasury maintains trade restrictions on exports and reexports to Sudan. The export and reexport of items controlled on the CCL to Sudan requires a license from both the Department of Commerce and the Department of the Treasury. License applications may be submitted to both agencies concurrently. The Department of Commerce applies a general policy of denial for the export and reexport of all items controlled for chemical, biological, missile, and nuclear proliferation reasons, military-related items controlled for national security or regional stability reasons (CCL entries ending in the number 018), and certain items controlled for national security or foreign policy reasons, such as aircraft, cryptologic items, and explosive device detectors, for all end-users in Sudan. Other items controlled to Sudan for national security or foreign policy reasons are subject to a general policy of denial for military end-users or end-uses and are reviewed on a case-by-case basis for non-military end-users or end-uses.

The Department of the Treasury is solely responsible for licensing the export of agricultural and medical items not listed on the CCL to Sudan under the provisions of the Trade Sanctions Reform and Export Enhancement Act (TSRA). The Department of the Treasury's Office of Foreign Assets Control (OFAC) also continues to require a license for the export of many EAR99 items to Sudan; however, Executive Order 13412 eased the licensing requirements with respect to exports to Southern Sudan.

Syria

On May 11, 2004, the President issued Executive Order 13338 to implement Sections 5(a)(1) and 5(a)(2)(A) of the Syrian Accountability and Lebanese Sovereignty Restoration Act (SAA). In compliance with the President's action, the Department revised its license requirements and licensing policy for Syria to restrict all exports or reexports to Syria of items subject to the EAR, as specified in General Order No. 2 to Supplement No. 1 to Part 736 of the EAR, which was published in the *Federal Register* on May 14, 2004 (69 FR 26766).

The Department of Commerce requires a license for export or reexport to Syria of all commodities, technology, and software subject to the EAR, except:

- personal baggage for individuals leaving the United States;
- items for the use of the news media under certain conditions;
- exports for U.S. Government personnel and agencies;
- certain operation technology and software, sales technology, and software updates;
- temporary sojourn of some civil aircraft reexported to Syria;
- food; and
- some medicine.

The Department generally denies license applications for exports or reexports to Syria. However, the Department considers applications for the following on a case-by-case basis:

- items in support of U.S. Government activities;
- medicine on the CCL;
- medical devices;
- parts and components intended to ensure the safety of civil aviation and safe operation of commercial passenger aircraft;
- aircraft chartered by the Syrian Government for the transport of Syrian Government officials on official Syrian Government business;
- telecommunications equipment and associated computers, software, and technology; and
- items in support of United Nations operations in Syria.

Designated Terrorist Persons and Groups

The Department of Commerce requires a license for the export from the United States or by U.S. persons of all items subject to the EAR to Specially Designated Global Terrorists (SDGTs), Specially Designated Terrorists (SDTs), and Foreign Terrorist Organizations (FTOs). The Department also requires a license for the reexport by non-U.S. persons of items on the CCL to such SDGTs, SDTs, or FTOs and a general policy of denial applies

to all applications. SDGTs, SDTs, and FTOs are identified on a list of designated persons maintained by the Department of the Treasury in Appendix A to 31 CFR Chapter V.

United Nations Security Council Arms Embargoes

Rwanda

On May 17, 1994, the United Nations Security Council (UNSC) imposed an arms embargo on Rwanda. In 1995, the UNSC suspended the application of the embargo on the Government of Rwanda (GOR) and on September 1, 1996, pursuant to UNSC Resolution 1011, the UNSC terminated the embargo in regard to the GOR. However, the United Nations continues to prohibit the sale or supply of such arms and arms-related materiel to all persons in Rwanda, including non-governmental forces, other than the GOR. On July 30, 2003, the Department of State implemented a partial lifting of the U.S. arms embargo for items subject to the International Traffic in Arms Regulations (ITAR) and destined for the Government of Rwanda. Arms and related materiel subject to Department of Commerce licensing jurisdiction remain under embargo to all end-users in Rwanda.

The U.S. Government continues to require a license for foreign policy purposes for the export or reexport by a U.S. person to any non-government end-user in Rwanda of all ITAR-controlled arms and arms-related materiel of all types, regardless of origin, including weapons and ammunition, military vehicles and equipment, paramilitary police equipment, and spare parts for these items. The embargo applies to all end-users for arms and arms-related material controlled in the EAR. The U.S. Government has a general policy of denial for export or reexport of ITAR-controlled items to non-government end-users and EAR-controlled items to all end-users in Rwanda. The U.S. Government also requires a license for the use of any U.S. aircraft or vessel to supply or transport any such items to Rwanda. The Department reviews proposed exports or reexports to the Government of Rwanda on a case-by-case basis.

Other Countries

The UNSC also maintains embargoes on the export of certain arms and related materiel to several other countries, geographic regions, or entities within certain countries. Such countries include the Democratic Republic of Congo, Ivory Coast (known formally as Côte d'Ivoire), Lebanon, Liberia, Sierra Leone, and Somalia. The Department expects to implement these arms embargoes for purposes of the EAR through a regulation to be published in the *Federal Register*.

Analysis of Controls as Required by Section 6(f) of the Act

A. The Purpose of the Controls

Burma

The purpose of the controls, some of which have been in place since 1993, is to restrict exports of items that would aid the Government of Burma's continued repression of the democratic opposition in that country, and to address U.S. foreign policy concerns with the Burmese regime.

Cuba

The United States imposed an embargo four decades ago because Cuban Government actions posed a serious threat to the stability of the Western Hemisphere and the Cuban Government expropriated property of U.S. citizens without compensation. In March 1982, as a result of Cuba's support for insurgent groups that engaged in terrorism, the Secretary of State designated it as a state sponsor of terrorism under Section 6(j) of the Act. The purpose of the controls is to restrict exports that would allow Cuba to act as a destabilizing force and/or to support terrorism. The controls demonstrate the United States' resolve to maintain stability in the region and to actively work against the threat of terrorism and those who support it. At the same time, U.S. support for the export of food, "gift packs," and other humanitarian items, such as medicines and medical devices, ensures that the Cuban population is not deprived of basic human needs.

Iran

The purpose of the controls is to restrict exports of items that would be useful in enhancing Iran's military terrorist-supporting capabilities and to address other U.S. foreign policy concerns, including nonproliferation, human rights, and regional stability. In the Department of State's *Country Reports on Terrorism 2006*, dated April 2007, Iran is identified as the most active state sponsor of terrorism. Iran maintains a high-profile role in encouraging anti-Israel activity, and continues to be unwilling to bring to justice detained al-Qa'ida figures. The U.S. Government also has grave concerns regarding Iran's pursuit of a nuclear weapons capability and incomplete, poor, and intermittent cooperation with the International Atomic Energy Agency (IAEA). The United States led an effort at the United Nations Security Council (UNSC) to adopt two UNSC Resolutions (1737 and 1747) that require all UN Member States to restrict trade in certain nuclear and missile items useful to proliferation sensitive nuclear activities (defined as uranium enrichment-related, reprocessing, and heavy water-related activities) and the development of a nuclear weapon delivery system to Iran. U.S. export controls remain in place due to both our terrorism concerns and Iran's pursuit of a nuclear weapons capability. By restricting the export of items with military use, the controls demonstrate the resolve of the United States not to provide any direct or indirect military support for Iran and to support other U.S. foreign policy objectives. The United States' support for exports and reexports of food items, medical supplies, and medical equipment is designed

to ensure that U.S. export controls on Iran do not prevent the Iranian population from receiving what it needs for humanitarian purposes.

Iraq

The purpose of the controls is to restrict exports to insurgents within Iraq and other inappropriate military end-users in Iraq, including the former Iraqi leadership, thereby limiting their ability to enhance or expand their activities.

Mayrow General Trading and Related Entities

The purpose of the controls is to demonstrate the United States' concern over the diversion of goods for use against U.S. and Coalition Forces, and to demonstrate the United States' resolve to act against entities diverting goods for any type of proliferation or munitions-related end-use.

North Korea

The purpose of the controls is to restrict exports and reexports to North Korea to comply with the United States' obligations as a member of the United Nations, and to demonstrate the United States' concern over North Korea's development, testing and proliferation of nuclear and missile weapons of mass destruction.

Persons Sanctioned for Proliferation-related Activities

The purpose of the controls is to restrict exports to individuals and entities engaged in proliferation-related activities. The individuals and entities designated under these controls have diverted items that may be used in weapons of mass destructions programs in violation of U.S. export control laws. These controls demonstrate the United States' opposition to such transfers as well as its resolve to actively work against such diversions.

Sudan

The U.S. embargo and export controls remain in place against Sudan to restrict access to items that could make a significant contribution to Sudan's military capability. Although the Government of Sudan has cooperated with U.S. counterterrorism efforts, the United States will not fully normalize relations with Sudan until the situation in Darfur is satisfactorily addressed.

On January 9, 2005, a Comprehensive Peace Agreement was signed between the Government of Sudan and the Sudan People's Liberation Movement/Army (SPLM/A). The Agreement provided for a new constitution and new arrangements for power sharing, wealth sharing, and security, on the national level. On July 9, 2005, the Government of National Unity, which includes participants from both the Government of Sudan and the SPLM/A, was installed and on July 6, a new constitution was ratified. However, the humanitarian crisis in Darfur remains an important focus of U.S. policy efforts. Although a peace accord was signed between the Government of Sudan and one major rebel group,

the Sudan Liberation Army (SLA) on May 4, 2006, attacks on non-combatants in Darfur have increased while access and security for humanitarian aid workers has declined.

Syria

The Syrian Government continues to provide political and material support to a number of Palestinian groups that have committed terrorist acts, but contends that the groups' offices in Syria only undertake political and informational activities. Syria also provides political and material support to Hizballah in Lebanon, including allowing Iran to re-supply that terrorist group through Syrian territory. Additionally, the U.S. Government continues to have concerns about Syria's interference in Lebanon and its provision of a safe haven for terrorist organizations as well as its nuclear, missile, and chemical/biological programs.

U.S. export controls reflect U.S. opposition to these activities. The controls also promote other U.S. foreign policy interests, including human rights and regional stability.

Designated Terrorist Persons and Groups

The purpose of controls on designated terrorist persons and groups is to restrict exports of items that would be useful in enhancing the capability of SDGTs, SDTs, and FTOs to undertake terrorist acts and to further the general policy of the United States to prevent supporters of terrorism and terrorist elements from acquiring technology that might enhance terrorist capabilities. The controls enable the Department of Commerce to use its licensing and enforcement resources to support U.S. counterterrorism efforts by monitoring and investigating unlicensed exports, reexports, and diversions of items subject to the EAR to parties designated as terrorists by the U.S. Government.

United Nations Security Council Arms Embargoes

The controls on arms-related items to the Democratic Republic of Congo, Côte d'Ivoire, Liberia, Lebanon, Rwanda, Sierra Leone, and Somalia remain in place to prevent any U.S. contribution to potential conflict within these countries and to conform to United Nations-mandated sanctions.

B. Considerations and/or Determinations of the Secretary of Commerce

1. Probability of Achieving Intended Foreign Policy Purpose. The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose, in light of other factors, including foreign availability from other countries. He has further determined that the foreign policy purpose cannot be achieved through negotiations or other alternative means. For each of the controls described in this chapter, the Secretary has determined that such restrictions have denied the targeted persons and nations certain trade relations with the United States and in some cases other nations. The controls described in this chapter seek to have the targeted persons or

governments modify their actions. In addition, the applicable controls may serve to reduce the potential for conflict.

Burma

The Secretary has determined that the imposition of foreign policy controls will demonstrate the U.S. opposition to the Government of Burma's repressive measures directed against the democratic opposition in that country and deny it resources to sustain and/or enhance such measures.

Cuba

The Secretary has determined that the embargo will help to bring about a peaceful transition toward democracy and a free market economy in Cuba while providing for the basic human needs of the Cuban people.

Iran

The Secretary has determined that foreign policy controls will restrict Iran's access to specified U.S.-origin items that could contribute to Iranian support of terrorism and instigation of regional threats to U.S. interests.

Iraq

The Secretary has determined that foreign policy controls will thwart any resumption of WMD activities fostered by the former Iraqi regime and restrict the ability of terrorists and insurgent groups to obtain and use U.S.-origin items to attack U.S. and Coalition forces in Iraq and destabilize the current Government of Iraq.

Mayrow General Trading and Related Entities

The Secretary has determined that foreign policy controls will restrict the availability of components and devices requisite for the construction of improvised explosive devices (IEDs) that could be used in attacks or against U.S. and Coalition Forces in Iraq and/or Afghanistan.

North Korea

The Secretary has determined that the foreign policy controls will meet U.S obligations under relevant UN Security Council resolutions and impede North Korea's development, testing, and proliferation of nuclear and other weapons of mass destruction and ballistic missiles.

Persons Sanctioned for Proliferation-related Activities

The Secretary has determined that foreign policy controls will thwart the access that these persons have had to U.S.-origin items that could advance efforts by state actors and terrorist groups to acquire WMD.

Sudan

The Secretary has determined that foreign policy controls will restrict the Government of Sudan's ability to obtain and use U.S.-origin items in support of military activities in Darfur. The controls are also likely to impede terrorist activities in Sudan and support international efforts to end the humanitarian crisis in Darfur.

Syria

The Secretary has determined that foreign policy controls will contribute to the Government of Syria ending its support of terrorist groups and interference in Lebanon.

Designated Terrorist Persons and Groups

The Secretary has determined that foreign policy controls will thwart the access that these persons and groups have had to U.S.-origin items that could support terrorist operations.

United Nations Security Council Arms Embargoes

The Secretary has determined that embargoes on exports of arms-related items to the Democratic Republic of Congo, Côte d'Ivoire, Liberia, Lebanon, Rwanda, Sierra Leone, and Somalia will meet U.S. obligations under relevant UN Security Council resolutions and restrict access to U.S.-origin items that could contribute to internal conflict and regional instability.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that these controls are compatible with U.S. foreign policy objectives, and that the extension of these controls will not have any significant adverse foreign policy consequences. The controls complement U.S. foreign policy and other aspects of U.S. relations with these persons and countries. They encourage these persons and governments to modify their actions with the goal of improving conditions in their region. These controls are consistent with U.S. foreign policy goals of promoting peace and stability, and preventing weapons proliferation and human rights abuses.

3. *Reaction of Other Countries.* The Secretary has determined that any adverse reaction to these controls is not likely to render the controls ineffective, nor will any adverse reaction by other countries be counter-productive to U.S. foreign policy interests. Notwithstanding the fact that most countries have not imposed embargoes as comprehensive as those of the United States, and that some countries have challenged certain U.S. controls as unwarranted extraterritorial regulations, the overriding foreign policy objective of maintaining these controls outweighs negative foreign reactions. Opposition to U.S. foreign policy-based controls by many of our major trading partners, including some close allies, continues to be a point of contention. This reaction has led some foreign firms to design out U.S. components or to cite the lack of their own national sanctions as a marketing tool to secure business contracts that might have gone to U.S. companies. In some instances, foreign governments have instructed foreign firms to ignore U.S. reexport controls. However, in certain areas, such as the nuclear threat posed

by Iran and North Korea and the genocide in the Darfur region of Sudan, the United States has received broader international support for its sanctions policies from other countries.

Burma

Other countries share U.S. concerns regarding the Government of Burma's repression of the democratic opposition in that country. Several Western countries have imposed their own economic sanctions and pursued a policy of supporting democratic activists within Burma. The United States continues to work within the UN Security Council and with like-minded countries to maximize international support for the Burmese people's efforts to restore democracy and respect for human rights in Burma.

Cuba

Although most countries recognize the right of the United States to determine its own foreign policy and security concerns and share U.S. concerns regarding the Cuban regime, many countries, particularly Canada, Mexico, and the members of the European Union, opposed the Cuban Liberty and Democratic Solidarity (*Libertad*) Act of 1996 (Helms-Burton) and continue to oppose unilateral U.S. controls on Cuba. Many nations, however, have joined the United States in promoting political freedom, as a result of the Cuban Government's jailing of pro-democracy advocates.

Iran

Other countries share U.S. concerns regarding Iran's support of terrorism, human rights abuses, and attempts to acquire WMD. This is especially the case in the nuclear context, where concerns with Iran's intentions vis-à-vis its nuclear program have led to the unanimous adoption of two UN Security Council resolutions imposing Chapter VII sanctions on Iran. The member states of the G-8, the European Union, the members of the Nuclear Suppliers Group, and other multilateral bodies have joined the United States in expressing their concern over Iran's pursuit of a nuclear weapons capability and have called on Iran to cooperate fully and transparently with the International Atomic Energy Agency (IAEA). In general, however, U.S. controls on commercial goods to Iran are more stringent than most other countries' controls.

Iraq

The United States continues to impose an arms embargo on military end-users and end-users that are not affiliated with the Coalition Forces or the Iraqi Government in Iraq in parallel with its obligations as a member of the United Nations. Many other member states also comply with these obligations and impose an arms embargo on Iraq. Other nations also share U.S. concerns about insurgent activities in Iraq.

Mayrow General Trading and Related Entities

Although other countries share U.S. concerns about diversions by entities within third countries, no countries maintain controls similar to those implemented by the United States.

North Korea

The United States maintained a comprehensive trade embargo against North Korea for almost 50 years, until 1994. In general, during that time period, U.S. allies largely acted in concert with the United States to deny North Korea strategic equipment and technology. Similarly, the easing of U.S. sanctions toward North Korea and the removal of some U.S. controls in June 2000 were echoed by other Western countries. On October 14, 2006, as a result of North Korea's July 2006 missile tests and October 2006 nuclear test, the United Nations Security Council adopted UNSCR 1718 imposing sanctions on North Korea. The Department has implemented the requirements of that Security Council resolution. Through the ongoing Six-Party Talks, the United States and its allies are working together to further reduce and eliminate the present nuclear threat posed by North Korea.

Persons Sanctioned for Proliferation-related Activities

Although other countries share U.S. concerns regarding the diversion of goods for use in proliferation-related programs, few countries maintain controls similar to those implemented by the United States.

Sudan

In 1997, the United States imposed an embargo in response to credible evidence that Sudan assisted international terrorist groups, destabilized neighboring governments, and violated human rights. Although Sudan's cooperation in the war on terrorism since 2001 has been significant and sustained, regularization of relations is contingent on, among other things, Sudan's acceptance of an effective peacekeeping force in Darfur, as mandated by UN Security Council Resolutions 1706 and 1769. The United States remains in consultation with other countries regarding the humanitarian crisis in Darfur.

Syria

The United States maintains controls in response to Syria's lack of concrete steps to end its support for the terrorist groups that maintain a presence in Syria and Syria's continued interference in Lebanon, including Syrian support of Hizballah. Although many other countries concur that Syria's regional activities are destabilizing, few countries maintain controls similar to those implemented by the United States.

Designated Terrorist Persons and Groups

Many countries support U.S. efforts to fight terrorism through blocking designated terrorist groups and individuals from acquiring commodities that could assist these groups in committing future acts of violence. Although some countries are considering

restrictive legislation, very few maintain export controls similar to those implemented by the United States.

United Nations Security Council Arms Embargoes

The arms embargoes on the Democratic Republic of Congo, Côte d'Ivoire, Liberia, Lebanon, Rwanda, Sierra Leone and Somalia are consistent with UN objectives. The U.S. Government has received no significant objections to these UNSC-mandated controls.

4. *Economic Impact on United States Industry.* The Secretary has determined that any adverse effect of these controls on the economy of the United States, including on the competitive position of the United States in the international economy, does not exceed the benefit to U.S. foreign policy objectives.

Burma

Unilateral U.S. export sanctions on Burma have a minimal impact on U.S. industry. According to Census Bureau statistics, in 2006 U.S. exports to Burma were valued at \$7.5 million and primarily consisted of food and medical equipment. In Fiscal Year 2007, the Department of Commerce approved two license applications for Burma valued at \$1.6 million. During the same time, one application valued at \$90,000 was returned without action. No applications were denied during FY 2007.

Cuba

The U.S. Government requires a license for the export and reexport to Cuba of all U.S.-origin commodities, technology, and software subject to the EAR. The number of license applications that the Department of Commerce has approved to Cuba increased significantly from 1998 through 2002, but has declined since 2003. The increase in approved export license applications to Cuba from 1998 through 2002 can be attributed to changes in U.S. export policies made during the late 1990s, including the resumption of direct flights, exports of medicines and medical supplies and equipment, exports of food and certain agricultural commodities, and the expansion of agricultural commodities eligible for export authorization under the procedures specified in License Exception AGR to the Cuban Government. The decline in approved export licenses to Cuba since 2003 may, to some degree, be attributable to Cuba's inability or unwillingness to meet financial transaction rules requiring the U.S. seller to receive payment from the Cuban buyer before vessels carrying goods leave U.S. ports. However, the decline may be more attributable to Cuba's efforts to diversify import suppliers, particularly with the objective of strengthening strategic geo-political relationships.

In Fiscal Year 2007, the Department of Commerce approved 216 license applications valued at over \$1.3 billion for Cuba. There has been a decline in the number of license applications in Fiscal Year 2007 in comparison with Fiscal Years 2005 and 2006. In Fiscal Year 2007, the Department returned without action 105 license applications,

valued at \$517.7 million, and rejected 20 license applications, valued at \$73.6 million. The Department did not revoke any previously valid licenses during this period. Also during Fiscal Year 2007, the Department authorized 148 notifications valued at \$2.2 billion under License Exception AGR. The Department of Commerce and reviewing agencies had no objections to these notifications. Normally, only about 10 percent of the value of items licensed is actually exported.

Table 1: Approved Commerce Export License Applications and License Exception AGR Notifications Authorized for Cuba (FY 1996-2007)

Fiscal Year	Number of Applications / Notifications	Total Value in U.S. Dollars
1996	83	\$592,738,313
1997	87	\$493,414,819
1998	128	\$544,659,988
1999	181	\$75,840,789
2000	310	\$737,108,231
2001*	241	\$454,908,260
2002	582	\$2,521,457,648
2003	528	\$2,801,868,688
2004	537	\$3,096,634,000
2005	483	\$3,091,221,021
2006	452	\$2,840,600,000
2007	364	\$3,523,536,224
TOTAL	3,976	\$20,773,987,981

* Notifications under License Exception AGR first became available in 2001.

The majority of export licenses approved for Cuba in Fiscal Year 2007 were for EAR99 items, including medicines; medical supplies, instruments, and equipment; and gift parcels.

The U.S. embargo on Cuba is unilateral. According to the CIA's *World Factbook 2007*, Cuba imported an estimated \$9.51 billion in commodities in 2006 (the most recent year for which statistics are available), up significantly from \$6.91 billion the year before. Leading Cuban imports include petroleum, food, machinery and equipment, and chemicals. Cuba's leading suppliers were Venezuela (27 percent), China (15.8 percent), Spain (9.7 percent), Germany (6.5 percent), Canada (5.6 percent), Italy (4.4 percent), and the United States (4.4 percent).

Iran

The U.S. Government maintains a policy of denial for license applications for exports of items on the CCL to Iran, consistent with the provisions of the Iran-Iraq Arms Non-Proliferation Act of 1992, contained in the National Defense Authorization Act of Fiscal Year 1993 (NDAA), and the U.S. trade and investment embargo of 1995. Statistical data on past exports to Iran provide indications of the economic impact of sanctions, as mandated for this report. Prior to the 1993 NDAA and the imposition of the embargo, U.S. exports to Iran rose sharply in the early 1990s in response to Iran's removal of certain import restrictions. From 1991 through 1994, U.S. exports to Iran totaled close to \$2.2 billion, making the United States the sixth-largest exporter to Iran during this period. Such exports, however, amounted to only 5 percent of Iran's total imports and less than 1 percent of overall U.S. exports. As a result of the denial policy mandated by Fiscal Year 1993 NDAA and the 1995 U.S. trade and investment embargo, U.S. exports to Iran fell dramatically. Beginning in 2001, as the result of the implementation of TSRA, the U.S. Government could authorize exports and reexports of food, agricultural equipment, medicine, and medical supplies and equipment. According to the U.S. Census Bureau statistics, in 2005 (the most recent year for which statistics are available), total U.S. exports to Iran were valued at \$95.8 million. The top U.S. commodities exported to Iran were tobacco, medicines, pulpwood and wood pulp, and vegetable seeds.

Since 1997, the Department of the Treasury has had primary jurisdiction for the export and reexport of items subject to the EAR to Iran, and the Department of Commerce has sole jurisdiction for "deemed exports" (transfers of controlled U.S. technology to Iranian nationals in the United States). In Fiscal Year 2007, the Department of Commerce approved 53 deemed export licenses for Iranian nationals. Table 2 shows the impact of the 1993 NDAA and the trade embargo on U.S. trade with Iran:

Table 2: Approved Commerce Export License Applications to Iran (FY 1991-2007)

Fiscal Year	Number of Applications	Total Value in U.S. Dollars
1991	89	\$ 60,149,182
1992	131	\$567,559,528
1993	44	\$ 63,834,952
1994	10	\$ 16,774,377
1995	0	\$0
1996	0	\$0
1997	5	\$19
1998	6	\$10,012
1999	10	\$20,408
2000	23	\$35
2001	19	\$32
2002	10	\$23
2003	16	\$36
2004	31	\$173
2005	31	\$60
2006	38	\$172
2007	53	\$286
TOTAL	485	\$708,349,295

The U.S. trade and investment embargo transformed the composition of U.S. trade with Iran. As Table 3 demonstrates, the agricultural, aerospace, and oil industries have been among those most directly affected by the embargo. From 1991 through 1994, U.S. exports of aircraft engine parts to Iran totaled nearly \$9.4 million, averaging \$2.3 million per year and peaking at more than \$7.5 million in 1994. By 1996, aerospace exports to Iran declined to virtually zero.

Prior to the embargo, the United States competed with Iran's major trading partners in exports of industrial machinery, motor vehicles and auto parts, power generating machinery, measuring and controlling devices, computers, plastics and resins, and industrial organic chemicals. In 2005 (the most recent year for which figures are available), Iran imported an estimated \$42.5 billion worth of industrial raw materials and intermediate goods, capital goods, foodstuffs and other consumer goods, technical services, and military supplies from its leading trade partners: Germany, France, Italy, China, the UAE, South Korea, and Russia.

Table 3: Top U.S. Exports to Iran, 1991-1995 (FAS Value, in U.S. Dollars)

S.I.C. Number	Description of Goods	Total Value
3511	Turbines and turbine generator sets	\$322.5 million
3531	Construction machinery and parts	\$307.8 million
3533	Oil and gas field equipment	\$250.1 million
2044	Milled rice and by-products	\$166.3 million
0115	Corn	\$137.4 million
2873	Nitrogenous fertilizers	\$124.2 million
3714	Motor vehicle parts and accessories	\$50.8 million
2821	Plastics materials and resins	\$45.4 million
3743	Railroad equipment and parts	\$42.7 million
3569	General industrial machinery and equipment	\$41.8 million

The U.S. embargo on Iran has had a damaging impact on U.S. industry, because of the reaction of foreign firms to U.S. reexport requirements. U.S. exporters report that their products are often designed out of foreign manufactured goods to ensure that foreign exports do not fall within the scope of U.S. controls. This “designing out” damages U.S. exports, both for sales to embargoed countries and non-embargoed countries.

Iraq

Although the security situation and the presence of insurgents in Iraq, among other issues, continue to be of concern to the United States, the United States also fully supports Iraq’s reconstruction and economic revival. Current licensing policy and requirements reflect the complexity and challenges of doing business in Iraq.

In 2006, according to the most recent U.S. Census Bureau statistics available, U.S. exports to Iraq were worth \$1.49 billion. In addition to foodstuffs, other strong categories of U.S. exports to Iraq included aircraft parts; passenger motor vehicles; drilling equipment; special purpose vehicles (i.e. ballistic-protected cars); and telecommunications equipment.

Commerce’s July 30, 2004, rule on U.S. export control policy and regulations for Iraq was designed to address two significant foreign policy goals. In particular, the rule advances the goal of ensuring that exports and reexports of controlled items destined to civil infrastructure rebuilding are processed in a timely manner. At the same time, in furtherance of applicable UNSC Resolutions and U.S. foreign policy interests, the rule revised section 746.3 of the EAR (15 CFR parts 730-774) and retains substantial restrictions on exports to Iraq destined for inappropriate end-users or end-uses.

Since licensing jurisdiction for Iraq was returned to the Department of Commerce, the majority of license applications received have been for equipment in support of or for use in reconstruction of Iraq and training activities for its police and military. The Department expects that the number and diversity of applications will increase as more U.S. companies extend operations into Iraqi civil activities.

Mayrow General Trading and Related Entities

The Secretary has determined that the effect of these foreign policy controls on U.S. industry will be minimal because the volume of U.S. export and reexport transactions involving Mayrow General Trading and related entities is limited within the context of the overall level of shipments of the specific items. The Department did not process any license applications for Mayrow General Trading or any of the related entities in 2007.

North Korea

As a result of the small size of the North Korean economy, U.S. export sanctions on North Korea have had a minimal impact on U.S. industry. North Korea's total imports average about \$1-2 billion annually, with primary imports including minerals, metallurgical products and manufactured goods, including armaments, textiles and fishery products. The *CIA World Factbook* estimates that North Korean imports totaled \$2.8 billion in 2004 (the most recent year for which figures are available) with primary imports including minerals, metallurgical products and manufactured goods (including armaments, textiles and fishery products). North Korea's leading sources of imports in 2004 were China (45.6 percent), South Korea (20.2 percent), and Japan (12.9 percent).

Based on U.S. Census Bureau statistics, total U.S. exports to North Korea, although far below the levels of other countries, generally increased with the signing of the U.S.-North Korea Agreed Framework in October 1994, but exports have again dropped substantially in recent years. Exports rose from only \$179,730 in 1994 to between \$3 and \$4 million annually from 1995 through 1998. In 1999, U.S. exports to North Korea nearly tripled to \$11.3 million. However, in 2000, U.S. exports dropped to \$2.7 million and in 2001, the value of U.S. exports was only \$650,000. In 2002, U.S. exports to North Korea increased to \$25 million, the vast majority (95 percent) of which was agricultural products. In 2003, the level of exports dropped to \$8.0 million with agricultural products again comprising the majority of exports (80 percent), followed by pharmaceutical preparations (16 percent). In 2004, the level of exports rose to \$23.8 million with corn and wheat accounting for over half of total exports, followed by unmanufactured agricultural industry products and other foodstuffs. Agricultural products as a whole accounted for 99 percent of total U.S. exports to North Korea in 2004. In 2005, the value of U.S. exports to North Korea was \$5.8 million. As in previous years, exports were comprised primarily of agricultural products (98 percent), mainly wheat, soybeans and vegetables. The remaining 2 percent was comprised of finished textile supplies valued at \$100,000. In 2006, according to Census Bureau statistics, exports to North Korea dropped to the lowest level in the past decade, with only \$3,113 in books and printed matter shipped.

Table 4: U.S. Exports to North Korea (in millions of dollars)

2000	2001	2002	2003	2004	2005	2006
\$2.7	\$0.6	\$25.0	\$8.0	\$23.8	\$5.8	\$.003

SOURCE: U.S. Census Bureau, Foreign Trade Division, Data Dissemination Branch, Washington, D.C. 20233

Export license applications approved by the U.S. Government for North Korea increased from six licenses in Fiscal Year 1994 to an annual average of 38 licenses in Fiscal Years 1995-1999 (see Table 5). However, since Fiscal Year 2000, the Department has approved fewer than ten licenses per year. In 2006, BIS approved one license valued at \$217,519, rejected one license worth \$126,430, and returned nine licenses with a total value of \$292,197 without action.

On September 17, 1999, as a result of North Korea's actions at that time, President Clinton announced a decision to ease sanctions maintained against North Korea. Implemented in June 2000, the new policy made most U.S. consumer goods, including humanitarian goods and low-level consumer items, eligible for export without a license to North Korea. This change helps to account for the decline in license applications for North Korea since Fiscal Year 2000.

After North Korea's test launch of ballistic missiles and conduct of a nuclear test in 2006, and consistent with UNSCRs 1695 and 1718, the Department of Commerce amended the EAR to implement additional license requirements for exports and reexports of all items subject to the EAR to North Korea, with the exception of food and EAR99 medicines (i.e., medicines subject to the EAR but not controlled on the Commerce Control List (CCL)). The Department also revised its license review policy for exports and reexports to North Korea certain classes of items and made most license exceptions unavailable for North Korea. This change accounts for the upsurge in the number of license applications filed for North Korea in FY 2007.

Table 5: Export License Applications Commerce Approved for North Korea (Fiscal Year 1994-2007)

Fiscal Year	Number of Applications	Total Value in U.S. Dollars
1994	6	\$66,443
1995	27	\$366,498,433
1996	39	\$209,134,369
1997	47	\$393,281,396
1998	43	\$129,113,580

Fiscal Year	Number of Applications	Total Value in U.S. Dollars
1999	32	\$407,887,147
2000	10	\$31,130,643
2001	7	\$1,187,232
2002	9	\$2,947,044
2003	0	\$0
2004	3	\$140,625
2005	3	\$15,665
2006	1	\$217,519
2007	9	\$26,435,444
TOTAL	236	\$1,568,055,540

Persons Sanctioned for Proliferation-related Activities

The impact on U.S. industry of these controls is minimal as they target one entity at this time, Tula Design Bureau. In 2007, the Department did not receive any license applications involving Tula Design Bureau.

Sudan

U.S. unilateral export sanctions on Sudan have had a minor impact on U.S. industry. Before the U.S. embargo went into effect on November 4, 1997, most of the small number of items that Sudan imported from the United States did not require an export license and, thus, were not affected by export controls. According to Census Bureau statistics, in 2005, U.S. exports to Sudan were valued at \$108.1 million, and primarily consisted of agricultural exports. The CIA estimates that Sudan's total imports from all sources were valued at \$5.0 billion in 2005. Leading suppliers to Sudan were China, Saudi Arabia, the UAE, Egypt, Japan, and India. Leading imports were foodstuffs, manufactured goods, refinery and transport equipment, medicines and chemicals, textiles, and wheat.

After the United States imposed sanctions in 1997, the Treasury Department assumed licensing responsibility for the export and reexport of items subject to the EAR to Sudan. However, the Department of Commerce's regulations remained in place. Therefore, exporters are required to obtain authorization to export items controlled on the CCL to Sudan from both Treasury and Commerce. Starting in November 2004, the two agencies began to process applications simultaneously to minimize shipping delays, especially for non-governmental humanitarian organizations. Previously, applicants were instructed to obtain authorization from Treasury before submitting an application to Commerce. In addition, the Department of Commerce has licensing jurisdiction for the "deemed export" of technology to Sudanese nationals. The Department of the Treasury is solely responsible for licensing the export of agricultural commodities, medical items not listed on the CCL under the provisions of TSRA, and other items not listed on the CCL.

In support of humanitarian efforts, the Department of Commerce approved 64 license applications for Sudan in Fiscal Year 2007 valued at \$40 million. During the same time, 30 applications valued at \$3.5 million were returned without action. Most of these applications were for EAR99 items that did not require a BIS license for export to Sudan. No applications were denied during Fiscal Year 2007.

Table 6: Approved Licenses for Sudan (FY 1992 to FY 2007)

Fiscal Year	Total Applications Approved	Total Value (in U.S. dollars)
1993	2	\$5,404,000
1994	0	\$0
1995	0	\$0
1996	7	\$571,992
1997	10	\$7,095,973
1998	0	\$0
1999	1	\$1
2000	1	\$1
2001	0	\$0
2002	0	\$0
2003	0	\$0
2004	4	\$10,646,641
2005	29	\$20,246,720
2006	42	\$26,955,168
2007	64	\$40,207,142
TOTAL	160	\$111,127,638

Syria

The U.S. Government requires a license for the export and reexport to Syria of all U.S.-origin commodities, technology, and software subject to the EAR except for food and certain medicine. The number of license applications that the Department of Commerce approved to Syria declined from 2003 to 2004 following implementation of the SAA but doubled in 2005 apparently because license applicants better understood that certain categories of items, particularly medical devices and telecommunications equipment, were approvable based on the Presidential waiver exercised when the SAA was implemented.

**Table 7: Approved Commerce Export License Applications for Syria
(FY 1991-2007)**

Fiscal Year	Total Applications Approved	Total Value (in U.S. dollars)
1991	8	\$1,041,504
1992	31	\$46,366,527
1993	106	\$42,896,103
1994	167	\$76,379,096
1995	139	\$68,298,135
1996	80	\$81,006,877
1997	100	\$107,003,346
1998	81	\$80,707,010
1999	100	\$86,534,591
2000	121	\$141,539,669
2001	106	\$70,269,323
2002	95	\$108,101,460
2003	127	\$200,664,118
2004	100	\$246,979,100
2005	210	\$325,088,347
2006	168	\$257,417,642
2007	231	\$1,036,749,878
TOTAL	1,990	\$2,977,042,726

In Fiscal Year 2007, the Department of Commerce approved 231 license applications, valued at \$1.04 billion for Syria. This reflects a significant increase from Fiscal Year 2006, apparently resulting from demand for U.S. medical and telecommunications exports as Syria expands and modernizes its infrastructure in those sectors. The Department returned without action 62 license applications, valued at \$82.4 million, and rejected 7 license applications, valued at \$6.5 million. The Department did not revoke any previously valid licenses. Of note, the Department received numerous informal inquiries from potential export license applicants who chose not to submit an application because no Presidential waivers to the SAA apply to the items that they proposed for export (such as food processing equipment and computers and software for general academic and business use).

Only the United States maintains comprehensive sanctions on Syria. According to the CIA's *World Factbook 2007*, Syria imported an estimated \$6.63 billion in commodities in 2006 (the most recent year for which statistics are available), up slightly from \$5.97

the year before. Leading Syrian imports include machinery and equipment, food, metals, chemicals, and plastics. Syria's leading suppliers were Saudi Arabia (12.1 percent), China (7.8 percent), Egypt (6.1 percent), the United Arab Emirates (5.9 percent), Italy (4.8 percent), Ukraine (4.7 percent), Germany (4.7 percent), and Iran (4.4 percent).

Designated Terrorist Persons and Groups

The Department of Commerce did not review any license applications for SDGTs, SDTs, or FTOs in Fiscal Year 2006. As a result, the economic impact of these controls is presumably minimal. The Department of the Treasury maintains restrictions on activities of U.S. persons involving designated terrorist entities, which the Department of Commerce's controls augment.

United Nations Security Council Arms Embargoes

Rwanda

The arms embargo on Rwanda has had little impact on U.S. industry. Total Rwanda imports were estimated to be valued at \$390 million in 2006. Leading imports for Rwanda were foodstuffs, machinery, steel, petroleum, cement, and construction material. Leading sources of Rwandan imports were Kenya, Germany, Uganda, and Belgium. In 2006, U.S. exports to Rwanda were valued at \$11.7 million, and primarily were comprised of foodstuffs, donated items, medicines, and telecommunications equipment. The Department of Commerce did not receive any license applications for arms-related items to Rwanda in 2007.

5. *Effective Enforcement of Controls*

The Secretary has determined the United States has the ability to effectively enforce these controls. Controls on exports to embargoed and sanctioned countries and persons, including those discussed in this chapter, raise a number of challenges. These include the need to concentrate limited resources on priority areas, developing new strategies to limit reexport violations, strengthening the cooperative relationship with other law enforcement agencies in the United States and overseas, and maintaining a consistent outreach effort to help limit U.S. business vulnerability. Overall, the embargoes are generally understood and supported by the U.S. public. Voluntary cooperation from most U.S. exporters is common.

A number of enforcement actions regarding non-compliance with these export controls occurred during Fiscal Year 2007. For example:

Aircraft Parts: On October 13, 2006, Ernest Koh, doing business as Chong Tek, was sentenced to 52 months imprisonment after his conviction at trial on May 18, 2006, in connection with obtaining U.S. aircraft parts that can be used in C-130 military transport planes and P-3 Naval Aircraft, and diverting those parts to Malaysia for transshipment to

Iran. In addition, the jury found that Koh had laundered millions of dollars from his bank accounts in Singapore through accounts in the United States to promote the ongoing illegal scheme.

Falsification on Self Disclosure: On November 3, 2006, EPMedSystems, Inc., of West Berlin, New Jersey, was fined \$244,000 for charges related to the unlicensed export of EAR99 commodities to Iran and falsifying a Voluntary Self Disclosure (VSD). EPMed was administratively charged with substantive export counts, as well as counts of acting with knowledge, acting to evade the requirements of the EAR, conspiracy to export, and false statements.

Tensile Strength Measuring Equipment: On November 30, 2006, Juan Sevilla, Sales Director of United Calibration Corporation of Huntington Beach, California, was sentenced to five years probation, six months home confinement, 100 hours community service, and a \$10,000 criminal fine for violating the IEEPA by attempting to illegally export machinery and related software to measure the tensile strength of steel to Iran in violation of the U.S. embargo.

Tractor Parts: On June 14, 2007, Saied Shahsavarani, President of Tak Components, Inc., pled guilty to one count of aiding and abetting the operation of an unlicensed money transmitting business. On behalf of Tak Components, Shahsavarani also pled guilty to 16 counts of violating the IEEPA. Tak Components knowingly conducted a series of at least 16 export shipments of equipment described as "gaskets, bearing balls, auto parts, oil or fuel filters and other parts and accessories for tractors" from the United States to Iran. Shahsavarani declared in shipping documents that the end destination for each shipment was in Dubai, UAE, concealing that the intended final destination for the equipment was Iran.

Laboratory Equipment: On July 17, 2007, in U.S. District Court, Eastern District of New York, James Gribbin, of Long Island, New York, pled guilty to conspiracy. Gribbin's plea was entered in connection with his involvement in the illegal export of laboratory equipment to Iran. On June 15, 2007, Patrick Gaillard, President of Oyster Bay Pump Works, Hicksville, New York, pled guilty to conspiracy to violate the IEEPA. In November 2006, Gaillard, through his company Oyster Bay Pump Works, attempted to export two laboratory equipment systems, valued collectively at approximately \$300,000, to Iran via an intermediary in the UAE without the required export license.

Aircraft Parts: On July 30, 2007, Ali Khan, owner of TurboAnalysis, Phoenix, Arizona, was sentenced in U.S. District Court, Eastern District of New York, Brooklyn, in connection with his role in a conspiracy to illegally export aircraft components to Iran. Khan was sentenced by Judge John Gleeson to serve five years probation, perform 300 hours of community service and pay \$1.4 million dollars in forfeiture, \$100,000 in criminal fines. Khan previously pled guilty to one count of conspiracy to violate the

International Emergency Economic Powers Act, in violation of Title 18 U.S.C. Section 371, in September of 2005. Khan also paid an \$110,000 administrative fine pursuant to a Final Order signed on August 8, 2005, in connection with the aforementioned shipments.

C. Consultation with Industry

In a September 5, 2007, *Federal Register* notice (72 FR 50912), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-based export controls. In addition, comments were solicited from the public via the BIS website. Comments from the Department's six Technical Advisory Committees are solicited on an ongoing basis and are not specific to this report. The comment period closed on October 5, 2007. A detailed review of all public comments received can be found in Appendix I.

D. Consultation with Other Countries

The U.S. Government has made reasonable efforts to achieve the purposes of the U.S. embargoes and sanctions through negotiations with other countries, through international fora, and through the United Nations, as outlined in the specific country descriptions that follow.

Burma

The United States consults frequently with other countries, the Association of South-East Asian Nations, and the United Nations regarding the Government of Burma's repression of the democratic opposition in that country. Additionally, the United States has vigorously communicated its concerns to the Government of Burma directly.

Cuba

The Administration has worked diligently with other nations, especially countries in Europe and Latin America, to resolve disputes that arise as result of the U.S. embargo. Differences remain between the United States and other countries concerning the best method to encourage democracy and human rights. However, many nations share with the United States the ultimate goal of a free, peaceful, democratic, and market-oriented Cuba.

Iran

The United States has an ongoing dialogue with its allies and partners on Iran's activities, particularly with members of the United Nations Security Council, the International Atomic Energy Agency (IAEA) Board of Governors, and the European Union. The United States continues to work with other states to prevent Iran's acquisition of a nuclear weapons capability and to increase the pressure on Iran to change its current confrontational course to one of accepting negotiations on the basis of compliance with its international obligations. To that end, the United States is also working with the

IAEA to ensure that it has the capabilities it needs to provide information to the international community about Iran's nuclear program, to verify Iranian declarations with respect to that program, and to execute UNSC requests to verify/monitor Iranian suspension of its proliferation sensitive nuclear activities, as required in UNSC Resolutions 1737 and 1747.

Iraq

Prior to Operation Iraqi Freedom and the lifting of the embargo on Iraq, the United States maintained an ongoing dialogue with other United Nations member states, as well as separately, with its allies and partners. Since the lifting of the embargo, the United States has continued discussions with many other countries on both a bilateral and multilateral basis.

Mayrow General Trading and Related Entities

The United States consults regularly with the Government of the UAE regarding improvement of the Emiratis' federal export control system. Additionally, the United States has consulted with other countries, including but not limited to those in which entities designated under General Order No. 3 are located.

North Korea

The United States continues to seek the verifiable denuclearization of North Korea through the Six-Party Talks, which include China, the Democratic People's Republic of Korea (North Korea), Japan, the Republic of Korea (South Korea), and Russia. In the September 2005 Joint Statement, "The Six Parties unanimously reaffirmed that the goal of the Six-Party Talks is the verifiable denuclearization of the Korean Peninsula in a peaceful manner." The February 13, 2007, Initial Actions for the Implementation of the Joint Statement provided for the establishment of five working groups to carry out the initial actions and for the purpose of full implementation of the Joint Statement. These are the Working Groups on Denuclearization of the Korean Peninsula; Normalization of Democratic People's Republic of Korea (DPRK) - U.S. Relations; Normalization of DPRK- Japan- Relations; Economy and Energy Cooperation; and Northeast Asia Peace and Security Mechanism. The United States welcomed the completion of first phase actions under the Initial Actions agreement, including the shut down and sealing of the Yongbyon nuclear facility and the return of IAEA personnel to conduct monitoring and verification activities. On October 3, 2007, the six parties issued the Second-Phase Actions for the Implementation of the Joint Statement, in which the DPRK agreed to provide a complete and correct declaration of all its nuclear programs and to disable all existing nuclear facilities subject to the Joint Statement and the February 13 Initial Actions agreement by the end of 2007.

Persons Sanctioned for Proliferation-related Activities The United States consulted with the Government of Russia prior to the imposition of sanctions on the Russian entity.

Additionally, the United States consults on a regular basis with other countries on proliferation and trafficking-related issues.

Sudan

The United States continues to consult with other countries regarding the internal conflict in Sudan and the humanitarian needs of the population. Many of these consultations have occurred within the United Nations as well as the Intergovernmental Authority on Development (IGAD), which is the entity that sponsored the peace talks between the Government of Sudan, and the Sudan People's Liberation Movement/Army (SPLM/A).

Syria

The United States is in constant communication with other countries regarding the Syrian Government's interference in Lebanon and support for terrorism. Additionally, the United States has communicated its concerns to the Government of Syria directly and forcefully through the U.S. Embassy in Syria and the Syrian Ambassador in Washington.

Designated Terrorist Persons and Groups

The United States cooperates with allies and partners and shares information on the activities of designated terrorist entities. It is expected that strong international support for the U.S. fight against terrorism will further facilitate dialogue on foreign export control expansion.

United Nations Security Council Arms Embargoes

Most countries support international efforts to stabilize Rwanda and other affected countries in order to prevent further ethnic conflict and regional instability, including through compliance with the United Nations arms embargoes.

E. Alternative Means

The U.S. Government imposes embargoes and sanctions in an effort to make a strong statement against a particular country's policies or a person's actions. Restrictions on exports can supplement other actions that the U.S. Government takes to change the behavior of the target countries and persons, including such actions as severing diplomatic relations, banning imports into the United States, seeking UN denunciations, and curtailing or discouraging bilateral educational, scientific, or cultural exchanges. The U.S. Government has had some success using these alternative means to reach the intended foreign policy objectives. Nonetheless, these trade sanctions remain a critical part of the U.S. Government's foreign policy. U.S. Government embargoes and sanctions complement diplomatic measures and continue to be used to influence the behavior of these countries.

F. Foreign Availability

The foreign availability of items controlled under Section 6(a) has been considered by the Department of Commerce. In general, numerous foreign sources of commodities and technology similar to those subject to these controls are known, especially for items controlled by the U.S. Government. Although the embargoes and comprehensive sanctions described in this chapter are widely followed and many have significant multilateral support, the U.S. Government's continued use of embargoes and sanctions serve foreign policy interests that override the impact of foreign availability.

CHAPTER 6

Toxic Chemicals, Chemical Precursors, and Associated Equipment, Technology, and Software (Sections 742.2, 742.18, 744.4, 744.6, and 745)⁷

Export Control Program Description and Licensing Policy

The U.S. Government maintains export controls on certain chemicals, equipment, materials, software, technology, and entire plants to further U.S. foreign policy, which opposes the proliferation and use of chemical weapons. The U.S. Government implements these controls in coordination with the Australia Group (AG), an informal forum of 40 nations and the European Commission that cooperate to halt the proliferation of chemical and biological weapons. (See Appendix II for a complete list of AG members.) The United States fulfills its obligations under the Chemical Weapons Convention (CWC) by maintaining controls on certain chemicals.⁸

Australia Group Controls

The AG was formed in 1985 when the United States and 14 other nations agreed on the need to enhance cooperation and harmonize national licensing measures on a number of chemicals that could be used to produce chemical weapons. Since then, the AG has expanded its membership and has expanded its export control list to cover various chemical and biological weapons-related items. AG member countries use the AG control list and guidelines as a basis for developing and imposing their national export controls. The AG has a no-undercut policy, requiring consultation with a partner that has previously denied an AG-controlled export pursuant to AG guidelines, if the transaction is essentially identical.

License Requirements and Licensing Policy for AG Controls

The licensing requirements for chemicals, equipment, materials, software, technology, and entire plants imposed in accordance with AG commitments are noted below. There are 14 entries on the Commerce Control List (CCL) that are subject to chemical controls.

⁷ Chapter 7 of this report addresses U.S. biological controls.

⁸ *The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (the “Chemical Weapons Convention” or CWC) was ratified by the United States on April 25, 1997, and entered into force on April 29, 1997.*

A. The U.S. Government requires a license for the export to all destinations other than AG member countries of AG-controlled precursor and intermediate chemicals, which can be used in the production of toxic chemical warfare agents; as well as relevant process control software; technology for the use, production, and/or disposal of such items; and the facilities designed to produce them.

The U.S. Government requires a license for the export to all destinations other than AG member countries of certain chemical manufacturing facilities and equipment, toxic gas monitoring systems, and detectors that can be used in the production of chemical warfare agents, and the technology for the use of such items. The countries to which these licensing requirements apply are listed in Column CB2 of the Commerce Country Chart, Part 738, and Supplement No. 1 of the Export Administration Regulations (EAR). These licensing requirements also apply for the export of these items to designated terrorist-supporting countries.

The U.S. Government also controls items subject to the EAR because of chemical or biological end-use or end-user concerns. These controls are part of the Enhanced Proliferation Control Initiative (EPCI), announced by President George H. W. Bush on December 13, 1990.

- The U.S. Government requires a license for the export of any commodity, technology, or software to all destinations, worldwide, including to AG member countries, when the exporter knows that it will be used in the design, development, production, stockpiling, or use of chemical weapons. In addition, the U.S. Government may inform an exporter or reexporter that a license is required due to an unacceptable risk that the items will be used in, or diverted to, chemical weapons proliferation activities anywhere in the world.
- No U.S. person may knowingly support such an export, reexport, or transfer without a license. “Support” is defined as any action, including financing, transportation, or freight forwarding that facilitates the export, reexport, or transfer of these items.
- In addition, no U.S. person may, without a license, perform any contract, service, or employment knowing that it will directly assist in the design, development, production, stockpiling, or use of chemical weapons in, or by, any country or destination worldwide.

B. The Department of Commerce, in coordination with the Departments of Defense, Energy, and State, reviews applications for licenses to export AG-controlled items on a case-by-case basis to determine whether the export would make a material contribution to the design, development, production, stockpiling, or use of chemical weapons. When the Department of Commerce determines from an interagency review that an export will make such a contribution, the Department will deny the license.

Trade Restrictions under the Chemical Weapons Convention

The Chemical Weapons Convention (CWC), which entered into force in April 1997, bans the development, production, stockpiling, retention, use, or transfer of chemical weapons, and establishes an extensive verification regime. The CWC Annex on Chemicals groups specified chemicals, including toxic chemicals and chemical precursors, into three “Schedules.” Chemicals are listed in a schedule based on factors specified in the Convention, such as the level of toxicity and other properties that enable their use in chemical weapons. The toxic chemicals and precursors on Schedule 1 were previously developed or used as chemical weapons, or pose a high risk based on the dangers identified in the Convention and have few, if any, commercial applications. The toxic chemicals and precursors on Schedule 2 pose a significant risk in light of the dangers identified in the CWC and are not produced in large commercial quantities. The toxic chemicals and precursors on Schedule 3 have been produced or used as chemical weapons or pose a risk based on the dangers identified in the CWC, and may be produced in large commercial quantities. The Department of State, under the International Traffic in Arms Regulations, controls the chemical warfare agents deemed to have military application, which by their ordinary and direct chemical action produce a powerful physiological effect.

License Requirements and Licensing Policy for CWC Controls

The export restrictions and licensing requirements for chemicals and technology imposed in fulfillment of CWC treaty obligations are as follows:

A. Exports of Schedule 1 chemicals subject to Department of Commerce jurisdiction are banned to destinations in countries that have not ratified or acceded to the CWC. The United States requires a license and prior notification of a planned export of Schedule 1 chemicals to all States Party to the CWC, including Canada. A license is also required for the shipment of Schedule 2 chemicals to States not Party to the CWC. Under the CWC, the governments of States not Party to the CWC are required to provide end-use certificates for imports of Schedule 3 chemicals.

B. The U.S. Government’s policy is to review export license applications for Schedule 1 chemicals to States Party to the CWC on a case-by-case basis. The Department of Commerce approves exports only to States Party and only for purposes not prohibited by the treaty. The U.S. Government has a policy of denial for the export of Schedule 1 chemicals to States not Party to the CWC.

The U.S. Government has a general policy of denial for applications to export Schedule 2 chemicals to States not Party to the CWC. The U.S. Government also will generally deny applications to export Schedule 3 chemicals to States not Party to the CWC, unless the importing country provides an end-use certificate.

In addition, the U.S. Government reviews exports and reexports of technology related to the development and production of mixtures containing PFIB, phosgene, cyanogen chloride, and hydrogen cyanide on a case-by-case basis. There is a policy of denial for export of these technologies to Cuba, Iran, Sudan, Syria, and North Korea.

Summary of 2007 Changes

On September 12, 2007, the Department of Commerce published a final rule in the *Federal Register* (72 FR 52000) implementing changes made to the Commerce Control List (CCL) deriving from understandings reached at the June 2007 AG Plenary meeting. Among other changes, the rule made conforming changes to the EAR and CCL as a result of Croatia joining the AG; and clarified treatment of exports to Macau as being identical to treatments of exports to China for export control purposes.

Analysis of Control as Required by Section 6(f) of the Act

A. The Purpose of the Controls

The purpose of these controls is to support the efforts of the AG to halt the development and production of chemical weapons and to comply with international obligations under the CWC. In addition, these controls implement certain measures specified in Executive Order 12735 of November 16, 1990, its successor, Executive Order 12938 of November 14, 1994, and the Enhanced Proliferation Control Initiative (EPCI) announced on December 13, 1990. In so doing, the controls provide the U.S. Government with the authority to regulate the export of any item from the United States when there is a significant risk that it will be used for chemical weapons proliferation purposes.

The AG works to further nonproliferation objectives through harmonizing export controls, exchanging information, and other diplomatic means. In addition to furthering the objectives of the AG, these controls support U.S. compliance efforts with the CWC. To ensure that States Party to the Convention do not transfer chemicals that could assist States not Party to the CWC in acquiring chemical weapons, the CWC requires that States Party restrict the export of certain chemicals listed in the CWC's Annex on Chemicals. The controls also support the goals of the 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare.

B. Considerations and/or Determinations of the Secretary of Commerce

1. Probability of Achieving the Intended Foreign Policy Purpose. The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose, in light of other factors, including availability of relevant items from other countries, and that the foreign policy purpose cannot fully be achieved through

negotiations or other alternative means. Many of the items covered by these controls have commercial uses and are widely available from foreign sources. Some of the major sources of these items are located in industrialized countries that are members of the AG and are States Party to the CWC. Although it is not expected that export controls alone can prevent the proliferation of chemical weapons, these controls strengthen U.S. and like-minded states' efforts to stem the spread of such weapons and continue to be a significant part of the overall nonproliferation strategy of the United States.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that these controls are compatible with U.S. foreign policy objectives and that the extension of these controls will not have any significant adverse foreign policy consequences. The U.S. Government has a strong interest in remaining at the forefront of international efforts to stem the proliferation of chemical weapons. These controls are compatible with the multilateral export controls for chemicals and related equipment and technology agreed to by the AG. Moreover, the U.S. Government has a binding international obligation under the CWC to prohibit and eliminate chemical weapons; not to assist anyone, in any way, in chemical weapons activities; and to control certain chemical exports.

3. *Reaction of Other Countries.* The Secretary has determined that any adverse reaction to these controls is not likely to render the controls ineffective, nor will any adverse reaction by other countries be counter-productive to U.S. foreign policy interests. The U.S. Government continues to discuss chemical export controls with countries outside of the AG to advance the goals of nonproliferation. The governments of some developing countries claim that AG export controls discriminate against less industrialized nations by depriving them of goods and assistance in the field of chemical technology. The United States considers that these assertions are incorrect. In fact, in international fora, the U.S. Government has sought to dispel this perception by clarifying the purpose of the controls and by demonstrating that the U.S. Government denies few export license requests for shipment to developing countries.

4. *Economic Impact on United States Industry.* The Secretary has determined that any adverse effect of these controls on the economy of the United States, including on the competitive position of the United States in the international economy, does not exceed the benefit to U.S. foreign policy objectives.

In Fiscal Year 2007, the Department of Commerce approved 2,564 license applications, valued at \$809,820,702, for the export or reexport of chemical precursors and equipment. The majority of the value of these approvals (69.5 percent) were for precursor chemicals controlled under ECCN 1C350, which are chemicals that have many commercial uses. Almost all of the remaining value of these approvals (29.8 percent) were for chemical equipment controlled under ECCN 2B350, which is equipment with many commercial uses. The Department denied 3 license applications valued at \$171,217 and returned

without action 206 license applications valued at \$62,581,910. The primary reason for returning applications was for insufficient information about the transaction. The actual trade in these controlled commodities is significantly greater than the value of the license applications submitted because exporters may export many of these commodities to AG member countries without a license.

5. *Effective Enforcement of Control.* The Secretary has determined the United States has the ability to enforce these controls effectively. The size, dispersion, diversity, and specialized nature of the dual use chemical industry make detecting and investigating potential violations difficult for enforcement personnel. Challenges include distinguishing commercial procurement from chemical weapons-related transactions, and establishing appropriate commodity thresholds for targeting and tracking exports and reexports for verification of end-use and end-users. It is also difficult to detect and investigate cases under the “knowledge” standard set by the EPCI “catch-all” provision and some countries have different standards for “catch-all,” which complicates law enforcement cooperation. In addition, enforcement officers may be exposed to personal safety risks when seizing and inspecting chemical materials.

To meet the challenge of effective enforcement of these controls, the Department of Commerce has directed resources toward preventive enforcement, in addition to continued efforts to pursue all leads provided by intelligence, industry, and other sources on activities of concern. Also, the Department of Commerce’s extensive outreach program educates companies about export controls related to chemical products and helps prevent the illegal export of dual-use products that can be used to make chemical weapons. In cases where unlicensed shipments of chemical materials have already taken place, the Department of Commerce has found that, as in other export control enforcement cases, analysis of commercial shipping documentation can lead to successful investigations and prosecutions.

C. Consultation with Industry

The Department of Commerce interacts with the chemical industry in a number of ways, including with individual companies seeking export licenses, through the Technical Advisory Committees (TACs), and through trade associations. The Department consults regularly with exporting firms on proposed export transactions and marketing plans to facilitate the thorough, yet prompt, review of export license applications. Through the TACs, the Department keeps industry representatives abreast of proposals for the review of items on the Control List and gives them the opportunity to provide technical input.

The Department of Commerce works with chemical industry associations, including the American Chemistry Council and the Synthetic Organic Chemical Manufacturers Association, and with government agencies such as the Federal Bureau of Investigation

and the Department of Defense, to gain valuable input regarding CWC implementation and to meet the United States' CWC responsibilities.

In a September 5, 2007, *Federal Register* notice (72 FR 50912), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-based export controls. In addition, comments were solicited from the public via the BIS website. Comments from the Department's six Technical Advisory Committees are solicited on an ongoing basis and are not specific to this report. The comment period closed on October 5, 2007. A detailed review of all public comments received can be found in Appendix I.

D. Consultation with Other Countries

These controls are consistent with the multilateral export control criteria of the AG, which includes many of the world's major chemical producers and traders. As such, the controls have been agreed through negotiations with the member countries of the AG. In addition, a number of non-AG countries, including Russia and China, have taken steps to adopt AG-type controls. An important element of the AG's efforts to curb the development of chemical weapons is contacting non-members to encourage them to observe similar export controls. The U.S. Government continues to encourage harmonization of export control provisions among AG participants to ensure a level playing field for U.S. exporters.

E. Alternative Means

The U.S. Government continues to address the problem of the proliferation of chemical weapons on a number of fronts. Direct negotiations with countries intent on acquiring chemical weapons are not likely to prevent the use of controlled materials in such activities, nor are such negotiations likely to affect the behavior of these countries.

Alternative means to curtail the acquisition and development of chemical warfare capabilities, such as diplomatic negotiations, do not obviate the need for controls. Examples of additional means that the U.S. Government has used, and will continue to use, in an attempt to curb the use and spread of weapons of mass destruction include:

- Sanctions: U.S. laws such as the Chemical and Biological Weapons Control and Warfare Elimination Act of 1991 (Pub. L. 102-182, Title III, Dec. 4, 1991, 105 Stat. 1245), the Iran-Iraq Arms Non-Proliferation Act of 1992 (Pub. L. 102-484) (Title XVI), the Iran Nonproliferation Act of 2000 (Pub. L. 106-178), the Iran Nonproliferation Amendments Act of 2005 (Pub. L. 109-112), and the North Korea Nonproliferation Act of 2006 (Pub. L. 109-353) provide for the imposition of sanctions on foreign entities and countries for certain kinds of chemical and

biological weapons-related activity. The U.S. Government has imposed sanctions under these authorities on certain entities for chemical weapons-related activities.

- Universality of the CWC: As another tool for stemming the proliferation of chemical weapons, the CWC imposes a global ban on the development, production, stockpiling, retention, and use of chemical weapons. The CWC also prohibits the direct or indirect transfer of chemical weapons, restricts trade in certain chemicals to States not Party to the CWC and has created an international organization to monitor the destruction of chemical weapons and the production, use, and trade of toxic chemicals and chemical precursors in and among States Party to the CWC.

As part of its CWC implementation activities, the Department of Commerce also collects industry reports regarding the production, processing, consumption, import, and export of toxic chemicals and chemical precursors for purposes not prohibited by the CWC (e.g., industrial, agricultural, and other peaceful purposes), which are forwarded to the Organization for the Prohibition of Chemical Weapons (OPCW). The Department of Commerce also escorts inspectors from the OPCW as they inspect certain U.S. chemical facilities to verify that activities are consistent with the information provided in the industry reports and with other treaty provisions.

F. Foreign Availability

Past reviews conducted by the Department of Commerce revealed that a wide range of AG chemical precursors and production equipment were available from non-AG countries. Non-AG suppliers of precursors and/or related production equipment include Brazil, Chile, Colombia, India, Mexico, China (PRC), South Africa, the countries of the former Soviet Union, Taiwan, and Thailand. However, most have become States Party to the CWC and will take steps under this treaty to prevent chemical weapons development and production. As such, the U.S. Government has made efforts through its membership in both the AG and CWC to secure the cooperation of foreign governments to control the foreign availability of chemical precursors and production equipment.

CHAPTER 7

Biological Agents and Associated Equipment and Technology (Sections 742.2, 744.4 and 744.6)⁹

Export Control Program Description and Licensing Policy

The U.S. Government controls the export of certain microorganisms, toxins, biological equipment, and related technology to further U.S. foreign policy interests in opposing the proliferation and use of biological weapons. The U.S. Government implements these export controls multilaterally in coordination with the Australia Group (AG), a forum of 40 nations and the European Commission cooperating to halt the proliferation of chemical and biological weapons. The U.S. Government also supports international efforts to secure a total ban on biological weapons in compliance with the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (BWC).¹⁰

Australia Group Controls

The AG was formed in 1985 when the United States and 14 other nations agreed on the need to enhance cooperation and harmonize national licensing measures on a number of chemical agents that could be used to produce chemical weapons. Since then, the AG has expanded its membership and has expanded its export control list to cover various chemical and biological weapons-related items. AG member countries use the AG control list and guidelines as a basis for developing and imposing their national export controls. The AG has a no-undercut policy, requiring consultation with a partner that has previously denied an AG-controlled export pursuant to AG guidelines, if the transaction is essentially identical.

Licensing Requirements and Licensing Policy

The licensing requirements for biological agents, related equipment, and technology, imposed in accordance with AG commitments are noted below. There are 12 entries on the Commerce Control List (CCL) that are subject to biological controls.

⁹ Chapter 6 of this report addresses U.S. chemical controls.

¹⁰ *The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (BWC) was signed in 1972 and ratified by the United States in 1975.*

A. The U.S. Government requires a license for the export to all destinations of certain human pathogens, zoonoses, toxins, animal pathogens, genetically modified microorganisms and plant pathogens, and the technology for their production and/or disposal.

The U.S. Government also requires a license for the export to specified countries of certain dual-use equipment and materials that can be used to produce biological agents and related production technology. The countries for which this licensing requirement applies are those indicated in Column CB2 of the Commerce Country Chart, Supplement No. 1 to Part 738 of the Export Administration Regulations (EAR), as well as the embargoed destinations identified in EAR Part 746.

The U.S. Government also controls items subject to the EAR because of biological end-use or end-user concerns. These controls are part of the Enhanced Proliferation Control Initiative (EPCI), announced by President George H. W. Bush on December 13, 1990.

- The U.S. Government requires a license for the export of any commodity, technology, or software when the exporter knows that it will be used in the design, development, production, stockpiling, or use of biological weapons in, or by, any country anywhere in the world, including AG member countries. In addition, the U.S. Government may inform an exporter or reexporter that a license is required due to an unacceptable risk that the items will be used in, or diverted to, biological weapons proliferation activities anywhere in the world.
- No U.S. person may knowingly support such an export, reexport, or transfer without a license. “Support” is defined as any action, including financing, transportation, or freight forwarding that facilitates the export, reexport, or transfer of these items.
- In addition, no U.S. person may perform, without a license, any contract, service, or employment knowing that it will directly assist the design, development, production, stockpiling, or use of biological weapons in, or by, any destination or country anywhere in the world.

B. The Department of Commerce, in coordination with the Departments of Defense, Energy, and State, reviews applications for licenses on a case-by-case basis to determine whether the export would make a material contribution to the design, development, production, stockpiling, or use of biological weapons. When the Department of Commerce determines as a result of an interagency review that an export will make such a contribution, it will deny the application.

Summary of 2007 Changes

On September 12, 2007, the Department of Commerce published a rule in the *Federal Register* (72 FR 52000) to conform our regulations to agreements reached at the June, 2007 Australia Group plenary. The Department narrowed the scope of our regulations

controlling mycoplasma mycoides to apply to only specific subspecies and strains of the bacteria and updated a Technical Note to reference the current edition of the World Health Organization (WHO) “Laboratory Biosafety Manual” (i.e., 3rd edition, Geneva, 2004).

Analysis of Controls as Required by Section 6(f) of the Act

A. The Purpose of the Controls

The controls described above are intended to prevent a U.S. contribution to the proliferation and illegal use of biological weapons, and to support multilaterally coordinated control efforts. The controls also provide the regulatory authority to stop the export of any item from the United States when there is a significant risk that it will be used for biological weapons purposes. The controls implement certain measures directed in Executive Order 12735 of November 16, 1990, its successor, Executive Order 12938 of November 14, 1994, and the Enhanced Proliferation Control Initiative (EPCI) announced on December 13, 1990.

The U.S. Government implements these controls in coordination with the AG. The AG works to accomplish multilateral objectives through harmonizing export controls, exchanging information, and other diplomatic means. In addition, these EAR controls demonstrate the commitment of the United States to its obligation under the BWC not to develop, produce, stockpile, acquire, or retain biological agents, weapons, equipment, or the means of delivery for warfare purposes, or to assist others in such activities. The controls also advance the goals of the 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases and of Bacteriological Methods of Warfare (Geneva Protocol).

B. Considerations and/or Determinations of the Secretary of Commerce

1. *Probability of Achieving the Intended Foreign Policy Purpose.* The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose, in light of other factors, including availability of relevant items from other countries, and that the foreign policy purpose cannot fully be achieved through negotiations with its partners in the AG and in the BWC. The Secretary has made this determination despite the existence of certain factors, including availability of these items from other sources, which challenge the full achievement of foreign policy goals. These controls affirm U.S. opposition to the development, proliferation, and use of biological weapons and serve to distance the United States from such activities.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that these controls are compatible with U.S. foreign policy objectives and that the extension of these controls will not have any significant adverse foreign policy consequences. The U.S. Government has a strong interest in remaining at the forefront of international

efforts to stem the proliferation of biological weapons. Also, these controls are compatible with the multilateral export controls for biological materials agreed to by the AG.

3. *Reaction of Other Countries.* The Secretary has determined that any adverse reaction to these controls is not likely to render the controls ineffective, nor will any adverse reaction by other countries be counterproductive to U.S. foreign policy interests. The U.S. Government continues to discuss biological export controls with countries outside of the AG to advance the goals of nonproliferation.

4. *Economic Impact on U.S. Industry.* The Secretary has determined that any adverse effect of these controls on the economy of the United States, including on the competitive position of the United States in the international economy, does not exceed the benefit to United States foreign policy objectives.

In Fiscal Year 2007, the Department of Commerce approved 1,355 license applications, valued at \$65,165,616, for the export or reexport of biological agents and equipment. The vast majority of the licenses approved were for toxins in ECCN 1C351. The Department of Commerce denied 2 license applications for biological agents/equipment valued at \$144,300, and returned without action 64 license applications valued at \$5,850,373. The primary reason cited for returning applications was for insufficient information about the transaction.

5. *Effective Enforcement of Controls.* The Secretary has determined the United States has the ability to enforce these controls effectively. Enforcing controls on biological weapons-related materials poses problems similar to the enforcement of chemical controls, but with additional difficulties. Biological materials are microscopic organisms that require technical expertise and specialized facilities to identify and to handle. Because of their size, biological agents can often be concealed and transported with ease.

To meet the challenge of effective enforcement of these proliferation controls, the Department of Commerce has focused resources toward preventive enforcement. Commerce personnel conduct an extensive, ongoing outreach program to educate industry about export controls. The program also is designed to increase industry's awareness of suspect orders for products or equipment that could be used for biological weapons proliferation. In cases where unlicensed shipments of biological materials have already taken place, the Department of Commerce has found that, as in other export control enforcement cases, analysis of commercial shipping documentation can lead to successful investigations and prosecutions.

C. Consultation with Industry

Exporters of biological products include commercial firms as well as academic and government entities. The Department of Commerce maintains ongoing interaction with individual exporters, Technical Advisory Committees (TACs), and trade associations to discuss proposed export transactions and marketing plans to facilitate the thorough, yet prompt, review of export license applications. Through the TACs, the Department keeps industry representatives abreast of licensing proposals for items on the control list and gives them the opportunity to provide technical input.

In a September 5, 2007, *Federal Register* notice (72 FR 50912), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-based export controls. In addition, comments were solicited from the public via the BIS website. Comments from the Department's six Technical Advisory Committees are solicited on an ongoing basis and are not specific to this report. The comment period closed on October 5, 2007. A detailed review of all public comments received can be found in Appendix I.

D. Consultation with Other Countries

Recognizing that multilateral coordination of export controls and enforcement actions is the most effective means of restricting proliferation activities, the U.S. Government coordinates its controls on biological items with other countries in the AG. The U.S. Government continues to address the problem of biological weapons proliferation through a variety of international fora and urges other AG members to pursue export control cooperation with non-members on a bilateral or regional basis.

E. Alternative Means

The U.S. Government continues to address the problem of biological weapons proliferation on a number of fronts. Direct negotiations with countries intent on acquiring biological weapons are not likely to prevent the use of U.S.-origin materials for such activities and such negotiations are unlikely to affect the behavior of these countries.

Alternative means to curtail the acquisition and development of biological warfare capabilities, such as diplomatic negotiations, do not obviate the need for controls. The following examples demonstrate additional means that have been, and will continue to be, used in an attempt to curb the use and spread of weapons of mass destruction:

- Regulations issued by the Public Health Service (42 CFR Part 72) pursuant to "The Antiterrorism and Effective Death Penalty Act of 1996" (Sec. 511 of Pub. L.104-132, April 24, 1996, 110 Stat. 1214) place additional shipping and handling requirements on laboratory facilities that transfer or receive select infectious agents capable of causing substantial harm to human health.

- The Chemical and Biological Weapons Control and Warfare Elimination Act of 1991 (Pub. L.102-182, Title III, December 4, 1991, 105 Stat. 1245), the Iran-Iraq Arms Non-Proliferation Act of 1992 (Pub. L. 102-484) (Title XVI), the Iran Nonproliferation Act of 2000 (Pub. L. 106-178), the Iran Nonproliferation Amendments Act of 2005 (Pub. L. 109-112), and the North Korea Nonproliferation Act of 2006 (Pub. L. 109-353) provide for the imposition of sanctions on foreign persons or countries for certain kinds of chemical and biological weapons-related activity. The U.S. Government has imposed sanctions under these authorities on certain entities for chemical and biological weapons-related activities.

The negotiations and alternative means undertaken by the U.S. Government demonstrate that it has made reasonable efforts to achieve the purposes of the controls; however, these actions have not had results that are as effective as the maintenance and renewal of the controls.

F. Foreign Availability

Most of the AG-controlled biological agents, and related equipment to produce them, are available from many sources (biological agents are, in fact, endemic). Notwithstanding the difficulties related to effectively controlling these items, the United States and its AG partners consider it necessary to maintain controls in order to stem shipments to potential weapons developers. Foreign availability is a factor considered by the AG member countries in their coordination of controls.

CHAPTER 8

Missile Technology Controls (Sections 742.5 and 744.3)

Export Control Program Description and Licensing Policy

The U.S. Government maintains export controls on certain equipment, materials, software, and technology to further U.S. foreign policy, which opposes the proliferation of missiles capable of delivering weapons of mass destruction (WMD). The U.S. Government implements these controls in coordination with the members of the Missile Technology Control Regime (MTCR), an informal forum of 34 nations that cooperate to halt the proliferation of such missiles. (See Appendix II for a complete list of MTCR members.) Of note, several other countries, including Israel, Romania, and Slovakia, unilaterally adhere to the MTCR Guidelines.

Missile Technology Control Regime Controls

On April 16, 1987, the United States, Canada, France, Germany, Italy, Japan, and the United Kingdom created the MTCR to limit the proliferation of missiles capable of delivering nuclear weapons. Member countries agreed to further expand the MTCR controls in 1993 to include missile delivery systems for all types of WMD. The MTCR Equipment, Software, and Technology Annex is the list of missile-related items to be controlled pursuant to the MTCR Guidelines, and is divided into two categories. Category I items include missile systems and major subsystems, production facilities, and production equipment for missile systems capable of delivering at least a 500 kilogram (kg) payload to at least a 300 kilometer (km) range. Category II items include materials, components, and production and test equipment associated with Category I items, as well as missile subsystems, production facilities, and production equipment for missile systems with a range equal to or greater than 300 km, regardless of payload.

Licensing Requirements and Licensing Policy for MTCR Controls

The Department of Commerce is responsible for administering controls on manufacturing equipment for Category I items, and all dual-use items in Category II. The MTCR Guidelines and the Equipment, Software, and Technology Annex form the basis for U.S. missile technology controls. The MTCR Guidelines provide licensing policy, procedures, review factors, and standard assurances on missile technology exports. There are approximately 120 entries on the Commerce Control List (CCL) that are subject to missile technology controls. Category I items are subject to a strong presumption of denial regardless of purpose, and the transfer of production facilities for Category I items is prohibited. The Department will approve the export of Category II items only after a case-by-case review consistent with U.S. law, policy, regulations, and

international non-proliferation commitments. The United States observes the multilateral commitment to honor the denial of licenses by other members and to support such denials through a “no undercut” policy. This policy enhances efforts to prevent missile proliferation and prevents unfair commercial advantage among regime members.

Licensing Requirements and Licensing Policy

In summary, the licensing requirements and policy for missile technology controls described in Sections 742.5 and 744.3 of the Export Administration Regulations (EAR) are as follows:

A. The U.S. Government requires a license for the export or reexport to all destinations except Canada of those dual-use items specifically identified on the CCL as controlled for missile technology reasons.

B. The U.S. Government also controls items subject to the EAR due to end-use or end-user concerns related to the proliferation of certain rocket systems and unmanned air vehicles, including missile systems. These controls are part of the Enhanced Proliferation Control Initiative (EPCI), announced by President George H. W. Bush on December 13, 1990. The U.S. missile catch-all policy meets U.S. nonproliferation objectives and is consistent with the MTCR Guidelines. The Department of Commerce reviews applications for licenses on a case-by-case basis to determine whether the export would make a material contribution to the proliferation of certain rocket systems, or unmanned air vehicles. When the Department of Commerce determines that an export will make such a contribution, the Department will deny the application.

Summary of 2007 Changes:

On May 7, 2007, the Department published in the *Federal Register* an amendment to the EAR to implement changes to the MTCR Annex that member countries agreed to at the October 2006 Plenary in Copenhagen, Denmark (72 FR 25680). The amendment clarified the control parameters on several dual-use items to make clear that the items were controlled when used in rockets, missiles, and unmanned aerial vehicles capable of a range of at least 300 kilometers, regardless of the payload. The amendment also added a new Export Control Classification Number (ECCN) -- 7A107 -- to control three axis magnetic heading sensors designed or modified to be integrated with flight control and navigation systems.

Analysis of Controls as Required by Section 6(f) of the Act

A. The Purpose of the Controls

These controls curtail the availability of goods and technology and other support that could contribute to missile proliferation. U.S. export controls on specific types of

missile-related equipment and technology, in coordination with other supplier countries, limit the proliferation of missile systems and related technology. These controls complement U.S. and international nuclear, chemical, and biological nonproliferation efforts by blocking the development of unmanned delivery systems for WMD. These controls provide U.S. support to the collective effort of the MTCR to address mounting international concern regarding missile proliferation.

B. Considerations and/or Determinations of the Secretary of Commerce

- 1. *Probability of Achieving the Intended Foreign Policy Purpose.*** The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose, in light of other factors, including the limited foreign availability of these MT-controlled items, and that the foreign policy purpose cannot fully be achieved through negotiations or other alternative means. The controls at issue have been in part achieved through international or multilateral negotiations. Although some controlled items are available from other countries, cooperation among the United States, its MTCR Partners, and other like-minded countries, many of which are major producers of the items under control, has hindered the efforts of proliferators to develop or acquire militarily effective missiles. The Secretary has determined that extending these controls is likely to limit the spread of missile delivery systems.
- 2. *Compatibility with Foreign Policy Objectives.*** The Secretary has determined that these controls are compatible with U.S. foreign policy objectives and that the extension of these controls will not have any significant adverse foreign policy consequences. Halting the spread of missiles and related equipment and technology worldwide is a key U.S. national security and nonproliferation objective. Missile technology export controls are consistent with, and contribute to, achieving this objective. U.S. membership in the MTCR complements existing nuclear, chemical, and biological nonproliferation policies by curbing the spread of missile technology and equipment for the delivery of WMD.
- 3. *Reaction of Other Countries.*** The Secretary has determined that any adverse reaction to these controls is not likely to render the controls ineffective, nor will any adverse reaction by other countries be counter-productive to U.S. foreign policy interests. The United States is confident that other members of and unilateral adherents to the MTCR, many of which are also the leading suppliers of missile-related technology, will continue to support and strengthen this control regime. MTCR Partners share information regarding denials of Annex items and are committed to a “no undercut policy.” MTCR Partners also share information about potential activities of proliferation concern and have cooperated to interdict specific shipments of proliferation concern. The number of MTCR members and other countries willing to cooperate with the regime has increased over the past few years. Finally, the United States and its MTCR Partners are actively engaged in an outreach program to encourage additional countries to adhere to the Guidelines and implement effective export controls on MTCR items.

4. *Economic Impact on U.S. Industry.* The Secretary has determined that any adverse effect of these controls on the U.S. economy, including on the competitive position of the United States in the international economy, does not exceed the benefits to U.S. foreign policy objectives. Only a narrow list of items is subject to missile controls, and the effect on overall U.S. trade is limited. The commitment by MTCR to a “no undercut policy” helps ensure that no member obtains an unfair commercial advantage in the international marketplace.

In Fiscal Year 2007, the Department of Commerce approved 905 applications, valued at \$1.8 billion dollars, for the export or reexport of missile-technology controlled items. In addition, the Department rejected 6 applications valued at \$5.7 million and returned without action 47 applications valued at \$42.5 million. Comparatively few licenses for missile technology items are denied because: (1) exporters do not generally pursue transactions they understand will be rejected (based on the applicable licensing policy); and (2) most of the applications involve exports to countries, and for end-uses, that do not pose missile proliferation concerns. Under the missile EPCI control, the Department approved 44 applications, valued at \$7.1 million. Additionally, the Department denied 24 licenses valued at \$3.5 million, and returned without action 37 applications, valued at \$2.9 million.

5. *Effective Enforcement of Controls.* The Secretary has determined the United States has the ability to effectively enforce these controls. Multilateral controls on missile technology provide a strong framework for cooperative enforcement efforts overseas. However, there are challenges for the enforcement of controls on dual-use goods related to missile development. First, it is difficult to detect and investigate cases under the “knowledge” standard set by the EPCI “catch-all” provision. Second, some countries have different standards for “catch-all,” which complicates law enforcement cooperation. Third, identifying illegal exports and reexports of missile-related goods requires significant investigative resources.

To enforce these controls effectively, the Department of Commerce continues to focus on preventive enforcement, including an outreach program to educate companies about export controls and to increase awareness of “red flags” that may indicate a risky transaction. This program is an important component of the Department of Commerce’s efforts to prevent companies from illegally exporting dual-use products or equipment that could be used to make missiles. Recognizing the importance of export enforcement, the MTCR held its seventh Enforcement Experts meeting at the MTCR Plenary in Athens, Greece, in November 2007.

Among other enforcement activities, the Department of Commerce ensured that penalties were assessed against a number of individuals who committed acts in violation of U.S. missile-technology export controls. For example, on October 4, 2006, William Kovacs, president of Elatec Technology Corporation, was sentenced to 12 months and one day imprisonment, three years supervised release, and 300 hours community service in

connection with the export of an industrial furnace to a proliferation entity of concern in China. On May 28, 2004, Kovacs and Elatec pled guilty to charges that they conspired to violate U.S. export licensing requirements in connection with this export. Elatec's export license application for this transaction had previously been denied by BIS due to missile technology concerns. An associate, Stephen Midgley, separately pled guilty on January 10, 2005, to falsely stating in export documents that the furnace did not require an export license when the goods were shipped to China. Midgley was sentenced to one year probation, 120 hours community service, and a \$1,500 criminal fine. BIS assessed Midgley a \$5,000 (\$4,000 suspended) administrative penalty as part of an agreement with Midgley to settle charges related to this unlicensed export. OEE and ICE jointly conducted this investigation.

C. Consultation with Industry

The Department of Commerce holds discussions with industry representatives on issues related to the MTCR Annex through the Transportation Technical Advisory Committee (TransTAC), and other relevant TACs as appropriate.

Further, the Department of Commerce participates in interagency working groups that review proposed changes to the Annex, and engages in discussions of the proposals with companies that have relevant expertise.

In a September 5, 2007, *Federal Register* notice (72 FR 50912), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-based export controls. In addition, comments were solicited from the public via the BIS website. Comments from the Department's six Technical Advisory Committees are solicited on an ongoing basis and are not specific to this report. The comment period closed on October 5, 2007. A detailed review of all public comments received can be found in Appendix I.

D. Consultation with Other Countries

Consultation with other MTCR members is a fundamental element of U.S. missile technology control policy. Consultations with non-MTCR countries also are essential to U.S. missile nonproliferation policy. The U.S. Government shares information about activities of concern with other countries and seeks to prevent or stop certain transactions of missile proliferation concern. The United States also shares denial information with its MTCR partners, who honor the "no-undercut" commitment.

MTCR member countries seek to foster the cooperation of non-member countries in limiting the spread of delivery systems for WMD, and have focused such efforts in a MTCR-sponsored series of workshops and seminars. This effort – begun in 1996 – allows MTCR members and invited non-members to explore different approaches to improve export controls and prevent missile proliferation.

E. Alternative Means

The missile sanction provisions in Section 73 of the Arms Export Control Act, and Section 11B of the Export Administration Act, provide for the imposition of export, import, and procurement sanctions on foreign entities engaged in certain kinds of activities relating to the transfer of MTCR Annex items to non-MTCR adherent countries. In the past, the United States has imposed missile sanctions on entities in Egypt, India, Iran, Macedonia, Moldova, North Korea, Pakistan, China, Russia, South Africa, and Syria. Missile sanctions are used to encourage the governments of the sanctioned entities to adopt responsible nonproliferation behavior and to send a clear message about the United States' strong commitment to missile nonproliferation.

The United States and its MTCR Partners are continuing their diplomatic efforts to encourage additional countries to adhere unilaterally to the MTCR Guidelines. Such efforts are aimed at encouraging non-MTCR members to implement and enforce effective missile technology export controls. Although the United States has an obligation to maintain and renew its export controls based on its membership in the MTCR, it also has pursued alternative means to achieve the purposes of the controls through its consultations with non-MTCR countries.

F. Foreign Availability

Possible suppliers of missile technology that are not MTCR members include, but are not limited to, China, North Korea, Egypt, India, Israel, and Taiwan. Some of these countries, such as Israel, adhere unilaterally to the MTCR Guidelines and apply MTCR-type controls. The United States continues to approach other nations that produce MTCR Annex-controlled items to secure their cooperation in controlling the foreign availability of these items and to urge their vigilance in applying MTCR Guidelines to help prevent missile proliferation. The U.S. Government has imposed sanctions on entities in a number of countries when those entities have not altered their proliferation behavior.

CHAPTER 9

Encryption (Section 742.15)

Export Control Program Description and Licensing Policy

Maintaining the secrecy of information is the fundamental function of encryption items. Persons abroad may use such items to harm U.S. law enforcement efforts, as well as U.S. foreign policy and national security interests. The U.S. Government has a critical interest in ensuring that persons opposed to the United States are not able to conceal hostile or criminal activities, and that the legitimate needs for protecting important and sensitive information of the public and private sectors are met.

For this reason, when dual-use encryption items were transferred from the United States Munitions List to the Commerce Control List (CCL) on December 6, 1996, a foreign policy reason for control, Encryption Item (EI), was imposed on these items. A license is required to export or reexport EI –controlled items (classified under Export Control Classification Numbers (ECCNs) 5A002, 5B002, 5D002 and 5E002 on the CCL) to all destinations except Canada. All items controlled for EI reasons are also controlled for National Security (NS) reasons.

Licensing Requirements and Licensing Policy for Encryption Controls

Most EI-controlled items are eligible for export and reexport to non-government end users under the terms and conditions of License Exception ENC after review by BIS and the National Security Agency, and many items are also eligible for export and re-export to government end users under this License Exception. License applications to export or reexport EI-controlled items to governments, or to Internet and telecommunications service providers for the provision of services specific to governments, are favorably considered for civil uses. EI-controlled items are also eligible for Encryption Licensing Arrangements (ELAs), which authorize exports and reexports of unlimited quantities of encryption items to certain end users and/or destinations.

Analysis of Controls as Required by Section 6(f) of the Act

A. The Purpose of the Controls

Encryption products can be used to conceal the communications of terrorists, drug smugglers, and others intent on harming U.S. interests. Cryptographic products and software also have military and intelligence applications that, in the hands of hostile nations, could pose a threat to U.S. national security. The national security, foreign policy, and law enforcement interests of the United States are protected by encryption

export controls. These controls are consistent with Executive Order (E.O.) 13026, which was issued on November 15, 1996, and the Presidential Memorandum of the same date.

1. *Probability of Achieving the Intended Foreign Policy Purpose.* The Secretary has determined that, consistent with E.O. 13026 of November 15, 1996, and the Presidential Memorandum of the same date, the updated U.S. encryption export controls achieve the intended purpose of implementing technical review procedures for commercial encryption items and restricting the export of encryption items in situations that would be contrary to U.S. national security or foreign policy interests. The Secretary has determined that these controls are likely to achieve the intended foreign policy purpose, in light of other factors, including the availability of encryption items from other countries, and that the foreign policy purpose cannot fully be achieved through negotiations with the participating states of the Wassenaar Arrangement (WA) or through alternative means. This determination, however will continue to be reviewed as the electronic commerce industry and the Internet grow, new security protocols emerge for short-range wireless communications, among other things, and the number of countries with the technology to produce highly sophisticated, dual-use encryption products continues to expand.

2. *Compatibility with Foreign Policy Objectives.* The Secretary has determined that these controls are compatible with U.S. foreign policy objectives, and that the extension of these controls will not have significant adverse foreign policy consequences. The controls are consistent with the U.S. foreign policy goal of preventing U.S. exports (and subsequent reexports) that might contribute to destabilizing military capabilities or to the capabilities of international terrorists or criminals.

3. *Reaction of Other Countries.* The Secretary has determined that the continued implementation of U.S. encryption export controls is generally accepted in the international community, and that any adverse reaction to these controls is not likely to render the controls ineffective, nor are they counter-productive to the foreign policy interests of the United States. Other countries, particularly those capable of producing highly sophisticated encryption products, recognize the need to control exports of such products for national security and law enforcement reasons. The U.S. Government and its key trading and security partners recognize the desirability of securing critical infrastructures, developing new technologies and standards, preventing cybercrime, and promoting electronic commerce, while restricting goods that could compromise national security and foreign policy interests.

4. *Economic Impact on U.S. Industry.* The Secretary has determined that the continued implementation of encryption regulations will allow U.S. industry to maintain a leadership position in the global market for encryption as well as other IT products, while ensuring that essential protections for U.S. national security and foreign policy interests, as well as the public safety, are upheld. The Secretary has determined that any adverse effect of these controls on the U.S. economy, including on the competitive

position of the United States in the international economy, does not exceed the benefit to U.S. foreign policy objectives.

Except for a limited range of encryption items (such as high-end “network infrastructure” products, commercial encryption source code items, and products for which the cryptography has been customized or tailored for government end-users or end-uses) for which a license is required to certain government end-users outside the EU “license-free zone,” dual-use encryption products may be exported and reexported to any destination outside Country Group E:1 after a one-time technical review has been conducted pursuant to either the License Exception ENC (15 C.F.R. § 740.17) or the “mass market” encryption provisions of the Export Administration Regulations (EAR) (15 C.F.R. § 742.15(b)(2)).

Throughout Fiscal Year 2007, the Department of Commerce processed a substantial number of pre-export encryption review requests for a variety of products with encryption features. This activity continues to reflect the ever-expanding trade in encryption items, and the wide commercial applicability of such items. The Department processed 2,697 review requests, including 538 mass market review requests, for controlled encryption products, components, toolkits, and source code items. Types of products reviewed include commodities and software for desktop and laptop computers, wireless handheld devices, e-business applications, network security, and telecommunications platforms. These encryption reviews comprised 48 percent of the 5,552 commodity classifications conducted by the Department in Fiscal Year 2007.

Additionally, during Fiscal Year 2007, the Department approved 1,311 license applications for “restricted” encryption items (such as high-end routers and other network infrastructure equipment) and technology (excluding so-called “deemed exports” that are eligible for release under License Exception ENC to most foreign national employees who are present in the United States). These licenses for “restricted encryption items” were destined to non-sanctioned end-users outside Country Group E:1 for which licenses were required. In Fiscal Year 2007, there were no denials of encryption commodities based on issues specific to encryption policy.

5. *Effective Enforcement of Controls.* The Secretary has determined the United States has the ability to enforce these controls effectively. Detection of some encryption transactions is difficult because encryption components are often incorporated into other products and encryption software can be transferred over the Internet.

Among other enforcement activities, the Department of Commerce ensured that penalties were assessed against a number of individuals who committed acts in violation of U.S. missile-technology export controls. For example, on September 18, 2006, SuperMicro Computer, Inc., pled guilty to illegally exporting motherboards controlled for National Security reasons to Iran and was sentenced to a criminal fine of \$150,000. SuperMicro also agreed to pay an administrative fine of \$125,400 to settle charges for related

transactions with the BIS. On April 13, 2007, a SuperMicro Computer employee agreed to pay an administrative fine of \$60,000 to settle charges for related transactions with BIS.

C. Consultation with Industry

The U.S. Government continually consults with U.S. industry regarding encryption policy. The objective of these consultations is to develop updated policy solutions to assist law enforcement, protect U.S. national security, ensure continued U.S. technological leadership, and promote the privacy and security of U.S. firms and citizens engaged in electronic commerce in an increasingly networked world. Such consultations have proven successful, as evidenced by the increasing number of encryption items submitted for technical review and constructive industry input on matters of regulations and policy.

In a September 5, 2007, *Federal Register* notice (72 FR 50912), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-based export controls. In addition, comments were solicited from the public via the BIS website. Comments from the Department's six Technical Advisory Committees are solicited on an ongoing basis and are not specific to this report. The comment period closed on October 5, 2007. A detailed review of all public comments received can be found in Appendix I.

D. Consultation with Other Countries

The U.S. Government has taken the lead in global efforts to prevent international criminals, terrorists, and designated state sponsors of terrorism from acquiring sophisticated encryption products, and urged other supplier nations to adopt export controls comparable to those of the United States. As a result, the major industrial partners of the U.S. Government maintain export controls on encryption equipment and technology. U.S. encryption policy reflects continual consultation with other nations, such as the participating states of the Wassenaar Arrangement, members of the European Union, and key bilateral strategic partners.

Encryption items are included under the Wassenaar Arrangement's Basic List of dual-use goods and technologies, with controls based on the encryption strength (e.g., key length) and use of specified dual-use items. In addition, the Wassenaar Arrangement's Cryptography Note provides for release from national security controls "mass market" encryption items otherwise covered by the Wassenaar control list.

E. Alternative Means

Through a wide range of diplomatic cooperation with law enforcement officials in friendly countries, the U.S. Government continues to undertake bilateral and multilateral efforts to keep encryption products out of the hands of terrorists and other criminals. The

U.S. Government continues to encourage other nations to adopt appropriate restrictions on the export of encryption products. The progress of these efforts supplements, but does not supplant, the effectiveness of U.S. encryption export controls.

F. Foreign Availability

The United States recognizes the ongoing adoption and widespread use of encryption world wide, and the continued development of foreign-made encryption hardware and software. The U.S. Government continues to monitor global IT marketplace and encryption policy developments so that updated U.S. regulations will enable American companies to maintain their technological leadership in a manner that safeguards U.S. national security and public safety interests. The U.S. Government does consult with other governments to secure cooperation in controlling the unfettered availability of encryption items.

CHAPTER 10

Significant Items: “Hot Section” Technology (Section 742.14)

Export Control Program Description and Licensing Policy

Certain technology transferred from the United States Munitions List to the Commerce Control List (CCL) is subject to “enhanced control.” This technology is designated on the CCL by the acronym “SI,” which stands for “Significant Items.” The technology controlled for SI reasons is “hot section” technology for the development, production, or overhaul of commercial aircraft engines, components, and systems. Technology controlled for “significant items” reasons is classified under various paragraphs of Export Control Classification Number (ECCN) 9E003 on the CCL (specifically, SI controls apply to ECCN 9E003.a.1 through a.11, and 9E003.h.). All technology controlled for “significant items” reasons is also controlled for “national security” reasons.

License Requirements and Licensing Policy for Significant Items

The licensing policy for “hot section” technology is as follows:

- A license is required for exports and reexports to all destinations, except Canada, for “hot section” technology.
- The United States reviews license applications for “hot section” technology on a case-by-case basis to determine whether the proposed export or reexport is consistent with national security and foreign policy interests.

Analysis of Control as Required by Section 6(f) of the Act

A. The Purpose of the Control

This control provides a mechanism for the United States to monitor closely the export of this technology to prevent its use in a manner that would adversely affect U.S. nonproliferation goals or the military balance within a region.

B. Considerations and/or Determinations of the Secretary of Commerce

1. Probability of Achieving the Intended Foreign Policy Purpose. The Secretary has determined that this control is likely to achieve the intended foreign policy purpose, notwithstanding various factors, including the availability of these SI-controlled items from other countries, and that the foreign policy purpose has only been partially achieved through negotiations on export controls with the participating states of the Wassenaar Arrangement.

2. ***Compatibility with Foreign Policy Objectives.*** The Secretary has determined that this control is compatible with U.S. foreign policy objectives, and that the extension of this control will not have any significant adverse foreign policy consequences. The control is consistent with U.S. foreign policy goals to promote peace and stability and to prevent U.S. exports that would contribute to inappropriate military capabilities abroad.

3. ***Reaction of Other Countries.*** The Secretary has determined that any adverse reaction to this control is not likely to render the control ineffective, nor will any adverse reaction by other countries be counter-productive to U.S. foreign policy interests. “Hot section” technology for commercial jet engines is subject to dual-use export controls by other allied countries. These countries also recognize the desirability of restricting goods that could compromise shared security and foreign policy interests.

4. ***Economic Impact.*** The Secretary has determined that any adverse effect of this control on the economy of the United States, including on the competitive position of the United States in the international economy, does not exceed the benefit to U.S. foreign policy objectives. In Fiscal Year 2007, the Department of Commerce approved 177 licenses for technology controlled under ECCN 9E003. Most of the 177 licenses approved involved the export of “hot section” technology, but 77 of those involved deemed exports (i.e., the transfer of “hot section” technology to foreign nationals who are in the United States). The total dollar value of the items subject to the licenses approved was \$10.1 million in Fiscal Year 2007. There were no rejections of applications involving the transfer of engine “hot section” technology in Fiscal Year 2007; however, 35 applications involving items valued at a total of \$5,126 were returned without action.

5. ***Effective Enforcement of Control.*** The Secretary has determined that the United States has the ability to enforce this control effectively. The U.S. Government does not experience any unusual problems in enforcing this control. Manufacturers and intermediary companies are familiar with U.S. controls on these products and technologies. With the exception of “hot section” technology not covered by ECCN 9E003.a.1 through 9E003.a.11, which is currently used in civil derivatives of military engines controlled on the U.S. Munitions List (ECCN 9E003.h), all of these items also are subject to multilateral controls. Therefore, cooperation from foreign government enforcement agencies is useful in preventing and punishing violators.

C. Consultation with Industry

As needed, the Department of Commerce consults with the Transportation Technical Advisory Committee, although there are no major changes anticipated regarding this control on the CCL.

In a September 5, 2007, *Federal Register* notice (72 FR 50912), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-

based export controls. In addition, comments were solicited from the public through the BIS website. Comments from the Department’s six Technical Advisory Committees are solicited on an ongoing basis and are not specific to this report. The comment period closed on October 5, 2007. A detailed review of all public comments received can be found in Appendix I.

D. Consultation with Other Countries

The United States has taken the lead in international efforts to stem the proliferation of sensitive items, urging other supplier nations to adopt and apply export controls comparable to those of the United States. The major industrial partners of the United States maintain export controls on almost all of this equipment and technology and control them as dual-use commodities. Pursuant to their agreement to establish a regime for the control of conventional arms and sensitive dual-use goods and technologies, the participants in the Wassenaar Arrangement have agreed to control these items (with the exception of items subject to ECCN 9E003.h noted above, which the United States has not sought to control in Wassenaar) and to ensure that transfers of such items are carried out responsibly and in furtherance of international peace and security.

E. Alternative Means

The U.S. Government has undertaken a wide range of diplomatic endeavors, both bilateral and multilateral, to encourage proper control over these items, and has been successful in reaching multilateral agreement in the Wassenaar Arrangement to control most of these items. The United States has specifically encouraged efforts to prevent the unauthorized use or diversion of these items to activities contrary to U.S. national security and foreign policy concerns. However, these efforts do not replace the continued need for the additional control.

F. Foreign Availability

Although the United States has been the world leader in this technology, other countries produce “hot section” technology. Most countries that are producers of “hot section” technology are participants in the Wassenaar Arrangement and control these items (with the exception of items controlled under ECCN 9E003.h noted above) as dual-use items in accordance with their national licensing policies. The commitment of the U.S. Government and its Wassenaar partners to maintain controls reflects the cooperation among governments to reduce foreign availability.

CHAPTER 11

Nuclear Nonproliferation (Sections 742.3 and 744.2)

Export Control Program Description and Licensing Policy

The U.S. Government maintains controls on exports of nuclear-related items under the authority of the Nuclear Nonproliferation Act of 1978 (NNPA) to further the United States' nuclear nonproliferation policy. Although these controls are primarily based on the NNPA, and therefore are not subject to this report, BIS has included information on the controls because they usually are grouped with other nonproliferation controls referenced in this report. Controls based on nuclear end-uses and end-users are maintained under the authority of Section 6 of the Export Administration Act (the Act), as part of the Enhanced Proliferation Control Initiative (EPCI). EPCI controls are described in detail in Chapters 6, 7, and 8 of this report.

Licensing Requirements and Licensing Policy

The Department of Commerce requires a license for the export of the following items:

- commodities, related technology, or software that could be of significance for nuclear explosive purposes (i.e., the Nuclear Referral List included in the Commerce Control List); and
- any commodity, related technology, or software that the exporter knows, or has reason to know, will be used directly or indirectly in any of the following activities:
 - nuclear explosive activities including the design, development, manufacture, or testing of nuclear weapons or nuclear explosive devices;
 - unsafeguarded nuclear activities, including the design, development, or manufacture of any nuclear reactor, critical facility, facility for the fabrication of nuclear fuel, facility for the conversion of nuclear material from one chemical form to another, or separate storage installation where there is no obligation to accept International Atomic Energy Agency safeguards at the facility or installation, when it contains any source of special fissionable material, or where any such obligation is not met; or
 - safeguarded and unsafeguarded nuclear activities, including the design, construction, fabrication, or operation of the following facilities, or components for such facilities: (i) facilities for the chemical processing of irradiated special nuclear or source materials; (ii) facilities for the production of heavy water; (iii) facilities for the separation of isotopes of

source and special nuclear material; or (iv) facilities for the fabrication of nuclear reactor fuel containing plutonium.

The Department of Commerce may inform the exporter that a license is required for any item subject to the Export Administration Regulations when there is an unacceptable risk of use in or diversion to any of the activities described above.

Factors considered in reviewing applications for licenses include:

- the stated end-use of the item,
- the significance for nuclear purposes of the particular component and its availability elsewhere,
- the types of nuclear nonproliferation assurances or guarantees given in a particular case, and
- the nonproliferation credentials of the recipient country.

Analysis of Controls as Required by Law¹¹

Section 17(d) of the Export Administration Act and Section 309(c) of the NNPA provide that: (1) nuclear nonproliferation controls do not expire annually and determinations to extend them are thus not required; and (2) the criteria and other factors set forth in Sections 6(b) through 6(f) of the Act are not applicable to these controls. The Department of Commerce is, therefore, notifying Congress that these controls continue in effect. These controls further the nuclear nonproliferation policy of the United States and have made it more difficult for nations to acquire sensitive nuclear technology or equipment.

These controls support U.S. international nuclear nonproliferation obligations. The United States is a member of the multilateral Nuclear Suppliers Group (NSG). The NSG, which has 45 members, sets forth export control guidelines applicable to a list of nuclear-related dual use items (see Appendix II for a complete list of regime members). The United States also is a member of the Zangger Committee, a multilateral group formed in the early 1970s to establish guidelines for the export control provisions of the Nuclear Nonproliferation Treaty. The United States regularly consults with non-NSG members to coordinate export controls for nuclear nonproliferation purposes as well.

The Departments of Commerce and Energy, in consultation with the Departments of State and Defense and the Nuclear Regulatory Commission, regularly review and revise the list of U.S. dual-use items controlled for nuclear nonproliferation reasons. This list is referred to as the Nuclear Referral List (NRL), and is used to meet the United States'

¹¹ The analysis, required by law, differs for nuclear nonproliferation controls. It is governed by the Nuclear Nonproliferation Act of 1978 (NNPA). Therefore, the headings under this section differ from the rest of the report.

NSG commitments with respect to nuclear dual-use items. During Fiscal Year 2007, there were no additions or updates to the NRL.

A number of enforcement actions regarding non-compliance with these controls occurred during Fiscal Year 2007. For example:

Diaphragm Pumps to Taiwan, Singapore, Brazil and Ecuador: On May 4, 2007, Yamada America, Inc., an Illinois company, was ordered to pay \$220,000 in administrative fines to settle charges that the company committed 26 violations of the EAR. Between 2001 and 2005, Yamada America exported diaphragm pumps to Taiwan, Singapore, Brazil, and Ecuador without the required export license and with knowledge that a violation would occur. In addition, Yamada America made false statements on export control documents related to the unlicensed exports.

Nickel Powder to Taiwan: On June 21, 2007, Theresa Chang pled guilty to one count of making false statements related to the export of nickel powder controlled for nuclear proliferation reasons to Taiwan without an export license.

Graphite Products to the United Arab Emirates: On July 3, 2007, Spares Global, Inc., represented by President and empowered official, Mr. Om Sharma, pled guilty to conspiracy to commit several federal violations related to the shipment of graphite products to the United Arab Emirates with potential nuclear and military applications. Spares Global conspired to falsify documents related to the graphite shipment and then attempted to mislead federal investigators when questioned about the shipment and the documents.

The Department of Commerce regularly solicits industry and public comment on these controls. In a September 5, 2007, *Federal Register* notice (72 FR 50912), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-based export controls. In addition, comments were solicited from the public via the BIS website. Comments from the Department's six Technical Advisory Committees are solicited on an ongoing basis and are not specific to this report. The comment period closed on October 5, 2007. A detailed review of all public comments received can be found in Appendix I.

CHAPTER 12

Surreptitious Listening (Section 742.13)

Export Control Program Description and Licensing Policy

On November 20, 2006 (71 FR 67034), the Department of Commerce published an amendment to the Export Administration Regulations (EAR) to impose foreign policy controls on exports of devices primarily used for the surreptitious interception of wire, oral, or electronic communications and on related software and technology. The U.S. Government maintains these controls in order to prevent the unlawful interception of oral, wire, or electronic communications by terrorists and others who may put the information gained through intercepted communications to an unlawful use; to promote the protection of privacy of oral, wire, or electronic communications; and to protect against threats of terrorism around the world.

The amendment imposed anti-terrorism (AT) controls and created a new foreign policy control, surreptitious listening (SL), for devices used for the surreptitious interception of wire, oral, or electronic communications controlled under Export Control Classification Number (ECCN) 5A980. It also imposed the same controls on related software and technology by creating ECCNs 5D980 (software) and 5E980 (technology).

Licensing Requirements and Licensing Policy

A license is required for the export or reexport, to any destination, of any electronic, mechanical, or other device primarily useful for surreptitious interception of wire, oral, or electronic communications. The Department will generally approve applications for the export and reexport of items classified as 5A980, 5D980 or 5E980, other than to destinations for which a license is required for AT reasons, for providers of wire or electronic communication service acting in the normal course of business; or officers, agents, or employees of, or persons under contract with, the United States, a State, or a political subdivision thereof, when engaged in the normal course of government activities. License applications from other parties will generally be denied.

The license requirements set forth in the EAR are independent of the requirements of section 2512 of the Omnibus Crime Control and Safe Streets Act of 1968, as amended (18 U.S.C. 2512). These controls do not supersede, nor do they implement, construe, or limit the scope of any of the statutory restrictions of section 2512 of the Omnibus Crime Control and Safe Streets Act of 1968, as amended, that are enforced by the U.S. Department of Justice.

Analysis of Control as Required by Section 6(f) of the Act

A. The Purpose of the Control

The purpose of the imposition of surreptitious listening controls is to prevent the unlawful interception of oral, wire, or electronic communications by terrorists and others who may put the information gained through intercepted communications to an unlawful use; to promote the protection of privacy of oral, wire, or electronic communications; and to protect against threats of terrorism around the world. The controls distance the United States from nations that have repeatedly supported acts of terrorism and from individuals and organizations that commit terrorist acts.

B. Considerations and/or Determinations of the Secretary of Commerce

1. Probability of Achieving the Intended Foreign Policy Purpose. The Secretary has determined that the surreptitious listening controls are likely to achieve the intended foreign policy purpose, notwithstanding the availability of these controlled items from other countries, and that the foreign policy purpose cannot be achieved through negotiations or other alternative means.

Because sending or carrying the devices in foreign commerce is already subject to independent criminal sanction, the imposition of foreign policy-based controls on these devices and related software and technology will enhance the probability of achieving the intended foreign policy purpose of preventing the unlawful interception of oral, wire, or electronic communications by terrorists and others who may put the information gained through intercepted communications to an unlawful use; promoting the protection of privacy of oral, wire, or electronic communications; and protecting against threats of terrorism around the world.

Although the availability of comparable goods from foreign sources limits the effectiveness of the surreptitious listening controls, these controls restrict access by the countries and persons subject to these controls to U.S.-origin commodities, technology, and software, and demonstrate U.S. determination to prevent the unlawful interception of communications, to promote privacy protection, and to oppose and distance itself from international terrorism.

2. Compatibility with Foreign Policy Objectives. The Secretary has determined that the imposition of these controls is consistent with the foreign policy objectives of the United States and will not have any significant adverse foreign policy consequences. The imposition of surreptitious listening controls will enhance the U.S. Government's ability to stop the supply of U.S.-origin items to persons engaged in, or supportive of, unlawful uses of intercepted communications, privacy violations, and acts of terrorism. The imposition of these controls is also compatible with overall U.S. policy toward Cuba, Iran, North Korea, Sudan, and Syria. The U.S. Government intends to promote privacy

protection and aid in deterring criminal activities, including terrorism, through these foreign policy-based controls.

3. *Reaction of Other Countries.* The Secretary has determined that any adverse reaction to the imposition of surreptitious listening controls is not likely to render the controls ineffective nor will any adverse reaction by other countries be counter-productive to U.S. foreign policy interests. Most countries are generally supportive of U.S. efforts to prevent unlawful uses of intercepted communications, including uses of intercepted communications by terrorists, and to stop the proliferation of weapons of mass destruction in countries of concern. In addition, the sending or carrying of the devices in foreign commerce is already subject to independent criminal sanction. The imposition of foreign policy-based controls on these devices and related software and technology is not expected to result in any adverse reaction by other countries.

4. *Economic Impact on U.S. Industry.* The Secretary has determined that any adverse effect of these controls on the economy of the United States, including the competitive position of the United States in the international economy, does not exceed the benefit to U.S. foreign policy objectives. Because sending or carrying the devices in foreign commerce is already subject to independent criminal sanction, the imposition of foreign policy-based controls on the devices and related software and technology will not have a discernable economic impact.

In Fiscal Year 2007, the Department of Commerce approved 12 applications, valued at \$1.4 million, for the export or reexport of surreptitious listening (SL) controlled items. In addition, the Department returned without action one application for items valued at \$12,000. No applications were rejected.

5. *Effective Enforcement of Controls.* The Secretary has determined that the United States has the ability to enforce these controls effectively. The imposition of foreign policy-based controls on the devices and related software and technology will enhance effective enforcement because the new controls have been introduced pursuant to the export control authorities delegated to the Department of Commerce. The U.S. Government can effectively enforce these controls by focusing on preventive enforcement, using regular outreach efforts to keep industry informed, and gathering leads on activities of concern.

C. Consultation with Industry

This November 2006 amendment to the EAR was published in the *Federal Register* in final form. Although there is no formal comment period, public comments on this amendment are welcome on a continuing basis.

The Department of Commerce consults with the Regulations and Procedures Technical Advisory Committee (RPTAC), one of six such committees that advise the Bureau of

Industry and Security (BIS), in preparation for publication of major regulatory changes affecting foreign policy controls. BIS did consult with the RPTAC prior to the publication of this rule.

The Department of Commerce regularly solicits industry and public comment on these controls. In a September 5, 2007, *Federal Register* notice (72 FR 50912), the Department of Commerce solicited comments from industry on the effectiveness of U.S. foreign policy-based export controls. In addition, comments were solicited from the public via the BIS website. Comments from the Department's six Technical Advisory Committees are solicited on an ongoing basis and are not specific to this report. The comment period closed on October 5, 2007. A detailed review of all public comments received can be found in Appendix I.

D. Consultation with Other Countries

The United States continues to consult with a number of countries, both on a bilateral and a multilateral basis. In general, most countries are supportive of measures designed to prevent the unlawful use of intercepted communications, protect privacy, and combat terrorism but do not implement strict export controls on these items similar to the United States' export controls. The United States will consult with other countries as necessary regarding these changes in order to ensure compliance and encourage their efforts to deter terrorism and other criminal activity.

E. Alternative Means

The U.S. Government continually reviews the means by which it can curtail privacy violations and terrorism and has taken a wide range of diplomatic, political, and security-related steps to support this effort. Imposing these foreign-policy based controls enhances the aforementioned efforts in order to prevent terrorist-supporting countries from acquiring items subject to U.S. export control jurisdiction. In addition, these controls underscore the United States' commitment to prevent criminal activity worldwide.

F. Foreign Availability

The commodities subject to these controls are likely available from foreign suppliers. The Department of Commerce is aware that these new controls will not prevent the shipment of such foreign-origin items from other countries, but we anticipate that the regulation will minimize the risk of diversion of U.S.-origin devices and related software and technology primarily useful for surreptitious interception of wire, oral, or electronic communications to end-users without a legitimate commercial need for such devices.

APPENDIX I

Summary of Public Comments on Foreign Policy-Based Export Controls

The Department of Commerce's Bureau of Industry and Security (BIS) requested public comments on existing foreign policy-based export controls maintained under Section 6 of the Export Administration Act of 1979, as amended (EAA) through a *Federal Register* notice published September 5, 2007 (72 FR 50912). In addition, comments were solicited from the public through the BIS Web page. Comments from the Department's six Technical Advisory Committees are solicited on an ongoing basis and are not specific to this report. BIS requested comments on how existing foreign policy controls have affected exporters and the overall public. The notice invited public comments about issues such as the effectiveness of controls when foreign availability exists; whether the goals of the controls can be achieved through other means such as negotiations; the compatibility of the controls with the overall U.S. policy toward a country in question; the effect of controls on U.S. economic performance; and the ability to enforce the controls.

The comment period closed on October 5, 2007. BIS received three sets of comments from the following organizations: Federation of Indian Chambers of Commerce and Industry USA, Industry Coalition on Technology Transfer, and Cogent Systems, Inc. BIS has made all comments available for review in the BIS Freedom of Information Act Reading Room available on the BIS Web page. BIS also makes the comments available for public review upon request. This Appendix summarizes the comments received.

Industry Comments

On September 27, the Federation of Indian Chambers of Commerce and Industry (FICCI) USA submitted comments stating that BIS should review whether exports to India should remain subject to various controls as indicated on the Commerce Country Chart (Supplement No. 1 to Part 738 of the Export Administration Regulations). FICCI USA maintains that India's record concerning control of high-technology items has been "exemplary" and India has never acted in a manner detrimental to U.S. national security or regional stability within South Asia. Therefore, FICCI USA asserts that no justification exists for U.S. controls on high-technology exports to India. Additionally, FICCI USA comments that BIS should review the Indian entities listed on BIS's Entity List (Supplement No. 4 to Part 744 of the EAR). FICCI USA asserts that, given the current level of cooperation between the United States and India concerning space and nuclear technologies, there is no justification for entities subordinate to India's Defense Research and Development Organization (DRDO), Department of Atomic Energy, and Indian Space Research Organization (ISRO) to remain on the Entity List. FICCI USA also comments that BIS should review India's designation as a Computer Tier 3

destination as this impedes Indian involvement in joint research and production projects with countries such as Germany, Japan, and the United Kingdom.

On October 5, the Industry Coalition on Technology Transfer (ICOTT) submitted comments stating that because foreign policy controls are unilateral in nature, they are largely ineffective. For that reason, ICOTT comments that the United States should impose unilateral controls only where the United States can justify the resulting injury to American workers and businesses against the “symbolic character” of the controls. ICOTT also recommends that unless the United States is effective in garnering multilateral support for its unilateral controls, the government should not renew such controls. In addition, ICOTT recommends that in instances where unilateral anti-terrorism controls are imposed, License Exception RPL (servicing and replacement of parts and equipment) should be available for emergency services, including one-for-one replacement of parts, for use on commercial aircraft that are located in, owned by, or registered in sanctioned countries.

On October 5, Cogent Systems, Inc. (Cogent) submitted comments requesting that BIS exclude one-to-many fingerprint retrieval systems from the Crime Control classification under Section 742.7 of the Export Administration Regulations, stating that it is no longer in the national interest to deny exports of these items to China under Section 902(b) of the Tiananmen Square Sanctions. Cogent claims that fingerprint retrieval systems from the world’s leading producers are already being sold in China and that continuing to deny exports of such items will: 1) jeopardize U.S. national security interests by undermining interoperability of fingerprint information with foreign countries; 2) jeopardize U.S. technology leadership and the shaping of international standards concerning automated fingerprint retrieval systems; and 3) result in the movement to China of technology investment regarding fingerprint retrieval systems. Cogent also asserts that the economic viability of the U.S. fingerprint identification industry is at stake. In its comments, Cogent analyzes the six factors set forth in BIS’s *Federal Register* notice requesting comments, (effectiveness of controls when there is foreign availability, whether the goals can be achieved by other means, including negotiations, etc.) and asserts that each factor supports the removal of fingerprint retrieval systems from the Crime Control Classification. For example, with respect to whether the controls are likely to achieve the intended foreign policy purpose, Cogent argues that foreign availability of the systems makes it unlikely that BIS’s licensing policy will motivate China to improve its human rights record.

APPENDIX II

Multilateral Export Control Regimes in 2007

WASSENAAR	AG	MTCR	NSG
Argentina	Argentina	Argentina	Argentina
Australia	Australia	Australia	Australia
Austria	Austria	Austria	Austria
			Belarus
Belgium	Belgium	Belgium	Belgium
		Brazil	Brazil
Bulgaria	Bulgaria	Bulgaria	Bulgaria
Canada	Canada	Canada	Canada
Croatia	Croatia		Croatia
	Cyprus		Cyprus
Czech Republic	Czech Republic	Czech Republic	Czech Republic
Denmark	Denmark	Denmark	Denmark
Estonia	Estonia		Estonia
	European Union (Observer)		European Union (Observer)
Finland	Finland	Finland	Finland
France	France	France	France
Germany	Germany	Germany	Germany
Greece	Greece	Greece	Greece
Hungary	Hungary	Hungary	Hungary
	Iceland	Iceland	
Ireland	Ireland	Ireland	Ireland
Italy	Italy	Italy	Italy
Japan	Japan	Japan	Japan
			Kazakhstan
Latvia	Latvia		Latvia
Lithuania	Lithuania		Lithuania
Luxembourg	Luxembourg	Luxembourg	Luxembourg
Malta	Malta		Malta
Netherlands	Netherlands	Netherlands	Netherlands
New Zealand	New Zealand	New Zealand	New Zealand
Norway	Norway	Norway	Norway
			People's Republic of China
Poland	Poland	Poland	Poland
Portugal	Portugal	Portugal	Portugal
Rep. of Korea (South Korea)	Rep. of Korea (South Korea)	Rep. of Korea (South Korea)	Rep. of Korea (South Korea)
Romania	Romania		Romania
Russian Federation		Russian Federation	Russian Federation
Slovak Republic	Slovak Republic		Slovak Republic
Slovenia	Slovenia		Slovenia
South Africa		South Africa	South Africa
Spain	Spain	Spain	Spain
Sweden	Sweden	Sweden	Sweden
Switzerland	Switzerland	Switzerland	Switzerland
Turkey	Turkey	Turkey	Turkey
Ukraine	Ukraine	Ukraine	Ukraine
United Kingdom	United Kingdom	United Kingdom	United Kingdom
United States	United States	United States	United States

AG: Australia Group; **MTCR:** Missile Technology Control Regime; **NSG:** Nuclear Suppliers Group

APPENDIX III

**Selected Rules Published by the Department of Commerce
January 21, 2007 – January 19, 2008**

Publication Date	Federal Register Citation	Rule
01/26/07	72 FR 3722	North Korea: Imposition of New Foreign Policy Controls
03/02/07	72 FR 9433	Addition of Entities to the Entity List
03/06/07	72 FR 9847	Revisions and Clarifications of License Exception Availability, License Requirements and Licensing Policy for Certain Crime Control Items
05/07/07	72 FR 25680	Revisions to the Export Administration Regulations based on the 2006 Missile Technology Control Regime Plenary Agreements
06/08/07	72 FR 31716	Amendment to General Order No. 3: Expansion of General Order and Addition of Certain Persons
07/12/07	72 FR 38008	Addition of Entities to the Entity List
09/12/07	72 FR 52000	Implementation of the Understandings Reached at the June 2007 Australia Group (AG) Plenary Meeting; Addition to the List of States Parties to the Chemical Weapons Convention (CWC)
10/24/07	72 FR 60248	Burma: Revision of the Export Administration Regulations