



INTERNATIONAL EXPORT CONTROL

Observer

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Recent Developments

Recent Changes in Ukraine's Export Control System

On March 5, 2007, president of Ukraine Viktor Yushchenko signed Edict No. 180/2007 "On Interagency Commission on Military-Technical Cooperation Policy and Export Control," formally disbanding the Committee on Military-Technical Cooperation and Export Control Policy (CMTCEC), which had been under the Office of the President of Ukraine, and establishing the Interagency Commission on Military-Technical Cooperation Policy and Export Control. The new entity is a working body of the National Security and Defense Council (NSDC) of Ukraine. The edict also announced the personnel assigned to the Commission, including the appointment of Valeriy Khoroshkovskiy, the NSDC's first deputy secretary, as head of the interagency commission.[1] The thirty-eight-year-old Khoroshkovskiy, a successful businessman and former minister of the economy and European integration (December 2002-January 2004), became the NSDC first deputy secretary on December 11, 2006, under Presidential Edict No. 1064/2006.[2,3] (See the table below for the full membership list of the new commission.)

The March edict finalized a process that began on November 17, 2006, when the NSDC unanimously adopted a decision to reform the CMTCEC. The November decision, approved by Presidential Edict No. 1149/2006 of December 28, 2006, stated that international military-technical cooperation and state export controls are important elements of Ukraine's foreign and defense policies and that additional measures to increase effectiveness of the national policy in this area were needed. The NSDC therefore decided that the CMTCEC should be disbanded and a new interagency commission under the NSDC should be formed, in accordance with the law "On the National Security and Defense Council of Ukraine." [4] The reform does not affect Ukraine's State Service on Export Control (SSEC), the principal governing agency responsible for implementing Ukraine's export control system.

The newly created commission will meet at least once a month. It is designed to help the SSEC in strengthening the government's oversight in the area of export controls by drafting new export control legislation and proposing relevant changes to existing national regulations, as well as improving interagency coordination within the government agencies involved in the implementation of export controls.[1]

Table 1: The Interagency Commission on Military-Technical Cooperation Policy and Export Control

NAME	GOVERNMENT POSITION	POST IN COMMISSION
Valeriy Khoroshkovskiy	First Deputy Secretary of the NSDC	Head
Volodimir Rizhov	First Deputy Minister of Industrial Policy	Deputy Head
Sergiy Khimchenko	Chief of the NSDC Apparatus Department on Military Security Issues	Secretary
Vyacheslav Boguslaev	Deputy Head of the Verkhovna Rada's Committee on National Security and Defense Issues	Member
Sergiy Bondarchuk	Director General of the State Company on Export/Import of Military and Special-Purpose Goods and Services (Ukrspetsekспорт)	Member
Andriy Veselovskiy	Deputy Foreign Minister	Member
Oleksandr Galaka	Head of the Main Intelligence Directorate under the Ministry of Defense	Member
Oleksandr Grishutkin	First Deputy Chairman of the State Service on Export Control	Member
Valeriy Komarov	First Deputy Director General of the National Space Agency	Member
Gennadiy Moskal	Deputy Head of the Security Service	Member
Anatoliy Myarkovskiy	Deputy Minister of Finance	Member
Volodimir Pavlenko	First Deputy Minister of the Cabinet of Ministers	Member
Andriy Pshenichniy	First Deputy Head of the External Intelligence Service	Member
Sergiy Romanyuk	First Deputy Minister of Economy	Member
Volodimir Tereshchenko	Deputy Minister of Defense	Member
Ruslan Cherkasskiy	First Deputy Head of the State Customs Service	Member
Mikhailo Yursa	Chief of the Presidential Secretariat's Main Service on Security and Defense Policy	Member

Sources: [1] President of Ukraine Decree No. 180/2007 of March 5, 2007, "O Mezhdovomstvennoy komissii po politike voyenno-tehnicheskogo sotrudnichestva i eksportnogo kontrolya" (On the Interagency Commission on Military-Technical Cooperation Policy and Export Control), President of Ukraine website, <<http://www.president.gov.ua/ru/documents/5833.html>>.
 [2] "Khoroshkovskiy, Valeriy Ivanovich," proUA.com, <<http://baza.proua.com/p/39>>. [3] President of Ukraine Decree No. 1064/2006 of December 11, 2006, "O naznachenii V. Khoroshkovskogo Pervym zamestitelem Sekretarya Soveta natsionalnoy bezopasnosti i oborony Ukrainy" (On the appointment of V. Khoroshkovskiy first deputy secretary of the National Security and Defense Council of Ukraine), President of Ukraine website, <<http://www.president.gov.ua/ru/documents/5373.html>>.
 [4] President of Ukraine Decree No. 1149/2006 of December 28, 2006, "O reshenii Soveta natsionalnoy bezopasnosti i oborony Ukrainy ot 17 noyabrya 2006 goda 'O Komitete po politike voyenno-tehnicheskogo sotrudnichestva i eksportnomu kontrolyu pri Prezidente Ukrainy'" (On the decision of the National Security and Defense Council of Ukraine of November 17, 2006 'On the Committee on Military-Technical Cooperation and Export Control Policy under the President of Ukraine'), President of Ukraine website, <<http://www.president.gov.ua/ru/documents/5515.html>>.

China Strengthens Nuclear-Related Export Control Regulations

China's State Council recently approved two sets of revised regulations governing nuclear-related exports. A revision of the *Regulations of the People's Republic of China on Nuclear Export Controls* (hereinafter *Nuclear Material Export Regulations*) was signed into law on November 9, 2006, and published by the State Council on December 1, 2006. These regulations control the transfer of nuclear materials and equipment and non-nuclear commodities that are specially designed or prepared for use in nuclear facilities.[1,2,3] The *Regulations of the People's Republic of China on Export Control of Dual-use Nuclear Goods and the Related Technologies* (hereinafter *Nuclear Dual-Use Export Regulations*) were amended by the State Council decree on January 26, 2007, and made publicly available on February 16, 2007.[4,5,6] The amendments of these two sets of regulations aim to strengthen China's nuclear-related export controls and bring Beijing closer to meeting its obligations under the Nuclear Suppliers Group (NSG) and UN Security Council Resolution 1540 (UNSCR 1540).

The recent changes are the first major revisions of these two sets of regulations since they were first issued—in 1997 for the *Nuclear Material Export Regulations* and in 1998 for the *Nuclear Dual-Use Export Controls*. [7,8] Taken together, the revised regulations mark the first time that Beijing has included a number of complex nonproliferation issues within its formal regulations. These issues include the spread of highly enriched uranium (HEU) and sensitive uranium enrichment and plutonium production technologies, nuclear terrorism, transshipment and related controls, and intangible technology transfers (ITT). While many of these issues were previously dealt with within China's export control system through the issuance of administrative edicts, the formal inclusion of the relevant changes in the regulations increases

the clarity within China's system and assures a wider understanding of export control requirements.

The revised regulations also give increased authority to relevant agencies—namely the Ministry of Commerce (MOFCOM), the Commission of Science, Technology, and Industry for National Defense (COSTIND) and the General Administration of Customs (GAC)—to control the transfer of nuclear-related technology and materials, and stipulate required punishments for violators. Amendments have also been added that allow MOFCOM to make changes to China's control lists without prior State Council approval. This amendment helps Chinese export control authorities comply with changes agreed to by the NSG in a timely manner.[3,4]

Editor's Note: The State Council is the highest body of the Chinese government's executive branch; all government ministries and specialized agencies fall under its authority. MOFCOM is China's primary licensing body for dual-use exports. COSTIND and its subordinate agency the China Atomic Energy Authority (CAEA) have licensing authority for the export of nuclear materials. COSTIND also is the licensing authority for a limited number of missile-related exports and for conventional military items.

Highlighting increased concerns over the global availability of HEU, the revised *Nuclear Material Export Regulations* include a clause stipulating that the government of the importing entity "shall pledge that, without the Chinese Government's consent, the receiving party may not use uranium enrichment facilities and technologies supplied by China or any facilities on the basis of these technologies to produce uranium enriched to a level of 20 percent or more." [Editor's Note: Uranium is considered HEU when it is enriched to 20 percent or more of uranium 235 (U-235). Enriched uranium is generally considered weapons grade when at least 90 percent of it consists of U-235.] The revised regulations also state that the export of items such as "uranium enrichment facilities and equipment, irradiated fuel reprocessing facilities and equipment, heavy water production facilities and equipment, and their related technologies, as well as materials that can be used in nuclear weapons or other nuclear explosion devices" is highly restricted.[3]

In keeping with China's commitments under UNSCR 1540, the revisions have increased Beijing's focus on nuclear terrorism. While the original texts of both nuclear-related regulations released in the late 1990s pointed generally to preventing proliferation of nuclear weapons and safeguarding national security, the revisions of the regulations note specifically that China's nuclear-related export controls are meant to, among other things, guard "against nuclear terrorist acts." [3,4,7,8] Furthermore, clauses have been added to both sets of regulations that allow Chinese licensing authorities, such as COSTIND or MOFCOM, as well as the Ministry of

Foreign Affairs, to stop a transaction “if there is the danger of nuclear proliferation or nuclear terrorism.”[3,4] While this power was implicit in the earlier regulations, the added language now gives Chinese authorities explicit powers to halt any exports that officials fear could end up in the hands of non-state actors.

The new regulations also address transshipments and other complex strategic trade controls, additional issues under the UNSCR 1540 mandate. In an effort to deal with the challenge of controlling transshipments and transiting cargo, amendments to both sets of regulations note that the “transit, transshipment, and through-shipping” of controlled items are also controlled by these regulations. Furthermore, the revised regulations include language specifying that China’s nuclear export control regulations also apply to exports “from areas subject to special customs supervision and control, such as bonded warehouses, bonded zones, and export processing zones, as well as other bonded venues.”[3,4] *[Editor’s Note: A bonded venue refers to special areas established within a country’s territory to allow special customs exemptions for various reasons, including the import of materials that are to be processed and then re-exported. The import of “bonded items” does not require the payment of import duties as long as they do not enter the domestic market.]*

In an attempt to cope with the challenging issue of ITT, the revised *Nuclear Dual-Use Export Regulations* include added language indicating that software or other forms of knowledge transfer also fall within the scope of dual-use nuclear goods and related technologies.[4] The concept of ITT applies to a number of electronic modes of knowledge transfer, including software, emails, and faxes, as well as person-to-person transfer of knowledge. The control of ITT has proven to be a significant challenge to export controls systems globally.

Both sets of revised regulations grant the GAC more discretionary authority in assessing the control status of exports. According to the new rules, the GAC can require exporters to obtain documents from MOFCOM that certify whether or not a particular item requires an export license.[3,4] The increase in discretionary authority for the GAC also places more responsibility on the exporter to assure that the item for export is not controlled by Chinese regulations. This is a continuing a trend within China’s export control system to press companies to be more proactive regarding compliance with nonproliferation-related export controls.

The *Nuclear Dual-Use Export Regulations* take the responsibility of industry even further with its inclusion of “comprehensive controls.” Article 18 of the revised regulations stipulates that exporters “should establish and perfect the internal control mechanism” for dual-use nuclear exports and “keep the relevant contracts, invoices, receipts, business letters, and other documents for not less than five

years.” Further, Article 19 of the dual-use export controls states “[e]xporters who are aware, or should be aware, or obtain a notification from the Ministry of Commerce that the equipment, materials, software, and relevant technologies to be exported bear nuclear proliferation risks or may be used for nuclear terrorist purposes should abide by the provisions of these regulations even if the equipment, materials, software, and relevant technologies are not included on the control list.”[4]

Enforcement is also a focus in the revision of both sets of regulations. The penalty sections of the regulations have been revised giving specific details of the required punishments for violating China’s nuclear export controls. According to the new text, when a Chinese entity exports a controlled item in violation of these regulations MOFCOM shall impose a fine of “no less than twice but no more than six times the amount involved in the illegal transaction” adding that if the amount of the transaction is less than RMB 50,000 (US\$6,500), officials shall levy a fine of at least RMB 50,000 but no more than RMB 250,000 (US\$32,500). The regulations also now specify that “[a]ny illicit proceeds shall be confiscated” and that “criminal liability shall be ascertained according to law.”[3,4]

Editor’s Note: For a comprehensive assessment of other recent changes in Beijing’s export control system, see “East Asian Export Control Update: Continued Development of Key Supplier and Transit States,” a special report by Jay Philip Nash and Richard Glen Young on page 16 of this issue.

Sources: [1] “China Issues Revised Regulations on Nuclear Export Controls,” Xinhua New Agency, December 1, 2006, <<http://www.china.org.cn/>>. [2] “China State Council Decision on Revising Nuclear Export Control Rules,” BBC Worldwide Monitoring, December 2, 2006; in Lexis-Nexis Academic Universe, <<http://www.lexis-nexis.com>>. [3] “Chinese Agency Carries ‘Text’ of Nuclear Export Control Regulations,” BBC Worldwide Monitoring, December 2, 2006; in Lexis-Nexis Academic Universe, <<http://www.lexis-nexis.com>>. [4] “China Amends Export Control Regulations on Dual-Use Nuclear Materials,” BBC Worldwide Monitoring, February 18, 2007; in Lexis-Nexis Academic Universe, <<http://www.lexis-nexis.com>>. [5] “Chinese Ministry Official Interviewed on Dual-use Nuclear Goods Regulations,” BBC Worldwide Monitoring, February 18, 2007; in Lexis-Nexis Academic Universe, <<http://www.lexis-nexis.com>>. [6] “China Focus: China Tightens Export Control over Nuclear Goods and Technology,” Xinhua Economic News Service, February 17, 2007; in Lexis-Nexis Academic Universe, <<http://www.lexis-nexis.com>>. [7] “Regulations on Nuclear Export Control,” September 11, 1997. The original 1997 text is available at <<http://www.nti.org/db/china/engdocs/excon97.htm>>. [8] “The Regulations of the People’s Republic of China on Export Control of Dual-Use Nuclear Goods and Related Technologies,” State Council Decree No. 245, June 17, 1998. The original 1998 text is available at <<http://www.nti.org/db/china/engdocs/nduregs.htm>>.

Taiwan Further Restricts Trade to Iran, North Korea

On December 19, 2006, Taiwan’s Bureau of Foreign Trade enacted stiffer sanctions and trade restrictions on Iran and North Korea. The new restrictions on North Korea are in accordance with United Nations sanctions imposed on Pyongyang in October 2006 in response to the North Korean

nuclear weapons test on October 9, 2006. [Editor's Note: On October 14, 2006, the United Nations Security Council voted unanimously to impose sanctions on Pyongyang aimed at stemming the flow of technology to North Korea's weapons and missile programs, as well as a ban on the export of luxury goods to North Korea. For more on the sanctions see, "North Korean Nuclear Test Results in UN Resolution, Sanctions, and Seizures," International Export Control Observer, Issue 9, pp. 8-9, <<http://cns.miis.edu/pubs/observer/index.htm>>.] Curbs on Iranian trade were based on continuing concerns over Iran's nuclear program. [Editor's Note: Even prior to the December change, Taiwanese law contained heavy restrictions on trade with Iran. While Taiwan included Iran in the new restrictions this decision does not appear to be directly related to sanctions imposed in December 2006 on Iran by the UN Security Council in response to Iran's nuclear program.][1]

The new measures create tighter controls for 109 additional items by adding them to Taiwan's *Sensitive Commodities List*, controlled under the "Strategic High-Tech Commodities" and "Restricted Areas for Export" sections of Taiwan's Foreign Trade Act. The added items include dual-use items, such as sodium, hydride unwrought aluminum alloys, as well as other high-tech items, including laser printers, optical disc drives, magnetic disk drives, and infrared (night-vision) binoculars.[1] The addition of these items to the list means that presently 542 items are controlled for export to North Korea and Iran.[2] According to Taiwanese law, companies intending to export sensitive commodities on the *Sensitive Commodities List* must apply for an export license. These export control regulations also apply to cargo being transshipped via Taiwan, to North Korea or Iran.[2] Along with North Korea and Iran, Taiwan maintains similar restrictions on trade with China, Cuba, Iraq, Sudan, and Syria.[1] Taiwan recently removed Libya from this list of countries due to Tripoli's renunciation of its weapons of mass destruction (WMD) programs.[1]

Editor's Note: China, Cuba, Iraq, Sudan, Syria, North Korea, and Iran are all on the restricted destination list under Taiwanese export law. Taiwan originally divided its trade restrictions into three categories. The first category was restricted countries, i.e. North Korea, Iran, Iraq, and Syria. Category II countries were all members of international export control regimes. Category III countries were all remaining countries, including mainland China. In December, 2003, the Ministry of External Affairs (MOEA) revised the categories, putting China, North Korea, Iran, Iraq, Syria, Sudan, and Cuba on the restricted list. For more information on Taiwan's export control policies see Mark Wuebbels and Patrick Heiman, "Growing Pains—An Overview of Taiwan's Export Control System," Asian Export Control Observer, February-March 2005, pp. 11-16, <<http://cns.miis.edu/pubs/observer/asian/index.htm>>.

These increased restrictions follow Taiwan's moves six months earlier to augment export controls for items going to Iran and North Korea. In May 2006, Taiwan added 87 new items to the *Sensitive Commodity List*. The items added in May cover a wide range of commodities, including a number of graphite-related commodities, chemicals and chemical precursors, hydraulic and pneumatic cylinders and related parts, centrifuges, water purification-related equipment, machine tools, lathes, and integrated circuits. [Editor's Note: For more information on the May update to the commodities list see "Taiwan Moves to Restrict Exports to Iran, North Korea," International Export Control Observer, June 2006, p. 5, <<http://cns.miis.edu/pubs/observer/index>>.]

Sources: [1] Jessie Ho, "Government Tightens Exports to N Korea," *Taipei Times*, December 21, 2006, <<http://www.taipetimes.com>>. [2] Sofia Wu, "MOEA Tightens Control of High-Tech Exports to Iran, N. Korea," *Taiwan Headlines*, December 21, 2006, <<http://www.taiwanheadlines.gov.tw>>.

Illicit Trafficking

HEU Seized in Georgia

On January 25, 2007, media reports began to surface covering the February 2006 arrest of Oleg Khintsagov by Georgian law enforcement officials. Khintsagov is a Russian merchant from the North Ossetia region. Although some brief media reports in February 2006 made reference to a seizure of 80 grams of enriched uranium in Georgia involving a Russian national, these reports were dismissed by Russian officials.[1] No additional information was made public for the rest of the year. The information released in January 2007 indicates that Khintsagov was arrested along with three Georgian citizens for attempting to sell 100 grams of highly enriched uranium (HEU). The material seized had been enriched to almost 90 percent uranium-235 (U-235).[2,3] The arrests were the result of a sting operation by the Georgian Secret Service, after officials learned that a Russian national was looking to sell two to three kilograms of enriched uranium. A Turkish-speaking Georgian undercover agent, posing as a Muslim man from a "serious organization," made contact with Khintsagov and set up a meeting in Tbilisi, Georgia's capital. Khintsagov and his accomplices were detained on February 1, 2006 and two bags containing about 100 grams of U-235 were seized.[2,3]

Editor's Note: Uranium enriched to 90 percent U-235 is considered weapons-grade; it is estimated that 5 to 50 kilograms of weapons-grade uranium would be required to build a nuclear weapon, depending on the sophistication and yield of the device.

Georgian officials said Khintsagov initially told investigators that the origin of the material was the Siberian city of Novosibirsk, but later claimed he had obtained the material from an unidentified supplier. In order to determine the origin

of the HEU, Georgian authorities sent samples of the seized materials to the United States and Russia; however, results from these tests were inconclusive with regard to the exact origin of the uranium.[4] Russian experts established that the uranium was an oxide powder with an 89.38 percent U-235 content and “could have been produced by the Russian nuclear industry” over ten years ago.[5] The analysis of the material carried out by the U.S. Department of Energy’s Pacific Northwest National Laboratory determined that the U-235 content of the material was 89.451 percent.[2] The US analysis of the seized material also identified traces of two rare forms of uranium, U-234 and U-236, that reportedly provides “a strong case” that it indeed came from Russia.[2]

This case has caused significant friction between Moscow and Tbilisi over the extent to which Russia responded to Georgian requests for assistance. Furthermore, some Russian officials argued that the arrests were politically motivated. While Georgian authorities claim that Russia provided little assistance in the Khintsagov case, Russian officials insist that Russia cooperated fully with the investigation. According to Russian officials, the small size and the poor quality of the sample sent by Georgian authorities made it impossible to determine the origin of the seized uranium. Russian authorities claim that they requested an additional sample, but received no answer from Georgia.[4,5]

Khintsagov was secretly tried in Tbilisi and sentenced to eight years in prison in July 2006. Two of his accomplices were sentenced to five years, the third to four years.[5,6] On March 30, 2007, the Tbilisi Court of Appeals upheld the convictions.[10] The case remains under investigation by Georgian and U.S. officials.[7] There is no information about efforts to locate the additional two to three kilograms of HEU Khintsagov claimed to have had in his possession.

This case comes just a few years after a 2003 incident on the Armenian-Georgian border involving HEU. Garik Dadayan, an Armenian national was arrested on June 26, 2003, for attempting to smuggle 170 grams of HEU across the border. It was reported that the material came from Novosibirsk, Siberia, the site of a major Russian nuclear fuel production facility.[8]

The recent uranium smuggling episodes in Georgia reinforce concerns over nuclear trafficking in the South Caucasus. On February 2, 2007, the Foreign Minister of Georgia and the U.S. Ambassador to the Republic of Georgia signed a new bilateral agreement that will provide additional U.S. equipment and training to Georgian officials responsible for countering nuclear smuggling.[9]

Sources: [1] “Russian Defense Minister Dismisses Georgian Uranium Seizure Story”, BBC Worldwide Monitoring, February 6, 2006; in Lexis-Nexis Academic Universe, <<http://www.lexis-nexis.com>>. [2] Lawrence Sheets and William J. Broad, “Smuggler’s Plot Highlights Fear over Uranium,” *New York Times* (online edition), January 25, 2007, <<http://www.nytimes.com>>. [3] “Gruziya, kotoraya spasla mir” (Georgia saved the world), Lenta.ru; in Integrum Techno, January 25, 2007, <<http://www.integrum.ru>>. [4] “Russian

Nuclear Smuggler Told Investigators Uranium Came from Russia: Georgian Official,” Associated Press, January 27, 2007; in Lexis-Nexis Academic Universe, <<http://www.lexis-nexis.com>>. [5] Pavel Felgenhauer, “Russia Remains in Denial Regarding Existence of Nuclear Bazaar,” *Eurasia Daily Monitor*, January 31, 2007, <<http://www.jamestown.org/edm/index.php>>. [6] “Russia Ready to Cooperate with Georgia in Uranium Smuggling Probe,” ITAR-TASS; in Integrum Techno, February 1, 2007, <<http://www.integrum.ru>>. [7] “Georgian Authorities Report Seized Illicit Nuclear Material”, News Center, January 25, 2007, International Atomic Energy Agency website, <http://www.iaea.org/NewsCenter/News/2007/georgia_material.html>. [8] Elena Sokova, et al, “Recent Weapons Grade Uranium Smuggling Case: Nuclear Materials are Still on the Loose,” CNS Research Story of the Week, <<http://www.cns.miis.edu/pubs/week/070126.htm>>. [9] “United States and Georgia Sign Agreement to Combat Nuclear Smuggling,” Embassy of the United States in Georgia, Press Release, February 2, 2007, <<http://georgia.usembassy.gov/releases/2007/release20070202Smuggling.htm>>. [10] “Georgian Court Upholds Conviction of Man in Russian Uranium Smuggling Case,” *International Herald Tribune* online edition, March 30, 2007, <<http://www.ihf.com>>.

DR Congo Claims About Nuclear Network Under Scrutiny

On March 9, 2007, authorities in the Democratic Republic of the Congo (DRC) announced that the government had dismantled an underground network trying to illegally sell uranium to entities in the United Kingdom, South Africa, and Seychelles. The announcement came after the arrest of Fortunat Lumu Badimbani-Matu, head of the DRC’s atomic energy program and director of the Cren-K reactor at Kinshasa University, and Bere Bemba Paulin, head of the Center for Nuclear Studies.[1,2,3] According to DRC State Prosecutor Tshimanga Mukeba the two men arrested were “orchestrating illicit contracts to produce and sell uranium.” The prosecutor also noted that large quantities of uranium had gone missing over the last few years from the Kinshasa reactor.[4,5,6] Since the arrests, significant questions have been raised about the validity of the government’s claims; as a number of media reports have indicated the arrests may be due more to political power plays within the Congolese government than with the smuggling of nuclear materials.[6,7] The two men were released after four days, but according to the DRC Minister of Scientific Research Sylvanus Mushi, both remain under investigation.[7]

Editor’s Note: The Kinshasa University reactor was provided to the DRC (formerly Zaire) under the U.S.-sponsored Atoms for Peace initiative in the 1950s. The Belgian government built the reactor, the first in Africa, in 1958. The Kinshasa reactor was a TRIGA, or “Training, Research, Isotopes, General Atomic” reactor. In 1967, the Organization of African Unity established a regional nuclear research center in Kinshasa, with the United States agreeing to provide reactors. In 1988, Zaire stopped funding the reactor and it was closed in 1992 when the U.S. Nuclear Regulatory Commission blocked the export of an essential replacement part. The DRC has a significant number of uranium deposits. Uranium from the DRC was used in the first nuclear weapons that the United States used in its attacks on Japan in World War II.[8]

After the arrests, Science Minister Mushi specifically pointed to Fortunat Lumu's negotiation with foreign enterprises—which he characterized as illegal—as being the source of the government's trafficking charges. Mushi charged that a recent deal that Fortunat Lumu signed as head of the DRC Atomic Commission with UK-based Brinkley Mining—which has subsidiaries in Seychelles and South Africa—was part of a criminal enterprise.[6] The deal, which was finalized on March 8, 2007, gave Brinkley semi-exclusive development rights to the DRC's main uranium deposits.[9] However, according to senior Congolese politician and former DRC Science Minister Gerard Kamanda Wa Kamanda the deal signed between Fortunat Lumu and Brinkley was legal.[6,7] An earlier press release from the company dated November 7, 2006, notes that Brinkley executives held talks with Kamanda and Fortunat Lumu prior to signing a memorandum of understanding on the deal.[10] Kamanda argued that the arrests were a means for Mushi to exclude Fortunat Lumu from participating in the arrangement.[6]

While the government did not give specific details about the amount of uranium that was supposedly missing from the Kinshasa reactor, reports in the Congolese media noted that roughly 100 bars of uranium had disappeared from the country's single nuclear reactor. These "uranium bars" are believed to be enriched uranium fuel rods.[3,4,5,6] *Editor's Note: Uranium is a weak radioactive substance; hence it would not be able to fuel a potent radiological dispersion device (RDD). Nonetheless, if inhaled or ingested in significant amounts (tens of milligrams), it can harm the kidneys or other body organs because of the heavy metal's toxic effects. The uranium used in the Kinshasa reactor is not highly enriched or in large enough quantities to fuel a nuclear weapon. Typically, a crude nuclear bomb would require at least 40 to 50 kilograms of 80 percent enriched uranium. The uranium bars from the Kinshasa reactor probably contained at most five or six kilograms of less than 20 percent enriched uranium.*

Editor's Note: For more detailed information on the history of security issues related to the DRC's nuclear program see Peter Crail and Johan Bergenat, "Uranium Smuggling Allegations Raise Questions Concerning Nuclear Security in the Democratic Republic of Congo" WMD Insights, April 2007. <http://www.wmdinsights.org/114/114_AFI_UraniumSmuggling.htm>.

Sources: [1] Eddy Isango, "Congo Official Arrested in Uranium Sale," Associated Press, in *Los Angeles Times* (online edition), March 7, 2007, <<http://www.latimes.com>>. [2] Eddy Isango, "Congo Authorities Say Illegal Uranium-selling Network Dismantled," Associated Press, in *International Herald Tribune* (online edition), March 9, 2007, <<http://www.iht.com>>. [3] Peter Crail and Johan Bergenat, "Uranium Smuggling Allegations Raise Questions Concerning Nuclear Security in the Democratic Republic Of Congo," *WMD Insights*, April 2007, <http://www.wmdinsights.com/114/114_AFI_UraniumSmuggling.htm>. [4] "Congo Arrest Over Missing Uranium," British Broadcasting Corporation, March 8, 2007, <<http://news.bbc.co.uk/2/hi/africa/6430031.stm?ls>>. [5] "Democratic Republic of the Congo; Top Atomic Energy Official Arrested," World New

Digest, March 22, 2007; in Lexis-Nexis Academic Universe, <<http://www.lexis-nexis.com>>. [6] "Congolese Nuclear Researcher Arrested," New Tang Dynasty TV online, March 16, 2007, link to video of story is at <http://www.ntdtv.com/xtr/en/2007/03/16/a_48754.html>. [7] "DR Congo 'Uranium Ring' Men Freed," BBC, March 13, 2007, <<http://news.bbc.co.uk>>. [8] For a complete break down of the history of the Congolese nuclear program, see "Congo Special Weapons," Weapons of Mass Destruction, GlobalSecurity.org, accessed March 27, 2007, <<http://www.globalsecurity.org/wmd/world/congo/index.html>>. [9] "British Firm Signs Nuclear Research, Development, Operation Memorandum," BBC Monitoring Africa, March 12, 2007; in Lexis-Nexis Academic Universe, <<http://www.lexis-nexis.com>>. [10] "Brinkley Mining PLC - DRC Update," Financial Times Information, November 7, 2006; in Lexis-Nexis Academic Universe, <<http://www.lexis-nexis.com>>.

Yamaha Motor Receives Fine for Attempted Unlicensed UAV Transfer to China

On March 19, 2007, the Hamamatsu Summary Court in Japan's Shizuoka prefecture ordered Yamaha Motor Corporation to pay a ¥1,000,000 (US\$8,500) fine for attempting to export a dual-use unmanned helicopter—the RMAX L181—to China without a license. The court order was in response to a summary indictment filed by government prosecutors against the company. Yamaha said that it would comply with the court's decision.[1]

The ruling came after a task force made up of officials from the police departments of Shizuoka and Fukuoka prefectures and the Japanese Ministry of Economy, Trade and Industry (METI) discovered evidence that Yamaha attempted to export a controlled unmanned helicopter to a Chinese company that Yamaha reportedly knew to be affiliated with China's People's Liberation Army (PLA). According to prosecutors, Yamaha did not obtain an export license and knew that the helicopter would likely be used for military purposes. On February 23, 2007, police arrested three senior Yamaha Motor Co. employees—aeronautics division chief, Kazuo Uchiyama and two aeronautics division senior officials, Akihiko Suzuki and Takafumi Itagaki.[2] However, on March 16, 2007, after an admission of guilt from the three accused, prosecutors released the individuals and instead chose to hold Yamaha Motor Co. directly accountable, rather than individual employees.[3] Although investigators suspected that the three employees knew the exports of the helicopter required an export license, prosecutors believed that there was insufficient evidence to prove that the three intentionally violated the law.[4,5]

The RMAX L181 is a crop dusting, camera-equipped, rotary wing helicopter that can be controlled remotely. Yamaha has insisted that the helicopter cannot be used for military purposes because of technical limitations and therefore it did not require an export license.[2] However, the Japanese government countered that because the RMAX model in question comes with a global positioning system (GPS), a programmable unmanned flight capability, and aerosol dispenser cassette tanks that can be filled with chemical or biological weapon agents, the helicopter could be adapted for

military applications. Investigators claimed that Yamaha knew of the dual-use potential despite the company's claims to the contrary.

In August 2005, METI first became suspicious of Yamaha's export activities after obtaining documents from police in Fukuoka prefecture that had been seized during a separate investigation of another Tokyo company suspected of illegally employing Chinese nationals.[6] The documents allegedly contained information linking Yamaha to possible illegal exports to a Chinese aerial photography company named Beijing BVE Technology Co. that occurred as far back as July 2001.[6] Yamaha has since acknowledged exporting nine unmanned helicopters between 2001 and 2005.[7]

On December 21, 2005 Yamaha attempted again to export the RMAX L181 unmanned aerial helicopter to China.[8] Customs officials in Nagoya, however, noticed flaws in the helicopter's export paperwork and halted the shipment.[6] On December 22 and 23, following the attempted export, METI performed on-site inspections at the company's headquarters.[8] Investigators uncovered information suggesting that Yamaha should have been aware of BVE's ties to the Chinese PLA and that the helicopters in question could be used for military purposes.

According to a number of Japanese news sources, an internal company memorandum confiscated by investigators revealed correspondence from December 2003 between BVE officials and Yamaha Motors executives in which the Chinese buyers specifically noted that the RMAX L81 helicopters were destined for China's military.[9] The investigators also claim to have located a webpage linked to BVE's website that posted a picture of the RMAX L181 in flight at a PLA facility.[9] Although Yamaha has claimed that it only discovered BVE's dealings with the PLA during the task force investigation, company records show meetings that took place in 2004 where BVE officials informed Yamaha executives that the PLA thought very highly of the Yamaha helicopters and were hoping to buy around 100 more of the RMAX L181 within the next two to three years.[9,10] Furthermore, the investigation revealed that when Yamaha met to negotiate with BVE in China, members of the PLA also attended the meeting. Finally, investigators believed that PLA officials may have been present when Yamaha provided a tutorial to BVE employees on how to use the helicopters.

Editors Note: For more background information on initial stages of the investigation and the RMAX L181's dual-use capabilities, see "Illegal Export of Unmanned Helicopters to China Reveals Gaps in Export Control Awareness in Japan," International Export Control Observer, February 2006, pp. 4-5, <<http://www.cns.miis.edu/pubs/observer/index.htm>>.

It is unclear why the ultimate sentence handed down by the Japanese court was relatively light—especially considering the

extensive amount of resources that authorities invested into the case. One factor that may have influenced the decision was the prosecution's inability to convince the court that Yamaha was aware that helicopters would be used for military purposes. Additionally, the company has officially shown remorse for the export control violations and promised to improve its export control compliance. In that regard, in May 2006, Yamaha Motors established an export control compliance division aimed at strengthening the company's ability to adhere to Japanese trade controls.[11]

Sources: [1] "Court Fines Yamaha 1 Mil. Yen Over Chopper Export to China," *Kyodo News World Service*, March 20, 2007; in OSC document JPP200703200969080. [2] "Japan Arrests Three for Exports to China," *International Herald Tribune*, February 24, 2007; in Lexis-Nexis Academic Universe, <<http://www.lexis.nexis.com/>>. [3] "Yamaha Indicted for Illicit Export of Unmanned Chopper," *Jiji Press*, March 16, 2007; in OSC document JPP20070316969080. [4] "Yamaha hatsu yakuinra shobun horyuu, kaisya ha ryakushiki kiso fusei yuushutsu misui" (Yamaha Motor Employees not Punished, Company is Prosecuted for Export Violation Attempt), *Asahi Shimbun*, March 16, 2007, <<http://www.asahi.com>>. [5] Kozo Mizoguchi, "Japanese Prosecutors Drop Charges against Yamaha Motor Officials in Helicopter Case," *Associated Press*, March 23, 2007; in Lexis-Nexis Academic Universe, <<http://www.lexis-nexis.com>>. [6] "Yamaha Motor Raided for Chopper Sales to Chinese Company," *Asahi Shimbun*, January 23, 2006; in OSC JPP20060123969021. [7] "Yamaha Choppers Sold to China Firm," *Asahi Shimbun*, January 24, 2006; in OSC JPP20060124969005. [8] "Yamaha Motor Raided over Unauthorized Export of Chopper to China," *Kyodo World Service*, January 23, 2006; in OSC JPP20060123969068. [9] "Yamaha Aware of PLA Ties," *Asahi Shimbun*, February 26, 2007, <<http://www.asahi.com>>. [10] "PLA in Market for 100 'Copter Drones,'" *Asahi Shimbun*, March 1, 2007, <<http://www.asahi.com>>. [11] Yamaha Motor homepage press release <<http://www.yamaha-motor.co.jp/news/2007/03/16/comment.html>>.

International Assistance Programs

EU Project on Kazakh Customs Modernization Completed

At a press conference at the Astana headquarters of Kazakhstan's Customs Control Committee (CCC) on December 4, 2006, the CCC and the European Commission announced the conclusion of their project on the "Reform and Modernization of the Customs Control Committee of the Republic of Kazakhstan." The project was funded by the European Union (EU) under its Technical Assistance to the Commonwealth of Independent States (TACIS) outreach program and implemented by EuroCustoms.[1,2] *[Editor's Note: EuroCustoms is a non-profit consortium of the EU Customs Administrations founded in 1991 by the EU member states in response to the growing need for technical assistance in Eastern Europe. The mission of the Paris-based EuroCustoms is to support the sustainable development of customs administrations in EU partner countries and improve their capacity and performance, by providing quality expertise and advice.]*[3]

The project, officially launched in February 2006, aims to assist Kazakhstan in developing “an effective, professional and transparent Customs Service in line with international standards, which is capable of achieving an appropriate balance between law enforcement and trade facilitation.”[4] The project’s budget totaled €730,000 (US\$982,000) which included training and know-how transfer, with an additional €40,000 (US\$457,000) spent on equipment for the CCC.[1,2,4]

Given the declared aim of improving customs control without hindering legitimate trade, the project focused on the following specific areas: reviewing Kazakhstan’s customs-related legal and regulatory framework; improving the application of “Risk Analysis and Selectivity Control” in line with international standards at the country’s international airports; enhancing “Post Clearance Auditing” and related legislation; developing a “Human Resources Management” strategy; and enhancing the training capacity and methods of the CCC Training Center.[1,4]

Editor’s Note: Risk Analysis and Selectivity Control is a targeted control method that focuses on the most sensitive shipments only and promotes sensible and efficient assignment of staff. Post Clearance Auditing means customs control or audit performed subsequent to the release of cargo from customs custody. Such audits usually are granted to reputable companies and may take into account individual transactions or cover imports/exports undertaken over a certain time period. The audit can take place either at a customs office or on the premises of a company. Implementation of post clearance audits is a major simplification of customs control. Time previously spent waiting for customs clearance is reduced to a minimum, and traders can discharge their goods quickly after arrival in the country. In traditional customs procedures, goods are subject to control upon arrival at the border or port of entry. The process may take several days, sometimes weeks, if disputes or irregularities occur. However, goods remain in customs custody until all checks have been performed and requirements fulfilled, including payment of duty and taxes.[1,5]

Almut Brunckhorst, a representative of the European Commission’s Delegation to Kazakhstan, Kyrgyzstan and Tajikistan, noted that the EU has invested about €2 million (US\$2.7 million) into modernizing Kazakhstan customs service over the last 10 years.[2] According to the European Commission, in 2006, the EU funded similar customs improvement projects in other Central Asian states—Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. The total cost of the TACIS-funded customs improvement program in Central Asia for 2006-2008 is €9.4 million (US\$12.6 million).[1,4]

Sources: [1] “Official Closure of EU Customs Reform Project,” Press Release, December 1, 2006, European Commission’s Delegation to Kazakhstan, Kyrgyzstan and Tajikistan website, <<http://www.delkaz.cec.eu.int/pr/eng/proj/first.php?a=news&p=1&obj=757&c=all>>. [2] “EU Invested 2 Million Euros

into Modernisation of Kazakh Customs,” December 4, 2006, Kazakhstan Today news agency, <<http://eng.gazeta.kz/>>. [3] EuroCustoms website, <<http://www.eurocustoms.org>>. [4] “A New TACIS Project Will Assist Kazakhstan’s Government in Its Efforts to Reform and Modernise Its Customs Service,” Press Release, February 23, 2006, European Commission’s Delegation to Kazakhstan, Kyrgyzstan and Tajikistan website, <<http://www.delkaz.cec.eu.int/pr/eng/proj/first.php?a=news&p=2&obj=206&c=all>>. [5] “Customs Procedures—Post Clearance Audit,” UNCTAD Technical Note, October 5, 2005, <http://r0.unctad.org/tl/technical-notes/TN05_PostClearanceAudit.pdf>.

United States Extends Cooperation Combating Illegal Nuclear and Radioactive Material Trafficking

In late 2006-early 2007, the U.S. Department of Energy’s National Nuclear Security Administration (NNSA) worked with a number of countries to install radiation detection equipment as a measure to prevent illegal shipment of nuclear and radioactive materials. These activities were a further expansion of the work of the NNSA’s Second Line of Defense (SLD) program.

Editor’s Note: The NNSA, a part of the U.S. Department of Energy, was established in 2000. Among its responsibilities is the administration of the Department’s nonproliferation programs.[1] The SLD program, launched in 1998 and transferred to the NNSA in 2000, focuses on preventing illicit trafficking of nuclear and other radioactive materials through land border crossings, railways, airports, and seaports in Russia and other key transit states in the Baltic, Central and Eastern Europe, the Caucasus, Central Asia, and the Mediterranean region. Under the SLD program, the NNSA installs and maintains specialized radiation detection equipment, and provides training to officials of the participating nations in detection, identification, and interdiction of nuclear and radiological materials, as well as training in the use and maintenance of the equipment.[2]

On November 13, 2006, the NNSA announced the successful installation of radiation detection equipment at the Port of Koper, in Slovenia. This equipment is designed to screen for nuclear and radiological materials in order to prevent illicit trafficking in these commodities. The NNSA and the Slovenian Customs Administration began working together on the installation of the radiation detection system in April 2005. Since the beginning of this joint effort, U.S. technical experts have provided training for local customs personnel on how to use the system and respond to alarms.[3]

In the week of December 29, 2006, the NNSA’s SLD Office and the Customs Directorate of the Slovak Republic signed a Memorandum of Understanding (MOU) in which the U.S. government agreed to install radiation detection and integrated communications equipment at various border crossings in Slovakia and provide related training for local officials. Specific sites where the detection equipment would be located were not announced at the time of the MOU’s signing. It is

expected that they will be selected by NNSA and Slovak customs officials.[4]

Most recently, on February 9, 2007, the NNSA along with the U.S. Department of Homeland Security's Customs and Border Protection (CBP), signed a Declaration of Principles with the government of Panama aimed at preventing the smuggling of nuclear and other radioactive materials through international maritime traffic. The two U.S. agencies co-signed the agreement because it covers the implementation of the NNSA's Megaports Initiative and CBP's Container Security Initiative (CSI).[5]

Editor's Note: The CSI aims to enhance security at seaports worldwide in order to identify and examine high-risk containers as early as possible, before they reach U.S. shores. The CSI is currently operational at 50 foreign ports. Under the initiative, the U.S. government partners with countries having ports that meet certain minimum standards and ship a significant volume of containerized cargo to the United States. The NNSA Megaports Initiative supplements this effort by providing radiation detection capabilities at key ports to permit the screening of cargo for nuclear and radioactive materials that could be used against the United States, the host country, or U.S. allies. The initiative is currently operational in six countries, and at various stages of implementation, and negotiations with approximately 30 additional states are ongoing.[2,5]

Sources [1] "About NNSA," U.S. Department of Energy's National Nuclear Security Administration (NNSA) website, <<http://www.nnsa.doe.gov/aboutnnsa.htm>>. [2] "Second Line of Defense Program" NNSA website, <<http://www.nnsa.doe.gov/na-20/sld.shtml>>. [3] "Radiation Detection Equipment Up and Running in Slovenia," November 13, 2006, NNSA website, <http://www.nnsa.doe.gov/docs/newsreleases/2006/PR_2006-11-13_NA-06-43.htm>. [4] "U.S. and Slovakia to Work Together to Detect Illegal Shipments of Nuclear and Radioactive Material," December 29, 2006, NNSA website, <http://www.nnsa.doe.gov/docs/newsreleases/2006/PR_2006-12-29_NA-06-53.htm>. [5] "U.S. and Panama To Combat Nuclear Smuggling," February 9, 2007, NNSA website, <http://www.nnsa.doe.gov/docs/newsreleases/2007/PR_2007-02-09_NA-07-04.htm>.

Kyrgyzstan Receives International Assistance in Export and Border Control Improvements

Two seminars were organized at the State Customs Inspectorate (SCI) in Bishkek, Kyrgyzstan, in late 2006 and early 2007 as part of U.S.-Kyrgyz cooperation in the area of export control. On November 28-30, 2006, the Kyrgyz Republic's Center on Export Control Issues held a Product Identification Tool (PIT) Instructor Training seminar. The purpose of the event was to train local customs officials in the use of PIT and enable them to become instructors for other customs officials. It is expected that these officials will act as PIT instructors at similar seminars in customs units throughout Kyrgyzstan.[1] On February 1-2, 2007, the SCI Training Center and the Center on Export Control Issues jointly organized another PIT seminar that dealt with practical aspects of software use during customs control. Twenty customs inspectors, including five from regional customs posts,

attended the seminar. Local instructors from the SCI Training Center and the Center on Export Control Issues taught the PIT training module at the seminar.[2] Developed in 2003 by the U.S. Department of Commerce's Bureau of Industry and Security (BIS), under the auspices of the U.S. Department of State-administered Export Control and Related Border Security (EXBS) program, PIT is a software program designed to help prevent the proliferation of WMD. It provides computer-based self-paced training and case studies on screening shipments at the border. It also includes an extensive database of controlled items with photos.[3]

The Kyrgyz government has also recently received border control assistance from the European Commission (EC). On December 11-15, 2006, a series of training workshops in integrated border management (IBM) approaches were held. IBM refers to the organization and supervision of border agency activities in order to meet the common challenge of facilitating the movement of permitted persons and goods while maintaining secure borders and meeting national legal requirements. [4,5,6]

The IBM workshops took place in the south of the country at the Osh airport, Osh border guard detachment, and the Jalalabat customs office under the auspices of the EC-funded Border Management Program for Central Asia (BOMCA) and Central Asia Drug Action Program (CADAP)—two programs implemented by the United Nations Development Program. These events were organized in cooperation with the SCI Training Center and attended by officials from the Osh, Batken, and Jalalabat customs offices engaged in customs, border, phytosanitary, sanitary-epidemiological, and veterinary controls. Similar training in IBM was held earlier at other border posts in northern Chuy, Issyk-Kul, and Naryn oblasts.[4,5] Ambassador Adriaan van der Meer, head of the EC Delegation to Kazakhstan, Kyrgyzstan, and Tajikistan, and Colonel Zakir Tilenov, chairman of the Border Service of the Kyrgyz Republic, attended a training workshop at the Osh International Airport. In Osh, Ambassador van der Meer also officially inaugurated a recently formed drug detecting dog unit and the newly renovated premises of the regional training center of the Kyrgyz Border Service. Both projects were funded by BOMCA.[4,5]

Editor's Note: The overall objectives of the BOMCA are to enhance security in Central Asia, to reduce the flow of illicit traffic through the countries of the region, and to help facilitate the flow of persons and legal goods across Central Asian borders. The specific objective of the BOMCA is to strengthen Central Asian states' capacities in managing their borders in accordance with European best practices.[5] CADAP seeks to foster a development-oriented drug control strategy in Central Asia that ensures a sustained reduction of drug consumption and trafficking.[7]

Sources: [1] News of the State Customs Inspectorate of the Kyrgyz Republic, December 1, 2006, <<http://www.customs.gov.kg/content/news90/>>. [2] News

of the State Customs Inspectorate of the Kyrgyz Republic, February 2007, <<http://customs.gov.kg/content/news102/>>. [3] "U.S. Department of Commerce Bureau of Industry and Security Releases Annual Report on Fiscal Year 2005 Activities," *International Export Control Observer*, May 2006, pp.14-16, <<http://www.cns.miis.edu/pubs/observer/index.htm>>. [4] News of the State Customs Inspectorate of the Kyrgyz Republic, December 1, 2006, <<http://www.customs.gov.kg/content/news95/>>. [5] "EC Ambassador Visited EC-UNDP BOMCA Programme's Project Sites in the South of Kyrgyzstan," BOMCA website, December 11, 2006, <<http://bomca.eu-bomca.kg/en/news/?news=67>>. [6] "Integrated Border Management," Global Facilitation Partnership for Transportation and Trade website, June 2005, <<http://gfpft.org/uploadedFiles/7488d415-51ca-46b0-846f-daa145f71134.pdf>>. [7] CADAP website, <<http://cadap.eu-bomca.kg/en/areas>>.

International Supplier Regimes

Overview of International Export Control Regimes in 2006

In 2006, all the major multilateral nonproliferation regimes—the Australia Group, the Missile Technology Control Regime, the Nuclear Suppliers Group, and the Wassenaar Arrangement—reiterated their intention to prevent the proliferation of WMD and their delivery systems. The regimes also adopted a number of changes in their respective guidelines in order to keep pace with advances in technology, market trends, and international security developments. The following article provides an overview of measures undertaken by these international export control regimes in 2006 to reinforce multilateral export controls.

Australia Group

On June 12-15, 2006, the Australia Group (AG) held its annual plenary session in Paris, France. During the meeting, AG participants shared information on the development and spread of new technologies that potentially could pose proliferation threats with respect to chemical and biological weapons. AG members recognized that the metal niobium (Nb) has become an increasingly important part of chemical manufacturing equipment that can be used in the production of chemical weapons. Regime members therefore agreed to introduce controls on equipment employing niobium (also known as columbium) or niobium alloys. Several biological agents capable of being used for biological weapons purposes were also added to the AG control lists. These agents included two fungi—*Coccidioides immitis* and *Coccidioides posadasii*—and two toxins—Verotoxin and shiga-like ribosome inactivating proteins.[1,2] *[Editor's Note: Niobium is a rare, soft, gray, ductile metal used as a component in some stainless steels and as an alloy for other nonferrous metals; due to the metal's corrosion resistance and ability to withstand high temperatures, metal plates, sheets, wire, rod, and tubing made from the metal are used in chemical processing equipment.][3]*

The AG decided to take a common approach in controlling the export of sensitive items to distributors and agreed to hold a

seminar to discuss best-practice measures on the control of brokering activities. AG members agreed that measures such as tighter controls on brokers will help combat increasingly sophisticated procurement efforts by states or groups that may be intent on developing WMD. The labeling of controlled equipment to help manage trade in second-hand equipment was also discussed at the plenary. Welcoming the renewed mandate of the Committee established under UN Security Council Resolution 1540 (UNSCR 1540), the AG affirmed its commitment to support the implementation of the resolution which calls on all countries to criminalize proliferation activities and to control transfer and use of WMD-relevant equipment and materials.[1]

The plenary session acknowledged the effectiveness of the AG's targeted outreach activities that have led to increased acceptance of the group's measures worldwide as the international benchmark for export control standards relating to dual-use chemical and biological equipment, materials, and technologies. During the plenary, participants agreed on outreach strategies for 2007 and exchanged information on planned activities. They also agreed to further develop the AG Information System that was established in 2005 as a secure electronic communication tool to increase the timeliness and effectiveness of information sharing among participants. The plenary session decided to expand information on controlled items contained on the AG website, now available in all five official UN languages.[1]

Missile Technology Control Regime

On October 2-6, 2006, the 21st plenary meeting of the Missile Technology Control Regime (MTCR) chaired by Ambassador Liselotte Plesner, Political Director at the Danish Ministry of Foreign Affairs, was held in Copenhagen, Denmark. At the plenary, Per Fischer, Special Adviser to the Danish Minister for Foreign Affairs on Nonproliferation, was confirmed as chair of the MTCR until the next plenary. The regime members further welcomed the intention of Denmark to host an international conference in Copenhagen on missile proliferation on the occasion of the 20th anniversary of the MTCR in April 2007.[4]

At the plenary, MTCR member states exchanged information and discussed trends in missile developments and missile tests around the world. They expressed concern over missile proliferation in Northeast Asia, South Asia, and the Middle East. Participants also noted the direct relevance to MTCR export controls of recent UN Security Council Resolutions 1695 and 1696, regarding the North Korean and Iranian nuclear and missile programs, and expressed their intention to implement the requirements set forth in these resolutions. Participants noted, in particular, the resolutions' requirements to exercise vigilance and prevent the transfer of any items, materials, goods or technology that could contribute to ballistic missile programs of proliferation concern. The requirements stipulated in the resolutions must also be

implemented in accordance with national legislation and be consistent with international law. MTCR members agreed on practical measures to implement these resolutions, including the exchange of information on entities and activities of proliferation concern, and further called on states to take all necessary steps to fully and effectively implement the missile export control provisions of these resolutions. The plenary also reiterated its support for the UNSCR 1540.

The plenary agreed on several changes to the MTCR Annex, including:

- In Annex Item 3 (Propulsion Components and Equipment), the 2006 changes broadened coverage of engines supporting unmanned aerial vehicles (UAV) with a range equal to or greater than 300 kilometers, regardless of payload weight;
- In Annex Item 4 (Propellants, Chemicals and Propellant Production), the control list was expanded to include additional fuel substances;
- In Annex Item 9 (Instrumentation, Navigation and Direction Finding), coverage was broadened to include integrated flight instruments and integrated navigation systems relevant to ballistic and UAV systems capable of a range equal to or greater than 300 km, regardless of payload weight; and
- In Annex Item 17 (Stealth), the changes extended coverage to include measurement equipment covering ballistic and UAV systems capable of a range equal to or greater than 300 km, regardless of payload weight.

Members also agreed to add the following 17 fuel-related substances to Category 2, Item 4 (Materials) of the MTCR Annex:

- Trimethylhydrazine;
- Tetramethylhydrazine;
- N,N diallylhydrazine;
- Allylhydrazine;
- Ethylene dihydrazine;
- Monomethylhydrazine dinitrate;
- Unsymmetrical dimethylhydrazine nitrate;
- Hydrazinium azide;
- Dimethylhydrazinium azide;
- Hydrazinium nitrate;
- Diimido oxalic acid dihydrazine;
- 2-hydroxyethylhydrazine nitrate (HEHN);
- Hydrazinium perchlorate;
- Hydrazinium diperchlorate;
- Methylhydrazine nitrate (MHN);
- Diethylhydrazine nitrate (DEHN);
- 1,4-dihydrazine nitrate (DHTN).

Editor's Note: For a full list of items controlled by the revised MTCR Annex, see the MTCR website at

<<http://www.mtcr.info/english/MTCR-TEM-2006-Annex-002.doc>>.[4]

Nuclear Suppliers Group

On June 1-2, 2006, the 16th plenary meeting of the Nuclear Suppliers Group (NSG) took place in Brasilia, the capital of Brazil, chaired by Ambassador José Artur Denot Medeiros, Special Representative for Disarmament and Non-Proliferation of the Brazilian Ministry of External Relations.[5] The plenary reviewed developments since the June 2005 plenary meeting in Oslo and October 2005 extraordinary plenary meeting in Vienna. Participants exchanged information on existing proliferation challenges, with a principal focus on Iran. They called on all states to effectively prevent their exports from contributing to nuclear weapons programs, discussed the value of continued review of control lists and measures to control unlisted items, and welcomed the extension of the UNSCR 1540 Committee mandate.

In order to further strengthen national export controls of the member states, the NSG adopted the following measures:

- Revised guidelines for information sharing within the NSG;
- An approach to continue the Additional Protocol discussions in the NSG Consultative Group;
- An amendment to the Part 1 Guidelines to include especially designed or prepared valves for use in enrichment plants; and
- Means to incorporate the outcomes of the NSG Workshop on sensitive technologies into outreach activities.[5]

Editor's Note: The NSG Guidelines found in INFCIRC/254, Part 1 govern the export of items that are especially designed or prepared for nuclear use. These include: nuclear material; nuclear reactors and related equipment; non-nuclear material for reactors; plant and equipment for the reprocessing, enrichment, and conversion of nuclear material and for fuel fabrication and heavy water production; and technology associated with the above items.[6]

The plenary examined the July 2005 U.S.-India Joint Statement and discussed a possible NSG-India relationship regarding civilian nuclear cooperation. NSG participants decided to continue their consultations and agreed to return to this issue at the next regular Consultative Group meeting. They also agreed to mandate the Chair and the Troika to continue contacts with non-participating governments and international organizations in the framework of the existing NSG outreach program.[5] *[Editor's Note: The NSG Troika is composed of the past, present, and future NSG Chairs.]*

Wassenaar Arrangement

On December 5-6, 2006, the Wassenaar Arrangement (WA) held its 12th plenary meeting in Vienna, Austria. The meeting

marked the tenth anniversary of the WA and was chaired by Ambassador Peter Shannon of Australia.[7]

During the plenary, WA member states agreed on a number of text amendments, parameter modifications, and definition clarifications to the List of Dual-Use Goods and Technologies and Munitions List, including some in technically complex and challenging areas.[8] Participants agreed to initiate a dialogue between the WA Experts Group and its MTCR counterpart with the aim to discuss the control of specific items. The group also planned to expand its outreach activities in non-participating states and international organizations in order to promote strengthened export controls.[7]

The WA plenary considered the issue of “intangible technology transfers” (ITT), recently a source of growing international concern. ITT can take many forms, including computer software, electronic transfers, and passage of knowledge from person to person. In a step aimed at addressing the issue of ITT, the plenary adopted a document entitled “Best Practices for Implementing Intangible Transfer of Technology Controls.” This document will assist both participating and non-participating states in responding to the challenges associated with these transfers.[9]

The plenary also approved a document entitled “Best Practice Guidelines for the Licensing of Items on the Basic List and Sensitive List of Dual-Use Goods and Technologies.” This document is intended to assist states in their implementation of effective export controls through guidance on the use of general licenses and license exceptions in cases when the use of these trade facilitation techniques do not undermine the WA purposes.[10] *[Editor’s Note: A license exception is an authorization granted to exporters that allow these entities to export or re-export certain items under stated conditions that would otherwise require an individual license.]* Additionally, due to growing international concern over the acquisition of Man-Portable Air Defense Systems (MANPADS) by unauthorized users, the plenary called participating states to promote the Wassenaar Elements on Export Controls of MANPADS to non-participating states.[7]

2007 will be an assessment year for WA members, when states are expected to carry out a wide-range review of the functionality of the regime. In this regard the 2006 plenary established a framework for evaluating the overall activities of the WA. This framework will guide the WA in weighing its response to existing challenges to the export control regime, as well as its preparedness for future issues. The plenary also established several task forces to assist in its review process.[7]

The next regular WA plenary will take place in Vienna in December 2007. Starting January 1, 2007, Ambassador Philippe Nieuwenhuys of Belgium assumed the position of plenary chair.[7]

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Embargo and Sanction Regimes

Japanese Government Places Record Export Ban on Seishin for Illegal Exports to Iran

On November 28, 2006, Japan’s Ministry of Economy, Trade and Industry (METI) imposed export sanctions on Seishin Enterprise Co., a Japanese machinery manufacturing firm, for illegally exporting two single-track jet mills to two entities in Iran in 1999 and 2000. Jet mills are dual-use grinding machines that produce powder. They are primarily used in the food and pharmaceutical industries, but can also be used in the production of solid missile fuel.[1,2,3,4]

The sanctions, which ban the issuance of export licenses to Seishin, began on December 5, 2006, and will end on December 4, 2008. This represents the longest ban that METI has ever imposed on a Japanese company. Previously, the longest export ban was issued in 1991 against Japan Aviation Electronics Industry Ltd. for a period of 18 months, after the company exported over 1,000 Sidewinder missile parts (designed in the United States) to an affiliate in Singapore, which then transferred the items to Iran.[2,4]

According to Japanese investigators, in May 1999, Seishin sold a jet mill to Sanam Industrial Group, a company affiliated with a state-owned Iranian company. Sanam is a subsidiary of the Iranian Defense Industries Organization (DIO), a government entity that oversees the Iranian defense industry. In November 2000, Seishin again sold unlicensed jet mills to

an entity in Iran—this time to a rocket science laboratory at the Khajeh Nassir-Al-Deen Toosi University of Technology, in Tehran. In addition to the two confirmed incidents, Japanese government sources suspect that Seishin made several illicit shipments of jet mills to Iran, starting in 1987 and continuing through until the early 2000s.[5,6,7,8]

The investigation into Seishin's illegal activities was first made public in late 2002 when Japanese law enforcement authorities conducted a series of raids on the company's headquarters and at the homes of some of its executives. In June 2003, five executives from the company were placed under arrest. In October 2004, former company chair Haruhiko Ueda received a jail term of two and a half years, and the former leader of Seishin's South Korea office, Akira Kamiya, was sentenced to 18 months in prison. The company was also fined ¥ 15 million (US\$124,000). Although these sentences were issued by the Tokyo District Court in October 2004, the details were only released to the public in October 2006, after the Japanese Supreme Court dismissed the final appeal of the convictions.[9, 10,11, 12]

Editor's Note: Reports have also linked Seishin to North Korea's WMD or missile program. Evidence suggests that the company exported jet mills to the DPRK in March 1994, but Seishin cannot be prosecuted for the incident because the five-year statute of limitations for this case has run out.[9] *In February 2006, Seishin offices were raided by Japanese police after allegations surfaced that the company exported BW-related equipment to North Korea in 2002. For more information on the raid, see "Japanese Export Controls Under Scrutiny as Revelations of Illicit Transfers Continue," International Export Control Observer, March 2006, p. 9, <<http://www.cns.miis.edu/pubs/observer/index.htmf>>.*

The punishment of Seishin and its executives is part of an increased effort by the Japanese government to crack down on illegal exports to countries with suspected nuclear weapon and advanced delivery system programs through enforcing the Japanese Foreign Exchange and Foreign Trade Law. A significant number of examples of large Japanese companies violating domestic export control laws have been uncovered in the last two years. Apart from the recent Yamaha Motor Co., case (see related story on page 7 of this issue), executives from Mitutoyo Corporation, a Japanese machine manufacturing company, pled guilty in December 2006 to violating Japanese export controls. The Mitutoyo case is particularly noteworthy because a three-dimensional precision measuring device, useful in the development of centrifuges for enriching uranium, were illegally exported by the company in 2001 and found by IAEA inspectors in Libya after the country gave up its nuclear arsenal in 2003.[13,14] *Editor's Note: For more on the Mitutoyo case, see "Mitutoyo Managers Indicted for Exporting Nuclear Equipment to Iran," International Export Control Observer, October/November 2006, p. 3, <<http://www.cns.miis.edu/pubs/observer/index.htm>>.*

Additionally, the Japanese Diet (parliament) is preparing to pass legislation that would further strengthen export controls by increasing the maximum penalty against errant enterprises to between ¥ 200 and 300 million (US\$1.6-2.5 million) and increasing the maximum prison sentence against individual export control violators to 10 years.[2]

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International Developments

Russia and Ukraine Joined Turkish Black Sea Harmony Initiative

On December 27, 2006, an agreement between the Russian Ministry of Defense and the Turkish General Staff on the Russian Navy's accession to the Turkish-led "Operation Black Sea Harmony" entered into force. The agreement was signed on November 7, 2006 by Turkish Naval Forces Commander Admiral Yener Karahanoglu and his counterpart Commander-in-Chief of the Russian Navy Admiral Vladimir Masorin during Karahanoglu's official visit to Moscow, Russia.[1,2] On January 17, 2007, the governments of Turkey and Ukraine, represented by Yener Karahanoglu and the Commander-in-Chief of Ukraine's Navy, Vice-Admiral Igor Tenyukh, signed a protocol on information exchange under the Operation Black Sea Harmony, in effect making official Ukraine's accession to

the initiative. The signing of the protocol came during an official visit to Turkey of a high level Ukrainian delegation headed by Prime Minister Viktor Yanukovich.[3] Russia and Ukraine have become the first Black Sea littoral states to join the Turkey-led operation.

The Operation Black Sea Harmony aims at preventing terrorist threats and weapons of mass destruction proliferation in the Black Sea basin and was launched in March 2004 under a Turkish initiative, as a national operation to be implemented by the Turkish Navy, in accordance with UN Security Council Resolutions 1373, 1540, and 1566. In November 2004, Ankara officially invited all Black Sea littoral countries to participate in Black Sea Harmony. Since the launch of the operation, the Turkish Navy has been observing vessels passing through its territorial waters, questioning crews of suspect ships and sharing intelligence with its NATO allies. Ship boarding for inspection is only possible with consent of the vessel's captain or a flag state.[1,4,5]

Moscow's long-time concerns over possible outside involvement in the security of the Black Sea basin has led Russia to strongly support regional efforts to secure the area. On November 7 2006, following the signing of the Black Sea Harmony accession agreement, Admiral Masorin stated that Black Sea security should only be ensured by littoral states and that Russia therefore opposes the expansion of NATO's "Operation Active Endeavor," which is a similar initiative in the Mediterranean, into the Black Sea.[6] Turkey shares the Russian position but Turkish concerns stem from fears over possible infringement of the 1936 Montreux Convention that gave Turkey control over the Bosphorus and the Dardanelles.[7]

On June 7, 2006, even before the negotiation on Moscow's participation in the Black Sea Harmony was finalized, Russian Foreign minister Sergey Lavrov expressed Moscow's hope that member states of another regional initiative—BLACKSEAFOR—would also choose to cooperate under the operation.[8] However, of the six BLACKSEAFOR participants, so far only Ukraine has approached Turkey about joining the Black Sea Harmony Initiative. *[Editor's Note: The Black Sea Naval Cooperation Task Group, or BLACKSEAFOR, was established on Turkey's initiative in April 2001 and includes Black Sea littoral states—Bulgaria, Georgia, Russia, Romania, Turkey, and Ukraine.]*[9]

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Harmony," Wikipedia (online encyclopedia), <http://en.wikipedia.org/wiki/Operation_Black_Sea_Harmony>. [5] "Turkish M.F.A. on Operation Black Sea Harmony," Turkishpress.com, August 10, 2006, <<http://www.turkishpress.com>>. [6] "Masorin: NATO v chernomorskoy regione byt ne dolzhno" (Masorin: there is no place for NATO in the Black Sea region), Vovremya.info, November 7, 2006, <<http://www.vovremya.info>>. [7] "Turkish Naval Forces Commander In Moscow," Turkishpress.com, November 7, 2006, <<http://www.turkishpress.com>>. [8] "Tezisy vystupleniya Ministra inostrannykh del Rossii S.V. Lavrova na 'pravitelstvennom chase' v Gosudarstvennoy Dume" (Abstracts of the testimony by Russian Foreign Minister Sergey Lavrov at the 'government hour' in the State Duma), June 7, 2006, Russian MFA website, <http://www.mid.ru/brp_4.nsf/0/04B22C68FB4AA980C3257186004C3DF6>. [9] BLACKSEAFOR website, <http://www.blackseafor.org/English/Establishment_Home.asp>.

Special Report

East Asian Export Control Update: Continued Development of Key Supplier and Transit States

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China, South Korea, the Hong Kong Special Administrative Region (HKSAR), and Singapore represent four of the top five traders in Asia and are among the fastest growing economies in the world. Yet, as recently as 2005, their progress in the area of export controls was described as “uneven.”[1] Over the last two years, however, there has been a series of revisions to the export control systems in each of the four economies that together signal more steady progress in terms of East Asia’s export control development. The developments in these four systems are important, not only because of their economic and strategic significance to Asia, the United States, and the international community, but also because they may be a guide for developing economies in the region, such as Indonesia, Malaysia, Thailand, Viet Nam, and the Philippines, where proliferation concerns are just as great but where development of export controls is lagging. This special report summarizes the recent developments in export controls in China, HKSAR, South Korea, and Singapore, and offers insight into their causes and significance.

Developments in Key East Asian Producers

China: Moving toward the Next Level

The last twelve months have brought some of the most substantial changes to the Chinese export control system since the PRC passed its first set of comprehensive export control regulations in 2002. In 2006, there were developments in all aspects of China’s system: the legal and regulatory basis, licensing processes, enforcement, industry-government relations, international participation, and political commitment in general. These changes are notable both at the micro-level and in terms of their broader implications as well. There are still elements of China’s system that require additional improvement, and there were some setbacks in 2006. Yet, on the whole, China appears to be on the path towards steady development of its nonproliferation export controls, and the hope is that it will continue to go forward.

China’s legal foundation regulating trade in all types of WMD-related items changed in 2006. The year began with the Chinese Ministry of Commerce (MOFCOM) and the General Administration of Customs (GAC) issuing “permanent measures” on the licensing of dual-use items and technology trade. Those measures not only solidified “interim measures” issued in 2003, but they also added several new elements to China’s export control system. The permanent measures transferred some licensing responsibilities from the central MOFCOM office in Beijing to local MOFCOM offices in China’s provinces, major cities, and special zones.[2] This

form of institutional “outreach” can be perceived as an effort to place government export-control resources closer to China’s trade hubs and reach out to a broader range of Chinese enterprises, including the very important small and medium enterprises (SMEs). SMEs in China tend to be smaller private firms located in areas outside of Beijing and Shanghai, and consequently are not as well informed or experienced in export control matters. Moreover, the 2006 permanent measures contain language that could be read as expanding the scope of China’s “catch-all” controls and providing the legal basis for transit, transshipment and technology transfer controls—controls that until 2006 China had not yet adopted.

In addition to the new overarching measures, over the course of 2006 the PRC government issued new regulations on the import and export of chemical precursors, added new items to its bio-related control list, and instituted control measures for civil aviation parts with the potential for missile application.[3,4,5] The most significant changes have taken place in controls on nuclear-related items and technologies. In September 2006, China issued temporary controls on select graphite technologies with nuclear dual-use applications. In December 2006, it amended its nuclear export regulations to bring them closer to Nuclear Suppliers Group (NSG) standards, and in February 2007, the PRC State Council expanded China’s nuclear dual-use export regulations to address issues of potential re-production and re-transfer of imports from China.[6,7] [Editor’s Note: For more details on the recent changes in China’s nuclear-related export controls, see “China Strengthens Nuclear-Related Export Control Regulations,” on page 3 of this issue.] China has not yet provided a clear legal basis for “deemed exports”, brokering controls, and end-use(r) verification mechanisms.

There have been notable developments in other areas of China’s export control system over the past year. On the last day of 2006, the GAC and MOFCOM issued the latest version of China’s control list.[8] In doing so, they moved one step closer toward a control list with special harmonized system (HS)-based control numbers for each listed item, as opposed to a list with distinct HS codes and export control classification numbers, which is the practice used in many other export control systems. [Editor’s Note: The Harmonized System (HS) is an international system of commodity classification where numbers are assigned to products and technologies for customs and tariff purposes. Most HS codes are 8 digits. The Chinese system adds two digits to the HS-code for items that are subject to export controls, indicating that a special export license is required for that item.][9]

Approximately 70 percent of the items on China's export control lists reportedly had been assigned a 10-digit HS code as of November 2006. However, Chinese licensing and customs officers and industries may encounter challenges in managing a transitional control list, especially with respect to controlled items that have not yet been assigned a 10-digit corresponding special HS code. China can meet that challenge and others through increased implementation and enforcement of its export controls.

Increased training and outreach for Chinese customs and industry officials was one of two other notable developments over the past year. Another notable development was evidence of high-level government support for export control and nonproliferation. Developments such as these suggest that export controls are becoming more widely accepted and more deeply ingrained in China. Moreover, Chinese central government and party leadership support is necessary to continue the positive momentum in China's export control development, as are indigenous training programs; 2006 saw examples of both. One training program involved a seminar on import and export controls conducted by representatives from several key Chinese ministries including MOFCOM, Commission of Science, Technology, and Industry for National Defense (COSTIND), and GAC, for approximately 120 enterprises in Shanghai in August 2006.[8] Another training seminar in Dalian, Liaoning Province, addressed the changes to China's nuclear export controls.[10] In terms of leadership support, a February 2006 public notice emphasized that Party and State leaders "attached great importance" to implementing China's export controls.[11] Additionally, at an April 2006 banquet hosted by Australian Prime Minister John Howard, Chinese Premier Wen Jiabao noted that in support of its export control regime, China was "stepping up" its enforcement efforts.[12]

Notwithstanding the important developments in China's export control system over the past year, there were some setbacks as well. In July 2006, the United States sanctioned five Chinese entities pursuant to Executive Order 13382 (2005).[13] A relatively recent addition to U.S. nonproliferation sanctions, Executive Order 13382 freezes the assets of specially designated entities suspected of proliferation-related activity. In December 2006, sanctions were levied against three Chinese companies under the *Iran and Syria Nonproliferation Act of 2005*, which imposes an import and U.S. government procurement ban on those entities.[14] Furthermore, in June 2006, concerns over the potential for transfers of items from the United States to military end-uses in China prompted the U.S. Department of Commerce Bureau of Industry and Security (BIS) to issue a proposed rule that increases the level of control on such transfers.[15] *[Editor's Note: The period for comment on the proposed rule closed in December 2006, and a final rule is likely to be issued by BIS in the first part of 2007.]* China's January 2007 anti-satellite missile test was arguably another

setback, in that it raised questions in certain circles about the consistency of Beijing's nonproliferation policies and practices.[16]

China's gradually increasing transparency and international cooperation on export controls may help it avoid setbacks like those of 2006 in the future. China participated in a series of conferences and exchanges on export controls, in particular with the European Union, Japan, the United States, and various multilateral regime representatives in 2006. China had a bilateral forum on export control with the United Kingdom in March 2006 that was followed by a June 2006 meeting between Chinese and EU export control officials in Beijing to discuss ways to broaden and deepen China-EU cooperation on export controls.[17,18] Also in June, Chinese officials participated in a round of negotiations in Beijing with an Australia Group (AG) delegation that included the AG chairman and representatives from several Chinese ministries.[19] In January 2007, China hosted back-to-back export control seminars with the EU and United States, the U.S. seminar being one of the first of its kind.[20] *[Editor's Note: As of April 2007, China is a member of the NSG and Zangger Committee, but not a member of the AG, the Missile Technology Control Regime (MTCR) or the Wassenaar Arrangement. However, China has met with representatives from all three regimes in the last year.]* In another sign of the "opening up" of China's export control system, in September 2006, in one of only two known public disclosures of PRC export-control enforcement cases, the violator's name was published along with details of the violation and the penalty—a RMB10,000 (US\$1,300) fine for attempting to export controlled potassium hydrogen fluoride without a license.[21] This was the first time information such as the name of the company was released to the public.

South Korea: Aligning with International Standards

The Republic of Korea (ROK) demonstrated a concerted effort in the last year to align its nonproliferation export control system with international standards. This followed a series of relatively high-profile proliferation incidents involving the ROK between 2002 and 2005.[22] Improvement in the South Korean system occurred in several important areas in 2006 and the opening weeks of 2007. The South Korean government strengthened its legal basis for controlling strategic trade and cooperated in international nonproliferation activities. However, the ROK demonstrated a mixed record in terms of export control enforcement.

The South Korean government made significant revisions to the legal basis of its export control in 2006 and early 2007. The ROK banned the development, manufacturing, possession, trading, and transport of biological weapons in April 2006.[23] In addition, 54 biological agents, including anthrax, cholera, and 13 toxins, including botulinum, were added to South Korea's export control lists. Companies are now required to obtain authorization from the Ministry of

Commerce, Industry and Energy (MOCIE) to export these substances. The new restrictions were implemented as of January 1, 2007.[24]

Also in January 2007, the ROK government amended the Foreign Trade Act (FTA), which serves as the legal cornerstone of the South Korean export control system.[25] The government made four notable revisions to the FTA. First, the government hardened the law's licensing authority. The FTA now explicitly mandates licensing by MOCIE and other relevant administrative agencies of exports of goods determined to be strategic in nature.[26] Second, the government enhanced the legal basis for strategic export and transshipment control enforcement. The FTA now enables the ROK government to temporarily stop the movement of strategic items when: 1) the items are domestically-produced goods with strategic applications that have been illegally exported; and 2) international organizations and foreign governments seek ROK collaboration with respect to both domestic and foreign goods passing through South Korean ports and airports and in regard to foreign-made strategic items being transshipped through the ROK. Third, the government established brokering controls. The FTA now requires Korean firms to seek authorization to broker trade as intermediaries in strategic trade between exporting and importing countries. Last, the South Korean government strengthened the legal foundation for criminal prosecution of export control violations by prohibiting the disguise of foreign-made strategic goods as domestically-made items and prescribing imprisonment of up to five years or a fine of up to three times the value of the items in question.[27]

South Korea cooperated with the United States in multiple nonproliferation activities in 2006. In September, South Korean and U.S. forces held a joint training exercise in Maryland for the detection of biological weapons.[28] A few days later, U.S. Department of Defense experts provided nuclear and conventional weapons inspection training to South Korean Defense Ministry officials in the ROK.[29] Finally, in October, South Korea observed a U.S.-led anti-proliferation exercise in the Persian Gulf that occurred as part of the Proliferation Security Initiative (PSI). Despite continued U.S. encouragement, Seoul has chosen not to participate actively in the PSI, so as not to exacerbate tensions with North Korea.[30]

Authorities prosecuted, and in some cases punished, several parties for export control violations in 2006. In May, MOCIE barred three companies from dealing with strategic materials for three months and issued warning letters to three others that had exported AG-controlled chemicals to China, Bangladesh, Mexico, and the United States in 2005 and 2006.[31] In October, South Korean authorities arrested a man for smuggling 15 tons of potassium bifluoride to an unidentified Middle Eastern country in May.[32] In December, the Seoul Central District Prosecutors Office charged officials from

seven South Korean companies with exporting artillery production equipment and technology to Myanmar in violation of a ban on exports to that country.[33]

Other incidents indicate that deficiencies remain in South Korean enforcement practices. ROK authorities prevented exports of unlicensed dual-use items to North Korea on two occasions in 2006, but in both cases the would-be offenders escaped without punishment due to the fact that the exports were not completed.[34] Although the FTA enables authorities to punish those convicted of attempted export control crimes as well as completed criminal transactions, the incidents suggest that, in practice, there are differences in the way attempted export control violations are handled compared to cases where the export of the items was completed. Effective enforcement of South Korea's national nonproliferation export controls will require active prosecution and punishment of attempted offenders.

Developments in Key Eastern Asia Transit/Transshipment Hubs

Developments in the Hong Kong Special Administrative Region (HKSAR): Working to Balance High Trade Flows and Control

HKSAR has continued to take steps to improve its already strong export control system over the last several years, during a key time when its trade volume has increased substantially. Hong Kong is the second busiest port in Asia in terms of cargo throughput (having been surpassed by Singapore in early 2006), and more than half of all trade to and from HKSAR is with mainland China.[35] Although Hong Kong is a special administrative region of China, it maintains its own legal system and its own export controls. Observers have noted that Hong Kong's increased trade and activity with mainland China have not affected its export control system, and actually may help strengthen mainland China's system. In early 2007, China and Hong Kong plan to co-locate customs and immigration facilities on the mainland China side of a new border crossing.[36] Hong Kong has expanded its bilateral engagement and exchanges on export control matters with other major Asia-Pacific trading nations. In 2006, Japan and Hong Kong held their first ever bilateral consultations on export controls, and in May 2006, the United States and Hong Kong participated in their eleventh bilateral discussion on export control enforcement.[37] Such engagement appears to be having a positive impact, as high-profile illicit transfer interdiction cases in 2006 demonstrate.[38] In 2006, HKSAR Customs examined 147,636 packages of cargo and seized US\$5.13 million worth of strategic commodities, reviewed 6,305 import and export licenses, and conducted 226 strategic trade control investigations that resulted in 52 arrests and US\$1.83 million in fines.[39]

In terms of Hong Kong's strategic trade licensing, the HKSAR Trade and Industry Department (TID) has issued a series of

clarifications and updates to its strategic trade licensing system in recent years. In April 2004, TID issued notice of specialized procedures for exporting different types of controlled items, in particular those falling under the Wassenaar Arrangement.[40] Although Hong Kong is not an official member of any of the multilateral export control regimes, in July 2006, HKSAR updated its control schedules to reflect the latest changes in the Wassenaar Arrangement and other multilateral regimes.[41] A few other commodities and technologies have special licensing procedures and requirements as well, some providing for expedited licensing and some for more stringent control. There are specified controls for digital computers and encryption technology. Expedited procedures are in place for circuits and electronic components, and some items that are transshipped via air by entities who successfully register with TID for the "Air Transshipment Cargo Exemption Scheme".[42,43,44] *[Editor's Note: The Air Transshipment scheme provides entities approved by the Director of TID with an exemption from licensing requirements that would otherwise be required for Schedule 2 items, which are specially designated munitions and sensitive dual-use items and related technology, and "articles for use in" WMD.]* In this manner, HKSAR authorities attempt to retain their port's role as a key regional and global logistics hub, while sustaining a high level of strategic trade control. It has been recognized by the United States and others for its ability to do so.[45] HKSAR still needs to address gaps in technology transfer and brokering controls, and continue to balance its interest in being a global trade center with its important role in global export control. While its rules and procedures for the transfer of controlled goods are relatively well developed, its controls on pre-transfer activities (negotiations, brokering) and intangible transfers of technology (ITT) are much less so. This is particularly relevant given the amount of business transactions and transfers of knowledge that involve Hong Kong-based entities.

Singapore: Improving Strategic Trade Controls while Facilitating International Trade

Singapore took steps to improve its strategic trade control system in 2006. At the same time, authorities endeavored to mitigate the impact of controls on the country's high level of international trade.[46] This balance manifested in three principal ways. First, Singapore Customs promulgated significant changes in its licensing system for sensitive items. Second, criminal cases provided some evidence that brokering controls were actively enforced. Third, Singapore Customs announced a plan to facilitate licensed trade, and declared that it would pursue a proactive industry outreach strategy in 2007. Singapore also cooperated with other governments in anti-proliferation efforts.

In September 2006, Singapore Customs announced two planned changes to the country's strategic trade licensing system. On January 1, 2008, Singapore will adopt the control

lists of the NSG, the AG, the MTCR, and the Wassenaar Arrangement in their entirety. This will add approximately 1,000 new items to the national control list, including high-end computers, telecommunications equipment, and marine and propulsion systems.[47] Correspondingly, Singapore Customs also declared that it would establish a third trade license type, a general permit, to streamline documentary procedures for legitimate trade. Authorities stated they would offer the general permit beginning in January 2007 in anticipation of the adoption of the new control lists the following year.[48]

Singapore demonstrated evidence of implementation and enforcement of its brokering controls in 2006. Authorities prosecuted two men who reportedly attempted to broker the sale of 20,000 AKMS assault rifles from Bulgaria to Syria in 2005. In June 2006, Colin Mak Yew Long pled guilty to conspiring with BR Chaandrran in the brokering deal.[49] Chaandrran, who was not registered with Singapore Customs as a broker of strategic goods, was found guilty in October 2006 and sentenced in November to eighteen months in jail.[50]

On multiple occasions in 2006, Singapore authorities emphasized the necessity of maintaining effective controls on strategic goods while facilitating trade. In July, customs officials identified the maintenance of this balance as one of the major challenges they faced.[51] Reiterating this point, Prime Minister Lee Hsien Loong stated in September that Singapore was a major port and that "[a] lot of stuff in ships moves through Singapore and we need to have the right set of rules to be able to have effective controls and yet not stifle the trade, because you can't open every container." [47]

To prepare Singaporean firms for the impending changes to the licensing system and national control lists, Singapore Customs declared in September 2006 that it would conduct a series of industry outreach consultations and briefings in 2007.[48] Singapore Customs also announced two changes in 2006 to facilitate licensed trade. In January, customs introduced the Zero Goods and Services Tax (GST) Warehouse Scheme to replace the Bonded Warehouse Scheme. Under the Bonded Scheme, imports of which at least 80 percent of the items were to be re-exported could be stored in bonded warehouses with GST suspension. The new plan created a three-tiered warehouse licensing system, removing the 80 percent requirement for holders of Type II and Type III warehouse licenses and enabling them to submit consolidated GST payment declarations to Singapore Customs instead of individual payment declarations. Under the three-tiered system, Zero-GST Warehouse license applicants must institute progressively more sophisticated internal control programs, including robust inventory and recordkeeping procedures, in order to qualify. In addition, customs officials may meet with applicants and inspect proposed Zero-GST warehouses.[52] Also in January 2006, Singapore Customs announced a new system called "TradeXchange" to enable information-sharing

between shippers, freight forwarders, cargo carriers, and authorities. Customs also declared that TradeNet, the country's existing automated information-sharing and document processing system, would be "streamlined and simplified." Customs intends to implement TradeXchange in October 2007.[53]

Singapore demonstrated commitment to international anti-proliferation efforts on multiple occasions in 2006 and the beginning of 2007. Singapore engaged in its first bilateral meeting with the United States on export control issues in May 2006, and participated in the PSI exercise "Leading Edge" in October.[54,55] Singapore also co-hosted ASEAN Regional Forum workshops advising participants in how to comply with UN Security Council Resolution 1540 (UNSCR 1540) in March 2006 and February 2007.[56]

Trends in and Explanations for Recent Developments

Recent developments in these four export control systems share commonalities. All either instituted or announced major changes in the legal foundations and/or procedures of their licensing systems. The PRC took the notable step of creating technology transfer, catch-all, and transit controls in 2006, and both China and South Korea established legal bases for regulating strategic transshipments. All four added items or announced impending additions to their national product control lists and strengthened their licensing procedures and institutions. The net effect of these changes is that these four economies' export control laws, regulations, and licensing systems have become more consistent with international standards.

Moreover, each of the four governments displayed tangible evidence in 2006 that it was attempting to enforce its strategic trade controls. All experienced relatively high-profile export control cases. The PRC published the company name of an alleged export control violator for the first time, and Hong Kong, South Korea, and Singapore took legal actions against suspected offenders.

There are several explanations for these four economies' significant export control developments in the last 12-plus months. UNSCR 1540, adopted in April 2004 calls upon all states to institute effective export controls, and has likely contributed to the export control improvements. Governments aspiring to meet UNSCR 1540 reporting requirements have been forced to analyze the strengths and weaknesses of their export control systems and determine how to move forward in constructing more effective systems, which all four of these authorities did in 2006. Chinese and Singapore officials in particular have indicated the importance of UNSCR 1540 with respect to their export control efforts, and it has been suggested that the South Korean government undertook recent revisions to its system in accordance with the resolution.[57,58]

China, Hong Kong, South Korea, and Singapore have benefited from, and have been motivated by, increasing international engagement on nonproliferation issues in the last year. China's meetings with United States and European officials; the ROK and Singapore's training exercises and bilateral discussions with the United States; Hong Kong's interactions with the United States and Japan; and the 2006 and 2007 ASEAN Regional Forum seminars on WMD proliferation are examples of international efforts to encourage export control development in East Asia. In addition, North Korea's proliferation activity and underground nuclear test, and the sanctions that followed pursuant to UN Security Council Resolution 1718 in October 2006, have raised the level of attention and concern focused on export controls in East Asia. Finally, increasing participation in international trade and business, particularly by foreign firms operating in these economies, has likely contributed not only to proliferation of strategic technologies, but to the export control standards and best practices necessary to regulate them.

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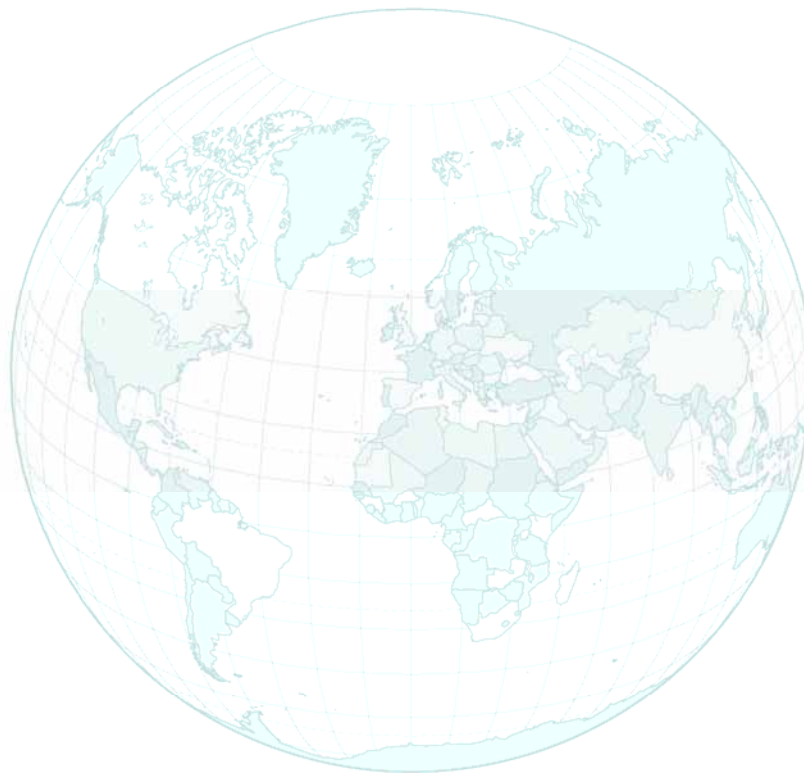
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