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# NIS EXPORT CONTROL Observer

## ОБОЗРЕНИЕ ЭКСПОРТНОГО КОНТРОЛЯ

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### Special Report

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## Recent Developments in the Newly Independent States

### Russian Defense Minister Proposes Export Control Reforms

Russian Defense Minister Sergey Ivanov has called for improved interagency coordination on export control and proposed a more robust role for Russia's security services in monitoring the proliferation activities of neighboring countries, according to Russian press reports summarizing the proceedings of a June 29, 2005, meeting of the Commission on Export Controls.[1,2,3]

Ivanov told the commission that Russia's export control system and its nonproliferation efforts are not sufficiently linked. To emphasize his point, Ivanov quoted President Vladimir Putin, who, during a meeting of the Russian Security Council on December 3, 2003, declared that "for Russia, due to its long borders and weapons potential [...] preventing weapons of mass destruction (WMD) proliferation is a priority. However, so far, important elements of this work, such as export control, operate separately and do not constitute an integrated system." [4]

Ivanov made several proposals for improving the country's export control and nonproliferation activities. First, he called for improved interagency coordination. Following the March 2004 reorganization of Russia's government structure, export control authority was transferred from the Ministry of Economic Development and Trade to the Ministry of Defense. The Federal Technical and Export Control Service, now under the Ministry of Defense, was charged with granting export licenses and ensuring interagency cooperation on export controls, among other activities. In his statement to the Commission on Export Controls, Ivanov noted that, while much has been done to date to improve coordination, officials must do more.[1,2]

Second, Ivanov called for the creation of an "effective internal compliance system" to be implemented by individual exporting organizations that "will not hamper international cooperation of manufacturers and business." He also stressed that "the state must exercise strict control over dual-use and weapons of mass destruction technologies." [1,3,4]

Third, the defense minister expressed concerns about the lack of nonproliferation policies regarding WMD and delivery systems in countries that border Russia. In this regard, he told the commission that Russia's special military services and civilian agencies must effectively monitor the situation abroad in general, and specifically in countries of concern, which he did not name. Implementing such measures, according to Ivanov, is necessary for defending Russia's national, economic, and trade interests. Ivanov added that in case of proliferation-related violation by a state, Russia should clearly express its concerns to the violator.[3,4]

Finally, Ivanov called for an assessment of and possible amendments to existing legislation governing export control and nonproliferation.[1]

*Editor's Note: The Commission on Export Controls is an interagency body that coordinates Russia's export controls. Sergey Ivanov is the chairman of the commission.*

Sources: [1] "Sergey Ivanov prizyvayet sovershenstvovat mezhdedomstvennyuyu koordinatsiyu po eksportnomu kontrolyu i nerasprostraneniyu OMP" [Sergey Ivanov calls for improved interdepartmental coordination on export control and WMD nonproliferation], RIA Novosti, June 29, 2005; in Integrum Techno, <<http://www.integrum.com>>. [2] Natalya Slavina, "Pravitelstvo RF zavershayet podgotovku kompleksnoy programmy po nerasprostraneniyu OMP do 2010 goda – Sergey Ivanov" [Sergey Ivanov: Russian government finalizes preparation of comprehensive program on WMD nonproliferation until the year 2010], ITAR-TASS, June 29, 2005; in Integrum Techno, <<http://www.integrum.com>>. [3] Natalya Slavina, "Rossiya dolzhna naladit effektivnyy kontrol za soblyudeniym rezhima nerasprostraneniya oruzhiya massovogo porazheniya – Sergey Ivanov" [Sergey Ivanov: Russia should introduce effective control over the compliance with the WMD nonproliferation regime], ITAR-TASS, June 29, 2005; in Integrum Techno, <<http://www.integrum.com>>. [4] "Vystupleniye Ministra oborony S.B. Ivanova na zasedanii Komissii po eksportnomu kontrolyu Rossiyskoy Federatsii" [Presentation of Minister of Defense S.B. Ivanov to the Commission on Export Controls of the Russian Federation], Moscow, June 29, 2005, Russian Ministry of Defense website, <<http://www.mil.ru/print/articles/article10372.shtml>>.

## **STC—Non-Governmental Organization Specializing in Export Control and Nonproliferation in Ukraine**

*by Valeriy Tuz, Head of Information-Analytical Department, Scientific and Technical Center on the Export and Import of Special Technologies, Hardware, and Materials, Kiev, Ukraine*

The Scientific and Technical Center on the Export and Import of Special Technologies, Hardware, and Materials (STC) is a nongovernmental organization established in 1997 to assist Ukrainian companies engaged in international commercial transactions with export control issues.

STC's main activities include:

- developing internal export control compliance systems;
- developing and introducing effective methods to implement export controls in industry;
- distributing information on export controls, including coverage of nonproliferation issues for the general public;
- providing expert assistance to private companies and firms in the area of export control; and
- analyzing export control issues at the international and national levels, and in particular, issues related to the nonproliferation of nuclear materials and technologies in Ukraine.

STC, which has a staff of 11 people, has been publishing two journals for the past two years—*Export Control Newsletter* and *Security & Nonproliferation*—that focus on export control issues and problems of proliferation of weapons of mass destruction (WMD), respectively. These journals are issued on a bimonthly basis, and every issue features original materials, expert opinions, interviews, and analysis of relevant developments. The journals are posted online at the STC's website (<<http://www.ntc.kiev.ua>>) in English and Ukrainian. In addition, 300 copies of each issue are also distributed in hard copy to Ukrainian government agencies and commercial enterprises engaged in international transfers of controlled commodities.

In late 2004, to support the creation of internal compliance systems at commercial enterprises, STC developed the third version of its internal compliance program, which was modified using feedback received from previous users. At present, more than 80 Ukrainian enterprises and organizations use this program. Among them there are such industrial giants as the aeronautic companies Motor Sich Public Joint Stock Company, Kharkiv Machinery Plant FED, and Antonov Aeronautical Scientific-Technical Complex, as well as the electronics company "Concern-Electron."

In addition, in 2005, in response to requests from the Ukrainian business community regarding the implementation of the law *On International Transfers of Military and Dual-Use Goods* (No. 549-IV) adopted on February 20, 2003, STC published a 1,000-page document consisting of commentaries explaining the law. The document also includes a catalogue of all related implementing legislation and regulations.

Over the years, STC has been cooperating successfully with various foreign governmental and nongovernmental organizations, including:

- the U.S. Department of Commerce;
- the U.S. Department of Energy;
- Commonwealth Trading Partners Inc., which is a subcontractor for the U.S. Department of State and the U.S. Department of Commerce;
- the U.S. Argonne and Pacific Northwest National Laboratories;
- the Center for Export Controls, Russia; and
- the Swedish Nuclear Inspectorate.

STC is open to collaboration with governmental and nongovernmental organizations that concentrate on export control issues and problems of WMD proliferation. For more detailed information on STC and its activities, visit its website at <<http://www.ntc.kiev.ua>>, or contact:

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## International Supplier Regimes

### Nuclear Suppliers Group Adopts Three Measures to Strengthen Nonproliferation Regime

On June 23-24, 2005, members of the Nuclear Suppliers Group (NSG) met in Oslo, Norway, for their 15th plenary to discuss ways to strengthen the global nuclear nonproliferation regime. According to the press release summarizing developments at the June plenary, NSG members agreed on the adoption of three measures. Two additional measures were discussed, but were not adopted.

Among the developments was the unanimous adoption by the participants of three measures intended to strengthen each country's national export controls:

- establishment of a procedure to halt "nuclear transfers to countries that are non-compliant with their [International Atomic Energy Agency (IAEA)] safeguards agreements";
- development of fall-back safeguards if the IAEA cannot carry out its safeguard mandate in a recipient state;
- making the existence of effective export controls in recipient states "a criterion of supply for nuclear material, equipment, and technology and a factor for consideration for dual use items and technologies."

Two additional measures intended to stem the proliferation of nuclear technology were not adopted but remain under consideration. These are:

- requiring recipient countries to adopt an Additional Protocol to their basic safeguards agreement with the IAEA, an agreement that gives the IAEA a broader inspection mandate, as a condition of supply;
- further strengthening NSG Guidelines with respect to enrichment and reprocessing technologies.

The statement "called on all states to exercise extreme vigilance and make best efforts to ensure that none of their exports of goods and technologies contribute to nuclear weapons programmes."

With the addition of Croatia effective July 15, 2005, the NSG has 45 participating governments (Argentina, Australia, Austria, Belarus, Belgium, Brazil, Bulgaria, Canada, People's Republic of China, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Kazakhstan, Republic of Korea, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom, and the United States) and the European Commission as a permanent observer. The organization's objective, as stated on its website, "is to prevent the proliferation of nuclear weapons through export controls of nuclear and nuclear-related material, equipment, software and technology, without hindering the international cooperation on peaceful uses of nuclear energy."

Source: "The NSG - Strengthening the nuclear non-proliferation regime," NSG Plenary Meeting press statement, Oslo, Norway, June 23-24, 2005, NSG website, <<http://www.nuclearsuppliersgroup.org/public.htm>>.

### Almaty Hosts OPCW Regional Meeting

On June 6-8, 2005, the fourth regional meeting of National Authorities of States Parties to the Chemical Weapons Convention (CWC) in Eastern Europe was organized in Almaty, Kazakhstan, by the government of Kazakhstan and the Organization for the Prohibition of Chemical Weapons (OPCW). Attendees included representatives of national agencies involved in CWC implementation from more than 20 East European countries and Newly Independent States (NIS). The principal objective of the meeting, which built upon the results of the three previous meetings held in Slovakia (2002), the Czech Republic (2003), and Romania

(2004), was to provide a forum to review, discuss, and understand better practical aspects of national implementation of the convention.

This year's meeting provided an opportunity for participating country representatives to receive practical assistance in finalizing the legislative and administrative procedures called for by the Plan of Action regarding the implementation of obligations under Article VII of the CWC, "National Implementation Measures." The plan requires that states parties take their own steps and set their own target dates, leading to the enactment of the necessary legislation, including penal legislation, and/or the adoption of administrative measures to implement the CWC no later than the Tenth Session of the Conference of the States Parties, which will take place in November 2005.

Other topics on the agenda included experience sharing on the collection and submission of industry declarations, processing and management of data, and industry outreach. All participants in the meeting reported on their national arrangements for making industry declarations and on the concrete steps that their countries have taken to fulfill the requirements of the Plan of Action, including the interim steps and target dates called for in the plan.[1,2]

*Editor's Note: The Plan of Action Regarding the Implementation of Article VII Obligations adopted at the Eighth Session of the Conference of the States Parties can be found on the OPCW website at <[http://www.opcw.org/docs/c8dec16\\_EN.pdf](http://www.opcw.org/docs/c8dec16_EN.pdf)>.*

Sources: [1] "Fourth Regional Meeting of National Authorities of States Parties in Eastern Europe, Almaty, Kazakhstan, 6-8 June 2005," OPCW Technical Secretariat Note, March 29, 2005, OPCW website, <<http://www.opcw.org/docs/snotes/2005/s-485-2005.pdf>>. [2] "Fourth Regional Meeting of National Authorities of States Parties in Eastern Europe," *Chemical Disarmament*, Vol. 3, No. 2, June 2005, p. 20, OPCW website, <[http://www.opcw.org/docs/publications/cdq\\_jun2005.pdf](http://www.opcw.org/docs/publications/cdq_jun2005.pdf)>.

## Embargoes and Sanctions Regimes

### California Company Fined for Illegal Pump Exports

On June 3, 2005, the U.S. Department of Commerce announced that a southern California manufacturer agreed to pay a \$700,000 fine to settle charges that it had illegally exported diaphragm pumps to Iran, Israel, the People's Republic of China, Syria, and the United Arab Emirates (UAE).[1]

The U.S. Department of Commerce Bureau of Industry and Security (BIS) charged that, between 2000 and 2003, Wilden Pump and Engineering Co., LLC, of Grand Terrace, California, committed 71 violations of the Export Administration Regulations (EAR), including 26 instances of exporting diaphragm pumps without the required license. The majority of the pumps exported by Wilden are controlled because they may be used for biological and chemical weapons production.[1] *[Editor's Note: Detailed descriptions of the types of pumps controlled by the EAR may be found in EAR Supplement No. 1 to Part 774 (the Commerce Control List), Category 1: Materials, Chemicals, Microorganisms, and Toxins.][2]*

According to BIS, in 22 of the 26 cases, Wilden exported the pumps knowing the transactions violated the EAR. BIS also charged Wilden with making false statements on export control documents. According to a BIS press release, the large fine imposed on Wilden is due to the number of violations committed, many of which were made with the knowledge that the pumps were being transferred to embargoed countries.[1]

Wilden pumps and accessories are employed in a host of difficult fluid-transfer applications ranging from circulation duty in clean room environments (rooms in which airborne particulates, temperature, humidity, airflow patterns, and other factors are controlled) to municipal sludge pumping. According to the Wilden website, its pumps are used in the mining, oil and gas, heavy construction, pharmaceutical, sanitary, waste treatment, and chemical industries, among others. Wilden has a global distribution network that spans 160 countries.[3]

*Editor's Note: Under U.S. law, embargoed or otherwise restricted destinations include Office of Foreign Assets Control-embargoed countries (Burma, Cuba, Iran, Iraq, Liberia, Libya, North Korea, Sierra Leone, Sudan, Syria, and Zimbabwe), countries prohibited under the International Traffic in Arms Regulations*

(Afghanistan, Belarus, Cuba, Iran, Iraq, Libya, North Korea, Syria, Vietnam, Burma, China, Haiti, Liberia, Rwanda, Somalia, Sudan, Democratic Republic of the Congo), any UN Security Council arms-embargoed country, as well as entities on the following lists: Denied Persons List, Unverified List, Entity List, Specially Designated Nationals List, and Debarred List. U.S. exporters are urged to check countries and parties to a transaction at the Office of Foreign Assets Control website at <<http://www.treas.gov/offices/enforcement/ofac/sanctions/>> and the BIS website at <<http://www.bis.doc.gov/ComplianceAndEnforcement/ListsToCheck.htm>>.

Sources: [1] "California Company Settles Charges of Unauthorized Exports to Iran, Israel, People's Republic of China, Syria, and the United Arab Emirates," BIS press release, June 3, 2005, <<http://www.bis.doc.gov/News/2005/Winden.htm>>. [2] U.S. Chemical Weapons Convention website, <[http://www.cwc.gov/Regulations/fr28/part-774\\_html](http://www.cwc.gov/Regulations/fr28/part-774_html)>. [3] Wilden Pump & Engineering Company website, <<http://www.wildenpump.com/index.cfm>>.

## Illicit Trafficking in the Newly Independent States

### Georgia Reports Four New Cases of HEU Seizures

On July 7, 2005, the head of the Nuclear and Radiation Safety Service of the Georgian Ministry of Environmental Protection and Natural Resources, Soso Kakushadze, told the Reuters news agency that in the past two years Georgian law enforcement and security services thwarted four attempts to smuggle highly-enriched uranium (HEU) through Georgia.[1] *[Editor's Note: According to the Associated Press version of Kakushadze's revelations, the four HEU seizures took place in Georgia over the span of three to four years.]*[2] In particular, Kakushadze stated, "In all these cases, Georgian security officials prevented attempts to smuggle HEU through Georgia to other countries. The HEU had been brought to Georgia from abroad." [1] However, Kakushadze provided no details on the enrichment level or the origin of the seized HEU.[1] In his comments to the Associated Press, however, Kakushadze mentioned that there were reasons to believe that some of the HEU came from South Ossetia, a secessionist region of Georgia landlocked in the middle of the country and bordering on the Russian Federation.[2] Kakushadze added that none of the HEU was weapons grade, and that the seized HEU was not enriched highly enough even to be used as a core for a radiological dispersal device (RDD), one type of which is popularly known as a "dirty bomb." [2] *[Editor's Note: Because HEU is weakly radioactive, the seized material could not fuel a potent RDD.]*

IAEA spokesman Mark Gwozdecky, commenting on Kakushadze's statements, pointed out that Georgia had reported the last of the four incidents but declined to go into details. A diplomat close to the IAEA, however, said that the Georgian report submitted to the IAEA did not specify the enrichment level of the seized HEU.[2]

*Editor's Note: The IAEA database of illicit trafficking incidents lists an April 19, 2000 seizure of 0.9 kg of HEU fuel pellets (30% U-235 enrichment) in Batumi, Georgia. The CNS illicit trafficking database also reports this HEU seizure, as well as three incidents involving low-enriched uranium in Georgia in the past five years. Most likely these are the same incidents as mentioned by Kakushadze. However, it is possible that Georgia indeed reported new cases to the IAEA recently.*

Sources: [1] Margarita Antidze, "Georgia reports 4 new nuclear smuggling attempts," Reuters, July 8, 2005. [2] George Jahn, "U.N. Nuclear Agency Expands Treaty," Associated Press; in *The Guardian* online edition, July 9, 2005, <<http://www.guardian.co.uk/worldlatest/story/0,1280,-5128514,00.html>>.

## International Developments

### Argentina, Georgia, Iraq to Join Proliferation Security Initiative

The second anniversary of the Proliferation Security Initiative (PSI) launched by U.S. President George Bush in Krakow, Poland, on May 31, 2003, was marked by the endorsement of the PSI Statement of Principles by Argentina, Georgia, and Iraq, as announced by U.S. Secretary of State Condoleezza Rice in her remarks celebrating the PSI anniversary. According to Rice, with over 60 participating nations, "PSI is building our common capacity to act with speed and effectiveness to stop WMD trafficking on the land, at sea, and in the air." Referring to the 2003 interdiction of the ship *BBC China*, Rice said that it "played a major role in the unraveling of the A.Q. Khan network and figured in Libya's wise decision to eliminate its



WMD and longer range missile programs.” Rice also said that in the last nine months alone, the United States and 10 of its PSI partners have cooperated on 11 successful interdiction efforts, including the prevention of “the transshipment of material and equipment bound for ballistic missile programs in countries of concern, including Iran.” She added that PSI partners, working at times with other nations, prevented Iran from procuring goods to support its missile and WMD programs, including its nuclear program, while bilateral PSI cooperation prevented the ballistic missile program in another region, which she did not identify, from receiving equipment used to produce propellant.[1,2]

In related developments, the United States signed reciprocal ship-boarding agreements with Croatia and Cyprus on June 1 and July 25, 2005, respectively. The agreements will help prevent the sea-borne transfer of WMD and related technology by establishing points of contact and procedures allowing for rapid approval of requests to board and search U.S.-, Croatian-, or Cypriot-flagged vessels in international waters if such vessels are suspected of carrying proliferation-related cargo. Croatia and Cyprus have become the fourth and fifth states, respectively, to sign a bilateral ship-boarding agreement with the United States, joining Liberia, Panama, and the Marshall Islands—all of which have extensive commercial shipping registries.[3,4] *[Editor’s Note: Cyprus is the world’s sixth-largest ship registry by gross tonnage and the first European Union member state to sign a ship-boarding agreement with the United States.]*[4]

In addition, on July 6-7, 2005, Copenhagen, Denmark, hosted the ninth PSI Operational Experts Group (OEG) meeting to discuss ongoing international efforts aimed at enhancing the operational capability of PSI members to stop the proliferation of WMD, their delivery systems, and related materials. The OEG is an expanding network of military, law enforcement, legal, intelligence and diplomatic expertise that comes together periodically to share information, promote cooperation with relevant industries, and involve all PSI partners in future operational activities.[5]

Sources: [1] “Remarks on the Second Anniversary of the Proliferation Security Initiative,” May 31, 2005, U.S. Department of State website, <<http://www.state.gov/secretary/rm/2005/46951.htm>>. [2] Jacquelyn S. Porth, “Rice Says Proliferation Security Initiative Is Yielding Results,” Washington File, U.S. Department of State’s Bureau of International Information Programs, May 31, 2005, <<http://usinfo.state.gov/is/Archive/2005/May/31-123750.html>>. [3] “Croatia Signs Mutual Shipboarding Pact with United States,” U.S. Department of State’s Bureau of International Information Programs, June 1, 2005, <<http://usinfo.state.gov/is/Archive/2005/Jun/01-834139.html>>. [4] “The United States and the Republic of Cyprus Proliferation Security Initiative Ship Boarding Agreement,” U.S. Department of State’s Office of the Spokesman media note, July 25, 2005, <<http://www.state.gov/r/pa/prs/ps/2005/50035.htm>>. [5] “U.S. Working with Partners To Broaden PSI Participation,” U.S. Department of State’s Bureau of International Information Programs, June 6, 2005, <<http://usinfo.state.gov/is/Archive/2005/May/31-123750.html>>.

## **Turkey, United States Sign Export Control Agreement**

Turkey and the United States have signed an agreement committing the two countries to work together to limit the spread of materials and technology that could be used to produce weapons of mass destruction and missiles. According to the agreement, signed in Ankara on June 14, 2005, by Turkish Foreign Ministry Undersecretary Ali Tuygan and outgoing U.S. Ambassador Eric Edelman, the United States will help to improve Turkey’s border security and export control services by providing Ankara with technical equipment and expertise to help identify dual-use materials that contain sensitive technology. U.S. technical assistance will be provided through the U.S. Export Control and Related Border Security Assistance (EXBS) program.[1,2,3]

Turkey’s location at the crossroads between Asia and Europe and its shared borders with states that are suspected of pursuing weapons of mass destruction (WMD)—Iran and Syria—have long led to concerns that the country could be used as a transit point for sensitive materials. These concerns have merit, especially considering revelations of Turkish involvement in the A.Q. Khan nuclear black market. According to a report by the nongovernmental research group Institute for Science and International Security (ISIS) based in Washington, DC, workshops in Turkey reportedly assembled centrifuge components from subcomponents imported from Europe and elsewhere. These components were shipped using false end-user certificates from Turkey to Dubai, United Arab Emirates, for repackaging and shipment to Libya.[4] The Turkish-origin centrifuge components were never put to use, however. In December 2003, Libyan leader Col. Muammar Qadhafi publicly confirmed his commitment to disclose and dismantle WMD programs in his country following a nine-month period of negotiations with U.S. and U.K. authorities.

The U.S.-Turkey agreement came one week after Turkish Prime Minister Erdogan and U.S. President Bush met in Washington, DC, on June 8, 2005, to discuss the two countries' common interest in stemming the spread of WMD, among other topics.[5] This meeting signaled a positive turn in Turkish-U.S. relations, which have been strained since the Turkish parliament rejected a U.S. request to use Turkish territory during the 2003 invasion of Iraq. "The signing of this agreement is a concrete manifestation of that relationship between our two countries—the strategic relationship—and a significant step in our own two governments' fight to stop the spread of dangerous weapons and sensitive materials and technology," said Edelman at the June 14 signing ceremony. He continued: "Developments in the world at large, and in Turkey's neighborhood, continue to demonstrate the urgency of preventing the spread of dangerous weapons and these technologies." [3]

Sources: [1] "Turkey-US: Longstanding Allies Together on One More Front," Turkish Daily News, June 15, 2005; in Lexis-Nexis Academic Universe, <<http://www.lexis-nexis.com>>. [2] "Tangible Actions," Turkish Daily News, June 15, 2005; in Lexis-Nexis Academic Universe, <<http://www.lexis-nexis.com>>. [3] "Remarks by Ambassador Eric Edelman At a Signing Ceremony For an Agreement on Export and Border Control Cooperation At the Foreign Ministry," June 14, 2005, U.S. Embassy in Turkey website, <<http://ankara.usembassy.gov/AMBASADR/edel0614.htm>>. [4] David Albright and Corey Hinderstein, "Uncovering the Nuclear Black Market: Working Toward Closing Gaps in the International Nonproliferation Regime," July 2, 2004, Presentation for the Institute for Nuclear Materials Management (INMM) 45th Annual Meeting, Orlando, FL, Institute for Science and International Security (ISIS) website, <[http://www.isis-online.org/publications/southasia/nuclear\\_black\\_market.html](http://www.isis-online.org/publications/southasia/nuclear_black_market.html)>. [5] "President Welcomes Turkish Prime Minister Erdogan to the White House," White House Office of the Press Secretary press release, June 8, 2005, White House website, <<http://www.whitehouse.gov/news/releases/2005/06/20050608-1.html>>.

### **U.S. Container Security Initiative Continues to Expand to Include China and Portugal**

On June 24, 2005, Robert C. Bonner, commissioner of U.S. Customs and Border Protection (CBP), and Mou Xinsheng, director of the General Administration of Customs of the People's Republic of China (PRC), announced that the Chinese port of Shenzhen had become the 37th operational port under the Container Security Initiative (CSI). CBP will deploy a team of officers to be stationed at the port of Shenzhen to target high-risk maritime cargo containers destined for the United States. Shenzhen customs officials, working with CBP officers, will be responsible for screening any containers identified as a potential terrorist risk.[1]

In a related development, on July 7, 2005, Keith Thomson, CBP assistant commissioner for the Office of International Affairs, and Ana Maria Jordão, general-director for the Portuguese Customs and Excise Service, signed the Declaration of Principles on CSI. In accordance with the declaration, the port of Lisbon will soon join the initiative.[2]

The CSI is a U.S. initiative launched in January 2002, with the aim of protecting maritime containerized cargo shipped to the United States against terrorist threats, by inspecting such cargo at the port of embarkation. As of July 2005, the 37 operational ports collaborating in the CSI effort and representing the world's major seaports are: Antwerp and Zeebrugge, Belgium; Halifax, Montreal, and Vancouver, Canada; Shanghai and Shenzhen, China; Le Havre and Marseilles, France; Bremerhaven and Hamburg, Germany; Piraeus, Greece; Rotterdam, The Netherlands; Hong Kong; Genoa, Gioia Tauro, La Spezia, Livorno, and Naples, Italy; Kobe, Nagoya, Tokyo, and Yokohama, Japan; Port Klang and Tanjung Pelepas, Malaysia; Singapore; Durban, South Africa; Busan, South Korea; Algeciras, Spain; Göteborg, Sweden; Laem Chabang, Thailand; Dubai, UAE; and Felixstowe, Liverpool, Southampton, Thamesport, and Tilbury, United Kingdom.[1]

*Editor's Note: For more information on CSI cooperation between the United States and China, see "Chinese Port of Shanghai Joins U.S. Container Security Initiative; Argentina and Brazil to Follow Suit," NIS Export Control Observer, No. 27, May 2005, pp. 14-15, <<http://cns.miis.edu/nis-excon>> and Shi-Chin Lin, "The U.S. Container Security Initiative in Asia," Asian Export Control Observer, No. 2, June/July 2004, pp. 18-21, <<http://cns.miis.edu/pubs/observer/asia/>>.*

Sources: [1] "Container Security Initiative Port of Shenzhen, China, is Operational," CBP press release, June 24, 2005, CBP website, <[http://www.cbp.gov/xp/cgov/newsroom/press\\_releases/06242005.xml](http://www.cbp.gov/xp/cgov/newsroom/press_releases/06242005.xml)>. [2] "Portugal Will Participate in Container Security Initiative to Screen Cargo Destined for U.S.," CBP press release, July 7, 2005, CBP website, <[http://www.cbp.gov/xp/cgov/newsroom/press\\_releases/07072005.xml](http://www.cbp.gov/xp/cgov/newsroom/press_releases/07072005.xml)>.



## **PSI Exercises in Poland, Czech Republic, Spain**

In May and June 2005, two PSI exercises were held in Poland and the Czech Republic, and Spain. On May 31-June 2, Poland and the Czech Republic hosted a ground interdiction exercise "Bohemian Guard '05." In addition to host nations, participants included Bulgaria, Croatia, Hungary, Latvia, Ukraine, Romania, Slovakia, and the United States. The exercise scenario involved the interdiction of an illegal railway shipment of mock chemical weapons precursors traveling from Poland via the Czech Republic to a third nation.

On June 7-8, Spain hosted a two-phase air-ground interdiction exercise dubbed "Blue Action '05," in which participants, including several Mediterranean littoral states, worked cooperatively to improve their capabilities to interdict WMD-related trafficking by air. In the first phase, participants, working from their respective capitals, exchanged information, consulted with each other, and coordinated activities around a cargo airliner flying from a fictitious country in Eurasia to the Portuguese Azores en route to South America and reported to be carrying uranium enrichment centrifuge parts labeled as water purification pipes. [*Editor's Note: Uranium enrichment centrifuges can be used to improve natural uranium to weapons grade.*] In the second phase, radars tracked the aircraft in real time as it flew over Italy, France, and Spain. New intelligence was passed on to suggest that the commercial aircraft was ferrying not centrifuge parts, but radioactive material for undisclosed use and that the plane would deviate from its filed flight plan and travel to an unnamed African nation. In the scenario, swift action was taken to prevent the dangerous shipment from reaching its destination in Africa, because of that fictitious country's links to terrorist organizations. The Spanish Air Force, directed by the Spanish Ministry of Defense, shadowed and then intercepted the aircraft, diverting it to Spain's Zaragoza Air Base. There, its suspicious cargo was inspected and then disposed of by Spanish law enforcement and security forces. The next PSI exercise, "Deep Sabre '05," involving maritime-ground interdiction, will be held in Singapore on August 15-19, 2005.[1,2,3]

Sources: [1] Jacquelyn S. Porth, "Rice Says Proliferation Security Initiative Is Yielding Results," Washington File, U.S. Department of State's Bureau of International Information Programs, May 31, 2005, <<http://usinfo.state.gov/is/Archive/2005/May/31-123750.html>>. [2] "U.S. Working with Partners To Broaden PSI Participation," U.S. Department of State's Bureau of International Information Programs, June 6, 2005, <<http://usinfo.state.gov/is/Archive/2005/May/31-123750.html>>. [3] Jacquelyn S. Porth, "Spain Hosts Counterproliferation Exercise over Mediterranean," Washington File, U.S. Department of State's Bureau of International Information Programs, June 6, 2005, <<http://usinfo.state.gov/is/Archive/2005/Jun/07-681873.html>>.

## **As Export Control Violation Grace Period Ends, South Korean Government Attempts to Strengthen Domestic Export Controls**

As of July 1, 2005, a four-and-a-half-month grace period for enforcement of export controls on controlled dual-use items ended in South Korea. In February 2005, the South Korean Ministry of Commerce, Industry and Energy (MOCIE) announced that between February 18 and June 30, 2005, companies that had violated domestic export controls would not be prosecuted if they self-reported the violation. This grace period was part of the MOCIE's efforts to introduce a new online database for strategic items. [*Editor's Note: For more information on the launching of the database, see "South Korea Launches Online Database for Strategic Items Exports," Asian Export Control Observer, No. 6, February/March 2005, pp. 2-3, <<http://cns.miis.edu/pubs/observer/asian/>>.*]

Prior to ending the grace period, MOCIE announced that South Korean authorities would tighten enforcement of export controls on strategic goods beginning in July 2005.[1] A MOCIE official stated that "particular attention needs to be paid to manufacturing machines, calibration or measurement equipment and other tools that the international community deems could be used for military purposes." [2]

The South Korean government admitted that strengthening current export controls would be a challenge. Despite the recent grace period, which was aimed at increasing export control awareness in South Korea's business community, a MOCIE poll indicated that 57 percent of South Korean companies surveyed remained unaware of the existing export control regulations.[2] According to MOCIE, 71 percent of South Korean companies neglected to check whether their products were controlled goods. Only about 8 percent of the companies that did check the strategic goods list took the next step to seek export approval from MOCIE. The remaining companies were either "unaware of the notion of strategic goods export regulations or thought they would not face any problems." [1] South Korean companies had come under increased criticism internationally for questionable transfers of strategic goods.[1,2]

On June 19, 2005, a high-ranking MOCIE official indicated that current South Korean efforts to meet the standards set by United Nations Security Council Resolution (UNSCR) 1540 had been difficult and “laborious.”[3] A debate within the government was still ongoing as how best to regulate the export of controlled items from South Korean companies. A government task force is currently looking into whether South Korea’s legislature should draft new export control legislation or simply reform current laws regulating exports in order to meet the requirements of UNSCR 1540. While the first option is considered by some to be the most effective method of strengthening export controls, the second option would likely cause less friction with business and industry.[3]

*Editor’s Note: MOCIE defined “strategic goods”—based on UNSCR 1540—as equipment, technologies, software, and materials that could be used in weapons of mass destruction and their delivery systems.*

Sources: [1] *Korea Herald*, June 9, 2005; in “ROK Daily: Strategic Goods Violators to Be Punished,” FBIS Document KPP20050609000035. [2] “Seoul to Punish Exporters of Unapproved Strategic Materials,” Yonhap News Agency, June 8, 2005; in Lexis-Nexis Academic Universe, <<http://www.lexis-nexis.com>>. [3] Kim Hong-jae, “Such’ul t’ongjeböp chechönggömt’o ... chölyyakmulja t’ongje hyoyulganghwa,” P’ainaensyöl nyusi, June 19, 2005; in Korean Integrated News Database System, <<http://www.kinds.or.kr>>.

### **India Passes Law to Prevent WMD Transfers to Terrorists, Non-State Actors**

On May 13, 2005, the Rajya Sabha, the upper house of the Indian Parliament, passed the bill *Weapons of Mass Destruction and Their Delivery Systems (Prohibition of Unlawful Activities), 2005* (hereafter, WMD Bill), which was passed in the Lok Sabha, the lower house of the Indian Parliament, the day before.[1,2]

Characterized by External Affairs Minister Natwar Singh in his address to the Rajya Sabha on May 13, 2005, as an “over-arching and integrated legislation,” the WMD Bill is aimed at prohibiting a wide range of unlawful activities concerning WMD, their delivery systems, and related dual-use goods and technologies.[3] In particular, the WMD Bill establishes a five-year prison sentence, which may be extended to life imprisonment when aggravating circumstances are present, for WMD manufacturing and for transferring WMD and related technologies to a non-state actor and/or terrorist organization.[2,4] Furthermore, under the WMD Bill, sanctions for unauthorized WMD-related exports consist of a fine of between 300,000 Rupies (Rs) (\$6,902) and Rs 2 million (\$46,019), or a prison sentence of six months to five years in addition to a fine.[2,4] In accordance with the WMD Bill provisions, the fine for using or making false documents for export control purposes is Rs 500,000 (\$11,500) or five times the cost of goods or services intended for export, whichever is the highest.[2]

Sources: [1] “Parliament approves WMD Bill,” *The Hindu* online edition, May 14, 2005, <<http://www.thehindu.com/2005/05/14/stories/2005051413641200.htm>>. [2] “Weapons of Mass Destruction Bill,” *The Hindu* online edition, May 11, 2005, <<http://www.thehindu.com/2005/05/11/stories/2005051104581301.htm>>. [3] Statement by External Affairs Minister Shri Natwar Singh in Rajya Sabha (Council of States) on the Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Activities) Bill, 2005. Embassy of India in the United States of America press release, May 13, 2005, <[http://www.indianembassy.org/press\\_release/2005/May/1.htm](http://www.indianembassy.org/press_release/2005/May/1.htm)>. [4] R. Ramachandran, “A Bill and nuclear hopes,” *Frontline* online edition, Vol. 22, Issue 12, June 4-17, 2005, <<http://www.frontlineonnet.com/fl2212/stories/20050617003102900.htm>>.

## **Workshops and Conferences**

### **Shanghai Cooperation Organization Leaders Meet in Kazakhstan**

On July 5, 2005, the annual summit of the Shanghai Cooperation Organization (SCO) was held in Astana, Kazakhstan. The meeting was attended by heads of SCO member states—Hu Jintao (China), Nursultan Nazarbayev (Kazakhstan), Kurmanbek Bakiyev (Kyrgyzstan), Vladimir Putin (Russia), Emomali Rakhmonov (Tajikistan), and Islam Karimov (Uzbekistan). President of Mongolia Nambaryn Enkhbayar attended as an observer.

The summit was preceded by meetings of the SCO Security Council Secretaries on June 2 and the Council of SCO Foreign Ministers on June 4, which agreed on documents to be approved by the SCO heads of states.[1,2]

Discussions during the meeting concentrated on the threats and challenges to global and regional stability and security, the organization's prospects for development, and economic cooperation between SCO member states.

Regarding regional security and stability, in the Declaration of Heads of States, which was issued along with other documents at the end of the summit, SCO leaders reaffirmed that security cooperation within the SCO does not aim to infringe upon the interests of other countries or create a coalition against other parties.[3] However, the SCO member states urged the U.S.-led coalition in Afghanistan to set a deadline for withdrawing its troops from Uzbekistan and Kyrgyzstan. In particular, the declaration stated the following: "We support and shall continue to support efforts of the international coalition conducting an anti-terrorist operation in Afghanistan. Today we have taken note of a positive trend toward stabilization of the internal political situation in Afghanistan. [...] As the active combat phase of the anti-terrorist operation in Afghanistan has been completed, the SCO member states consider it necessary that the relevant members of the anti-terrorist coalition determine a timeline for the temporary use of the mentioned infrastructure and their military contingents' presence in SCO member countries." [Editor's Note: *The coalition troops have been stationed in Uzbekistan and Kyrgyzstan on a temporary basis since the beginning of the U.S.-led anti-Taliban Operation Enduring Freedom in Afghanistan in the fall of 2001.*] SCO member states also acknowledged that the drug trade originating in Afghanistan is a major security challenge affecting all member countries and expressed their willingness to "actively participate in international efforts for creating anti-drug belts around Afghanistan" and in reconstruction programs to stabilize the socio-economic and humanitarian situation in that country.[3]

In this regard, member states adopted a new document during the summit—the Concept of Cooperation of the SCO Member States in Fighting Terrorism, Separatism and Extremism—which is based on the SCO's 2001 Shanghai Convention on Combating Terrorism, Separatism and Extremism. The Concept aims to develop unified policies in fighting these threats and to coordinate related activities. The document provides for the creation of a single register of terrorist, separatist, and extremist organizations to prevent their illegal activities effectively and notes the need to prevent "access of terrorists, separatists and extremists to weapons of mass destruction, means of their delivery, and radioactive, toxic and other dangerous substances, materials and technologies of their production." Cooperative measures also include freezing all funding sources for terrorism, separatism, and extremism; coordinating investigations, joint anti-terrorist operations, and exercises; exchanging intelligence data; training personnel; and preventing cyberterrorism.[4]

Regarding the organization's development, the SCO leaders decided to increase further effectiveness and coordination of SCO activities. The agenda of the next SCO summit, to be held in 2006, will include review and approval of documents enhancing the role of the organization's Secretariat located in Beijing (China). Also, it is likely that the position "SCO Secretary" will be renamed to "SCO General Secretary." [Editor's Note: *China assumed the SCO chairmanship after Kazakhstan and will host the 2006 summit.*]

The summit also approved the "Statute on Permanent Representatives of the SCO Member-States at RATS"—the organization's Regional Antiterrorist Structure (RATS), based in Tashkent (Uzbekistan), as well as resolutions granting Pakistan, Iran, and India an observer status in the organization. These countries joined Mongolia, which gained observer status in 2004.

Finally, to enhance economic cooperation within the SCO, member states intend to create an SCO Business Council and Development Fund.[3]

*Editor's Note: The SCO was established on June 15, 2001, as a successor to the Shanghai Five. The Shanghai Five was formed in 1996 on the basis of agreements on confidence-building measures in the military field and on the reduction of arms. According to its founding declaration, the SCO was established to strengthen mutual trust and friendly relations among member states; to encourage cooperation in the areas of politics, economy and trade, science and technology, culture, education, energy, transportation, environmental protection, and other fields; to maintain regional peace, security, and stability; and to build a new, democratic, just, and rational international political and economic order. The previous SCO*

*summits were held in Shanghai, China (June 2001), St. Petersburg, Russia (June 2002), Moscow, Russia (May 2003), and in Tashkent, Uzbekistan (June 2004).*

Sources: [1] "Astana Summit Brings New Horizons for SCO," Kazakhstan News Bulletin, weekly release by the Embassy of the Republic of Kazakhstan in the United States, Vol. 5, No. 27, July 7, 2005, <<http://www.kazakhembus.com/070705.html>>. [2] "Foreign ministers preparing summit of Shanghai Cooperation Organization leaders," RIA Novosti, June 4, 2005, <<http://en.rian.ru/russia/20050604/40471036.html>>. [3] "Deklaratsiya glav gosudarstv – chlenov Shankhayskoy organizatsii sotrudnichestva" [Declaration of Heads of Shanghai Cooperation Organization Member States], President of Russia website, <[http://www.kremlin.ru/interdocs/2005/07/05/1304\\_type72067\\_90910.shtml?type=72067](http://www.kremlin.ru/interdocs/2005/07/05/1304_type72067_90910.shtml?type=72067)>. [4] "Kontseptsiya sotrudnichestva gosudarstv – chlenov Shankhayskoy organizatsii sotrudnichestva v borbe s terrorizmom, separatizmom i ekstremizmom" [Concept of Cooperation of the Shanghai Cooperation Organization Member States in Fighting Terrorism, Separatism and Extremism], President of Russia website, <[http://www.kremlin.ru/interdocs/2005/07/05/1307\\_type72067\\_90911.shtml?type=72067](http://www.kremlin.ru/interdocs/2005/07/05/1307_type72067_90911.shtml?type=72067)>.

## **Conference on Export Control and Nonproliferation Held in Kiev**

*by Valeriy Tuz, Head of Information-Analytical Department, Scientific and Technical Center on the Export and Import of Special Technologies, Hardware, and Materials, Kiev, Ukraine*

On June 9-10, 2005, an international conference, "Ukraine at the Turn of XXI Century: Nonproliferation Regimes and Export Control in Ukraine," was organized in Kiev by the [Scientific and Technical Center on the Export and Import of Special Technologies, Hardware, and Materials \(STC\)](#), in collaboration with the U.S. Department of Energy National Nuclear Security Administration and Ukraine's State Service for Export Control, with support from the U.S. Embassy in Ukraine and the Ministry of Foreign Affairs of Ukraine.

The two-day conference addressed issues related to nuclear weapons proliferation in light of the Seventh Review Conference of the Treaty on Non-Proliferation of Nuclear Weapons (NPT) that took place in May 2005. The participants analyzed Ukraine's role in strengthening international WMD nonproliferation regimes and reviewed the objectives that Ukraine has to meet in order to join the Convention for the Suppression of Acts of Nuclear Terrorism.

The first day of the conference focused on the NPT Review Conference and nonproliferation. It featured speeches by U.S. Ambassador to Ukraine John Herbst, Deputy Minister of Foreign Affairs of Ukraine Igor Alekseevich Dolgov, Editor-in-Chief of the *Security and Nonproliferation* journal Sergey Pavlovich Galaka, and others. During this session, participants also discussed problems and perspectives related to the creation of a nuclear fuel cycle in Ukraine.

The second day of the conference was devoted to export control issues. The participants reviewed Ukraine's state policy in the area of export controls and its export control system. The presentations emphasized that Ukraine's state export control policy is based on protecting Ukraine's national interests while fulfilling its international obligations in the field of WMD nonproliferation and control over WMD delivery systems. Other core principles of Ukrainian export control include establishing state control over international transfers of military and dual-use goods as well as implementing measures for preventing the use of the aforementioned goods by terrorists or for other illegal purposes.

Much attention was drawn to the timely detection and prevention of export control violations. The conference participants assessed various legal aspects related to this subject including sanctions for violating export control requirements. Another topic discussed was the implementation of internal compliance systems.

*Editor's Note: The Convention for the Suppression of Acts of Nuclear Terrorism was adopted by the United Nations General Assembly on April 13, 2005. The Convention calls for states to develop appropriate legal frameworks criminalizing nuclear terrorism-related offenses and to investigate, and, as appropriate, arrest, prosecute, or extradite offenders. It will also provide a legal basis for international cooperation in this area.*[1,2]

Sources: [1] "International Convention for the Suppression of Acts of Nuclear Terrorism," press statement by U.S. Department of State spokesman Richard Boucher, April 13, 2005, U.S. Department of State website, <<http://www.state.gov/r/pa/prs/ps/2005/44603.htm>>. [2] Steven C. Welsh, "Nuclear Terrorism Convention: International Convention for the Suppression of Acts of Nuclear Terrorism," May 17, 2005, Center for Defense Information website, <<http://www.cdi.org/news/law/ntc.cfm>>.

## **IAEA Organizes Two Conferences on Radioactive Sources and Nuclear Material Security**

In June and July 2005, the IAEA organized two conferences in Bordeaux, France, and Vienna, Austria, respectively. The first focused on safety and security of radioactive sources; the second aimed to introduce amendments to the Convention on Physical Protection of Nuclear Material.

### Safety and Security of Radioactive Sources

On June 27-July 1, 2005, an International Conference, “Safety and Security of Radioactive Sources: Towards a Global System for the Continuous Control of Sources throughout Their Life Cycle,” was organized by the IAEA in Bordeaux, France. About 300 participants from 64 IAEA member states attended the conference, representing national authorities responsible for nuclear and radiation safety and security, relevant international organizations, manufacturers and distributors of radioactive sources and related equipment, as well as users of sources and equipment in medicine, industry, and research.[1,2]

As indicated in the “Findings of the President of the Conference,” the participants addressed six main issues:

- The implementation of the code of conduct on the safety and security of radioactive sources;
- Import and export controls of radioactive sources;
- Challenges in regaining and maintaining control over orphan sources;
- Sustainability of controls over radioactive sources;
- Illicit trafficking and inadvertent movement of sources; and,
- Emergency management of radiological incidents.

More particularly, the conference participants noted that the degree of implementation of the IAEA Code of Conduct on the Safety and Security of Radioactive Sources varied and recommended that assistance be provided to those countries “in the earliest stages of establishing a national regulatory system.”[3] The conference also discussed the possibility of making the code a legally binding agreement. While a number of participants were in favor of such a move, others preferred that priority be given to the implementation of the code before considering such a step.

On the issue of export/import control, the conference discussed the implementation of the *IAEA Guidance on the Import and Export of Radioactive Sources*, adopted in September 2004 as a supplement to the IAEA *Code of Conduct on the Safety and Security of Radioactive Sources*. The document provides specific guidance on how states can implement paragraphs 23-29 of the code, which relate to the import and export of radioactive sources.[4] Participants acknowledged the challenges inherent in implementing the guidance and also noted the value of exchanging information on national implementation of the guidance.

For a more detailed summary of the conference findings, see: “Findings of the President of the Conference,” IAEA website, <<http://www-pub.iaea.org/MTCD/Meetings/PDFplus/2005/cn134-findings.pdf>>.

*Editor’s Note: The IAEA has been actively promoting safety standards for radioactive sources for 45 years. A major step was taken in 1996, when the International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources (the BSS), issued in 1996 by the IAEA and five other international organizations, established general requirements for the safety and security of radioactive sources. In September 2003, the IAEA Board of Governors and the IAEA General Conference approved a revised version of the Code of Conduct on the Safety and Security of Radioactive Sources. The IAEA has been making considerable effort, providing resources and expertise, to assist its member states in implementing these standards, including through the implementation of the “Model Project” on upgrading radiation protection infrastructure. In recent years, the IAEA has also assisted many countries in recovering or strengthening control over radioactive sources.[1,2]*

### Amendments to the Convention on Physical Protection of Nuclear Material

In a related development, on July 4-8, 2005, the IAEA organized a Conference to Consider and Adopt Proposed Amendments to the Convention on the Physical Protection of Nuclear Material (CPPNM) in

Vienna, Austria. More than 350 delegates from 89 states parties to the CPPNM attended the event.[5,6] The CPPNM was adopted on October 26, 1979, and opened for signature on March 3, 1980, subsequently entering into force on February 8, 1987. Under the convention, state parties must ensure the protection of nuclear material used for peaceful purposes during international transport.[7] The conference in Vienna aimed to strengthen CPPNM's existing provisions and expand its scope to cover and make legally binding the physical protection of nuclear material in peaceful domestic use, storage, and transport, as well as in domestic nuclear facilities to avert nuclear terrorism, smuggling, and sabotage.[5,6,8] The changes to the convention were proposed by the United States, Canada, Australia, Japan, and 20 European states and were backed by Russia and China.[9]

On July 8, the amendments were approved; the new rules, however, will come into effect only once they have been ratified by two-thirds of the 112 CPPNM parties. The amendments require signatories to protect nuclear material by adopting proper legislation, ensuring that a competent regulatory body is appointed to take appropriate measures. They also provide for expanded cooperation between states parties regarding rapid measures to locate and recover stolen or smuggled nuclear material, mitigate any radiological consequences of sabotage, and prevent and combat related offenses. IAEA Director General Mohamed ElBaradei welcomed the agreement as an "important step towards greater nuclear security by combating, preventing, and ultimately punishing those who would engage in nuclear theft, sabotage, or even terrorism." The amended agreement "demonstrates that there is indeed a global commitment to remedy weaknesses in our nuclear security regime." According to Anita Nillson, director of the IAEA's Office of Nuclear Security for more than three years, the IAEA has been implementing a systematic nuclear security plan, including physical protection activities designed to prevent, detect, and respond to malicious acts. The IAEA's Nuclear Security Fund, set up after the events of September 11, 2001, has delivered \$19.5 million in practical assistance to 121 countries since 2001.[5,6,8,9]

Sources: [1] "International Conference on the Safety and Security of Radioactive Sources: Towards a Global System for the Continuous Control of Sources throughout their Life Cycle," IAEA website, <<http://www-pub.iaea.org/MTCD/Meetings/Announcements.asp?ConfID=134>>. [2] "International Conference on the Safety and Security of Radioactive Sources: Towards a Global System," IAEA Media Advisory, June 23, 2005, <<http://www.iaea.org/NewsCenter/MediaAdvisory/2005/MA200517.html>>. [3] "Findings of the President of the Conference," IAEA website, <<http://www-pub.iaea.org/MTCD/Meetings/PDFplus/2005/cn134-findings.pdf>>. [4] "Code of Conduct on the Safety and Security of Radioactive Sources: Guidance on the Import and Export of Radioactive Sources," March 30, 2005, IAEA website, <<http://www-pub.iaea.org/MTCD/publications/PubDetails.asp?pubID=7227>>. [5] "Conference to Consider and Adopt Proposed Amendments to the Convention on the Physical Protection of Nuclear Material," IAEA Media Advisory, June 27, 2005, <<http://www.iaea.org/NewsCenter/MediaAdvisory/2005/MA200518.html>>. [6] "States Agree on Stronger Physical Protection Regime," IAEA press release, July 8, 2005, <<http://www.iaea.org/NewsCenter/PressReleases/2005/prn200503.html>>. [7] "Convention on the Protection of Nuclear Material," Inventory of International Nonproliferation Organizations and Regimes, CNS website, <<http://cns.miis.edu/pubs/inven/pdfs/cppnm.pdf>>. [8] George Jahn, "U.N. Nuclear Agency Expands Treaty," Associated Press; in *The Guardian* online edition, July 8, 2005, <<http://www.guardian.co.uk/world/latest/story/0,1280,-5127241,00.html>>. [9] "Nuclear pact countries toughen atomic rules," Reuters, July 8, 2005, <<http://www.reuters.com>>.

### **CTBT Conference Held in Turkmenistan**

*This article provides a report on one of the few international conferences in Turkmenistan dealing with nonproliferation issues.*

On June 6-8, 2005, the government of Turkmenistan and the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) organized an international conference in Ashgabad, Turkmenistan, on the "Significance, Advantages, and Status of the Comprehensive Nuclear-Test-Ban Treaty in Central Asia and the Caucasus." Government officials from Armenia, Azerbaijan, Georgia, Iran, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan attended the conference along with CTBTO representatives. The Turkmen delegation consisted of officials from the Ministry of Defense, Turkmengeologiya State Geological Corporation, the Supreme Council for Science and Technology under the President of Turkmenistan, and the National Research Institute of Seismology.

The conference aimed to discuss issues related to the enforcement of the CTBT in the region. CTBTO officials briefed the conference delegates about the newly established international data collection center—the CTBT integrated network of observation posts. The network records vibrations in the earth's crust caused by both natural factors and possible underground nuclear tests. Participating country representatives reported on the seismic control systems used in their respective countries and the activities of relevant



national centers. The forum participants exchanged opinions on prospects for closer cooperation in this field, including on the installation of monitoring facilities in Central Asia and the Caucasus.[1,2,3]

#### CTBT Status in the Former Soviet Union[4]

State	Date Signed	Date Ratified
Armenia	October 1, 1996	—
Azerbaijan	July 28, 1997	February 2, 1999
Belarus	September 24, 1996	September 13, 2000
Estonia	November 20, 1996	August 13, 1999
Georgia	September 24, 1996	September 27, 2002
Kazakhstan	September 30, 1996	May 14, 2002
Kyrgyzstan	October 8, 1996	October 2, 2003
Latvia	September 24, 1996	November 20, 2001
Lithuania	October 7, 1996	February 7, 2000
Moldova	September 24, 1997	—
Russia	September 24, 1996	June 30, 2000
Tajikistan	October 7, 1996	June 10, 1998
Turkmenistan	September 24, 1996	February 20, 1998
Ukraine	September 27, 1996	February 23, 2001
Uzbekistan	October 3, 1996	May 29, 1997

Sources: [1] “V turkmenkoy stolitse prokhodit mezhdunarodnyy forum po voprosam yadernoy bezopasnosti” [An international forum on nuclear security issues is taking place in the Turkmen capital], Turkmenistan.ru online newspaper, June 7, 2005, <[http://turkmenistan.ru/index.php?page\\_id=3&lang\\_id=ru&elem\\_id=6708&type=event&sort=date\\_desc](http://turkmenistan.ru/index.php?page_id=3&lang_id=ru&elem_id=6708&type=event&sort=date_desc)>. [2] “V Ashkhabade prokhodit regionalnaya konferentsiya, posvyashchennaya zapretu yadernykh ispytaniy” [Regional conference devoted to a nuclear test ban is taking place in Ashgabat], Interfax, June 7, 2005, <[http://www.interfax.ru/r/B/sng/14.html?id\\_issue=11307258](http://www.interfax.ru/r/B/sng/14.html?id_issue=11307258)>. [3] “News: CTBT Conference Concludes in Ashgabat,” News Central Asia news agency, June 9, 2005, <<http://www.newscentralasia.com/modules.php?name=News&file=article&sid=1303>>. [4] “Status of Signature and Ratification,” CTBTO website, <<http://www.ctbto.org/>>.

## Special Report

### Ukraine’s Plans for Exporting *Korshun* Cruise Missiles: It’s Déjà Vu All Over Again

by Dennis M. Gormley, Senior Fellow, Center for Nonproliferation Studies

In the April 8, 2005, issue of *Air & Cosmos*, a weekly defense, aviation, and technology magazine, it was disclosed that Ukraine’s state arms exporter, Ukrspetsexport, intended to market a new land-attack cruise missile called *Korshun*. [1] In an apparent effort to avoid a conflict with the export control guidelines of the 34-nation Missile Technology Control Regime (MTCR), of which Ukraine is a member, the *Korshun*’s range of 280 kilometers (km) and payload of 480 kilograms (kg) were advertised as just under the MTCR’s “Category I” Guidelines. The MTCR Guidelines call on member states to apply a strong presumption of denial when considering exports of missiles able to carry a 500 kg payload to a range of 300 km or more. Although no details were provided about precisely where the Ukrainian project stood (regarding potential customers or the project’s stage of development), the article did explain that the *Korshun* was based on technologies that Ukraine had acquired during the Soviet era from the Kh-55 strategic cruise missile, a missile with a maximum range of 3,000 km. Although the Kh-55 was originally designed and produced in Russia, Ukraine also produced over 1,000 of these missiles until all production was moved exclusively to Russia in 1987. [2]

It is noteworthy that the *Korshun*’s unveiling comes on the heels of the explosive disclosure in February 2005 by a Ukrainian parliamentary official that a criminal case had been opened in that country, charging that Ukrainian and Russian arms dealers (including the former head of Ukrspetsexport), as well as a Ukrainian security official had conspired in the illegal sale of 12 Ukrainian Kh-55 strategic cruise missiles—six each to China and Iran. [3] The transfer occurred during the tenure of Ukrainian president, Leonid Kuchma, as later acknowledged by Kuchma’s reformist successor President Viktor Yushchenko. [4] The disclosure of the Kh-55 sales drew the attention of U.S. and British officials, who reportedly initiated

discussions with their Ukrainian counterparts about the proliferation implications of the transfer.[5] Japan, too, registered its concern with both Ukraine and Iran, urging Iran not to transfer any of the Kh-55s to North Korea, which currently has the potential to threaten Japan with its No-Dong ballistic missile. North Korea has sold the No-Dong to Iran, raising the possibility that Iran might sell the Kh-55 to North Korea in return.[6]

#### *Korshun*: A Kh-55 Under Another Name

By the description provided in the *Air & Cosmos* article, the Ukrainian *Korshun* cruise missile looks much like the Kh-55, despite the differences in the declared range of the two systems. The two missiles share the same wingspan (3.1m) and diameter (0.514 m) and have roughly the same launch weight (*Korshun*: 1,090 kg; Kh-55: 1,210 kg). Their bodies, wings, and control surfaces appear the same. Their major difference lies in the *Korshun*'s 6.3 m length, 0.26 m longer than the Kh-55. This slight difference in length comes from placing the *Korshun*'s engine within the rear of the missile's fuselage, with an air intake underneath. The Kh-55's engine, in contrast, pops out of the rear section after launch, and hangs beneath the missile's fuselage during flight. By making the *Korshun* more streamlined, like the U.S. *Tomahawk* cruise missile, Ukrainian designers may wish to reduce the missile's overall radar cross-section by eliminating the unwanted right angles of the exposed engine, which reflect telltale radar energy. One possible reason for the long-range Kh-55's added launch weight (120 kg above the launch weight of the shorter-range *Korshun*) may be that the Kh-55 requires additional fuel to propel the missile to its 3,000-km range. That said, the *Air & Cosmos* article does not divulge whether or not the *Korshun* uses the Kh-55's R95-300 turbofan engine, which is highly fuel efficient and essential to the Kh-55's strategic range. It is conceivable that the *Korshun* was intended to come equipped with a less efficient turbojet engine, more consistent with its declared shorter range—less than one-tenth of the Kh-55's.

#### Déjà Vu All Over Again

Ukraine's desire to export an MTCR-compliant cruise missile based upon the clearly proscribed Kh-55 missile is not the first attempt by a former Soviet state to modify the characteristics of a powerful missile system to make it apparently compliant with the MTCR's restrictions.

Russia first attempted this in 1992. While Russia's military design bureaus struggled to stay afloat in the aftermath of the USSR's collapse, Russia decided to hold its inaugural international air show at Moscow's Zhukovskiy airfield in August 1992. Among hundreds of aircraft and missiles on display was an "Airborne Tactical Missile," a system—like the *Korshun*—not yet manufactured, but described in a sales brochure. The brochure described the missile's declared length (6.04 m), diameter (0.514 m), wingspan (3.1 m), and launch weight (1,250 kg). Combined with a distinctive engine that was shown in its deployed mode, positioned under the missile's fuselage, the brochure easily revealed the missile's parentage: the Russian Raduga design bureau's Kh-55 nuclear-capable, air-launched cruise missile. But instead of the Kh-55's maximum range of 3,000 km, the Airborne Tactical Missile's advertised range was only 500-600 km.[7] Despite the missile's true potential, one can assume that Russia kept the declared range of the Airborne Tactical Missile under 600 km because of the 1979 U.S.-Soviet SALT II Treaty. That treaty, though it never entered into force, was implemented by both parties voluntarily, and counted any aircraft carrying cruise missiles with a range greater than 600 km as "strategic," and thereby limited under the treaty's provisions. To avoid any dispute about compliance with SALT II, Russia apparently designed the declared capabilities of its "Airborne Tactical Missile" to keep it below the treaty's limits.

In 1992, at the time it announced the availability of the Airborne Tactical Missile, with its ambiguous capabilities, Russia had yet to adhere to or become a formal member of the MTCR; it was therefore unnecessary for it to reduce the Airborne Tactical Missile's range to meet the more stringent standards of this multilateral understanding, which strongly restricted exports of missiles able to carry a 500 kg payload 300 km or more. However, in July of 1993, roughly a year after its first announcement of the Airborne Tactical Missile, Russia declared that, beginning on November 1, 1993, it would adhere to the MTCR's Guidelines. Perhaps in anticipation of the constraints associated with the MTCR's Guidelines, Russia suddenly chose to display a new version of the Kh-55 for export at the 1993 IDEX Defense Exhibition, in Abu Dhabi. Called the Kh-65E, this version had a declared range of 280 km, just below the MTCR regime's 300-km-range parameter.[7]

### Reaching Consensus on Determining a Cruise Missile's True Range

Both the Russian and Ukrainian derivatives of the Kh-55 almost certainly have range and payload capabilities less than their parent missile. Yet, given the Korshun's parentage, it would appear capable of being flown to a range of at least 300 km carrying a payload of 500 kg.

There are several reasons for the ambiguity surrounding a cruise missile's true range. Cruise missiles are inherently modular machines; they allow for great flexibility and therefore variety in range and payload options. For example, there is ample room within the body of a Kh-55 missile to trade off payload weight for increased fuel. Of course, the missile's center of gravity cannot change to the extent that the system's aerodynamic flight stability is dangerously altered. But from an engineering standpoint, generally speaking, there is great room for flexibility with most cruise missile designs.

What's more, until 2002, the MTCR membership lacked consensus on precisely how to define a cruise missile's true range. More frequently than not, cruise missile manufacturers will quote the range of a cruise missile by assuming that the missile flies just "off the deck," meaning a very low-level flight profile. But cruise missiles need not fly their entire mission using such a low-flight profile. Instead, they can be launched at or reach a much higher, range-maximizing altitude and then drop to a terrain-hugging profile when they become more susceptible to detection.[8] Lack of consensus on establishing a cruise missile's range contributed to perhaps the most controversial cruise missile transfer in the regime's history, when, in 1998, despite objections from Washington, the United Arab Emirates signed a contract to receive the Franco-British *Black Shahine* cruise missile. The missile was derived from the French *Apache* stealth cruise missile, which had an announced range of 140 km while carrying a payload of 520 kg. Besides the *Black Shahine*, there existed at least three other derivatives of the *Apache*, each varying in range (from 140 km to 600 km) and varying in payload (~400-520 kg).[9] Using altitude to extend its range, however, it appeared clear that even the *Apache*—with a stated range of 140 km and payload of more than 500 kg—could achieve a range of well over 300 km.

The MTCR membership worked diligently over the next three years to reach consensus on a clarifying clause dealing with the true range of cruise missiles. At the Warsaw Plenary in September 2002, clarifying language was agreed upon that, among other things, specified that "the most fuel-efficient flight profile" would be used to determine the range of a cruise missile or unmanned aerial vehicle (UAV). Moreover, maximum capability would be assessed "based on the design characteristics of the system, when *fully loaded with fuel* or propellant" (emphasis added).[10]

### Concluding Thoughts

The Yushchenko government in Ukraine has moved out smartly and sensibly to clean up the corruption that led to the illicit transfer of Kh-55 missiles to China and Iran. It has opened a hotline to combat customs corruption and bribery and the president himself has announced plans to conduct a radical shakeup of the State Customs Service.[4,11] In light of the alleged involvement of the head of Ukrspetsexport in the Kh-55 conspiracy, the Yushchenko government should examine closely any proposed Ukrspetsexport efforts to export Kh-55 derivatives, particularly in the context of the 2002 MTCR clarifying guidance on determining a cruise missile's true range.

As discussed above, the two clarifying definitions relating to range maximizing flight profile and fully loaded fuel capacity raise questions as to whether the various versions of the Kh-55, including its latest version, the *Korshun*, are compliant with the MTCR Category I range and payload parameters. Of course, an appropriate engineering assessment would be needed to reach firm conclusions. In the meantime, extreme caution is warranted in the aftermath of Ukraine's experience to date on Kh-55 missile sales.

Sources: [1] Piotr Butowski, "Ukraine Unveils Its 'Korshun' Missile," *Air & Cosmos*, April 8, 2005, p. 24. [2] Butowski reports that a Ukrainian plant at Kharkiv produced over 1,000 Kh-55 cruise missiles between 1980 and 1987 before it was moved to Smolensk, Russia. The Kh-55's advanced turbofan engine, the R95-300 was also produced in Zaporozhie, Ukraine, suggesting that the infrastructure to support the development and production of the *Korshun* may be in place. *Ibid.* [3] See "Ukraine Investigates Alleged Illicit Weapons Sales to Iran and China," *NIS Export Control Observer*, No. 24, February 2005, pp. 13-14, <<http://cns.miis.edu/nis-excon>>. [4] "Ukrainian President Plans Radical Customs Cleanup and Confirms Illicit Missile Transfers," *NIS Export Control Observer*, No. 26, April 2005, pp. 12-13, <<http://cns.miis.edu/nis-excon>>. [5] Douglas Barrie, "While Covertly Buying a Secondhand Cruise Missile Is Difficult, Gaining Operational Utility Is More Challenging," *Aviation Week & Space Technology*, March 28, 2005, p. 32. [6] "Missile Designs' Leak Feared," *Washington Times*, June 27, 2005, p. 17. [7] Dennis M. Gormley, *Dealing with the Threat of Cruise Missiles*, Adelphi Paper 339 (Oxford: Oxford University Press, 2001), pp. 37-38. [8] It should also be noted that gas turbine

engines achieved greater range efficiency while flying at higher altitudes. [9] See Gormley, *Dealing with the Threat of Cruise Missiles*, pp. 38-40, 88, and 99. [10] See the definitions section to the MTCR annex, MTCR website, <<http://www.mtcr.info/english/annex.html>>. [11] See "Ukraine Opens Hotline to Combat Customs Corruption, Bribery," *NIS Export Control Observer*, No. 27, May 2005, p. 5, <<http://cns.miis.edu/nis-excon>>.

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