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Announcement

The Center for Nonproliferation Studies is pleased to announce the upcoming publication of the *Asia Export Control Observer*. The *Asia Export Control Observer* will be a bi-monthly publication devoted to the analysis of WMD export control issues in East and Southeast Asia. As with the NIS Export Control Observer, the *Asia Export Control Observer* will address recent developments, major changes, and regional cooperation in the export control field. We believe this publication will create many opportunities for regional cooperation in Asia. The first issue of the *Observer* will be published in early May. To receive this new publication, please subscribe by sending an email message to asia-excon@miis.edu.

Recent Developments in the NIS

**Russia Plans to Transfer Export Control Authority to Ministry of Defense**

As part of the March 2004 government restructuring in which President Putin eliminated half of the country’s cabinet-level ministries, Russia’s export licensing authority will be transferred from the Ministry of Economic Development and Trade to the Ministry of Defense.[1]

Under the new system, the Ministry of Defense will oversee the Technical Regulation and Export Control Service, which, in turn, will oversee the Department of Export Control. The interagency coordination body—the RF Export Control Commission, which resolves interagency disputes and makes recommendations for improving licensing procedures and other regulations—will be maintained, according to Elina Kirichenko, an export control expert with the Russian Academy of Sciences’ Institute of World Economy and International Relations.

Since many of the officials and experts previously involved in the country’s export control system remain in place, Kirichenko expects little change in Russian export control activities.[2]

The *NIS Export Control Observer* will continue to closely follow changes in Russia’s export control system as they occur.


**Ukrainian State Service on Export Control in Spotlight: Reporting Achievements, Denying Allegations of Illegal Sales**

*by Victor Zaborsky, Senior Research Associate, Center for International Trade and Security, University of Georgia*

On March 9, 2004, Chairman of the State Service on Export Control (SSEC) of Ukraine Oleksandr Leheida reported to the Committee on Military and Technical Cooperation and Export Control under the National Security and Defense Council on the status of export controls in 2003. According to Leheida, Ukraine’s exports of military goods and services in 2003 increased by 20% compared to 2002. The SSEC chairman provided the following statistics: in 2003, the SSEC issued 4,801 licenses to export arms and military services, a 42% increase from 2002; in 2003, Ukraine sold military goods to 78 countries and imported military goods from 22 countries. The SSEC did not register any violations of export control rules by Ukrainian exporters in 2003. Fifty-one Ukrainian companies engaged in export/import operations involving military goods and services were granted state certification of their internal compliance programs.[1]

Earlier, in February 2004, SSEC Deputy Chairman Oleksandr Myakushko rebuffed allegations that Ukraine had sold nuclear weapons to terrorists. On February 9, 2004, the London-based Arabic newspaper *Al-Hayat* ran an article suggesting that in 1998, Ukraine sold tactical weapons to the Taliban regime in Afghanistan, and that those weapons are currently in the possession of Al-Qa’ida terrorists. Myakushko called the article...
a “provocation” and stated that, “Ukraine has always abided strictly by all international sanctions against the Taliban.” He also added that Ukraine had not had any military-related deals with Afghanistan since 1993.[2]


International Supplier Regimes

Antiterrorism Measures Sought to Deal with Unmanned Air Threats

At a March 9, 2004, hearing convened by the Subcommittee on National Security, Emerging Threats, and International Relations of the U.S. House of Representatives, U.S. government witnesses pledged to undertake a thorough examination of new antiterrorism measures designed to make it more difficult for terrorists or other individuals to acquire the means needed to turn small manned aircraft into autonomous, unmanned attack vehicles.[1] As if to underscore the importance of such measures, roughly two weeks after the hearing, Major General Michel Gauthier, who is director general of intelligence at Canada’s National Defense headquarters, warned participants at a conference on homeland security, hosted by the Centre for Military and Strategic Studies, in Calgary, that terrorist groups are seeking or have purchased remote-controlled aircraft, ultra-light aircraft, and hang-gliders for use in attacks against soft targets. Gauthier added that the increasing threat of such low-flying aircraft is caused by the need for terrorists to circumvent improved anti-hijacking measures at U.S. and Canadian airports.[2]

Beginning in 2003, member states of both the Missile Technology Control Regime (MTCR) and the Wassenaar Arrangement (WA) began to examine ways of limiting the risk that controlled items or technologies might fall into the hands of terrorist groups or individuals. The MTCR has not made any headway yet, while the WA, which has a broader mandate addressing conventional arms and dual-use technologies (including unmanned air vehicles or UAVs), did manage to tighten controls on man-portable air defense systems (MANPADS). Unfortunately, a U.S.-initiated proposal to introduce a measure of control over the conversion of manned airplanes into UAVs failed to gain membership consensus during 2003. Expressing concern about the possible terrorist use of kit airplanes or other manned civil aircraft as “poor man’s” UAVs, the U.S. proposal sought export control reviews and international notifications for all equipment, systems, and specially designed components that would enable these airplanes to be converted into UAVs. Although such a crude UAV would not carry much payload, even a modest payload capacity could lead to devastating effects were a biological agent involved. The proposal also failed to gain support among WA member states because members viewed the initiative as insufficiently specific with regard to precisely what technology was to be controlled.

The specific technology needed to convert manned airplanes into terror weapons is called a variable autonomy flight control system. A small number of aerospace firms have emerged in the last five years to sell these fully integrated flight control systems that permit an air vehicle to be flown either by remote control, or fully autonomously over as great a distance as the airplane’s fuel will allow. These firms not only sell a fully integrated flight control solution, but also services to help in the conversion process. The most significant technical challenge facing any terrorist group wishing to convert a small kit airplane into a UAV is building and integrating the components of a flight control system (navigation, guidance, flight computer), along with servo-controls and actuators, which control the intended flight of the aircraft, into the air vehicle to fly it fully autonomously.[3] If that can be achieved readily, a seemingly rudimentary radio-controlled UAV or kit airplane could be transformed into a system capable of achieving strategic impact.

At the March 9, 2004, hearing, when asked about the unsuccessful U.S. proposal to the WA membership, Deputy Undersecretary of Defense for Technology Security Policy Lisa Bronson indicated that the United States would readdress the issue in coming months.[1] It would also make good sense to consider the matter of converting manned airplanes into UAVs within the MTCR, which possesses strong denial rules and no-undercut provisions, which are missing in the WA.
A final complementary action was recommended by the U.S. General Accounting Office (the investigative arm of the U.S. Congress) following a year-long investigation of technology exports for cruise missiles and UAVs. The proposal would tighten catch-all regulations so as to restrict entities from transferring any commodity (even if not identified on national export control lists) to non-state actors, including terrorist organizations, if the seller has reason to know the commodity is to be used for a cruise missile or UAV intended to carry weapons of mass destruction.[4] As currently enacted, these catch-all regulations restrict only the sale of unlisted dual-use items to certain national missile proliferation projects and countries of concern, not to non-state actors, including individuals or terrorist organizations.

Editor’s Note: Apropos flight control systems covered by the MTCR’s technology annex, the current language under Item 10 is less effective than the original 1987 wording, which was changed some time in the early 1990s. Currently, it only subjects those flight control systems “designed or modified for the systems in Item 1 [Category I delivery systems].” The original wording provided more liberal language—“usable in the systems in Item 1.” Of course, a more appropriate approach to case-by-case review of such systems ought to include more than Item 1 delivery systems, notably Item 19 systems capable of a range of at least 300 km independent of payload weight. Item 19 was created with biological and chemical payloads in mind.


International Export Control and WMD Security Assistance Programs

Spring 2004 International Export Control Assistance to NIS

In early 2004, a number of Newly Independent States received export control assistance from various donors, including the European Union (EU), Organization for Security and Cooperation in Europe (OSCE), and the United States.

In February, the Kazakhstani border guard and customs services received 700 portable radios from the United States.[1] The same month, the United States donated an $80,000 X-ray unit to Kyrgyzstan’s Manas International Airport followed by the donation in April of 30 Niva vehicles, valued at $174,000, to the Kyrgyz customs service for use in border security and nonproliferation efforts.[2,3] In March, the Kyrgyz customs service also received $180,000 worth of technical equipment as part of the project “Border Checkpoints in Central Asian States,” under the EU-funded TRACECA program (Transport Corridor Europe-Caucasus-Asia). The equipment will be installed on the Kyrgyz-Kazakhstani border.[4] Tajik customs and border guard agencies received 55 UAZ vehicles from the United States in March.[5] The United States is also funding construction of two boats in Kiev that will be used to patrol the southern borders of Uzbekistan on the Amudaria river.[6]
Embargoes and Sanctions Regimes

United States Lifts Sanctions on Russian Entities, Imposes New Sanctions for WMD Proliferation

Effective April 1, 2004, the United States lifted proliferation-related sanctions on five Russian entities and imposed new sanctions on 13 entities, two of which are Russian.[1,2,3]

The sanctions that were lifted were originally imposed in the late 1990s for an indefinite duration. According to the Federal Register, after a determination was made that the termination of sanctions would be in the “foreign policy and national security interests of the United States,” the penalties were lifted on four Russian companies—Europalace 2000; Grafit (also known as State Scientific Research Institute of Graphite or NIIGRAFIT); MOSO Company, and the Scientific Research and Design Institute of Power Technology (also known as NIKIET, the Research and Development Institute of Power Engineering, or ENTEK).[1] The first three were originally sanctioned on July 30, 1998 for aiding Iran’s ballistic missile program. NIKIET was sanctioned later, on January 8, 1999, for aiding Iran’s nuclear efforts.[4]

The fifth Russian entity—a former Russian lieutenant general of the chemical troops named Anatoliy Kuntsevich—was sanctioned on November 17, 1995 for engaging in chemical weapons proliferation activities. The Russian Federal Security Service charged Kuntsevich in October 1995 with illegally shipping 815 kg of methylphosphonic dichloride, a nerve agent precursor, to Syria and of attempting to transfer an additional 5.5 tons of chemicals in 1994. The Russian government later dropped the charges.[5,6] A U.S. official told Global Security Newswire that the sanctions against Kuntsevich were lifted because the former lieutenant general is now deceased.[2,4]

On the same day sanctions on the five Russian entities were lifted, the United States imposed new sanctions on 13 entities it says provided prohibited items to Iran. The sanctions were imposed pursuant to the Iran Nonproliferation Act of 2003, which “provides for penalties on entities for the transfer to Iran of equipment and technology controlled under multilateral export control lists… or otherwise having the potential to make a material contribution to the development of weapons of mass destruction (WMD) or cruise or ballistic missile systems.”

The sanctions, which are to expire in two years, prohibit the U.S. government from procuring from or providing assistance to the entities, as well as from selling to the entities items on the U.S. Munitions List and defense articles and services. In addition, no export licenses will be issued for the transfer to these entities of controlled items and existing licenses will be suspended.[3]

The 13 entities include five Chinese entities, two Macedonian, two Russian, and one each from Belarus, North Korea, Taiwan, and the United Arab Emirates.[3] The two Russian entities are Omsk-based Baranov Engine Building Association Overhaul Facility, and Vadim V. Vorobey, a Russian professor of technical science working at the Moscow Institute of Aviation.[7] Baranov produces five types of engines for combat aircraft (Su-17, Su-24, MiG-29) and for civil airplanes (Il-96-300, Il-86, Il-114, AN-3, AN-38).[8] While Baranov’s director general has acknowledged that the plant has had contacts with Iran, he claims that this cooperation has been within the confines of Russian law. Vorobey reportedly cooperated with the Iranian Ministry of Energy in the late 1990s through the Moscow Institute of Aviation and later through his own company.[7]

The Belarusian entity is Belvneshpromservice, one of four companies authorized by Minsk to conduct trade in military equipment. According to the Belvneshpromservice website, the company offers for sale an array of air defense systems, combat aircraft, tanks, anti-tank systems, and munitions.[9,10]

The Bush administration is increasingly using sanctions as a key tool to thwart countries’ pursuit of WMD and missile programs. In March 30, 2004, testimony before the House International Relations Committee, Under Secretary of State for Arms Control and International Security John Bolton said that the Bush administration had imposed WMD sanctions 22 times in 2002 and 32 times in 2003, compared with the Clinton administration’s average of eight times a year.[11] An official quoted in the New York Times of


April 2, 2004 called the 13 entitied affected by the latest round of sanctions the “largest and most varied group of entities to be hit by such sanctions.”[12]


Illicit Trafficking in the NIS

Nuclear Smuggler Arrested in Tajikistan

On March 15, 2004, Tajik law enforcement authorities seized a capsule filled with plutonium from a 50-year-old resident of Ferghana, Uzbekistan. According to Avaz Yuldashev, head of the press service of the Tajik Drug Control Agency (DCA), the detainee had been suspected of dealing drugs, and was arrested in Dushanbe during a joint DCA and Tajik Ministry of Security operation.[1,2] Allegedly the capsule was made in Russia and contained 3 grams of plutonium.[3] A Tajik nuclear physicist told CNS that the material involved was a “plutonium-beryllium neutron radiation source,” which contains “a mix of plutonium isotopes.”[4] According to DCA officials, the suspect was attempting to sell the material to an Afghan and a Pakistani in Dushanbe, but one of the two informed the local police.[3]

Tajik authorities have detained two suspected accomplices in the case and are conducting an investigation in cooperation with IAEA officials to try to learn how the trader obtained the radioactive substance.[1,2,5]

Editor’s Note: Initial reports of cases such as this sometimes do not accurately reflect key technical points, such as the precise nature of the material in question. In another case reported in this issue of the NIS Export Control Observer concerning the conviction of traders of radioactive material in Kazakhstan, the material involved, which was initially thought to be weapons-grade plutonium, proved to be a relatively harmless material of the type used in smoke detectors. The Observer will continue to track this story from Tajikistan as new details emerge. Plutonium-beryllium (Pu-Be) neutron sources can either use plutonium-239 or plutonium-238 because both of these isotopes emit alpha particles which interact with beryllium to generate neutrons. Pu-Be sources used in well-logging applications typically employ Pu-238, which is not useful for nuclear weapons. However, 3 grams of Pu-238 could fuel a potent “dirty bomb.” Pu-Be sources used to produce neutrons for applications other than well-logging tend to use Pu-239 as the principal plutonium isotope in a mixture containing small amounts of other plutonium isotopes. Assuming that all 3 grams of the plutonium were Pu-239, which is the isotope useful for nuclear weapons production, there would still be only a miniscule amount of plutonium available from the Pu-Be source that could be used in a nuclear weapon. A nuclear weapon would typically require several kilograms of weapons-grade plutonium.

Plutonium Traffickers in Kazakhstan Convicted of Lesser Offense

As reported in the September issue of the NIS Export Control Observer, in July 2003 Kazakhstan’s Committee for National Security (KNB) arrested three men—two Kazakhstani nationals and a Russian citizen from Saratov Oblast—attempting to sell an ampoule allegedly containing weapon-grade plutonium-239 for $20,000 in Pavlodar, northern Kazakhstan.[1] According to the Kazakhstani daily Ekspress-K, since the substance in question was not weapon-grade plutonium, but plutonium designed for use in smoke detectors, the Kazakhstani court meted out light punishments—one of the two Kazakhstani nationals and the Russian national were sentenced to two years of probation.[2]

Editor’s Note: If the substance involved in fact came from smoke detectors, it is, most probably, the artificially produced radioisotope americium-241, a decay product of plutonium-241, rather than plutonium itself. There are two types of smoke detectors currently in use: a photoelectric detector, which does not contain radioactive material and uses a photoelectric sensor to detect the change in light level caused by smoke, and an ionizing detector, or “ion chamber smoke detector,” which uses the radiation from a small amount of radioactive material to detect the presence of smoke or heat sources. The latter usually contains a very small quantity of americium-241, which has a half-life of 433 years. The first sample of americium was produced by bombarding plutonium with neutrons in a nuclear reactor at the University of Chicago in 1945. One gram of americium oxide provides enough active material for more than 5,000 household smoke detectors. The radiation dose to the occupants of a house from a domestic smoke detector is essentially zero, and in any case very much less than that from natural background radiation.[3]


Summaries from the NIS Press

Kazakhstan Denies Allegations of Involvement in Uranium Smuggling

On February 18, 2004, Kazakhstan today news agency quoted the Arizona Daily Sun as reporting that the U.S. administration suspects SMB Computers, a Dubai-based company with a branch in Kazakhstan, of smuggling uranium from Kazakhstan to Iran and Libya for use in nuclear weapons programs. According to the Arizona Daily Sun article, Sri Lankan businessman Bukhari Sayed Abu Tahir, owner of SMB Computers, a supplier of computer equipment and a Hewlett-Packard distributor for CIS countries, including Kazakhstan, used his company as a front for the uranium smuggling operation.[1] In February 11, 2004 remarks, U.S. President George Bush declared Tahir a financier of an international illicit nuclear materials trafficking network run by Pakistani scientist Abdul Qadeer Khan after it was determined that Tahir’s computer company ordered Malaysian-made centrifuge parts that were later interdicted in October 2003 en route to Libya, presumably for use in Tripoli’s nuclear weapons program.[2]

Kazakhstani authorities were quick to refute the allegations. A representative of the Almaty Justice Department stated that no such company was registered in the city. Rustem Tursunbayev, deputy president of Kazatomprom, the sole manufacturer of uranium products in Kazakhstan, ruled out any possibility of uranium smuggling from the country.[3] On February 20, Minister of Foreign Affairs Kasymzhomart Tokayev denied allegations that Kazakhstan was involved in illegal exports of uranium. “A system of export control operates in our country, and a relevant government commission is in place. The government and the president [Nursultan Nazarbayev], personally, are following these issues. Kazakhstan has been entirely responsible in its approach to these issues since giving up its nuclear legacy,” Tokayev told a briefing in Almaty.[4]

The most vehement denial came from the Committee for National Security (KNB) of Kazakhstan. In its February 26, 2004 press release, KNB stated that SMB Computers and its branches are not registered in Kazakhstan and that the company is not on the list of the companies that have permission from the Ministry of Industry and Trade to conduct export-import deals with nuclear materials that are subject to export.

NIS Export Control Observer, April 2004
control. The press release says that “the republic’s system of export control of nuclear, radioactive, and
dual-use materials enables the government to maintain strict control over nuclear exports, including the
transfer of atomic energy technologies to foreign nations.” KNB also reported that it “repeatedly
approached” foreign partners regarding these facts with a request to provide documentary evidence and
conduct joint investigations. However, “none of the allegations has been confirmed by appropriate
documentary evidence of the law-enforcement bodies of the foreign states that accuse Kazakhstan of
repeatedly breaching the nonproliferation regime,” the KNB document points out. The press release
concludes by saying: “It is not ruled out that it was an intentional act designed to undermine Kazakhstan’s
political image.” [5]

Sources: [1] “Administratsiya SShA podozrevayet kompaniyu SMB Computers v kontrabande urana iz Kazakhstana” [U.S.
administration suspects SMB Computers in smuggling uranium from Kazakhstan], Kazakhstan today news agency, February 18,

Kazakhstani Experts Disagree on Threat Level from Semipalatinsk Test Site

On March 2, 2004, the Kazakhstani daily Ekspress-K quoted Larisa Ptitskaya, director of the Institute of
Radiation Safety and Environment in the city of Kurchatov, as saying that there is a high risk of theft of
radioactive materials from the Semipalatinsk nuclear weapon test site for possible use in nuclear weapons.
Speaking to the board of the East Kazakhstani Oblast Directorate for Environmental Protection, she
announced that 109 out of 181 sealed underground testing tunnels located in the former test site area have
been breached by local scrap metal hunters, who detonate gas cylinders to open tunnels and steal
contaminated scrap metal. She stated that 120 kg of plutonium remain in the unguarded test site area and
that there is a threat that this plutonium could be stolen.

In response, Shamil Tukhvatulin, director general of the Kazakhstani National Nuclear Center, told
Ekspress-K in a telephone interview that Ptitskaya’s statement is not entirely true and that the threat is
exaggerated. He said that it was impossible to make a bomb of what he called “decayed plutonium” unless
a special facility is built in the area. He also denied Ptitskaya’s allegations that the sealed tunnels are
unguarded and have been breached. According to Tukhvatulin, a special patrol regularly inspects the
tunnels and pursues scrap metal collectors, who have only managed to penetrate a few of the tunnels.
International Developments

HEU from Libyan Nuclear Reactor Repatriated to Russia

On March 8, 2004, Soviet-origin weapon-grade uranium was transferred from the Tajoura Nuclear Research Center near Tripoli, Libya to the Russian Federation State Scientific Center All-Russian Scientific Research Institute of Atomic Reactors (VNIIR) in Dimitrovgrad, Russia. The Sosny Company, also of Dimitrovgrad, licensed to handle and transport nuclear materials, coordinated the transport of the highly enriched uranium (HEU) using a plane of the Russian Volga-Dnepr Air Company.[1,2]

In 1980-1984, the Soviet Union supplied 88 nuclear fuel assemblies and an IRT-1 research reactor to Libya. The fuel assemblies were 80% enriched uranium—potentially suitable for use in nuclear weapons—and were never used. This fresh fuel, which contained about 16 kg of uranium, according to the International Atomic Energy Agency (IAEA), was repatriated to Russia. The quantity of material was less than the significant quantity of 25 kg defined by the IAEA as necessary to produce a nuclear weapon. The operation was arranged by the IAEA and funded by the U.S. Department of Energy, which provided $700,000 for this purpose.[1,3] Before the airlift from Libya, the cargo was checked and sealed by IAEA officials, who then verified the unsealing of transport containers at VNIIR on March 18, when the cargo arrived at its destination.[1]

After the December 2003 disclosure by Libya of its weapons of mass destruction programs, the country’s policies with regard to disarmament and nonproliferation have taken a sharp turn for the better. In this context, the HEU was returned to Russia without compensation to Libya for the cost of the fuel. At VNIIR, the repatriated fuel will be blended with non-enriched uranium to become low enriched uranium (LEU) for use at Russian research and power reactors.[1,2,3,4] LEU cannot be used for nuclear weapons.

In a related development on March 10 Matooq Mohamed Matooq, Libyan deputy prime minister and head of the People's Committee for Scientific Research, signed an additional protocol to the agreement between Libya and the IAEA for the application of safeguards in connection with the Treaty on the Non-Proliferation of Nuclear Weapons thereby giving IAEA inspectors greater authority to verify the country’s nuclear program.[5]

This is the most recent operation in a series to remove HEU from vulnerable sites. Since 2002, fresh weapon-grade uranium has been repatriated to Russia from Serbia and Montenegro, Romania, and Bulgaria under the U.S.-IAEA-Russian joint program known as the Tripartite Initiative.[3]


United States Encourages Asian Countries to Tighten Export Controls

In early March 2004 visits to Malaysia and Turkey, U.S. Assistant Secretary of State for Nonproliferation John Wolf encouraged officials in these countries to tighten export controls.[1]
Following the September 11, 2001 attacks, the United States has had increasingly cooperative relations with Malaysia, demonstrated by a Memorandum of Understanding on counterterrorism signed between the two countries in May 2002. Nevertheless, Malaysia has become a concern following the October 2003 interdiction of 25,000 Malaysian-made components suitable for use in uranium enrichment centrifuges destined for Libya’s nuclear weapon program.

Wolf met with Deputy Prime Minister Najib Razak and Foreign Minister Syed Hamid Albar in the Malaysian administrative capital of Putrajaya to discuss ways of increasing existing cooperation between the United States and Malaysia on nonproliferation. The officials made no firm commitments to the United States and the foreign minister was quoted as saying that the country does not think it necessary at this time to sign an additional protocol to Malaysia’s safeguards agreement with the International Atomic Energy Agency, pursuant to the Treaty on the Nonproliferation of Nuclear Weapons. The protocol would grant the agency expanded inspection rights, including the right to scrutinize machining activities that might produce equipment needed for the manufacture of nuclear weapons.

Wolf also met with Malaysian Prime Minister Abdullah Ahmad Badawi, who said that Wolf simply wanted to congratulate him on becoming prime minister and did not ask Malaysia to implement stricter export controls. Abdullah has protested remarks made by U.S. President Bush concerning Malaysia’s connection to the A.Q. Khan nuclear smuggling ring, complaining that his country has been unfairly singled out. The ring, controlled by a leading Pakistani nuclear scientist, arranged for the manufacture and shipping of the uranium enrichment centrifuge parts intended for Libya. The prime minister’s son owns a controlling stake in Scomi Precision Engineering, the company that manufactured the centrifuge components. Malaysian authorities cleared Scomi of any wrongdoing, saying the company thought the parts were intended for the oil and gas industry.

Following Wolf’s visits to Malaysia and Turkey, a U.S. official told Reuters that “...countries like Malaysia, India, and Turkey could begin losing out on sophisticated technology trade that helps fuel their economic growth if they fail to crack down on the global nuclear black market.”


**U.S. Authorities Make Arrests for Attempted Illegal Exports to China and Israel**

Immigration and Customs Enforcement (ICE), the primary investigative arm of the U.S. Department of Homeland Security, recently made arrests in two high-profile cases involving the attempted illegal export of sensitive technology.

On March 12, 2004, ICE agents in Orlando, Florida, arrested two men on charges of attempting to illegally export dual-use technology to China. A three-count indictment returned by the federal grand jury of Florida’s Middle District charged the two—Ting-Ih Hsu, a naturalized U.S. citizen and president of Azure Systems Inc. and Atlantic & Pacific ICS Inc., and Hai Lin Nee, a Chinese citizen who worked for both companies—with attempting to violate the Export Administration Act, conspiracy, and making false statements.

According to the indictment, Hsu and Nee attempted to export 25 low-noise amplifier chips to an entity in China in 1999. The chip is a key component in the U.S. Hellfire air-to-ground missile system, but also has civilian applications.

U.S. authorities learned of the 1999 export after another company, Silicon Telecom Industries Inc., purchased the chips from Lockheed-Martin Sanders, Nashua, New Hampshire (now Information & Electronic Warfare Systems, part of BAE Systems) with the intention of exporting them to Beijing.
University, China. After Silicon Telecom Industries, Inc., learned that the export required a license from the U.S. Department of Commerce, it returned the chips to Lockheed-Martin Sanders for a refund of $6,600. More than six months later, Orlando-based Azure Systems Inc. placed an order with Lockheed-Martin Sanders for the same chips. Lockheed-Martin Sanders notified federal authorities and proceeded with the sale, warning Azure that it would need a license from the U.S. government before it could export the chips. A federal authority watching Azure Systems later saw Nee mail the chips to a Hong Kong address. The attached customs form described the contents as transistors worth $20, and the packing list showed that the items had been sold to Beijing Ghz Electronics in Beijing.

Hsu is a former employee of Lockheed Martin. Nee previously worked at a U.S. research institute designing software for warfare simulations. If convicted, the two could serve up to five years in prison for each count.[1,2,3]

On March 19, one week after the Florida arrests, ICE agents arrested Brooklyn, New York resident Leib Kohn on charges of illegally shipping components used in military radar, F-4 Phantom jet fighter aircraft, and Hawk guidance missile systems to Israel. An April 15 federal grand jury indicted Kohn for alleged violations of the Arms Export Control Act and the International Trafficking in Arms Regulations. The indictment alleges that since May 2003 Kohn purchased the components from U.S. manufacturers, including Radio Research Instrument Co. of Waterbury, Connecticut and subsequently shipped them to QPS, a company based in Binyamina, Israel, without obtaining the necessary licenses from the U.S. Department of State. According to an ICE press release, U.S. authorities do not believe that Israel was the final destination for the items. Kohn’s arrest coincided with the arrest of Israeli arms dealer and co-owner of QPS, Eli Cohen, who has been investigated in the past in connection with attempted military exports to Iran.

Kohn faces up to 20 years in prison, $1 million in fines, and possible revocation of export privileges. His corporations, L&M Manufacturing and Nesco NY Inc., also face up to $1 million in fines.[4,5,6,7]


**Great Britain Improves Its Arms Export Controls**

*by Victor Zaborsky, Senior Research Associate, Center for International Trade and Security, University of Georgia*

On March 3, 2004, the Trade in Controlled Goods (Embargoed Destinations) Order came into force in the United Kingdom. The Order introduces controls on exports of military goods from a country outside the United Kingdom to specified embargoed destinations.

It applies both to exports of military items from the territory of the United Kingdom and also to transactions arranged overseas by British nationals and companies. For the first time, British export control legislation will cover all British citizens based overseas, even if all their transactions take place in other countries. The Order will apply to exports of military goods to destinations subject to full-scope European Union (EU), Organization for Security and Cooperation in Europe, or United Kingdom national embargoes.

The Order is so-called secondary legislation to the 2002 Export Control Act, which updated the 1939 Import, Export, and Customs (Defense) Act, introduced as an emergency measure at the beginning of World War II. It is also a follow-up to two other orders that were adopted in 2003 and that deal with..."
exports of defense technologies and assistance, and third countries’ exports of military equipment which have U.K.-made components.

The strict new controls introduced by the Order build upon international attempts to clamp down on individuals and companies circumventing arms embargoes, including the 2003 EU agreement on the control of arms brokering. EC Common Position 2003/468/CFSP on the Control of Arms Brokering was agreed to on June 23, 2003, under the EU Common Foreign and Security Policy. Under this political agreement, member states must ensure that their national legislations control arms brokering activities taking place within their territory, while establishing a clear legal framework for lawful brokering activities. [1,2]


**GAO Report on Drawbacks of the U.S. Post-Shipping Verification Procedure**

In January 2004, the U.S. General Accounting Office (GAO), the investigative arm of the U.S. Congress, issued a report on the weaknesses of U.S. procedures for post-shipment verification (PSV) of exported dual-use items. PSV is the final stage of U.S. export control procedures and is designed to detect and prevent illegal diversion or transfer of controlled U.S.-origin goods and technologies already shipped overseas. Particular attention is paid to items shipped to countries suspected of seeking to develop weapons of mass destruction, or that have the potential to divert or misuse dual-use items. The Department of Commerce primarily targets PSVs on items and technologies that would significantly advance the development of sought-after weapons systems.

Authorized by the U.S. Export Administration Act of 1979, the U.S. Department of Commerce is the U.S. agency primarily responsible for conducting PSV checks and verifying that dual-use items arrive at their proper locations and are used in compliance with the conditions stated in their export licenses. Most PSV checks are carried out by special agents of the Department of Commerce, who visit the companies overseas, meet with importers or end-users, physically inspect and verify the location and use of the shipped items, and conduct investigations of potential violations of export controls.

During fiscal years 2000 to 2002, the Department of Commerce issued 7,680 dual-use export licenses for exports bound to countries of concern, such as China, India, and Russia. However, during this period, PSV checks were conducted on only 428, or about 6%, of these licenses.

The GAO assessment revealed some weaknesses in the PSV process. First, U.S. officials conducting post-shipment verifications do not always verify compliance with license conditions. In addition, three quarters of the U.S. officials who conduct checks admit that they lack technical training in key technologies, such as electronics, telecommunications, and information security systems. Furthermore, end users of dual-use technology may not be aware of the licensing conditions, since U.S. Department of Commerce regulations do not require U.S. exporters to inform users in writing of those conditions. In addition, some countries do not allow U.S. officials access to end users’ facilities. Finally, companies that receive an unfavorable PSV are not banned from obtaining export licenses in the future.


**Workshops and Conferences**

**Regional Conference on Small Arms and Light Weapons Held in Almaty, Kazakhstan**

A Regional Conference on Small Arms and Light Weapons was held in Almaty, Kazakhstan, on March 16-18, 2004, to familiarize the five Central Asian states—Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan—with the Program of Action adopted at the 2001 United Nations Conference on Illicit
Trade in Small Arms and Light Weapons in All Its Aspects, and to assist them with implementation of its provisions.[11] The conference was organized by the UN Department for Disarmament Affairs, through its Regional Center for Peace and Disarmament in Asia and the Pacific, in close cooperation with government of Kazakhstan and the United Nations Development Program. The conference was funded by voluntary contributions, mostly from the Japanese government.[1]

According to Kayrat Abuseitov, deputy minister of the Kazakhstani Ministry of Foreign Affairs (MFA), Kazakhstan agrees with the United Nations that small arms, by causing great numbers of deaths, are in effect weapons of mass destruction. During the last 12 years, conflicts in which small arms were used caused the deaths of 4 million people. Of this number, 90% were civilians, mostly women and children. The Kazakhstani MFA adheres to the position that there is a clear link between small arms trade and the drugs trade. Afghanistan, for example, is the world’s largest producer of opium and home to an estimated 10 million small arms. “In contrast to chemical and biological weapons, the international community has not yet created a universal mechanism against their spread,” Abuseitov said in his address at the opening of the regional conference.[2,3]

In its examination of Program of Action implementation, the conference concentrated on issues such as security and regional trends in small arms and light weapons in Central Asia; implementation challenges; international and regional cooperation; and the sharing of experiences and lessons learned. After the conference, a workshop on preparation of national reports on the implementation of the Program of Action was held.[1]


OSCE Conducts Small Arms and Light Weapons Training in Uzbekistan

From March 15 to April 7, 2004, the OSCE Center in Tashkent held a training program for Uzbek customs officials and border guards to improve their expertise in combating illicit cross-border trafficking in small arms and light weapons (SALW) between Uzbekistan and neighboring countries with the goal of reducing the uncontrolled spread of these weapons in the Central Asian region. OSCE experts conducted training sessions for customs officials and border guards in three regions of Uzbekistan—Urgench, Ferghana, and Samarkand. The sessions focused on tracing and seizing illegally trafficked SALW, as well as uncovering falsified travel and customs documents. The training was a follow-up to the three-month program entitled “Combating Illicit Trafficking of Small Arms and Light Weapons through Border Management Assistance” implemented in 2003 by the OSCE Center in Tashkent jointly with the OSCE’s Conflict Prevention Center in Vienna.


U.S. DOE Conducts Training in Kazakhstan, Russia, Ukraine, and Bulgaria

by Richard Talley, Office of Export Control Policy and Cooperation, U.S. Department of Energy

Almaty, Kazakhstan

On March 25 and 26, 2004, the International Nonproliferation Export Control Program (INECP) of the U.S. Department of Energy (DOE), in cooperation with the Kazakhstan Atomic Energy Committee (KAEC), hosted in Almaty a seminar on nonproliferation and Internal Compliance Programs (ICP) for Kazatomprom, Kazakhstan’s national nuclear operator, and several smaller nuclear entities. The goal of the seminar was to aid the nuclear entities in developing their own ICPs in order to better understand Kazakhstan’s domestic export control regulations, and to impart a basic understanding of the international nonproliferation regimes. In addition to INECP and KAEC, representatives from Kazakhstan’s Agency for Customs Control and Ministry of Industry and Trade made presentations.
St. Petersburg, Russia
A team of nuclear export control specialists from the DOE’s National Nuclear Security Administration (NNSA), Lawrence Livermore National Laboratory, and Oak Ridge National Laboratory participated in two regional workshops on nuclear export control in St. Petersburg—the first workshop was held on February 4-6 while the second one was on February 9-11, 2004. These were the first workshops held by DOE in cooperation with the Russian Ministry of Economic Development and Trade (MEDT). Approximately 30 participants attended each workshop. Russian export control specialists from the Russian Ministry of Atomic Energy, the Ministry of Foreign Affairs, the State Customs Committee, and MEDT participated.

The U.S. team gave several presentations including: proliferant country profiles, export control terminology, high-risk property management, and the technical review process of export licenses in the United States. Russian presentations included a Ministry of Foreign Affairs presentation on international export control laws, a MEDT presentation on the Russian export control system, and a presentation from a St. Petersburg-based commodity identification center on the legal relationship between exporters, clients, and the Russian government.

There was a short question and answer period at the end of each presentation and an hour-long question and answer discussion at the end of each day. Questions from participants ranged from broad topics such as the future relevance of Russia’s Iraq control list to more specific questions such as whether or not a revision to a control list should be regarded as a force major under a contract. [Editor’s Note: Russia’s Iraq control list entitled the List of Commodities and Technologies of Dual-Use and Other Items for which Export to Iraq, in Agreement with the Resolutions of the Security Council of the UN, are Controlled and Subject to Notification or Prohibited was approved by Presidential Decree No. 972 of September 2, 1997, On Measures Taken by the Russian Federation Regarding the Resolution of the Security Council of the UN in Reference to a Mechanism of Regular Inspection and Control of Supplies to Iraq. This decree was later modified by Presidential Decree No. 1090 of September 1, 2001.]

Kiev, Ukraine
A group consisting of NNSA personnel, DOE National Laboratory personnel, and invited speakers from the International Atomic Energy Agency (IAEA), Euratom, and the Canadian Nuclear Safety Commission participated in two international nuclear export control cooperation activities, February 9-12, 2004 in Kiev.

On February 9 and 10, 37 representatives from 24 Ukrainian nuclear and nuclear-related enterprises attended the NNSA-sponsored workshop “Legislative Basis for Applying State Export Control Over International Transfers of Goods—Preventive Measures and Responsibilities for Violations in the Field of State Export Control.” The workshop covered the legal authorities the new national export control law provides to the state to enforce export controls and the penalties that can be applied for violations. Speakers described the typical errors or violations made by enterprises and the types of penalties (administrative sanctions, fines, etc.) that can be applied. Tips on how to avoid the violations were offered. Feedback from the audience was generally positive, particularly with regards to the practical presentations, such as those on procedures related to end-use/user certificates and certificates of delivery.

Fifty participants from 16 ministries, departments, governmental agencies as well as State Company Ukrspetsexport attended the second seminar, on February 11-12, on the scope, purpose, and activity of the multilateral nonproliferation regimes. The seminar began with opening remarks by NNSA’s Deborah Ozga and Oleksandr Hryshutkin from the State Service for Export Control of Ukraine (SSEC). Then Ms. Ozga gave an overview presentation on the nonproliferation regimes. Tatiana Vidzigovska, SSEC, described Ukrainian nuclear legislation related to export control. Eva Gyane, IAEA, and Stamatios Tsalas, Euratom, presented overviews of the role of the IAEA and Euratom in nuclear transfers, respectively. Dick Weller, Pacific Northwest National Laboratory, gave an introductory talk on the Australia Group and the Chemical Weapons Convention. The second day focused on the additional protocol with talks by Eva Gyane on IAEA safeguards, the additional protocol, and export reporting under the additional protocol; and by Richard Keeffe, from the Canadian Nuclear Safety Commission, on Canada’s implementation of the additional protocol. The seminar concluded with presentations from E. Dikov and S. Lopatin of the State

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Nuclear Regulatory Committee of Ukraine on the legal aspects of Ukraine’s System for Accounting and Control of Nuclear Materials and on Ukrainian efforts to ratify the additional protocol, respectively.

Reaction to the workshop was very positive. Individual presentations built on each other to provide a clear framework for discussion. The participants asked many questions ranging from the methods used for collecting and verifying data that is sent to the IAEA for inclusion in IAEA country reports, to the significance of Euratom safeguards to Ukrainian legislation.

On March 22-25, a team of U.S. technical export control specialists and their Ukrainian technical counterparts conducted a training course for inspectors from the State Customs Service of Ukraine (SCSU) North/Central region on nuclear-related commodity identification at the SCSU Kiev Training Center. The course covered nuclear export control enforcement and identification of nuclear and nuclear-related commodities. This commodity identification training raised the awareness of customs inspectors of the controlled commodities transiting Ukrainian borders, their appearance, manufacturers, importance to a proliferator, and characteristics of their packaging. Technical and export control experts from Ukraine’s Institute of Nuclear Physics and Kharkiv Institute for Physics Technology conducted practical exercises with the inspectors, giving students a chance to handle commodities, and research their controlled specifications in the U.S. government-provided Dual-Use Handbook. These activities were sponsored by the NNSA Office of Export Control Policy and Cooperation and were funded in part by the State Department’s Export Control and Related Border Security Assistance (EXBS) program. NNSA and SCSU have committed to at least four more of these training sessions in 2004, with the ultimate goal of establishing this training at the customs academy in Dnepropetrovsk, Ukraine for the benefit of all future graduating inspectors.

Sofia, Bulgaria
In addition to the meetings organized in the former Soviet States, DOE sponsored a training seminar in Sofia. On March 15-19, 2004, two technical specialists from the DOE Argonne National Laboratory and Oak Ridge National Laboratory teamed with instructors from the U.S. Department of Defense’s Defense Threat Reduction Agency (DTRA) to provide a week of training in identification of weapons of mass destruction (WMD) commodities to approximately 50 border police and customs personnel. This training was conducted under the auspices of DTRA’s International Counterproliferation Program. Partial funding came from the DOE/NNSA Office of Nonproliferation and International Security.

Bulgarian border police and customs agents were introduced to technologies and commodities associated with nuclear, chemical, and biological weapons. They also heard presentations on the international export control regimes that help to prevent proliferation of these weapons. In their presentations, the NNSA-funded technical specialists focused on nuclear and nuclear-related technologies and on how to identify dual-use commodities used in the development of nuclear weapons.

The Deputy Director of the General National Bulgarian Customs Agency Dimitar Tolev delivered the plenary presentation. The final address was made by Deputy Minister of the Interior Boyko Kotsev. Both presentations emphasized the importance that the Bulgarian government places on the WMD nonproliferation and the timeliness and effectiveness of the training provided by the United States government.
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