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### Special Report

**Boeing and Hughes Settle over Export Control Violations Regarding Technology Data Transfers to the People’s Republic of China**

By Kaleb Redden and Dennis Gormley
Recent Developments in the NIS

Belarussian, Russian Customs Conduct Joint Operation

At a March 31, 2003 session of the Russia-Belarus Union's Customs Committee, heads of customs committees of the two countries announced the launch of a new joint anti-smuggling operation, known as "Belarus Transit." According to ITAR-TASS, the main purpose of the operation is to stop contraband that some firms try to smuggle to and from Russia through Belarus. Special attention will be paid to exposing false customs information submitted by sham firms.[1] The operation is to continue until the end of 2003. If it proves to be effective, it may be conducted again in 2004.[2]


Transit of Nuclear Waste through Moldova

On March 28, 2003, the Parliament of Moldova adopted Law No. 152-XV ratifying the four-party Interagency Agreement on Cooperation in the Sphere of Transportation of Nuclear Materials between the Russian Federation and Bulgaria through the Territories of Moldova and Ukraine. The Agreement was signed years earlier by Bulgaria, Moldova, Russia, and Ukraine, in Sophia, on November 28, 1997.

Prior to ratification of the Agreement, the Moldovan Parliament adopted amendments to existing legislation that had prohibited transit of nuclear materials through the territory of Moldova. Law No. 145-XV of March 27, 2003 introduced amendments to Law No. 1515-XII of July 16, 1993, On the Environment, and Law No. 1163-XIV of July 26, 2000, On Export Control, supplementing anti-transit clauses with the following sentence: “Exceptions are made for transport of nuclear materials between the Russian Federation and the Republic of Bulgaria through the territory of the Moldova Republic and the territory of Ukraine.”

Law No. 145-XV also introduced amendments to Law No. 1194-XIII of May 21, 1997, On Transport. The amendments required that transport of nuclear materials through Moldova be approved by a government decree.

Opposition parliamentarians spoke against ratification of the Agreement, saying that it conflicted with the Constitution of Moldova, which guarantees Moldovan citizens the right to a safe environment. These parliamentarians argued that radioactive freight may become a target of a terrorist attack or theft.[1]

Environmental organizations in Moldova also opposed the ratification. The main concern of such groups was a provision in the Agreement that provides that any damage caused by a possible accident is the responsibility of the country in which the accident occurred. The inclusion of this provision, in their view, indicates that accidents are likely and that the Moldovan government’s assurances that transit is not dangerous are unfounded.[2]

Ratification of the Agreement will allow Moldovan Railway and other state-run institutions to obtain substantial revenue for freight transportation and security. In addition, Moldova will receive support from Bulgaria for joining the Southeast European Cooperative Initiative [link to http://www.secinet.org/index.php?BPurpuose=1], and Bulgarian visa fees for Moldovan citizens may be reduced.

Sources: [1] “Parlament ratifitsiroval Soglasheniye o tranzite otkhodov yadernogo topliva cherez Moldovu” [Parliament Ratified the Agreement on Transit of Spent Nuclear Fuel through Moldova], Infotag News Agency, March 28, 2003, <http://www.press.try.md/view.php?id=26881&iddb=Main>. [2] According to experts at the Moldovan Department on Emergency Situations, transportation of spent nuclear fuel is the safest phase of the nuclear cycle. Transportation containers are extremely safe and cannot be damaged even upon collision with an object at a speed of 100km per hour. It has also been noted that nuclear waste has been transported between Russia to Bulgaria for the past 20 years without incident. The Moldovan government also agreed to engage IAEA experts in examining the route along which nuclear wastes travel. See “Yadernyye otkhody, nalogovyye kanikuly i finansovyye proverki” [Nuclear Waste, Tax Holidays and Financial Audits], Logos-Press, No. 8 (504), March 7, 2003 or “Deputaty vystupili s zayavleniyem” [Deputies Release a Statement], Logos-Press, No. 11 (507), March 28, 2003, <http://logos.press.md>.
Russia Considers Changes to Legislation Governing Ownership of Radioactive Isotopes

The regulation of businesses that possess radioactive isotopes in Russia is still in flux. Most recently, Yuriy Vishnevskiy, head of Russia's Federal Inspectorate for Nuclear and Radiation Safety (Gosatomnadzor), said on March 12, 2003, that a Duma-Federation Council joint commission is working on legislation to improve regulation of the number and type of businesses that can acquire radioactive isotopes.[1]

The Russian Ministry of Atomic Energy has been trying to amend the provisions of the law On Atomic Energy dealing with the ownership and transfer of radioactive materials for some four years. While a bill altering paragraph five of the law On Atomic Energy was approved by the government in 1999, and passed by the State Duma in 2000, the Federation Council rejected the bill, and a Duma-Federation Council joint commission (soglasitel'naya komissiya) to address the issue was set up on March 15, 2001.[4] Currently, the law On Atomic Energy states that a certificate (svydetelstvo) is required to transfer ownership of radioactive equipment, radioactive sources, storage facilities, nuclear materials, radioactive materials, and radioactive waste that are not used for military purposes to non-state users. However, the procedure for obtaining such a certificate has yet to be defined. Therefore, other legislation has continued to regulate transfers of these radioactive materials.[2,3]

Vladimir Klimov, the Duma deputy who sponsored the bill altering the law On Atomic Energy, has argued that the use of certificates would be overly cumbersome, greatly reducing the production and use of the radioactive items covered by the law.[3] Therefore, his amendments would do away with the certificates, and control the spread of sources via the licensing system already defined in the law On Atomic Energy. This system, of licensing users rather than issuing certificates for particular isotope transfers, could be successful if all entities did indeed have to possess licenses before materials are transferred, but it would probably make the tracking of materials more difficult. The amendments would also do away with the section stating that owners of the above radioactive items are responsible for monitoring their safety and use in accordance with the law On Atomic Energy and other Russian legislation.[4] It is not clear how the deletion of this paragraph in the law would effect responsibility in practice, or if there is other legislation dealing with this issue.

On January 20, 2003 Deputy Minister of Atomic Energy Mikhail Solonin was put in charge of pushing the bill through, after the retirement of Deputy Minister Valeriy Lebedev.[5] There have been no statements to the press regarding the terms of the amended bill, and whether the section regarding responsibility for the safety of radioactive materials will remain in the law.

Nuclear safety regulations will also be changed under the new law On Technical Regulation, signed into law by President Putin on December 27, 2002. This new law, which is supposed to remove administrative barriers hampering entrepreneurship, requires the adoption of some 500 new federal regulations setting out standards for various business activities. These are to take the place of the thousands of governmental standards that exist at present.[6] Among other things, this new law governs the drafting and adoption of new requirements for the production, exploitation, storage, transport, and final disposition of radiological materials, a subject also covered by the law On Atomic Energy. Officials from Minatom and Gosatomnadzor have been particularly worried by the fact that the law requires the new regulations to set minimum requirements for nuclear safety. They argue that this contradicts existing Russian and international requirements that set maximum safety standards, and that the new law contradicts the principle of putting safety above all other considerations when dealing with nuclear energy.[7] In addition, Article 7 of the law On Technical Regulation states that only those requirements that are included in the technical regulations can be compulsory. This would seem to preclude Gosatomnadzor and Minatom from issuing compulsory requirements to individual facilities on a case-by-case basis, or making international agreements that require a particular facility to meet a requirement that has not been included in the existing regulations.[8] Indeed, in explaining the law, President Putin has said that bureaucrats should no longer have the right to issue regulations.[9] It is not clear how or if the law On Technical Regulation will affect the debate over amending the law On Atomic Energy.
Changes in NIS Export Control Personnel

Lithuanian Customs Chief Resigns

On March 26, 2003, Head of the Lithuanian Customs Department Valerijonas Valickas submitted a letter of resignation to Lithuanian Finance Minister Dalia Grybauskaite. The resignation took effect March 31, 2003. The Finance Ministry reported that it was not pleased with Valickas’s work. Valickas was criticized for his management style and failure to cooperate with the business community. Valickas had served in the post since 2000 in addition to an earlier stint as customs head from 1990-1992.[1]


International Export Control and WMD Security Assistance Programs

Tajikistani Border Guards and Customs Officers to Get Additional Technical Assistance from U.S. Government

Seven sets of inspection equipment valued at over $28,000 each will be given to the customs and border security agencies of Tajikistan under the U.S. Department of State’s Export Control and Border Security (EXBS) Program. According to Gregory Jansen, EXBS Advisor at the U.S. Embassy in Tajikistan, U.S. Customs personnel will arrive in Dushanbe in May 2003 to provide training at a border post and two other locations designated by Tajikistani customs. The training will focus on preventing drug trafficking and dealing with common smuggling techniques.[1]

In March 2003, the United States donated 200 Motorola shortwave radios worth $206,000. Training in the use of the devices was conducted in Dushanbe on March 11-13 by two Motorola representatives. In addition, training in the routine maintenance and repair of the Motorola radios and the installation of the MTR 200 Motorola repeaters was provided to Border Guard radio technicians. Further communications assistance will come in the form of 108 HF antennae masts, valued at over $34,000. These antennae masts are part of the Barrett HF radio package that was delivered to the government of Tajikistan in February 2003.[1,2]


Kazakhstan Ratifies Nuclear Energy Cooperation Agreement with EU

The Nuclear Energy Cooperation Agreement between Kazakhstan and the European Union was ratified on April 17, 2003 at a plenary session of the Senate (upper chamber) of the Kazakhstani Parliament.[1] The Kazakhstani government and the EU signed the Agreement in early 1999. The Agreement envisages EU cooperation and assistance to Kazakhstan in environmental remediation of areas contaminated by

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radioactive waste and regulates some aspects of cooperation between Kazakhstani scientists and their Western European colleagues.[2]

Addressing the Parliament on February 24, 2003, Vladimir Shkolnik, Kazakhstani Minister of Energy and Mineral Resources, said that ratification of the Agreement was essential to economic and scientific development in Kazakhstan. He stressed that “the Agreement has nothing to do with transportation of radioactive waste in and out of Kazakhstan. These are two different things.”[3]

The Agreement will remain in effect for 10 years and will be automatically extended unless one of the parties expresses its intention to terminate participation in the Agreement by providing written notification.[3]


EU Pledges 16 Million Euros to Upgrade Russian Customs Checkpoints

On April 10, 2003, Dino Sinigallia, the head of EuropeAid Cooperation Office (Aidco), an organization in charge of the European Commission's foreign aid programs, told Interfax that the EU plans to spend 16 million euros (approximately $17.4 million) to upgrade customs checkpoints in northwestern Russia. Two checkpoints in northwestern Russia were upgraded with EU assistance in 2002. Eight million euros ($8.7 million) will be allocated to Chernyshevskoye checkpoint on the border between Kaliningrad region and Lithuania. Two checkpoints on the Finnish border, Suopera and Brusnichnoye, will receive six million euros ($6.5 million) and two million euros ($2.17 million), respectively. The implementation of these projects should start in early 2004. Deputy Head of Russia's State Customs Committee Viktor Krutskikh expects that the project will be completed by mid-2005.[1]


Embargoes and Sanctions Regimes

Controversy over Russian Supplies of Military Equipment to Iraq

Details of the American-Russian row over transfers of Russian military equipment to Iraq were first made public in an article published on March 23, 2003 in the Washington Post.[1] This intentional “leak” was the culmination of U.S. efforts to bring pressure on the Russian government over the activities of three Russian companies related to the transfer of night vision goggles, anti-tank missiles, and electronic jamming equipment to Iraq in the months preceding and even during Operation Iraqi Freedom, the U.S.-led war to topple the regime of Saddam Hussein.[1] In the Washington Post article U.S. officials identified the Tula Instrument Design Bureau (KBP) [http://www.shipunov.com/kbp/kbpr.htm] as responsible for the transfer of antitank missiles to Iraq, and the Moscow-based company Aviakonversiya for sales of at least a half-dozen jamming devices to the Iraqis.[1] A third Russian company, which was accused of sending night vision goggles to Iraq, was not identified. At the same time, the U.S. officials quoted in the article stressed that there were no indications that the Russian government was involved in the equipment transfers to Iraq.[1]

The U.S. side first raised the issue of illegal Russian transfers to Iraq in June 2002, when U.S. government officials informed their Russian counterparts about Aviakonversiya’s sales of the jamming equipment to Iraq.[1,2] However, for three months following the initial U.S. appeal, Russian government officials denied the existence of Aviakonversiya despite the fact that the company maintained a website and was the subject of extensive media coverage in Russia.[1,2] A U.S. official familiar with these developments commented, “The bottom line is that Russians knew about this last June. They did nothing.”[1] Eventually, after receiving continuous complaints from U.S. officials, the Russian government provided assurances that it was closely monitoring Aviakonversiya’s activities.[1] Nonetheless, on March 21, 2003, U.S. officials learned that Aviakonversiya’s technicians were in Baghdad helping the Iraqi military with the installation
A senior U.S. official commented on this development to Agence France Presse on March 23, 2003, saying “The system is complex and there is evidence that they [Russian technicians] have been trying to bring this system on-line and help Iraqis operate it.”[2] The official also stated that U.S. intelligence was able to determine that an electronic signal emitted by the jamming devices in Iraq was specific to the equipment produced by the Russian company.[2,11] According to another unnamed U.S. official, this discovery “infuriated” the Bush administration and served as justification for the decision to leak the story to the Washington Post on March 23, 2003.[12]

The initiation of Operation Iraqi Freedom highlighted the danger posed by Russian military equipment to the coalition forces in Iraq and necessitated intensification of U.S. diplomatic efforts aimed at pressuring the Russian government to halt the activities of the above-mentioned private companies. This led to an official protest delivered by U.S. diplomats in Moscow to the Russian Foreign Ministry on March 22, 2003.[1] The reason for the protest was the refusal by the Russian government to prevent the three companies from providing illegal weapons and military assistance to the Iraqi armed forces in violation of UN sanctions.[1] Furthermore, on March 23, 2003, Russian Ambassador to the United States Yuriy Ushakov was summoned to the State Department, where U.S. diplomats handed him a similar note of protest.[3] On March 24, 2003, U.S. Secretary of State Colin Powell communicated U.S. concerns to his Russian counterpart in a telephone conversation.[8] Later, Powell told Fox News that he was disappointed with Russia’s response.[8] On March 24, 2003, President Bush had a phone conversation with President Putin, in which he raised the topic of military equipment sales to Iraq and emphasized that it endangered the lives of American soldiers and represented a matter of concern for the U.S. administration.[4,5] According to White House press secretary Ari Fleischer, the phone conversation concluded with President Putin giving assurances that he would personally look into the matter.[5] Sometimes described in the media as “tense”[8], the phone conversation between the presidents was presented in a different light by Kremlin spokesperson Aleksey Gromov. In an official press release provided to Russian news agencies on March 25, 2003, Mr. Gromov stated that it was President Putin who brought up the U.S. accusations, denied them, and asserted that Russia was in compliance with UN sanctions against Iraq.[4]

In general, Russian reaction to the U.S. allegations has been characterized by consistent denials emanating both from the political establishment and corporate sector. On March 24, 2003, Russian Foreign Minister Igor Ivanov responded to the U.S. allegations in the following statement: “Russia strictly observes its international obligations. It didn’t sell any equipment, including military equipment, in violation of the [UN] sanctions regime.”[6,17,21] In a separate statement, Ivanov added, “The U.S. has asked us several times about possible supplies of banned equipment to Iraq. Our experts have checked these meticulously, and the last answer [by Russia to the United States] was made March 18 [2003]. No facts proving U.S. concerns have been found.”[10] Also on March 24, 2003, the Deputy Chief of Staff of the Russian government Aleksey Volin stated, “The Russian Federation did not supply weapons and weapons systems to Iraq and it strictly adheres to all the UN Security Council resolutions, which are adopted regarding this country [Iraq] as well as other countries.”[13,18] Similarly, the spokesperson for Rosoboronexport, Russia’s state-owned arms export and import company, stated that “it [Rosoboronexport] had nothing to do with any such sales, and we have no information that any such sales took place.”[6]

Iraqi Ambassador to Russia Abbas Khalaf has also denied U.S. reports that several Russian companies delivered military equipment to Iraq. On March 24, 2003, Khalaf told Interfax, “Such deliveries are impossible in conditions of international economic sanctions against Iraq.”[7,13,17]

On March 23, 2003, in an interview to Agence France Presse, Aviakonversiya Director Oleg Antonov responded to U.S. allegations in the following statement: “We have not sold anything to Iraq. In the past four years, Iraq dispatched its representatives to us, who indicated that they were willing to place purchase orders. They visited us about fifteen times, and we had discussions, they promised to wire the money. But then they went back, and we have not seen them since and they have not bought anything.”[15,18,20] In interviews with the Russian daily Izvestiya and Moscow’s Ekho Moskvy radiostation on March 24, 2003, Antonov speculated that the Iraqis could have assembled jamming devices analogous to the ones produced by Aviakonversiya either by themselves or “with the assistance of the Yugoslavs.”[6,14,18,20] Antonov
also noted that Aviakonversiya has been producing jamming equipment for almost a decade and that the U.S. has made substantial purchases in order to test the resistance of the precision-guided munitions against the jamming generated by these devices.[14,18]

Russian military experts said that Aviakonversiya could have sold arms to a third country such as Ukraine, Syria, or any Eastern European country, and then turned a blind eye as the weapons were retransferred to Iraq.[25] A Russian Duma deputy, Andrey Kokoshin, suggested that Iraq could have obtained Soviet-era weapons through a former Soviet republic, most likely Ukraine.[26] U.S. officials mentioned Yemen as the end user for jammers listed in Aviakonversiya export documentation.[1]

The administration of KBP Tula also denied the allegations. U.S. officials informed the Russian government that in January and February of 2003, Iraq purchased what was characterized as a “militarily significant quantity” of Kornet antitank missiles from KBP Tula.[1] KBP Tula’s laser-guided Kornet-E antitank missiles are designed to destroy armored vehicles and tanks at a distance of up to 6,000 yards.[19] U.S. officials informed Moscow that although the documents accompanying the sale of missiles identified Yemen as the final destination, Iraq was the intended recipient.[1] According to KBP Tula Deputy Chief Alexey Butenko, there was a slight possibility of the Russian-made weapons getting to Iraq through a third party. Although all KBP Tula sales contracts forbid re-transfer of weapons and military equipment to a third party, in reality KBP Tula agreed that it is unable to control its clients.[23] Russian military experts stated that both Syria and the United Arab Emirates, importers of Russian KBP military goods, may have passed the goods on to Iraq with or without the permission of KBP and the Russian Federation.[24]

According to the initial report in the Washington Post, the Bush administration first told the Russian government to stop the missile sales in 2002.[1] However, KBP Tula General Designer Arkadiy Shipunov, in an interview with Interfax on March 24, 2003, claimed that “The allegations of the Fox News journalists and officials from the U.S. administration are groundless. The Tula enterprise has never shipped any weapons counter to Russian government instructions and UN directives, especially to countries subject to international sanctions.”[9] In a separate interview with RIA Novosti on March 24, 2003, KBP Tula Deputy General Director Vasily Gryazev stated, “We could have helped Iraq, but nobody will allow us to do so. All the weapons exports shipments are conducted in compliance with international agreements and UN constraints.”[16] In 2002, the U.S. government imposed sanctions on KBP Tula for selling antitank missiles to Syria.[1,22] (See the January 2003 issue of the NIS Export Control Observer for more information.)

Regarding transfers of the night vision goggles, U.S. government officials obtained intelligence information indicating that an order for several thousand night vision goggles was due to be shipped by an unidentified Russian firm in February 2003.[1] In an attempt to halt the shipment, administration officials provided the Russians with detailed information on the specifics of the illegal deal. However, according to the Washington Post article, Russians responded in an incoherent manner – they first said that only a few goggles were offered as gifts to visiting Middle Eastern dignitaries, and then they stated that it was a weekend and the U.S. request could not be addressed.[1] The failure on the part of the Russian government to stop the shipment of the night vision goggles to Iraq was an additional factor that contributed to the U.S. decision to disclose details to the public.

According to some reports based on U.S. intelligence sources, the jamming devices were initially imported by Iraqis to counter U.S. and British jets patrolling former “no-fly” zones of northern and southern Iraq.[1] In the summer of 2000, U.S. and British air forces complained of interference with their GPS in enforcing the “no-fly” zones. At the time, Kuwaiti newspapers asserted that Aviakonversiya had sold its jamming systems to Iraq through maverick Russian politician Vladimir Zhirinovskiy.[6]

These cases, especially the case of Tula KBP, demonstrate the challenges associated with re-transfer and end-user controls in Russia’s export control system. Tula KBP is one of a handful of Russian companies that have the right to negotiate its own export contracts outside the auspices of Rosoboronexport, the state arms sales agency. All sales contracts, however, must be approved on the highest level by the Committee on Military Cooperation. Disregarding sanctions would represent a huge risk either on the part of the company management, or on the part of the Kremlin itself. Rather than openly ignore the sanctions, it is
likely that Russian authorities simply lacked the political will and/or resources to conduct comprehensive checks on end-users and end-use and to discipline exporters linked to the possible leakage of goods to unauthorized destinations.


Illicit Trafficking

Lost Cesium-137 Found in Akhtubinsk

According to media reports, a radioactive source with cesium-137 was found in the town of Akhtubinsk, Astrakhan Oblast, Russia, in early April.[1,2] Two cylindrical lead containers measuring 14 by 21 cm bearing a factory stamp and inscription “hazardous to life” were discovered by Nikolay Maslakov, a resident of Akhtubinsk, in a house he inherited after his mother's death in March 2003. Police were summoned to the residence, as were officers of the local subdivision of the Ministry of Emergency Situations, the Federal Security Service, and Akhtubinsk military garrison. Preliminary examination of the containers, which were removed to a special storage facility, showed that they contained cesium-137.[2]

Maslakov could not explain where the containers came from. He said he did not know that cesium-137 was stored in the house. The Akhtubinsk Military Prosecutor’s Office opened a criminal case under Article 220 (illegal handling of radioactive materials) of the Russian Criminal Code. According to a spokesman for the Akhtubinsk garrison, the containers may have been used on construction projects and may have been lost after the construction units were disbanded. This assumption, however, has yet to be confirmed by the investigation. This is not the first case in which containers with radioactive materials were discovered in Akhtubinsk. A container with cesium-137 was found in another district of the city in 2002.[2]

Akhtubinsk Region of Astrakhan Oblast is an important center for Russia’s military industrial complex. The Ashuluk and Kapustin Yar missile test sites, as well as the Valeriy Chkalov State Flight Test Center (GLITs), are situated in the Region. The Region also has many defense enterprise subsidiaries.[1] 

Kazakhstani National Security Committee Releases Statement on Illegal Trade

In a January 2003 statement to the media, the Kazakhstani Committee for National Security (KNB) indicated that in 2002, it seized 5,412 kg of radioactive thorium concentrate and 12.7 kg of uranium oxide. The report did not specify where and when these materials were seized.[1]


Summaries from the NIS Press

U.S. Ambassador Urges Ukraine to Involve Security Service in Export Control

On March 26, 2003, a conference on Export Controls in the Context of Security Reform was held in Kiev. It was organized by the Razumkov Center for Economic and Political Studies [http://www.uceps.com.ua/ ] with financial support from the governments of Poland and the United States. The main topics for discussion were the development of European Union export controls and the Law of Ukraine on State Control over International Transfers of Military and Dual-Use Goods, which was adopted by the parliament on February 20, 2003 and entered into force March 20, 2003.

In his presentation, U.S. Ambassador to Ukraine Carlos Pascual stressed the importance of fighting against terrorists’ attempts to acquire weapons of mass destruction as well as conventional weapons. “We know for sure that Ukraine has the materials and technology that terrorists would like to get their hands on: enriched uranium, biological, nuclear and radiological materials, rocket technology,” stressed Pascual. He also suggested that the Security Service of Ukraine (SBU) should supervise export transactions of the Ukrspetsexport state company [http://use-weapon.astral.kiev.ua/], which sells arms on world markets. “The SBU should take a look at negative aspects of the company’s activities,” said Pascual. Ukrspetsexport was created in November 1996 by merging three arms exporting firms: Progress, directed by the Security Service and Ministry of Interior; Ukrinmash, subordinate to the Ministry of Machine Building, Military-Industrial Complex and Conversion; and Ukroboronservice, directed by the Ministry of Foreign Economic Relations.[1]

Pascual’s comments were made in the context of repeated exchanges between the United States and Ukraine over Ukrainian arms exports to countries considered by the United States to be supporters of international terrorism or to be pursuing weapons of mass destruction.[2]


Dump with Radioactive Metal Scrap Found in Kazakhstan

An unauthorized dump containing 25 tons of non-corrosive metals was discovered in Mangistau Oblast, Kazakhstan in January 2003, according to a January 16, 2003 article in Izvestiya. Examination of the dump showed radiation levels of 0.4-25 microroentgen per hour. A police cordon was deployed around the radioactive site. The city administration (akimat) formed a special commission that visited the dump and declared an emergency situation in Aktau and adjacent villages.[1]


Radioactive Cargo Temporarily Held in Almaty

According to Kazakhstani media reports in early April, customs officials at Almaty airport seized a cargo arriving by air from Tashkent. A customs inspection revealed a radiation level of 100 microroentgen per hour, several times the normal background level. Closer examination showed that radiation was being emitted from a box weighing 5 kilograms and containing radioactive materials. The box was put in a special container and placed under guard.
Later, however, it was found that the cargo was not smuggled material. Accompanying documentation listed Scientific Production Enterprise Izotop as the recipient, and stated that the radioactive material was intended for medical purposes.[1]


**International Developments**

**U.S. Secretary of Energy Announces Radiological Security Partnership at IAEA Conference on the Security of Radioactive Sources**

On March 11, 2003, during the opening session of the International Conference on the Security of Radioactive Sources in Vienna, Austria, U.S. Secretary of Energy Spencer Abraham announced a new initiative -- the Radiological Security Partnership.[1] This initiative involves three elements designed to enhance the security of radioactive sources. First, the United States plans to help “countries accelerate and expand national initiatives to keep track of and better secure national inventories of high-risk radioactive sources.” Second, it calls on countries “to draw on international resources” to obtain “practical advice and assistance” to secure high-risk sources. As part of this plan, the United States will broaden the trilateral initiative begun last year among the U.S., Russia, and the International Atomic Energy Agency (IAEA). Although the expansion in scope is mainly focused on developing countries, Abraham envisions that the program “will become global in scale.” Moreover, the United States is “prepared to work with other countries to locate, consolidate, secure, and dispose of high-risk orphan” radioactive sources. [Editor’s note: Orphan sources are those that have fallen outside regulatory controls because of theft, loss, or abandonment.]

One of Abraham’s highest priorities is to “choke off the illicit traffic” in high-risk radioactive sources. To accomplish this objective, the United States has “committed to establishing detection choke points at suspected smuggling routes.” Thus, the third element of the U.S. initiative involves ensuring that major transit and shipping hubs have adequate radiation detection capabilities. The week following the conference, U.S. radioactive security officials met with their IAEA counterparts to determine the technical specifications for border monitoring equipment. The United States pledged $3 million for this year to initiate the Radiological Security Partnership.


**Russia’s Atomic Energy Minister Calls for International Public Education Campaign on Radioactive Materials**

On March 11, 2003, Minister of Atomic Energy of the Russian Federation Aleksander Rumyantsev called for an international education campaign to teach the public about radiation safety and security. He issued this call for action in his speech to the International Conference on the Security of Radioactive Sources in Vienna, Austria.[1]

Using the occasion of the first major post-September 11, 2001 conference on radioactive source security, Minister Rumyantsev challenged the more than 700 radiation safety and security experts present to develop “a large-scale civilized informational system for the society on all the range of issues on safe use of ionizing radiation sources” to prevent “their unauthorized use.” He outlined an educational program that would tap into the “mass media, i.e., press, radio, and TV,” introduce “specialized educational programs in schools,” and organize “round tables” that involve “community representatives, scientists, industry people,” and government officials. In addition, he urged international organizations, such as the International Atomic Energy Agency, the World Health Organization, and national academies of sciences throughout the world, to cooperate in developing a radiation safety and security education plan.[1]

[Editor’s note: A radiological dispersal device (RDD) – one type of which is popularly known as a “dirty bomb” – is designed to spread radioactive contamination over a wide area. Although few, if any, people would die from the ionizing radiation from a typical RDD, terrorists who used such an RDD would attempt...}
to prey on fears of radioactivity to instill panic. If people fully understood that RDDs, or dirty bombs, are generally not weapons of mass destruction and would cause relatively little immediate harm to human health, they would be less likely to panic in the event an RDD were used by a terrorist group. Conveying that message to the public, however, is daunting. A major impediment has been identifying and employing credible radiation safety experts whom the public will trust.


EU Strategy to Combat WMD Includes Improvements of Export Control Regulations

On April 14, 2003, the European Union External Relations Council met in Luxembourg to discuss an initiative that would create an EU strategy to combat weapons of mass destruction. At the meeting, the EU High Representative and foreign policy chief Javier Solana stated that the development of a long-term solution was an “urgent political priority” for the EU.[1] Discussion topics included improving the ratification and implementation of WMD-related treaties, improving export controls and boosting the role of UN and IAEA weapons inspectors. The discussion produced a set of conclusions that instructed the High Representative and the Political and Security Committee to develop a WMD global threat assessment, a long-term strategy, and proposals on how to deal with the WMD threat.[2]

Notably, this meeting was the first time the WMD issue has been debated before the EU External Relations Council. There were some indications at the meeting that the EU might be prepared to consider such actions as sanctions, cutting aid, or introducing visa restrictions against governments or agencies that sell WMD material or equipment. Implicit in the discussion on long-term strategy development was the question of what action the EU would be willing to take if such sanctions or restrictions failed to stop proliferators.[3]

Following the April meeting, the foreign ministers discussed the WMD issue again at the informal Gymnich meeting on the Greek island of Rhodes on May 2, 2003. At that meeting, the foreign ministers concluded that an EU Strategic Concept was needed to govern and cover issues such as WMD and terrorism. High Representative Javier Solana was charged with drafting such a security concept.[4] The foreign ministers also discussed alternatives to the preemptive use of force against noncompliant countries. They agreed, however, on the merits of establishing a doctrine for the use of force in the event that peaceful enforcement efforts do not work. In a statement after the meeting, Greek Foreign Minister George Papandreou added that the ministers discussed alternatives to the preemptive use of force including boosting “multilateral fora” and “strengthening the monitoring of arms and other shipments.”[5]

These meetings came on the heels of the April 10, 2003 release of the Central Intelligence Agency’s “Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions.” This report indicated that despite current export controls, Western European countries remain a source of machine tools, spare parts, scientific equipment, and specialty metals. In addition, the report indicated that “western countries are also an important source of WMD-related information and training.”[6]

Also, only one month earlier on March 19, 2003, Assistant Secretary for the Bureau of Nonproliferation John Wolf expressed concern in testimony before the US Senate Foreign Relations Committee regarding Europe’s minimal cooperation with WMD nonproliferation efforts. Wolfe stated that “curbing the supply of dangerous technologies, including nuclear technology, is made more difficult by the ambivalent approach of many governments in Europe and Asia” adding that “many other [countries] trade off concerns about the spread of WMD against economic and political interests.” He was concerned that some European governments were not effectively enforcing their export controls and laws to counter the WMD proliferation threat, saying that “proliferators need to know that they face isolation and consequences if their efforts continue.”[7]
Final proposals for the EU Strategic Concept and a long-term WMD strategy are expected to be presented on June 20-21 at the European Council in Thessaloniki and on June 25 at the EU-US summit, respectively.[8]


Export Control in Focus

Limiting Foreign Student Access to Sensitive Training

The United States has introduced new programs to limit the threat posed by foreign nationals seeking access to sensitive military-related training at U.S. educational institutions. First, in July 2002, the United States introduced a new electronic visa processing system known as SEVIS (Student and Exchange Visitor Information System) that requires institutes of higher education to report basic information about foreign students, including residence, course of study, and status, to the United States Immigration and Naturalization Service (INS).[1] On March 1, INS was dissolved and responsibility for implementing SEVIS was transferred to the Department of Homeland Security. SEVIS should help prevent foreign nationals from using fraudulent student documents to enter the United States. U.S. law requires that U.S. educational institutions enter information about all foreign nationals at their institution into SEVIS by August 2003. The new screening system has encountered some problems over the past several months, including small input errors and one complete shut-down for a two week period. There is also some doubt whether SEVIS will be effective in monitoring foreign nationals who change their course of study to a sensitive military-related field after they have begun their study in the United States.

The U.S. State Department is also drawing greater attention to use of its Technology Alert List (TAL) at U.S. consulates and embassies. The United States seeks to deny foreign nationals entrance into the United States if there is reason to believe that they are seeking to violate U.S. laws prohibiting the export of sensitive goods, technologies, or know-how. Consular officers are told to be especially cognizant of foreign nationals seeking admission to U.S. universities from countries of proliferation concern or state sponsors of terrorism, such as Iran, North Korea, and Libya. In particular, consular officers are asked to closely screen students seeking to study in any one of 16 sensitive fields ranging from nuclear technology to lasers. Consular officers should seek to identify any potential links between applicants and government weapons programs, and gather further information on programs of study and future work plans of students. Students seeking to study in sensitive military-related fields are advised by the State Department to expect possible delays while security checks are undertaken. Letters from university departments explaining fields of study or research are often required before researchers or students are granted visas.

Finally, following the September 2001 terror attacks, President Bush issued Homeland Security Presidential Directive 2 (HSPD-2), which states that the "Government shall implement measures to... prohibit certain international students from receiving education and training in sensitive areas." This directive led the White House to establish an Interagency Panel on Advanced Science Security (IPASS) to screen foreign graduate students, post-doctoral fellows, and scientists who apply to study sensitive topics in the United States. IPASS is comprised of officials from major U.S. science agencies, as well as the Departments of State, Justice, and Commerce. IPASS would be responsible for evaluating "the applicant's background, education and training, country of origin, area of study, training or research, and nature of the work conducted at the college or university, as well as the uniqueness of the knowledge, its availability,
and the terrorist groups or organizations that wanted to gain access to it."[2] The new Department of Homeland Security is studying how this program will be implemented.

Marvin Miller, a university professor at the Massachusetts Institute of Technology (MIT), has drawn attention to the problem of foreign students studying in areas related to weapons of mass destruction. In 1976, Miller was a professor of nuclear engineering at MIT, and found himself teaching nuclear engineering to 25 students from Iran. At the time, U.S. policy was to engage Iran, and despite raising concerns about the students’ activities, no action was taken. Today, many of these former students hold top positions in the Iranian nuclear program.[3] One problem facing U.S. authorities wanting to improve screening of foreign students stems from antipathy at U.S. universities. Many university officials are concerned about policies that might be seen as limiting academic freedom or be considered ethnic profiling.


**Workshops and Conferences**

**Seventh Regional Forum on Nonproliferation and Export Control**

The Seventh Regional Forum on Nonproliferation and Export Control will take place in Almaty, Kazakhstan, from June 2 to June 4. The governments of Kazakhstan and the United States are co-sponsoring the event. In addition to Kazakhstani and U.S. officials, delegates from Armenia, Azerbaijan, Georgia, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan will attend the meeting as well as observers from Afghanistan, Moldova, Ukraine and Russia. Representatives from a number of interested NGOs will also attend the meeting. The Ministry of Foreign Affairs of Kazakhstan has designated the Customs Control Agency as the lead agency for the conference. Conference participants will discuss a variety of current issues, such as radiological sources, the identification of new threats, policy trends, nuclear licensing, investigation and interdiction, international trade, and border security.

**PIR Center Conference on WMD and Export Controls**

On March 31-April 4, 2003, the Moscow-based PIR Center held a meeting on nonproliferation of weapons of mass destruction and export controls as part of its “Training Program for Young Specialists in the Field of WMD Nonproliferation and Arms Control,” an initiative sponsored by the John D. and Catherine T. MacArthur Foundation. The meeting was attended by 20 young specialists from nuclear facilities at Sarov, Snezhinsk, and Ozersk, as well as students from the universities of Nizhniy Novgorod, Tyumen, Voronezh, Kazan, and Yaroslavl. For more information on the training course, see the PIR Center website: <http://www.pircenter.org/english/news/index.htm>.

**Seminar on Goods Identification Held in Almaty**

An export control seminar on “Improving Export Control of Nuclear Materials: Identification of Goods Related to Nuclear Materials” was held in Almaty, Kazakhstan, from March 31 through April 2, 2003. The seminar was organized with the support of the U.S. Department of Energy in order to raise awareness among personnel of the Kazakhstani Customs Control Agency and the Border Guard Service regarding goods that are subject to export control. The seminar featured presentations by experts from Los Alamos, Oak Ridge, Argonne, and Pacific Northwest National Laboratories, and the Department of Energy’s National Nuclear Security Administration, who, among other subjects, described (without divulging classified information) how nuclear weapons are built. Participants received information on a range of devices and equipment that can be shipped in assembled condition or as parts. Primary focus was given to discussion of sensitive goods, such as special labels, packaging, material, and quality of metal. Methods of technical and visual examination of goods were also discussed.

Besides customs officials and border guards, seminar participants came from the Nuclear Physics Institute of the Kazakhstani National Nuclear Center, the Committee for Atomic Energy, the Center for Nuclear
Technology Safety, the Institute of Nuclear Energy, and the Center for Nonproliferation Studies of the Monterey Institute of International Studies.

**MTCR Featured in MIPT Lecture Series**

The Center for the Study of Disarmament, Energy, and the Environment at the Moscow Institute of Physics and Technology (MIPT) recently completed a series of lectures on Nonproliferation Regimes, Reduction of Weapons of Mass Destruction, and National Security. The lecture series, conducted by leading Russian experts, was intended for MIPT students and anyone interested in learning more about the political and technical aspects of nonproliferation and arms control. Much of the material for these courses may be found on the MIPT website at http://www.armscontrol.ru/course/default.htm.

One of the lectures offered by the Institute was a lecture on the Missile Technology Control Regime (MTCR) given by Glavkosmos expert Gennadiy Khromov on February 18, 2003. The lecture summarized the historical background of the Soviet Union’s position in relation to the MTCR as well as the current status of the regime. In brief, the MTCR restricts exports of delivery systems and related technology intended to deliver weapons of mass destruction (nuclear, chemical, or biological). The MTCR is a voluntary arrangement among states to limit exports of missile technologies. Currently there are 33 nations that are members of the MTCR. Though not members, China and Israel have agreed to abide by the regime standards. A summary of this lecture may be found in Russian at http://www.armscontrol.ru/course/lectures03a/gkh30218.htm.

**Correction**

An article in the April 2003 *NIS Export Control Observer*, “First Stage of 2003 EXBS Assistance to Tajikistan,” incorrectly stated that “the Export Control and Related Border Security (EXBS) program is funded by the U.S. Department of State and is administered by the U.S. Customs Service’s Office of International Affairs.” The U.S. Customs Service administers its programs in the EXBS, including the EXBS advisors who serve as points of contact in most countries. It does not, however, administer the EXBS programs implemented by other Departments, such as those run by the Department of Commerce, the Department of Energy, or the Department of State.

**Special Report**

**Boeing and Hughes Settle over Export Control Violations Regarding Technology Data Transfers to the People’s Republic of China**

By Kaleb Redden, Scoville Fellow, and Dennis Gormley, Senior Consultant, Center for Nonproliferation Studies

Boeing Satellite Systems, Inc., and Hughes Electronics Corporation concluded a record $32 million civil settlement with the U.S. State Department on March 4, 2003 regarding 123 counts of illegal transfers of space launch expertise and data to the People’s Republic of China (PRC). The transfers violated the Arms Export Control Act (AECA) and the International Traffic in Arms Regulations (ITAR). Hughes Space and Communications — a division of Hughes Electronics Corporation that was purchased by Boeing and renamed Boeing Satellite Systems — failed to obtain licenses necessary to complete these transfers. Had such licenses been requested, the State Department would have rejected the requests as inconsistent with the provisions of a 1988 bilateral Sino-U.S. agreement on technology safeguards that prohibit assistance to the PRC for the “design, development, operation, maintenance, modification, or repair of the launch facility or launch vehicle.”[1]

The Boeing and Hughes settlement comes a little more than a year after a January 2002 settlement by Loral Space and Communications with the State Department in which Loral agreed to pay a fine of $14 million and spend $6 million to improve its export control compliance program for improperly furnishing technical data to China that could have contributed to an improvement in the accuracy of Chinese rockets and military missiles.
The Boeing and Hughes settlement concludes a five-year investigation into U.S. companies’ aid to Chinese space launch programs as they sought to launch satellites on Chinese rockets.[2] The shortage of U.S. launch vehicles had caused competition among U.S. companies to launch satellites on Chinese rockets[3] (a practice the United States later prohibited because of concerns about Chinese aid to North Korean and Pakistani missile programs).[2] The insurance underwriters for the U.S. satellites began to question the efficacy of the Chinese program after the failure of several Chinese launches.[4] Though the PRC insisted that its space program needed no foreign assistance,[5] the launches became successful after American companies participated in studies and provided expert assessments to the PRC rocket program.[2] Transferring such technological expertise was adjudged to be prohibited because such assistance improved the reliability of PRC rockets useful for both civilian and military purposes.

On December 26, 2002, the State Department presented Boeing and Hughes with a formal charging letter — the civil equivalent of an indictment — detailing the allegations brought against them. The bulk of the charges were violations to ITAR section 127.1(a)(1), which provides that “it is unlawful to export or attempt to export from the United States any defense article or technical data or to furnish any defense service for which a license or written approval is required without first obtaining the required license or written approval from the Office of Defense Trade Controls.[1,6] The letter also suggested that Hughes was aware of the restrictions on such transfers, but proceeded nonetheless because of its interest in procuring future contracts with the PRC. As proof, it cited an internal Hughes document which said that “…it is time for Hughes to either ‘put up or shut up’ in regard to meeting their [sic] previously stated commitment of transferring technology to China. If we want to win APT [a contract with Asia Pacific Satellite Telecommunications Company], Hughes must make a real commitment to transferring technology to China.”[1]


The illicit transfers between the PRC and Hughes Space and Communications occurred through a variety of interactions. After the crash of its APSTAR II in 1995, for example, Hughes’ experts at various times notified Chinese authorities of design flaws in the PRC rocket’s venting system, nose dome, and rivets used to secure the rocket nose cone and the launch vehicle clamp band. They also identified telemetry data as an important means of assessing the failed launch and showed Chinese officials how their analyses of telemetry and accelerometer data were incorrect in several areas. In addition, Hughes experts pointed out likely problems with certain hardware associated with the rocket’s payload area. In some of these instances, Hughes officials provided technical drawings, photographs, models, or lengthy written reports; in others, they provided information on U.S. analytical techniques (e.g., for analyzing recovered debris) or compared parts of the Chinese launch vehicle with Western standards.[1]

Hughes maintained that it had complied with all licensing arrangements[7] and did not need additional licenses because they were not required.[1] Boeing became involved because it later purchased Hughes Space and Communications from Hughes Electronics Corp., in January 2000. Boeing claimed that Hughes, not it, was the responsible party because it had acquired the Hughes subsidiary after the exports to China occurred and negotiated in the purchase that Hughes retained responsibility for these transfers. The State Department continued to assert Boeing’s liability in the issue. Despite denying claims of wrongdoing, both companies entered into negotiations with the State Department soon after the charging letter was issued.[4]

The civil charges presented under the letter could have resulted in penalties as high as $500,000 per violation, totaling over $60 million, and include a prohibition on exporting controlled defense technologies for three years. The negotiated settlement of $32 million included a $20 million payment to the federal
government ($12 million to the U.S. Treasury and $8 million to the U.S. Customs Service) to settle a separate claim against the companies, $8 million to improve future export control compliance within the two companies, [8] and a $4 million credit for previous efforts by these companies to enhance their export control compliance. [9] The agreement also called for independent compliance officers to monitor the agreement and future transfers to China and the former Soviet Union, and left the State Department with the right to impose additional penalties if the companies fail to fulfill their settlement obligations or make similar transfers in the future. Perhaps most significantly, the settlement did not prohibit Boeing or Hughes from exporting controlled technologies during the next three years.

Following the settlement, Hughes and Boeing released a statement that acknowledged the dangers that such exports pose to national security, admitted that Hughes should have sought and obtained the proper licenses before making such disclosures, and committed to working with the U.S. government to prevent such transfers. The statement also admitted fault and retracted previous denials, saying, “The companies accept full responsibility and express regret for not having obtained licenses that should have been obtained, notwithstanding Hughes’ prior public comments to the contrary.” [10] Representatives Christopher Cox and Norm Dicks, the Congressmen who chaired the committee that investigated the transfers to China, praised the penalty as a strong reminder of the importance of vigilance in export controls, and applauded the companies’ pledges for remedial action. [2] Arguably, the Cox Committee’s 1998-99 investigation of illegal transfers to China, which included high-profile hearings and previously undisclosed evidence bearing on the transfers and their implications, stiffened the State Department’s resolve to pursue the outcome it eventually achieved.

Perhaps of greatest concern to the Cox Committee investigators was illegally transmitted technical information to China on ways to improve the Long March rocket’s fairing or nose cone, which serves as a shroud to protect the satellite being launched. Information on ways of improving missile fairings or shrouds could conceivably enhance the prospects for China to design and deploy advanced payloads, including ones with multiple warheads and penetration aids. China would naturally be motivated to develop such capabilities should the United States pursue a missile defense program that threatened China’s second-strike force of intercontinental ballistic missiles. Moreover, missile fairings or shrouds are also employed on submarine-launched ballistic missiles.

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