# **ATTACHMENT A**

## Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions, 1 July Through 31 December 2003

The Director of Central Intelligence (DCI) hereby submits this report in response to a congressionally directed action in Section 721 of the FY 1997 Intelligence Authorization Act, which states:

## "(a) Reports

The Director of Central Intelligence shall submit to Congress an annual report on -

- (1) The acquisition by foreign countries during the preceding 6 months of dualuse and other technology useful for the development or production of weapons of mass destruction (including nuclear weapons, chemical weapons, and biological weapons) and advanced conventional munitions; and
- (2) Trends in the acquisition of such technology by such countries."

### (b) Submittal dates

- (1) The report required by subsection (a) of this section shall be submitted each year to the congressional intelligence committees and the congressional leadership on an annual basis on the dates provided in section 415b of this title.
- (2) In this subsection:
  - (A) The term "congressional intelligence committees has the meaning given that term in section 401a of this title.
  - (B) The term "congressional leadership" means the Speaker and the minority leader of the House of Representative and the majority leader and the minority leader of the Senate.

## (c) Form of reports

Each report submitted under subsection (a) of this section shall be submitted in unclassified form, but may include a classified annex."

At the DCI's request, the DCI Weapons Intelligence, Nonproliferation, and Arms Control Center (WINPAC) drafted this report and coordinated it throughout the Intelligence Community (IC). As directed by Section 721, subsection (c) of the Act, it is unclassified. As such, the report does not present the details of the IC's assessments of weapons of mass destruction and advanced conventional munitions programs that are available in other classified reports and briefings for the Congress.

## Acquisition by Country

As required by Section 721 of the FY 1997 Intelligence Authorization Act, the following are country summaries of acquisition activities (solicitations, negotiations, contracts, and deliveries) related to weapons of mass destruction (WMD) and advanced conventional weapons (ACW) that occurred from 1 July through 31 December 2003. We have excluded countries that already have established WMD and ACW programs, as well as countries that demonstrated little WMD acquisition activity of concern.

#### Iran

Iran continued to vigorously pursue indigenous programs to produce nuclear, chemical, and biological weapons. Iran is also working to improve delivery systems as well as ACW. To this end, Iran continued to seek foreign materials, training, equipment, and know-how. During the reporting period, Iran still focused particularly on entities in Russia, China, North Korea, and Europe. Iran's nuclear program received significant assistance in the past from the proliferation network headed by Pakistani scientist A.Q. Khan.

**Nuclear.** The United States remains convinced that Tehran has been pursuing a clandestine nuclear weapons program, in contradiction to its obligations as a party to the Nuclear Non-proliferation Treaty (NPT). During 2003, Iran continued to pursue an indigenous nuclear fuel cycle ostensibly for civilian purposes but with clear weapons potential. International scrutiny and International Atomic Energy Agency (IAEA) inspections and safeguards will most likely prevent Tehran from using facilities declared to the IAEA directly for its weapons program as long as Tehran remains a party to the NPT. However, Iran could use the same technology at other, covert locations for military applications.

Iran continues to use its civilian nuclear energy program to justify its efforts to establish domestically or otherwise acquire the entire nuclear fuel cycle. Iran claims that this fuel cycle would be used to produce fuel for nuclear power reactors, such as the 1,000-megawatt light-water reactor that Russia is continuing to build at the southern port city of Bushehr. However, Iran does not need to produce its own fuel for this reactor because Russia has pledged to provide the fuel throughout the operating lifetime of the reactor and is negotiating with Iran to take back the irradiated spent fuel. An Iranian opposition group, beginning in August of 2002, revealed several previously undisclosed Iranian nuclear facilities, sparking numerous IAEA inspections since February 2003. Subsequent reports by the IAEA Director General revealed numerous failures by Iran to disclose facilities and activities, which run contrary to its IAEA safeguards obligations. Before the reporting period, the A. Q. Khan network provided Iran with designs for Pakistan's older centrifuges, as well as designs for more advanced and efficient models, and components.

The November 2003 report of the IAEA Director General (DG) to the Board of Governors describes a pattern of Iranian safeguards breaches, including the failure to: report the import and chemical conversion of uranium compounds, report the separation of plutonium from irradiated uranium targets, report the enrichment of uranium using both centrifuges and lasers, and provide design information for numerous fuel cycle facilities. In October 2003, Iran sent a report to the DG providing additional detail on its nuclear program and signed an agreement with the United Kingdom, France, and Germany that included an Iranian promise to suspend all enrichment and reprocessing efforts. On 18 December 2003, Iran signed the Additional Protocol (AP) to its IAEA Safeguards Agreement but took no steps to ratify the Protocol during this reporting period.

**Ballistic Missile**. Ballistic missile-related cooperation from entities in the former Soviet Union, North Korea, and China over the years has helped Iran move toward its goal of becoming self-sufficient in the production of ballistic missiles. Such assistance during 2003 continued to include equipment, technology, and expertise. Iran's ballistic missile inventory is among the largest in the Middle East and includes some 1,300-kmrange Shahab-3 medium-range ballistic missiles (MRBMs) and a few hundred shortrange ballistic missiles (SRBMs)—including the Shahab-1 (Scud-B), Shahab-2 (Scud C), and Tondar-69 (CSS-8)—as well as a variety of large unguided rockets. Already producing Scud SRBMs, Iran announced that it had begun production of the Shahab-3 MRBM and a new solid-propellant SRBM, the Fateh-110. In addition, Iran publicly acknowledged the development of follow-on versions of the Shahab-3. It originally said that another version, the Shahab-4, was a more capable ballistic missile than its predecessor but later characterized it as solely a space launch vehicle with no military applications. Iran is also pursuing longer-range ballistic missiles.

**Chemical**. Iran is a party to the Chemical Weapons Convention (CWC). Nevertheless, during the reporting period it continued to seek production technology, training, and expertise from foreign entities that could further Tehran's efforts to achieve an indigenous capability to produce nerve agents. Iran may have already stockpiled blister, blood, choking, and possibly nerve agents—and the bombs and artillery shells to deliver them—which it previously had manufactured.

**Biological**. Even though Iran is part of the Biological Weapons Convention (BWC), Tehran probably maintained an offensive BW program. Iran continued to seek dual-use biotechnical materials, equipment, and expertise that could be used in Tehran's BW program. Iran probably has the capability to produce at least small quantities of BW agents.

Advanced Conventional Weapons. Iran continued to seek and acquire conventional weapons and production technologies, primarily from Russia, China, and North Korea. Tehran also sought high-quality products, particularly weapons components and dual-use items, or products that proved difficult to acquire through normal governmental channels.

#### Iraq

In March of 2003, coalition forces took action under Operation Iraqi Freedom to remove the Saddam Hussein regime from power in Iraq. A large-scale effort has been under way to find the answers to the many outstanding questions about Iraq's WMD and delivery systems. We are not yet at the point where we can draw comprehensive or final conclusions about the extent of Iraq's prewar WMD program.

#### Libya

In March 2003, Libya approached the United Kingdom and United States expressing interest in coming clean about its WMD programs. In the course of discussions and visits, the Libyans made significant disclosures about their nuclear, chemical, and missile-related activities and minor disclosures about biological-related activities. A team of US and UK experts traveled to Libya in October and early December to receive detailed presentations and to visit a number of Libyan facilities. After extensive discussion during the three weeks of meetings, our experts were shown covert facilities and equipment and were told of years of Libyan efforts to develop weapons capabilities. In late December, the Libyan Government announced its intention to eliminate its nuclear and chemical weapons programs and MTCR class missiles as part of an effort to rejoin the community of nations.

Progress with the Libyans was made in four strategic areas:

*Nuclear.* Libya admitted to nuclear fuel cycle projects that were ultimately intended to support a nuclear weapons program, including uranium processing and enrichment. The team was given access to more than 10 sites connected to Libya's nuclear activities and examined a large amount of specialized nuclear equipment. Libya pledged to voluntarily eliminate its nuclear weapons program, abide by its IAEA safeguards agreement, as required by the Nuclear Non-Proliferation Treaty (NPT), and to act as though the Additional Protocol was in force, which requires adherents to provide information about, and the right of access to, all aspects of a Member State's nuclear fuel cycle activities and facilities. Libya's disclosures revealed that the A. Q. Khan network had provided Libya with designs for Pakistan's older centrifuges, as well as designs for more advanced and efficient models, and components.

**Chemical.** The Libyans showed us a significant quantity of sulfur mustard that was produced at the Pharma 150 plant near Rabta more than a decade ago, as well as aerial bombs designed to be filled with sulfur mustard agent. Libya also showed us equipment in storage that could be used to outfit a second CW production facility and dual-use chemical precursors that could be used to produce mustard and nerve agent. Libya reiterated its commitment to complete its accession to the Chemical Weapons Convention and requested assistance in destroying chemical warfare stockpiles.

**Biological.** Libya disclosed past intentions to acquire equipment and develop capabilities related to biological warfare, but it remains unclear if these activities were

offensive or defensive in nature. At the team's request, Libya took us to a number of civilian medical-, biotechnical- and agricultural- related research centers that have a "dual-use" potential to support BW-related work. The team was given access to scientists at these facilities.

**Ballistic Missile.** Libya provided extensive information on its Scud missile inventory, its efforts to develop longer-range missiles, and the assistance it obtained from North Korea and other sources.

#### North Korea

*Nuclear*. After announcing in early 2003 its withdrawal from the Treaty on Non-Proliferation of Nuclear Weapons (the NPT Treaty) and its intention to resume operation of nuclear facilities at Yongbyon, which had been frozen under the terms of the 1994 US-North Korea Agreed Framework, North Korea announced in early October 2003 that at the end of June it had completed reprocessing all of the 8,000 spent fuel rods previously under IAEA safeguards. They also said that all the plutonium derived from that reprocessing (an estimated 25 to 30 kilograms) was being used for increasing the size of its nuclear deterrent force. After announcing in early 2003 that the 5 Mwe reactor at Yongbyon had resumed operation, in October 2003 the North said that future spent fuel from the reactor will be reprocessed.

In late April 2003 during the Six Party Talks in Beijing, North Korea privately threatened to "transfer" or "demonstrate" its nuclear weapons. North Korea repeated these threats at the Six Party Talks in August 2003. In December 2003, North Korea proposed freezing its nuclear activities, including not *exporting* nuclear weapons, in exchange for rewards. We continued to monitor and assess North Korea's nuclear weapons efforts amidst diplomatic efforts to arrange a second round of Six Party Talks.

**Ballistic Missile**. North Korea is nearly self-sufficient in developing and producing ballistic missiles and continues to procure needed raw materials and components from various foreign sources. In the second half of 2003, North Korea continued to abide by its voluntary moratorium on flight tests adopted in 1998 but announced it may reconsider its September 2002 offer to continue the moratorium beyond 2003. The multiple-stage Taepo Dong-2— potentially capable of reaching parts of the United States with a nuclear-weapon-sized payload—may be ready for flight-testing. North Korea has demonstrated a willingness to sell complete ballistic missile systems and components that have enabled other states to acquire longer-range capabilities earlier than would otherwise have been possible and to acquire the basis for domestic development efforts.

**Chemical.** North Korea is not a party to the Chemical Weapons Convention (CWC). During the reporting period, Pyongyang continued to acquire dual-use chemicals that could potentially be used to support Pyongyang's long-standing CW program. North Korea's CW capabilities included the ability to produce bulk quantities of nerve, blister, choking, and blood agent, using its sizable, although aging, chemical

industry. North Korea may possess a stockpile of unknown size of these agents and weapons, which it could employ in a variety of delivery means.

**Biological.** North Korea has acceded to the Biological and Toxin Weapons Convention but nonetheless has pursued BW capabilities since the 1960s. Pyongyang acquired dual-use biotechnical equipment, supplies, and reagents that could be used to support North Korea's BW program. North Korea is believed to possess a munitions production infrastructure that would have allowed it to weaponize BW agents and may have some such weapons available for use.

## Syria

*Nuclear*. Syria—an NPT signatory with full-scope IAEA safeguards—has a nuclear research center at Dayr Al Hajar. Russia and Syria have continued their long-standing agreements on cooperation regarding nuclear energy, although specific assistance has not yet materialized. Broader access to foreign expertise provides opportunities to expand its indigenous capabilities, and we are monitoring Syrian nuclear intentions with concern.

**Ballistic Missile**. During 2003, Damascus continued to seek help from abroad to establish a solid-propellant rocket motor development and production capability. Syria's liquid-propellant missile program continued to depend on essential foreign equipment and assistance—primarily from North Korean entities. Damascus also continued to manufacture liquid-propellant Scud missiles. In addition, Syria was developing longer-range missile programs, such as a Scud D, and possibly other variants with assistance from North Korea and Iran.

**Chemical and Biological.** Syria continued to seek CW-related technology from foreign sources during the reporting period. Damascus already held a stockpile of the nerve agent sarin, but apparently has tried to develop more toxic and persistent nerve agents. Syria remained dependent on foreign sources for key elements of its CW program, including precursor chemicals and key production equipment. Syria probably also continued to develop a BW capability.

**Advanced Conventional Weapons.** Damascus's Soviet-era debt to Moscow and inability to fund large purchases continued to hamper efforts to purchase the large quantity of equipment Syria requires to replace its aging weapons inventory.

# Chemical, Biological, Radiological, and Nuclear Terrorism

The threat of terrorists using chemical, biological, radiological, and nuclear (CBRN) materials remained high. Many of the 33 designated foreign terrorist organizations and other nonstate actors worldwide have expressed interest in using CBRN; however, most attacks probably will be small-scale, incorporating improvised delivery means and easily produced or obtained chemicals, toxins, or radiological substances. Although terrorist groups probably will continue to favor long-proven conventional tactics, such as bombings and shootings, the arrest of ricin plotters in London in January 2003 indicated that international mujahidin terrorists were actively plotting to conduct chemical and biological attacks.

Increased publicity surrounding the anthrax incidents since the September 11 attacks has highlighted the vulnerability of civilian and government targets to CBRN attacks.

One of our highest concerns is al-Qa'ida's stated readiness to attempt unconventional attacks against us. As early as 1998, Usama Bin Ladin publicly declared that acquiring unconventional weapons was "a religious duty." In 2003, an extremist cleric who supports al-Qa'ida issued a fatwa that purports to provide a religious justification for the use of WMD against the United States.

Al-Qa'ida and associated extremist groups have a wide variety of potential agents and delivery means to choose from for CBRN attacks. The success of any al-Qa'ida attacks and the number of ensuing casualties would depend on many factors, including the technical expertise of those involved, but most scenarios could cause panic and disruption.

- Several groups of mujahidin associated with al-Qa'ida have planned "poison plot" attacks in Europe with easily produced chemicals and toxins best suited to assassination and small-scale scenarios. These agents could cause hundreds of casualties and widespread panic if used in multiple simultaneous attacks.
- Analysis of an al-Qa'ida document recovered in Afghanistan in the summer of 2002 indicates the group has crude procedures for making mustard agent, sarin, and VX.
- Both 11 September attack leader Mohammad Atta and Zacharias Moussaoui arrested by the FBI before the 11 September attacks—expressed interest in crop dusters, raising our concern that al-Qa'ida has considered using aircraft to disseminate BW agents.
- Al-Qa'ida is interested in radiological dispersal devices (RDDs) or "dirty bombs." Construction of an RDD is well within its capabilities as radiological materials are relatively easy to acquire from industrial or medical sources.

Documents and equipment recovered from al-Qa'ida facilities in Afghanistan show that al-Qa'ida had conducted research on biological agents. We believe al-

Qa'ida's BW program is primarily focused on anthrax for mass casualty attacks, although the group most likely will pursue opportunities to produce and use other biological agents in smaller-scale attacks.

Information from 2003 details the construction of a terrorist cyanide-based chemical weapon that can be made with easily available items, requiring little or no training to assemble and deploy. The plans are widely available to any terrorist. Such a device could produce a lethal concentration of poisonous gases in an enclosed area.

Usama Bin Ladin and other al-Qa'ida leaders have stated that al-Qa'ida has a religious duty to acquire nuclear weapons. Documents recovered in Afghanistan during Operation Enduring Freedom show that al-Qa'ida was engaged in rudimentary nuclear research, although the extent of its indigenous program is unclear. Outside experts, such as Pakistani nuclear engineer Bashir al-Din Mahmood may have provided some assistance to al-Qa'ida's program. Bashir, who reportedly met with Bin Ladin, discussed information concerning nuclear weapons. Al-Qa'ida has been seeking nuclear material since the early 1990s, according to the testimony of a government witness—Jamal Ahmad Fadl—during the 2001 trail on the al-Qa'ida bombings of the American Embassies in Tanzania and Kenya. Fadl claimed that al-Qa'ida pursued the sale of what they believed was enriched uranium in Sudan in the early 1990s. This effort may have been a "scam" operation, and there is no credible evidence al-Qa'ida actually acquired the uranium. Al-Qa'ida has been the victim of other nuclear "scams" in the past, but it probably has become sensitized to such operations in recent years, in part due to media coverage of nuclear smuggling and scam operations.

In addition, we are alert to the very real possibility that al-Qa'ida or other terrorist groups might also try to launch conventional attacks against the chemical or nuclear industrial infrastructure of the United States to cause panic and economic disruption. In a video aired by Al-Jazirah in September 2002, senior al-Qa'ida members said they had contemplated striking nuclear power plants early in their decision making on targets but dropped the idea for fear it would "get out of control."

# **Key Suppliers**

## Russia

During 2003, Russia's struggling defense, biotechnology, chemical, aerospace, and nuclear industries continued to be eager to raise funds via exports and transfers. Some Russian universities and scientific institutes also showed a willingness to earn funds by providing WMD or missile-related teaching and training for foreign students. The Russian Government's efforts to stem proliferation remained an important element of US bilateral dialogue with Russia.

*Nuclear.* Russia continues to play a key role in constructing light-water nuclear power reactors in Iran, China, and India. Moscow has pledged to supply fuel to the Bushehr reactor in Iran for the life of the reactor and is negotiating with Iran to sign an agreement on the return of the irradiated spent fuel to Russia.

**Ballistic Missile**. Russian entities during the reporting period continued to supply a variety of ballistic missile-related goods and technical know-how to countries such as Iran, India, and China. Iran's earlier success in gaining technology and materials from Russian entities helped accelerate Iranian development of the Shahab-3 MRBM, and continuing Russian entity assistance has supported Iranian efforts to develop new missiles and increase Tehran's self-sufficiency in missile production.

*Chemical and Biological*. During the second half of 2003, Russian entities remained a key source of dual-use biotechnology equipment, chemicals, and related expertise for countries of concern with active CBW programs. Russia's well-known biological and chemical expertise made it an attractive target for countries seeking assistance in areas with CBW applications.

Advanced Conventional Weapons. Russia continued to be a major supplier of conventional arms. In 2003, Russia was an important source of ACW for China, Iran, Libya, Sudan, Syria and India. Russia continued to be the main supplier of technology and equipment to India's and China's naval nuclear propulsion programs. Moscow continued negotiations with New Delhi for a package deal, which includes a refurbished aircraft carrier with a MiG-29K air wing, as well as a lease of Tu-22M Backfire bombers and at least one Akula-class nuclear attack submarine. During 2003, Russia continued work with India on the PJ-10 antiship/land-attack cruise missile.

**Export Controls.** Despite progress in creating a legal and bureaucratic framework for Russia's export controls, lax enforcement remains a serious concern. To reduce the outward flow of WMD and missile-related materials, technology, and expertise, top Russian officials must make a sustained effort to convince exporting entities—as well as the bureaucracy whose job it is to oversee them—that nonproliferation is a top priority and that those who violate the law will be prosecuted.

### North Korea

*Nuclear.* In late April 2003 during trilateral talks in Beijing, North Korea privately threatened to "transfer" or "demonstrate" its nuclear weapons. It repeated these threats in August 2003 at the Six Party Talks. In December 2003, North Korea proposed to "freeze" its nuclear activities, including not transferring nuclear weapons, in exchange for rewards.

**Ballistic Missile**. Throughout the second half of 2003, North Korea continued to export significant ballistic missile-related equipment, components, materials, and technical expertise to the Middle East, South Asia, and North Africa. Pyongyang attached high priority to the development and sale of ballistic missiles, equipment, and related technology. Exports of ballistic missiles and related technology were one of the North's major sources of hard currency, which supported ongoing missile development and production.

### China

Over the past several years, Beijing improved its nonproliferation posture through commitments to multilateral nonproliferation regimes, promulgation of expanded export controls, and strengthened oversight mechanisms, but the proliferation behavior of Chinese companies remains of great concern.

*Nuclear.* China has taken some positive steps during the reporting period. In September 2003, China stopped at the China-North Korea border a shipment of chemicals that could have been used in North Korea's nuclear program. China also decided in late 2003 that it would apply for membership in the Nuclear Suppliers Group (NSG), indicating that it intends to embrace the policy of full scope safeguards (FSS)– which is required for NSG membership–as a condition of nuclear supply to non-nuclear weapons states (NNWS).

**Ballistic Missile**. China is not a member of the MTCR, but in October 1994 it pledged not to sell MTCR Category I ground-to-ground missiles.

Although Beijing continues to take some steps to educate firms and individuals on the new missile-related export regulations — offering an export control seminar in September 2003 for officials and companies from China and other countries — Chinese entities continued to work with Pakistan and Iran on ballistic missile-related projects during the second half of 2003. Chinese entity assistance has helped Pakistan move toward domestic serial production of solid-propellant SRBMs and has supported Pakistan's development of solid-propellant MRBMs. Chinese-entity ballistic missile-related assistance helped Iran move toward its goal of becoming self-sufficient in the production of ballistic missiles. In addition, firms in China provided dual-use missile-related items, raw materials, and/or assistance to several other countries of proliferation concern—such as Iran, Libya, and North Korea. The United States imposed sanctions on a number of Chinese entities during the reporting period, including the China North Industries Corporation (NORINCO) and the China Precision Machinery Import/Export Corporation (CPMIEC).

*Chemical*. Evidence during the current reporting period showed that Chinese firms still provided dual-use CW-related production equipment and technology to Iran.

**Advanced Conventional Weapons**. During 2003, China remained a primary supplier of advanced conventional weapons to Pakistan, Sudan, and Iran. Islamabad also continued to negotiate with Beijing for China to build frigates for Pakistan's Navy and to cooperate in developing the FC-1 fighter aircraft.

#### Other Countries

Countries of proliferation concern continued to approach entities in Western Europe, South Asia, and the United States to provide needed acquisitions for their WMD and missile programs. Proliferators and associated networks continued to seek machine tools, spare parts for dual-use equipment, and widely available materials, scientific equipment, and specialty metals. Although West European countries strove to tighten export control regulations, Iran continued to successfully procure dual-use goods and materials from Europe. In addition, several West European countries remained willing to negotiate ACW sales to India, Pakistan, and other countries in order to preserve their domestic defense industries. North Korea approached Western European entities to obtain acquisitions for its uranium enrichment program. A shipment of aluminum tubing-enough for 4,000 centrifuge tubes-was halted by German authorities.

Some West European entities remained an important source for the proliferation of WMD- and missile-related information and training. The relatively advanced research of European institutes, the availability of relevant dual-use studies and information, the enthusiasm of scientists for sharing their research, and the availability of dual-use training and education may have shortened development time for some WMD and missile programs.

## **Emerging State and Nonstate Suppliers**

As nuclear, biological, chemical, and ballistic missile-applicable technologies continued to be more available around the world, new sources of supply have emerged that made the challenge of stemming WMD and missile proliferation even more complex and difficult. Nuclear fuel-cycle and weapons-related technologies have spread to the point that, from a technical view, additional states may be able to produce sufficient fissile material and to develop the capability to weaponize it. As developing countries expanded their chemical industries into pesticide production, they also advanced toward at least latent chemical warfare capability. Likewise, additional nonstate actors became more interested in the potential of using biological warfare as a relatively inexpensive way to inflict serious damage. The proliferation of increasingly capable ballistic missile designs and technology posed the threat of more countries of concern developing longer-range missiles and imposing greater risks to regional stability.

In this context, there was a growing concern that additional states, that have traditionally been recipients of WMD and missile-related technology, might have followed North Korea's practice of supplying specific WMD-related technology and expertise to other countries or by going one step further to supply such expertise to nonstate actors. Even in cases where states took action to stem such transfers, knowledgeable individuals or non-state purveyors of WMD- and missile-related materials and technology could act outside government constraints. The exposure of the A. Q. Khan network and its role in supplying nuclear technology to Libya, Iran, and North Korea illustrate one form of this threat, but commercial purveyors of dual-use technologies who routinely seek to circumvent international export control regimes to deliver WMD-related equipment and material to WMD-aspirant countries are of grave concern as well.