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 requires:

“(a) Not later than 6 months after the date of the enactment of this Act, and every 6 months thereafter, the Director of Central Intelligence shall submit to Congress a report on

(1) the acquisition by foreign countries during the preceding 6 months of dual-use 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.”

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. As directed by Section 721, subsection (b) of the Act, it is unclassified. As such, the report does not present the details of the Intelligence Community’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 January through 30 June 2003. We have excluded countries that already have established WMD programs, as well as countries that demonstrated little WMD acquisition activity of concern.

Iran

Iran continued to vigorously pursue indigenous programs to produce WMD—nuclear, chemical, and biological—and their 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.

Nuclear. The United States remains convinced that Tehran has been pursuing a clandestine nuclear weapons program, in violation of its obligations as a party to the Nuclear Nonproliferation Treaty (NPT). To bolster its efforts to establish domestic nuclear fuel-cycle capabilities, Iran sought technology that can support fissile material production for a nuclear weapons program.

Iran tried to use its civilian nuclear energy program to justify its efforts to establish domestically or otherwise acquire assorted nuclear fuel-cycle capabilities. In August 2002, an Iranian opposition group disclosed that Iran was secretly building a heavy water production plant and a "nuclear fuel" plant. Press reports later in the year confirmed these two facilities using commercial imagery and clarified that the "fuel" plant was most likely a large uranium centrifuge enrichment facility located at Natanz. Commercial imagery showed that Iran was burying the enrichment facility presumably to hide it and harden it against military attack. Following the press disclosures, Iran announced at the International Atomic Energy Agency (IAEA) September 2002 General Conference that it had "ambitious" nuclear fuel cycle plans and intended to develop all aspects of the entire fuel cycle. By the end of 2002, the IAEA had requested access to the enrichment facility at Natanz, and the IAEA Director General (DG) for the first time visited the facility in February 2003. The IAEA is investigating the newly disclosed facilities, and previously undisclosed nuclear material imports to determine whether Iran has violated its NPT-required IAEA safeguards agreement in developing these facilities and their related technologies. At the June 2003 Board of Governors meeting, the IAEA DG presented a report on the Iranian program noting Tehran had failed to meet its safeguards obligations in a number of areas. The DG's report described a pattern of Iranian safeguards failures related to the undeclared import and processing of uranium compounds in the early 1990s, expressed concern over the lack of cooperation from Iran with IAEA inspections, and identified a number of unresolved concerns in Iran's program that the IAEA will continue to investigate. The IAEA Board on 19 June welcomed the report and called on Iran to answer all IAEA questions, cooperate fully with IAEA inspectors, and sign and implement an Additional Protocol immediately and unconditionally.
Although Iran claims that its nascent enrichment plant is to produce fuel for the Russian-assisted construction projects at Bushehr and other possible future power reactors, we remain concerned that Iran is developing enrichment technology to produce fissile material for nuclear weapons under the cover of legitimate fuel cycle activities. Iran appears to be embarking on acquiring nuclear weapons material via both acquisition paths—highly enriched uranium and low burn-up plutonium. Even with intrusive IAEA safeguards inspections at Natanz, there is a serious risk that Iran could use its enrichment technology in covert activities. Of specific proliferation concern are the uranium centrifuges discovered at Natanz, which are capable of enriching uranium for use in nuclear weapons. Iran claims its heavy water plant is for peaceful purposes. In June, Iran informed the IAEA that it is pursuing a heavy water research reactor that we believe could produce plutonium for nuclear weapons. We also suspect that Tehran is interested in acquiring fissile material and technology from foreign suppliers to support its overall nuclear weapons program.

**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 the first half of 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-km-range Shahab-3 medium-range ballistic missiles (MRBMs) and a few hundred short-range 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 Chinese entities that could further Tehran’s efforts to achieve an indigenous capability to produce nerve agents. Iran likely has already stockpiled blister, blood, choking, and probably 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. While such materials had legitimate uses, Iran’s biological warfare (BW) program also could have benefited from them. It is likely that Iran has capabilities to produce small quantities of BW agents, but has a limited ability to weaponize them.

**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**

During the period covered by this report, coalition forces took action under
Operation Iraqi Freedom to remove the Saddam Hussein regime from power in Iraq. A
large-scale effort is currently underway to find the answers to the many outstanding
questions about Iraq's WMD and delivery systems.

**North Korea**

**Nuclear.** In December 2002, North Korea announced 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. IAEA seals and monitoring equipment
were removed and disabled, and IAEA inspectors expelled from the country.

On 10 January 2003, North Korea announced its intention to withdraw from the
Treaty on Non-Proliferation of Nuclear Weapons (the NPT Treaty). In late February
2003, North Korea restarted its 5 Mwe reactor which could produce spent fuel rods
containing plutonium.

In late April 2003, North Korea told US officials that it possessed nuclear
weapons, and signaled its intent to reprocess the 1994 canned spent fuel for more
nuclear weapons. On 9 June, North Korea openly threatened to build a nuclear
deterrent force. We continued to monitor and assess North Korea's nuclear weapons
efforts.

**Ballistic Missile.** North Korea also has continued procurement of raw materials
and components for its extensive ballistic missile programs from various foreign
sources. In the first 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 extend the moratorium beyond 2003. The multiple-stage
Taepo Dong-2—capable of reaching parts of the United States with a nuclear weapon-
sized payload—may be ready for flight-testing. North Korea is nearly self-sufficient in
developing and producing ballistic missiles, and has demonstrated a willingness to sell
complete 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 chemical
warfare program. North Korea's chemical warfare capabilities included the ability to
produce bulk quantities of nerve, blister, choking and blood agent, using its sizeable,
although aging, chemical industry. North Korea possesses 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 biological warfare (BW) capabilities since the 1960s. Pyongyang acquired dual-use biotechnical equipment, supplies, and reagents that could be used to support North Korea's BW efforts. As of the first half of 2003, North Korea was believed to have possessed a munitions production infrastructure that would have allowed it to weaponize BW agents, and may have such weapons available for use.

**Libya**

**Nuclear.** An NPT party with full-scope IAEA safeguards, Libya continued to develop its nuclear infrastructure. The suspension of UN sanctions provided Libya the means to enhance its nuclear infrastructure through foreign cooperation and procurement efforts. Tripoli and Moscow continued talks on cooperation at the Tajura Nuclear Research Center and a potential power reactor deal. Such civil-sector work could have presented Libya with opportunities to pursue technologies also suitable for military purposes. In addition, Libya participated in various technical exchanges through which it could have tried to obtain dual-use equipment and technology that could have enhanced its overall technical capabilities in the nuclear area. Although Libya made political overtures to the West in an attempt to strengthen relations, Libya's assertion that Arabs have the right to nuclear weapons in light of Israel and its nuclear program—as Qadhafi stated in a televised speech in March 2002, for example—and Tripoli's continued interest in nuclear weapons and nuclear infrastructure upgrades raised concerns.

**Ballistic Missile.** The suspension of UN sanctions in 1999 allowed Libya to expand its efforts to obtain ballistic missile–related equipment, materials, technology, and expertise from foreign sources. During the first half of 2003, Libya continued to depend on foreign assistance—particularly from Serbian, Indian, Iranian, North Korean, and Chinese entities—for its ballistic missile development programs. Libya's capability therefore may not still be limited to its Soviet-origin Scud-B missiles. With continued foreign assistance, Libya will likely achieve an MRBM capability—a long-desired goal—probably through direct purchase from North Korea or Iran.

**Chemical and Biological.** Libya also remained heavily dependent on foreign suppliers for CW precursor chemicals and other key related equipment. Following the suspension of UN sanctions, Tripoli reestablished contacts with sources of expertise, parts, and precursor chemicals abroad, primarily in Western Europe. Libya has indicated—as evidenced by its observer status at the April 2003 Chemical Weapons Convention Review Conference and previous Convention Conferences of States Parties—a willingness to accede to the CWC. Such efforts are consistent with steps that Tripoli is taking to improve its international standing. Tripoli still appeared to be working toward an offensive CW capability and eventual indigenous production. Evidence suggested that Libya also sought dual-use capabilities that could be used to develop and produce BW agents.
**Advanced Conventional Weapons.** Libya continued to seek new advanced conventional weapons and received assistance from other countries in maintaining its inventory of Soviet-era weapons.

**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 looking at Syrian nuclear intentions with growing concern.

**Ballistic Missile.** During the first half of 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 expertise from foreign sources during the reporting period. Damascus already held a stockpile of the nerve agent sarin, but apparently 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. It is highly probable that Syria also continued to develop an offensive BW capability.

**Advanced Conventional Weapons.** Syria continued to acquire limited quantities of ACW, mainly from Russia. 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.

**Sudan**

**Chemical and Biological.** Although Sudan has aspired to a CW program, the US is working with Sudan to reconcile concerns about its past attempts to seek capabilities from abroad.

**Advanced Conventional Weapons.** During the reporting period, Sudan sought a variety of military equipment from various sources and received Mi-24 attack helicopters from Russia. In the long-running civil war, as well as for a general military modernization campaign, Khartoum has generally sought older, less expensive ACW and conventional weapons that nonetheless offered more advanced capabilities than the weapons of its opponents and their supporters in neighboring countries. We continued to remain concerned that Sudan might seek a ballistic missile capability in the future.
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 CBRN. 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."

Individuals from terrorist groups worldwide undertook poison training at al-Qa'ida-sponsored camps in Afghanistan and have ready access to information on chemical, biological, radiological, and to some extent, even nuclear weapons, via the Internet, publicly available scientific literature, and scientific conferences, and we know that al-Qa'ida was working to acquire some of the most dangerous chemical agents and toxins. A senior Bin Ladin associate on trial in Egypt in 1999 claimed his group had chemical and biological weapons. Documents and equipment recovered from al-Qa'ida facilities in Afghanistan show that Bin Ladin had a more sophisticated unconventional weapons research program than was previously known.

We also know that al-Qa'ida has ambitions to acquire or develop nuclear weapons and was receptive to any outside nuclear assistance that might become available. In February 2001, during the trial on the al-Qa'ida bombings of the American Embassies in Tanzania and Kenya, a government witness—Jamal Ahmad Fadl—testified that al-Qa'ida pursued the sale of a quantity of purported enriched uranium (which in fact probably was scam material) in Sudan in the early 1990s.

We assess that terrorist groups are capable of conducting attacks using crude radiological dispersal devices—i.e., ones that would not cause large-scale casualties, even though they could cause tremendous psychological effects, and possibly create considerable economic disruption as well. This type of threat first appeared in November 1995 when Chechen rebels placed a package containing radioactive cesium on a bench in Moscow's Izmailovo Park. 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.
Key Suppliers

Russia

During the first half of 2003, Russia’s cash-strapped 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 much-needed funds by providing WMD or missile-related teaching and training for foreign students. Given the large potential proliferation impact of such exports, transfers, and training, monitoring the activities of specific entities as well as the overall effectiveness of the Russian Government’s nonproliferation regime remained an important element of the US bilateral dialogue with Russia on nonproliferation.

Nuclear. During the first half of 2003, Russia continued to play a key role in constructing the Bushehr Nuclear Power Plant project in Iran. However, President Putin has insisted that all Iranian programs in the nuclear field be placed under IAEA control.

President Putin in May 2000 amended the presidential decree on nuclear exports to allow Russia in exceptional cases to export nuclear materials, technology, and equipment to countries that do not have full-scope IAEA safeguards. For example, Russia supplied India with material for its civilian nuclear program in 2001.

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 to 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 first 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. Following Moscow’s abrogation of the Gore-Chernomyrdin agreement in November 2000, Russian officials stated that they saw Iran as a significant source of potential revenue from arms sales and believed that Tehran could become Russia’s third-largest conventional arms customer after China and India. In 2001, Russia was the primary source of ACW for China, Iran, Libya, and Sudan, and one of the largest sources for India. As an example, Russia actively marketed its thermobaric weapons at international arms shows, which likely increases the availability of this type of weapon in the open market.
Russia continued to be the main supplier of technology and equipment to India’s and China’s naval nuclear propulsion programs. In addition, Russia discussed leasing nuclear-powered attack submarines to India.

Export Controls. The Duma enacted new export control legislation in 1999, and Putin in 2000 and 2001 reorganized the export control bureaucracy to establish an interdepartmental export control coordinating body, the Export Control Commission of the Russian Federation. This organization was to establish federal oversight over export control, including compliance with international export control standards. Further, in 2001, Putin signed into effect several of the new law’s implementing decrees, which updated export control lists for biological pathogens, chemicals, missiles, and related dual-use technologies and equipment. In May 2002, Russia amended its criminal code to allow for stricter punishment for violations involving the illegal export of material, equipment, and scientific-technical information that may be used in creating WMD or military equipment. The Code of Administrative Violations was also updated and became law as of July 2002. This enactment provided the Department for Export Control (under the Ministry of Economic Development and Trade) with significant administrative enforcement authority. In May 2003, President Putin signed the new Customs Code of the Russian Federation that simplifies customs rules and procedures with the ultimate goal of reducing red tape and arbitrary actions of customs officers. The Code also brings Russia in compliance with the Kyoto Convention on Simplification and Harmonization of Customs Procedures.

Despite progress in creating a legal and bureaucratic framework for Russia’s export controls, lax enforcement remained a serious concern. To reduce the outward flow of WMD and missile-related materials, technology, and expertise, top 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 the Beijing talks, North Korea privately threatened to export nuclear weapons.

Ballistic Missile. Throughout the first 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 arms control regimes, promulgation of export controls, and
strengthened oversight mechanisms, but the proliferation behavior of Chinese companies remains of great concern.

_Nuclear_. In October 1997, China agreed to end cooperation with Iran on supplying a uranium conversion facility (UCF), not to enter into any new nuclear cooperation with Iran, and to bring to conclusion within a reasonable period of time the two existing projects. We remained concerned that some interactions of concern between Chinese and Iranian entities were continuing. China also made bilateral pledges to the United States that go beyond its 1992 NPT commitment not to assist any country in the acquisition or development of nuclear weapons. For example, in May 1996, Beijing pledged that it would not provide assistance to unsafeguarded nuclear facilities. We cannot rule out, however, some continued contacts subsequent to the pledge between Chinese entities and entities associated with Pakistan’s nuclear weapons program.

_Ballistic Missile_. In November 2000, China committed not to assist, in any way, any country in the development of ballistic missiles that could be used to deliver nuclear weapons, and in August 2002, as part of its commitment, promulgated a comprehensive missile-related export control system, similar in scope to the Missile Technology Control Regime (MTCR) Annex. China is not a member of the MTCR, but on several occasions has pledged not to sell MTCR Category I systems.

Although Beijing has taken some steps to educate firms and individuals on the new missile-related export regulations—offering its first national training course on Chinese export controls in February 2003—Chinese entities continued to work with Pakistan and Iran on ballistic missile-related projects during the first half of 2003. Chinese entity assistance has helped Pakistan move toward domestic serial production of solid-propellant SRBMs and 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.

_Chemical_. Since 1997, the US imposed numerous sanctions against Chinese entities for providing material support to the Iranian CW program. Evidence during the current reporting period showed that Chinese firms still provided dual-use CW-related production equipment and technology to Iran. In October 2002, China promulgated new controls on biological items and updated chemical-related regulations, and now claims to control all major items on the Australia Group lists.

_Advanced Conventional Weapons_. During the first half of 2003, China remained a primary supplier of advanced conventional weapons to Pakistan and Iran. Islamabad also continued to negotiate with Beijing for China to build up to four frigates for Pakistan’s navy and to develop the FC-1 fighter aircraft.

_Other Countries_  

Countries of proliferation concern continued to approach entities in Western Europe, South Asia, and the US 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 western European countries strove to tighten export control regulations, Iran continued to successfully procure dual-use goods and materials from Europe. In addition, several Western European countries remained willing to negotiate ACW sales to Libya, 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.

Western European countries were still 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 Non-State Suppliers**

As nuclear, biological, chemical, and ballistic missile-applicable technologies continued to be more available around the world, new sources of supply 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 non-state 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 non-state actors. Even in cases where states took action to stem such transfers, there were growing numbers of knowledgeable individuals or non-state purveyors of WMD- and missile-related materials and technology, who were able to act outside government constraints. Such non-state actors were increasingly capable of providing technology and equipment that previously could only be supplied directly by countries with established capabilities.