Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions, Covering 1 January to 31 December 2008

The Deputy Director of National Intelligence for Analysis 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 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."

(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."

CIA's Weapons Intelligence, Nonproliferation, and Arms Control Center (WINPAC) drafted this report. The National Intelligence Council reviewed and coordinated it within the Intelligence Community (IC). As directed by Section 721, subsection (c) of the Act, this report is unclassified. It 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.

I. Acquisition by Country

As required by Section 721 of the Fiscal Year 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 31 December 2008. This report focuses on key countries that we assess are seeking WMD capabilities.

Iran

Nuclear

We assess that Iran had been working to develop nuclear weapons through at least fall 2003, but that in fall 2003 Iran halted its nuclear weapons design and weaponization activities, and its covert uranium conversion- and enrichment-related activities. We judge that the halt lasted at least several years, and that Tehran had not resumed these activities as of at least mid-2007. We do not know whether Iran currently intends to develop nuclear weapons, although we assess Tehran at a minimum is keeping open the option to develop nuclear weapons by continuing to develop a range of technical capabilities that could be applied to producing nuclear weapons, if a decision is made to do so.

During the reporting period, Iran continued to expand its nuclear infrastructure and continued uranium enrichment and activities related to its heavy water research reactor, despite multiple United Nations Security Council Resolutions since late 2006 calling for the suspension of those activities.

- In 2008, Iran continued to make progress enriching uranium at the underground cascade halls at Natanz with first-generation centrifuges, and in testing and operating second-generation centrifuges at the pilot plant there.

- In November 2008, Iran announced it had about 5,000 centrifuges operating at Natanz. The International Atomic Energy Agency (IAEA) reported that between mid-December 2007 and November 2008, Iran fed about 8,080 kilograms of uranium feed gas into its cascades, and produced about 555 kilograms of low enriched uranium (LEU) gas (uranium hexafluoride) at an enrichment level appropriate for reactor fuel, a significant improvement from the 75 kilograms of LEU gas it had produced in 2007.

- Iran has also fed small amounts of uranium feed gas to its second generation centrifuges—the IR-2, since January 2008, and the IR-3, since April 2008.

- Iran in January 2008 received the final delivery of the initial batch of uranium fuel purchased from Russia required to operate the nuclear reactor at Bushehr. Delays in the project pushed the reactor's startup time into 2009.

- Iran in 2008 continued construction of the reactor buildings at the IR-40 Heavy Water Research Reactor, including installing a dome on the reactor containment building by mid-November.

- The IAEA in 2008 continued to investigate the "alleged studies" documentation—information indicating Iran conducted military-led, covert uranium conversion and nuclear weaponization work prior to 2003. According to the November 2008 Director General's Report to the Board of Governors, the "alleged studies" issue remains unresolved and the IAEA continues to call on Iran to provide further clarification.

Ballistic Missiles

Iran has continued to develop its ballistic missile program, which it views as its primary deterrent. Iran is fielding increased numbers of short- and medium-range ballistic missiles (SRBMs, MRBMs) and we judge that Iran currently is focusing on producing more capable MRBMs. Iran's ballistic missile inventory is one of the largest in the Middle East.

The Shahab-3 MRBM, capable of striking Israel, was formally handed over to the Iranian military in July 2003. During a military parade in September 2007, Iran displayed a missile, referred to as the Ghadr-1, which Iranian officials claimed had a range of 1,800-km.

Iran's defense ministry in 2005 stated that it had successfully tested an engine for a 2,000km ballistic missile and implied it would have two-stages--a key technology in the development of longer-range ballistic missiles. In late November 2007, Iran's defense minister claimed Iran had developed a new 2000 km-range missile called the Ashura. Iranian officials on 12 November 2008 claimed to have launched a two stage, solid propellant missile called the Sejil with a range of 2,000 km.

As early as 2005, Iran has stated its intentions to send its own satellites into orbit. In 2005, Iran's first satellite with an imagery payload, Sina-1, was launched on a Russian rocket, and Iran signed a $132 million deal with a Russian firm to build and launch a communications satellite. As of January 2008, Tehran reportedly had allocated $250 million to build and purchase satellites. Iran announced it would launch four more satellites by 2010 to improve land and mobile telephone communications.

Iranian officials, including President Ahmadi-Nejad, claimed that Tehran in February 2008 launched a probe called the Kavoshgar ("towards orbit") and that this device is transmitting information back to Earth. Based on Iranian press footage of the launch, however, the vehicle—which looked similar to the Shahab-3 MRBM, a system that by itself probably does not have the capability to place an object into orbit—appeared to suffer an in-flight failure. Iran's President also announced Tehran would conduct two more rocket tests prior to launching a "home-produced" satellite into orbit later in 2008, and several Iranian news websites released photos of a new rocket called "Safir" that

appears larger than Tehran's existing ballistic missiles. Iranian officials stated on 27 August 2008 that they had launched a smaller research rocket called the Kavosh-2. Technologies used to build an SLV are directly applicable to the development of longer range ballistic missiles.

Assistance from entities in China and North Korea, as well as assistance from Russian entities at least in the past, has helped Iran move toward self-sufficiency in the production of ballistic missiles. Iran still remains dependent on foreign suppliers for some key missile components, however. Iran also has marketed for export at trade shows guidance components suitable for ballistic missiles.

Chemical and Biological

We assess that Iran maintains the capability to produce chemical warfare (CW) agents in times of need and conducts research that may have offensive applications. Tehran continues to seek production technology, training, and expertise from foreign entities that could advance its capability to produce CW agents. We judge that Iran is capable of weaponizing CW agents in a variety of delivery systems.

Iran probably has the capability to produce some biological warfare (BW) agents for offensive purposes, if it made the decision to do so. We assess that Iran has previously conducted offensive BW agent research and development. Iran continues to seek dual-use technologies that could be used for BW.

North Korea

Nuclear

In February 2007, North Korea agreed as part of the Six-Party Talks to "shut down and seal for the purposes of eventual abandonment the Yongbyon nuclear facility, including the reprocessing facility" as part of the Initial Actions for the Implementation of the Joint Statement of September 2005. In mid-July 2007, North Korean officials shut down the Yongbyon 5-megawatt electric (MWe) nuclear reactor, and placed the Yongbyon spent-fuel reprocessing facility, the Yongbyon nuclear fuel fabrication plant, and two unfinished nuclear reactors under IAEA seals, monitoring, and verification. In return, the other five Parties agreed to cooperate in economic, energy, and humanitarian assistance to the DPRK, including the provision of assistance up to the equivalent of 1 million tons of heavy fuel oil during the period of Initial Actions and the next phase.

In the Second-Phase Actions Agreement, signed October 3, 2007, Pyongyang committed to disable the 5MWe reactor, the reprocessing facility, and the fuel fabrication plant by December 31, 2007 in exchange for a U.S. commitment to begin the process of removing the designation of the DPRK as a state sponsor of terrorism and to advance the processing of terminating the application of the Trading with the Enemy Act, in parallel with the DPRK's Second Phase actions. In November 2007, a team of

US Department of Energy officials began overseeing disablement activities at Yongbyon, and unloading of reactor fuel rods continued through 2008.

North Korea provided China, the chair of the Six-Party Talks, with a nuclear declaration in June 2008, six months after the December 31, 2007 deadline. The North also demolished the cooling tower for its 5-MWe reactor at Yongbyon in June.

In late August 2008, however, North Korea announced that it had halted disablement activities at Yongbyon and threatened to restore its facilities there in response to what it maintained was a US delay in removing Pyongyang from the State Sponsors of Terrorism List. The US removed North Korea from the List in October 2008, and the North subsequently resumed disablement.

Although North Korea has halted and disabled portions of its plutonium production program, we continue to assess North Korea has pursued a uranium enrichment capability at least in the past. Some in the IC have increasing concerns that North Korea has an ongoing covert uranium enrichment program.

Ballistic Missile

North Korea continues to pursue the development, production, and deployment of ballistic missiles with increasing range and sophistication. It continues to procure needed raw materials and components from various foreign sources to support its missile industry.

Chemical and Biological

We assess that North Korea has had a longstanding CW program. We judge Pyongyang possesses a stockpile of agents.

North Korea has a biotechnology infrastructure that could support the production of various BW agents. We judge that North Korea possesses a conventional munitions production infrastructure that could be used to weaponize BW agents.

Syria

Nuclear

Syria—despite being a Nuclear Non-Proliferation Treaty Party with full-scope IAEA safeguards—was engaged for more than a decade in a covert nuclear program with North Korean assistance. The program involved construction of a nuclear reactor at Al Kibar without informing the IAEA and while taking measures to preserve the site's secrecy. We assess the reactor would have been capable of producing plutonium for nuclear weapons. The reactor was destroyed in September 2007, before it became operational, and Syria went to great lengths to try to eradicate evidence of its existence. The covert nature of the program, the characteristics of the reactor, and Syria's extreme efforts to deny and destroy evidence of the reactor after its destruction are inconsistent with peaceful nuclear applications.

IAEA inspectors visited Syria between 22 and 24 June 2008 and took environmental samples at the Al Kibar site. The IAEA reported to the November 2008 Board of Governors that analysis of the Al Kibar environmental samples revealed a significant number of chemically processed natural uranium particles. The report also noted the Agency's assessment that the features of the Al Kibar building were similar to what may be found in connection with a reactor site, but stated that the IAEA could not exclude the possibility that the building was intended for non-nuclear use. The IAEA is continuing its investigation of Syria's nuclear file.

Ballistic Missile

Syria possesses one of the largest ballistic missile forces in the Middle East—including Scud-class liquid propellant SRBMs—and is developing longer-range missiles such as a Scud D and possibly other variants, with assistance from North Korea and Iran. Syria imports missile related technology and remains dependent on foreign suppliers for some key ballistic missile technology.

Chemical and Biological

Syria continued to seek dual-use technology from foreign sources during the reporting period. Syria has had a CW program for many years and already has a stockpile of CW agents, which can be delivered by aircraft, ballistic missile, and artillery rockets. We assess that Syria remains dependent on foreign sources for key elements of its CW program, including precursor chemicals.

Syria's biotechnical infrastructure is capable of supporting limited BW agent development, but the Syrians are not believed to have achieved a capability to put BW agents into effective weapons.

II. Chemical, Biological, Radiological, and Nuclear Terrorism

Several terrorist groups, particularly al-Qa'ida, probably remain interested in chemical, biological, and radiological materials and weapons. Some groups have shown interest in nuclear weapons as well. Many of the 33 US Department of State designated foreign terrorist organizations worldwide have previously expressed interest in one or more of these capabilities.

Some terrorist groups see employing chemical, biological, radiological, and nuclear (CBRN) materials as a high-impact option for achieving their goals. Al-Qa'ida and other terrorist groups have shown interest in developing chemical and biological capabilities for use in attacks against Western targets, especially in Iraq and Afghanistan. Regarding CBRN, our greatest concern is al-Qa'ida's stated intent to conduct unconventional attacks against the United States.

III. Key Suppliers

North Korea and entities in Russia and China continue to sell technologies and components in the Middle East and South Asia that are dual use and could support WMD and missile programs. North Korea is among the world's leading suppliers of ballistic missiles and related technologies. Russian entities have provided assistance to missile and civil nuclear programs in Iran and India. Chinese companies have been associated with nuclear and missile programs in Pakistan and missile programs in Iran.

We also see evidence of secondary proliferation, as countries that previously imported weapons and technologies begin indigenous production and export those systems. As their domestic capabilities grow, traditional recipients of WMD and missile technology–to include Iran and Pakistan–also are capable of supplying technology and expertise. In addition, independent companies, scientists, and engineers may provide WMD- and missile-related assistance.

China

Chinese entities—which include private companies, individuals, and state-owned military export firms—continue to engage in WMD-related proliferation activities. The United States imposed sanctions in 2008 on several Chinese companies for sales of WMD- and ballistic missile-related technologies to states of concern. Over the past several years, China has implemented new export control legislation that approximates Missile Technology Control Regime (MTCR) controls, but enforcement continues to fall short. Chinese entities continue to supply a variety of missile-related items to multiple customers, including recent exports to Iran and Pakistan.

In 2008, China continued to offer for sale SRBMs that fall below the 300-kilometer range/500 kilogram payload threshold for MTCR Category I systems. China remained a primary supplier of advanced conventional weapons to Pakistan, which still represents China's most important partner in military technology cooperation.

North Korea

North Korea remains committed to selling missiles and related technologies to foreign customers. Over the years, it has exported ballistic missile-related equipment, components, materials, technical expertise, and/or full missile systems to countries in the Middle East, South Asia, and North Africa. 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.

North Korea's relationships with Iran and Syria remain strong. North Korea provided assistance to Syria's covert nuclear effort starting in the late 1990s and retains the potential for exporting nuclear materials or technology.

Russia

Russian entities remain key suppliers of civilian nuclear technology to a number of countries. Russia remains a key supplier for Iran's civilian nuclear program, primarily providing IAEA safeguarded equipment and expertise to enable completion of the Bushehr Nuclear Power Plant. Russia has been the primary provider of safeguarded assistance to India's civilian nuclear programs. Russia continues to construct two 1,000-megawatt light water nuclear reactors at Kudankulam. Russia and India in December 2008 signed agreements to construct four additional reactors at Kudankulam and to supply approximately $700 million worth of nuclear fuel for Indian nuclear plants.

China remains one of Russia's largest customers for nuclear-related equipment. Russia continues to assist with China's construction of an experimental fast reactor outside of Beijing.

Russian entities also remained a source of dual-use biotechnology equipment and related expertise. For example, Russian entities have been a source of dual-use biotechnology, chemicals, production technology, and equipment for Iran.

IV. Proliferation of Advanced Conventional Weapons

Iran continues to seek the advanced long-range S-300 air defense system from Russia. We judge likely deployment locations for this system include Iran's nuclear facilities.

Iran has a history of supplying arms to Hizballah. Iran has reportedly supplied Hizballah with many types of rockets since 1992. It has been reported that since Israel's withdrawal from southern Lebanon in May 2000, there has been a dramatic increase in Iranian weapon and weapon system shipments through Syria, with transfers continuing even after the outbreak of hostilities with Israel in July 2006. Hizballah's reported use of an anti-ship cruise missile during the 2006 war with Israel highlights the risk of proliferation of missiles to non-state actors.