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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 2007

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.

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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 2007. This report focuses on key countries of concern that we assess are seeking WMD capabilities.

Iran

Nuclear

During the reporting period, Iran continued to expand its nuclear infrastructure and continue uranium enrichment and activities related to its heavy water research reactor, despite United Nations Security Council Resolution 1737 adopted in late 2006, which calls for the suspension of those activities.

- In April 2007, Iran announced it had started “industrial enrichment” at the beginning of the year.
- Iran announced plans to hold international tenders to build two new nuclear power plants in April 2007.
- In November 2007, The International Atomic Energy Agency (IAEA) reported that Iran had installed and begun operating with uranium hexafluoride gas the first 3,000 centrifuges at the underground cascade halls at Natanz. Between February and November 2007, Iran fed about 1,240 kilograms of uranium feed gas into its cascades, and produced some low enriched uranium at an enrichment level appropriate for reactor fuel. The President of Iran declared that the 3,000 centrifuges were “enriching” uranium. Iran announced the manufacturing of nuclear fuel pellets for the Arak heavy water research reactor.
- By year’s end, Iran was receiving uranium fuel purchased from Russia to operate the nuclear reactor at Bushehr. The final delivery of fuel was scheduled for February 2008, to attempt to begin operations at the Bushehr nuclear reactor about six months later (mid-to-late 2008).

Over the past year, the Intelligence Community has gained important new insights into Iran’s activities related to nuclear weapons and published a December 2007 National Intelligence Estimate on Iranian intent and capabilities.

Analysis of events and activities associated with the Iranian nuclear program during the reporting period has yielded the following conclusions: We assess that Iran had been working to develop nuclear weapons through at least fall 2003, but that in fall 2003 Iran

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halted its nuclear weapons design and weaponization activities, and the military's 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 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. We also assess that convincing the Iranian leadership to forgo the eventual development of nuclear weapons will be difficult, and that Iranian entities are continuing to develop a range of technical capabilities that could be applied to producing nuclear weapons, if a decision is made to do so. For example, Iran's civilian uranium enrichment program is continuing. We judge Iran probably would be technically capable of producing enough HEU for a weapon sometime during the 2010-2015 time frame. INR judges Iran is unlikely to achieve this capability before 2013.

Ballistic Missiles

Iran's ballistic missile inventory ranks among one of the largest in the Middle East. Iran's military developments have centered on 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.

The Shahab-3 MRBM, capable of striking Israel, was formally handed over to the Iranian military in July 2003. 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. 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. In late November 2007, Iran's defense minister claimed Iran has developed a new 2000 km-range missile called the Ashura.

As early as 2005, Iran has stated its intentions to send its own satellites into orbit. In 2005, the government said it had allocated \$500 million for space projects in the next five years. Also, in 2005, Iran's first satellite, Sina-1, was launched on a Russian rocket--signing a \$132 million deal with a Russian firm to build and launch another (telecommunications) satellite. Iran announced it would launch four more satellites by 2010 to improve land and mobile telephone communications.

Iranian officials, including President Ahmadi-Nejad, claimed Tehran in February 2007, launched a probe "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 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 this year, and several Iranian news websites released photos of a new rocket called "Safir" that appears larger than Tehran's existing ballistic missiles. This may be the space launch vehicle (SLV) Iran will

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use to attempt a satellite launch. Technologies used to build an SLV are directly applicable to the development of longer range ballistic missiles.

Russian-entity assistance, along with assistance from entities in China and North Korea, has helped Iran move toward self-sufficiency in the production of ballistic missiles. Iran remains dependent on foreign suppliers for some key missile components. Iran has received ballistic missile assistance from entities in North Korea, Russia and China. Iran also has marketed for export gyroscopes suitable for ballistic missiles at trade shows.

Chemical and Biological

While Iran ratified the Chemical Weapons Convention (CWC) in late 1997, it continues to seek production technology, training, and expertise from foreign entities that could advance Iran's assessed chemical weapons (CW) program. We assess that Iran maintains the capability to produce CW agent in times of need and conducts research that may have offensive applications. We judge that Iran still maintains a capability to weaponize 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 biological warfare.

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

and sealed, under IAEA monitoring and verification, the 5-megawatt electric (MWe) nuclear reactor, a spent-fuel reprocessing facility, a nuclear fuel fabrication plant and an unfinished 50 MWe nuclear reactor at the Yongbyon complex. North Korea also sealed an unfinished 200 MWe reactor in Taechon. 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

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Act, in parallel with the DPRK's Second Phase actions. In November 2007, a team of Department of Energy officials began overseeing disablement activities at Yongbyon, and unloading of reactor fuel rods continues into 2008. North Korean officials missed a December 31, 2007 deadline for a complete and correct declaration of all its nuclear programs.

Although North Korea has halted and disabled portions of its plutonium production program, we assess with high confidence it has in the past pursued a uranium enrichment capability that we judge is for nuclear weapons and assess with at least moderate confidence that it continues to pursue such a capability.

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.

North Korea paraded its new solid-propellant SRBM for the first time in April 2007. It demonstrated the capability to target U.S. forces and our allies in South Korea and Japan with the flight test of six theater ballistic missiles in July 2006 and three short-range missiles in June 2007. Development of the Taepo Dong 2 ICBM/SLV continued in 2007 despite a failed July 2006 test launch. North Korea also continues work on an intermediate-range ballistic missile.(U)

Chemical and Biological

We assess that North Korea has had a longstanding CW program. North Korea's chemical warfare capabilities probably included the ability to produce bulk quantities of nerve, blister, choking, and blood agents. We believe Pyongyang possesses a stockpile of agents. North Korea has yet to accede to the CWC.

North Korea acceded to the Biological and Toxin Weapons Convention (BWC) in 1987 and claims to be in full compliance. North Korea has a rudimentary biotechnology infrastructure that could support the production of various biological warfare 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 signatory with full-scope IAEA safeguards—has been engaged for more than a decade in a covert nuclear program

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with North Korean assistance. The program involved construction of a nuclear reactor we assess would have been capable of producing plutonium for nuclear weapons, without informing the IAEA and while taking measures to preserve the site's secrecy. The reactor was destroyed in September 2007, before it became operational, and Syria has gone 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.

Ballistic Missile

Syria's ballistic missile program is a key component of its strategy to deter external threats and is a priority in defense planning and spending. Syria possesses one of the largest ballistic missile forces in the Middle East—composed of Scud-class liquid propellant SRBMs, including Soviet and North Korean origin Scud missiles. Additionally, Syria fields the SS-21 Mod 2 SRBM. All of Syria's missiles are mobile and can reach much of Israel and large portions of Iraq, Jordan, and Turkey from launch sites well within the country. Syria remains dependent on foreign suppliers for some key ballistic missile technology. We judge that Syria's operational missile force can employ chemical as well as conventional warheads.

Chemical and Biological

Syria continued to seek dual-use technology from foreign sources during the reporting period. Syria has had a chemical weapon 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 biological agent development, but the Syrians are not believed to have achieved a capability to put biological agents into effective weapons.

II. Chemical, Biological, Radiological, and Nuclear Terrorism

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

Some terrorist groups see employing chemical, biological, radiological, and nuclear (CBRN) materials as low-cost, high-impact options for achieving their goals. Al-Qa'ida and other terrorist groups show continuing interest in developing chemical and biological capabilities for use in attacks against Western targets, especially in Iraq and

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Afghanistan. We also judge that al-Qa'ida and some other terrorist groups have the capability and intent to develop and employ a crude radiological dispersal device.

Our highest concern is al-Qa'ida's stated readiness to attempt unconventional attacks against the United States. A case in point is the September 2006 statement made by al-Qa'ida in Iraq calling on scientists to join the struggle in Iraq and produce unconventional weapons against American forces in that country. This message regarding unconventional warfare probably demonstrates al-Qa'ida's continued interest in obtaining and using CBRN weapons in its fight against the United States. At this time, we do not assess that al-Qa'ida has a nuclear weapon capability, although acquisition remains a goal. Al-Qa'ida's key obstacle to an improvised nuclear capability remains acquiring sufficient weapons-usable nuclear material.

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 missiles and related technologies. Russian entities have supported missile and civil nuclear programs in Iran and India. Chinese companies have been associated with nuclear or missile programs in Pakistan and Iran.

We also see evidence of secondary proliferation, as countries who 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 2007 on several Chinese companies for sales of WMD- and ballistic missile-related technologies to Iran. Over the past several years, China has implemented new export control legislation that approximates MTCR controls, but recent exports to Iran and Pakistan demonstrate that Chinese entities continue to supply a variety of missile-related items to multiple customers. While some improvements have been noted in 2007, Beijing continued to fall short in its enforcement of its export controls and private Chinese businesses continue to sell materials, manufacturing equipment, and components suitable for use in ballistic missile, chemical weapon and nuclear weapon programs to North Korea, Iran and Pakistan.

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In 2007, 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 and Iran. Although Pakistan still represents China's most important regional partner in military technology cooperation, Iran has been gaining ground in this area and claims it was producing the Chinese-origin C802 antiship missiles as of 2007.

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.

In September 2007, the US imposed missile proliferation sanctions on a North Korean corporation for two years. Nonproliferation penalties also were imposed on two Iranian entities in September.

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

Russia

Russian entities remain key suppliers of nuclear technology to a number of countries, most of which is intended for civilian nuclear programs. Most recipients pose little proliferation threat, but some—as in the case of China—pose greater concern because the Russian assistance could be diverted to nuclear weapons programs. Russia remains a key supplier for civilian nuclear programs in Iran, primarily related to completing the construction of the Bushehr Nuclear Power Plant. Russian officials have publicly expressed support for Russian involvement in future construction of a second reactor at Bushehr, while insisting that all Iranian programs in the nuclear field be placed under IAEA safeguards.

Russia has been India's greatest foreign provider of assistance and for its civilian nuclear programs. Russia continues to construct two 1,000-megawatt light water nuclear reactors at Kudankulam. In January 2007, Russia signed a memorandum of intent to build another four reactors at this site.

China remains Russia's largest purchaser of nuclear-related equipment. The Russian nuclear industry this year completed construction of two nuclear power reactors worth over \$3 billion at China's Tianwan nuclear power plant, and is still constructing an experimental fast reactor outside of Beijing.

Russian entities have supplied a variety of ballistic missile-related goods and technical know-how to China, Iran, India, and North Korea.

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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

Some cruise missiles and unmanned aerial vehicles (UAVs) can be used for the delivery of nuclear, biological, and chemical weapons. Cruise missiles can be less expensive and more accurate than ballistic missiles, and may be more difficult to defend against than manned aircraft because of their low flight profiles and smaller radar cross-sections. Other widely available potential delivery means include artillery, large unguided rockets, multiple rocket launchers, and mortars. Aircraft, helicopters, transport planes, and converted UAVs also are potential delivery vehicles and aerial sprayers such as those used in agriculture can be adapted for use with many types of helicopters, UAVs, and aircraft.

For this period we specifically note:

Iran continues to seek and acquire conventional weapons and production technologies, primarily from entities in Russia and China, as well as high-quality weapon components and dual-use items. We judge Iran continues to be interested in precision strike using UAVs and possibly a land-attack cruise missile.

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 antiship cruise missile during the 2006 war with Israel highlights the proliferation risk of missiles and UAVs as to non-state actors. Iran appears to have gained increased power and prestige in the process, both regionally and internationally, creating the strong possibility that Iranian proliferation will continue to be a destabilizing force in the Middle East.