

UNCLASSIFIED

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 2010

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.”

The National Intelligence Council coordinated this report 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 2010. This report focuses on key countries that we assess are seeking WMD capabilities.

Iran

Nuclear

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 and most recently in June 2010 calling for the suspension of those activities. Although Iran made progress in expanding its nuclear infrastructure during 2010, some obstacles slowed progress during this period.

- In 2010, Iran continued to make progress enriching uranium at the underground cascade halls at Natanz with first-generation centrifuges, and in testing and operating advanced centrifuges at the pilot plant there. As of mid-November, Iran had produced about 3,200 kilograms of low-enriched uranium hexafluoride (LEUF6) gas product at Natanz, compared to about 1,800 kilograms in November 2009 and 555 kilograms of LEUF6 in November 2008. Between January and November 2010, Iran decreased the number of installed centrifuges from about 8,700 to about 8,400, but the number reported to be operating is around 4,800, up from about 3,900 in November 2009.
- Iran still has not installed centrifuges at the Qom Enrichment Facility, revealed in late 2009, that is designed to house approximately 3,000 centrifuges. Iran plans to use Qom for both production of enriched material as well centrifuge research and development.
- Iran in 2010 continued construction of the IR-40 Heavy Water Research Reactor and plans to commence operations there in 2013.
- Iran in 2010 continued to make progress on completing its Bushehr Nuclear Power Plant including finishing fuel loading in late November 2010.
- Iran's Uranium Conversion Facility (UCF) at Esfahan shut down for maintenance in August 2009 and had not resumed UF6 production as of early November 2010.

International Atomic Energy Agency Director General reports to the Board of Governors indicate Iran has almost exhausted its imported stockpile of yellowcake.

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 Tehran will continue to work on producing more capable MRBMs and developing space launch vehicles, which incorporate technology directly applicable to longer-range missile systems. Iran's ballistic missile inventory is one of the largest in the Middle East.

- In late November 2007, Iran's defense minister claimed Iran had developed a new 2,000 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 — possibly another name for the Ashura — with a range of 2,000 km. In 2009, Iran conducted three flight tests of this missile.
- In late August 2010, Iran's defense minister also announced the test of a new SRBM called the Q'iam. The defense minister claimed that the Q'iam was a "new class" of missile system, which was more accurate and less vulnerable to interception.

As early as 2005, Iran stated its intentions to send its own satellites into orbit. 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.

- Iran's President Ahmadi Nejad also announced Tehran would launch a "home-produced" satellite into orbit in 2008, and several Iranian news websites released photos of a new rocket called "Safir."
- In mid-August 2008, Iran first launched its Safir space launch vehicle, carrying the Omid satellite. Iran claimed the launch a success; however US officials believed the vehicle did not successfully complete its mission. Iran successfully launched the Omid satellite aboard the Safir 2 SLV in early February 2009 according to press reports.
- In February 2010, Iran displayed a much larger space launch vehicle dubbed the Simorgh, as well as its first stage clustered engines.
- In December 2010, Iran's defense minister announced that Iran plans to launch at least two satellites, both more capable than the Omid, sometime in early 2011.

Iran continued to move toward self-sufficiency in the production of ballistic missiles, but almost certainly remains dependent on foreign suppliers for some key missile components. Entities in China and Russia along with North Korea are among likely suppliers. Iran has also marketed at least one ballistic missile system for export.

Chemical and Biological

We assess that Iran maintains the capability to produce chemical warfare (CW) agents and conducts research that may have offensive applications. Tehran continues to seek dual-use technologies 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 monitoring. 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 US 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, including the unloading of reactor fuel rods at Yongbyon. In April 2009, North Korea informed the US and IAEA officials at Yongbyon that they were to depart at the earliest possible time and that North Korea planned to reactivate its nuclear facilities and reprocess the spent fuel removed from the reactor. In September 2009, North Korea announced that reprocessing of the spent fuel rods was in the final stages and that the recovered plutonium was being weaponized.

The North's probable nuclear test in May 2009—apparently more successful than its 2006 test—suggests the North has the capability to produce nuclear weapons with a yield of roughly a couple kilotons TNT equivalent.

In June 2009, North Korea announced that it had begun uranium enrichment work at a test stage and was developing technology to produce fuel for a light-water reactor. In September 2009, North Korea reported that its uranium enrichment work had entered into the completion phase. In November 2010, North Korea revealed a claimed 2,000 centrifuge uranium enrichment facility to an unofficial US delegation visiting the Yongbyon Nuclear Research Center and stated it would produce low-enriched uranium to fuel a planned light-water reactor under construction at Yongbyon.

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 did not conduct any ballistic missile or space launches in 2010, following a Taepo Dong 2 launch in April 2009 that failed to orbit a small communications satellite and several road-mobile Scud-based missile launches in July 2009.
- North Korea's foreign ministry in April 2009 publicly threatened to conduct flight tests of intercontinental ballistic missiles (ICBMs) at an unspecified time.
- North Korea also continues to develop a mobile IRBM as well as a mobile solid-propellant SRBM.

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 and remains generally uncooperative with the IAEA investigation. 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 liquid-propellant Scud SRBMs and Scud-class variants such as Scud C and D. Syria also fields the SS-21 solid-propellant SRBM. Syria remains dependent on foreign suppliers such as North Korea and Iran for some key ballistic missile technology; however, Syria has growing domestic capabilities and poses the risk of missile proliferation.

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 has a stockpile of CW agents, which can be delivered by aerial bombs, ballistic missiles, 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 BW agent development.

II. Chemical, Biological, Radiological, and Nuclear Terrorism

Several terrorist groups, particularly al-Qa'ida, probably remain interested in chemical, biological, radiological, and nuclear (CBRN) capabilities, but not necessarily in all four of

those capabilities. A number of the 33 US Department of State designated foreign terrorist organizations worldwide have previously expressed interest in one or more of these capabilities, mostly focusing on low-level chemicals and toxins. Some terrorist groups see employing (CBRN) materials as a high-impact option for achieving their goals, as even if they do not produce many casualties they would have a psychological impact. We believe some of these terrorists aim to use these agents against Western targets, especially in Iraq and Afghanistan. We continue to be concerned about al-Qa'ida's stated intent to conduct unconventional attacks against the United States. While counterterrorism actions have disrupted al-Qa'ida's near-term efforts to develop a sophisticated CBRN attack capability, we judge the group is still intent on its acquisition.

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. Chinese companies have been associated with nuclear and missile programs in Pakistan and missile programs in Iran.

The problem of secondary proliferation continues to expand, as more 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 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—including private and state-owned firms—continue to engage in WMD-related proliferation activities. The United States in recent years has imposed sanctions on several Chinese companies for sales of WMD- and ballistic missile-related technologies to states of concern. Although, China has export control legislation that approximates Missile Technology Control Regime (MTCR) controls, enforcement continues to fall short. Chinese entities continue to supply a variety of missile-related items to multiple customers, including Iran, Syria, and Pakistan.

China continues 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 and we assess North Korea continues to seek new customers and reengage with previous customers. 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 nuclear equipment and technology to many of the world's most active civilian nuclear programs. Russia continues to provide assistance to Iran's declared nuclear program, by providing IAEA-safeguarded nuclear fuel and expertise to enable completion of Iran's Bushehr Nuclear Power Plant.

- Russia has been the primary provider of assistance to India's civilian nuclear programs. Russia continues to construct two 1,000-megawatt light water nuclear reactors at Kudankulam.
- China remains one of Russia's largest customers for nuclear-related equipment. Russia and China in 2010 signed several contracts related to the planned construction of the third and fourth reactors at China's Russian-designed Tianwan nuclear power plant.

Russian entities also remained a source of dual-use biotechnology equipment and related expertise.