

**ADHERENCE TO AND COMPLIANCE
WITH
ARMS CONTROL, NONPROLIFERATION,
AND
DISARMAMENT AGREEMENTS
AND COMMITMENTS**



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ADHERENCE TO AND COMPLIANCE WITH ARMS CONTROL, NONPROLIFERATION, AND DISARMAMENT AGREEMENTS AND COMMITMENTS

INTRODUCTION

PURPOSE

This Report is submitted pursuant to Section 403 of the Arms Control and Disarmament Act, as amended (22 U.S.C. 2593a), which requires a report by the President on *Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments*.

SCOPE OF THE REPORT

This Report provides an assessment of U.S. adherence to obligations undertaken in arms control, nonproliferation, and disarmament agreements, as well as an assessment of the adherence of other nations to obligations undertaken in arms control, nonproliferation, and disarmament agreements and related commitments, including the Missile Technology Control Regime, to which the United States is a participating state. The issues addressed in this Report primarily reflect activities from January 1, 2004, through December 31, 2008, unless otherwise noted.¹

Pursuant to 22 U.S.C. 2593a.(a)(6), this unclassified version of the Report identifies questions, to the maximum extent practicable, that exist with respect to compliance by other countries with their arms control, nonproliferation, and disarmament agreements and commitments with the United States. In comparison to classified versions of the Report, this unclassified version may contain less detailed information, fewer compliance assessments, and findings phrased to safeguard sensitive or special reporting while at the same time fulfilling the Report's statutory requirement.

¹ In this Report, previous editions of the Report are cited by their year of release (e.g., the 2005 Report) unless otherwise noted. The last edition of the Report was released in 2005 and primarily reflected activities from January 2002 through December 2003. The edition before that was released in 2003 and primarily reflected activities from December 2000 through December 2001. Each edition prior to the 2003 Report primarily reflected activities that occurred during the year preceding the edition's release.

ADHERENCE TO AGREEMENTS

Effective arms control requires parties to comply fully with arms control obligations and commitments they have undertaken. For the arms control, nonproliferation, and disarmament agreements and commitments to which the United States is a participating state, the United States and the majority of the other participating nations are adhering to their obligations and commitments and have indicated their intention to continue doing so. This Report indicates there are compliance questions and concerns – and in some instances findings of serious treaty violations – involving a relatively small number of countries. The United States continues to pursue resolution of those compliance issues where appropriate.

U.S. Organizations and Programs to Evaluate and Ensure Treaty Compliance. Our deep-seated legal tradition, a commitment to U.S. arms control agreements that enhance our security and that of our allies and friends, and our open society create powerful incentives to comply with agreements to control nuclear weapons and other weapons of mass destruction. Legal and institutional procedures to ensure compliance have been established, and they reflect the seriousness with which these obligations are taken and reinforce these underlying policies and principles. For example, U.S. Department of Defense (DoD) compliance review groups oversee and manage DoD compliance with arms control, nonproliferation, and disarmament agreements and related commitments. The Verification and Compliance Analysis Working Group (VCAWG), an interagency organization, oversees and manages analysis of the compliance of other nations with arms control, nonproliferation, and disarmament agreements and related commitments. In addition, the VCAWG participates actively in the preparation of this annual Report, detailing the assessment of both U.S. and other nations' adherence to obligations undertaken in arms control, nonproliferation, and disarmament agreements and related commitments. Moreover, an interagency review is conducted in appropriate cases, including when other treaty parties officially raise questions regarding U.S. implementation of its obligations. Finally, Congress performs oversight functions through committee hearings and budget allocations.

OVERVIEW

This Report addresses U.S. compliance with arms control agreements (Part I), compliance by Russia and other successor states of the Soviet Union with treaties and agreements concluded bilaterally with the Soviet Union (Part II), compliance by other countries that are parties to multilateral agreements with the United States (Part III), and compliance with commitments made less formally but that bear directly upon arms control, nonproliferation, or disarmament issues (Part IV).

Items of importance that have arisen since the last edition of this Report include the following.

Treaty on Conventional Armed Forces in Europe (CFE). Russia “suspended” implementation of its CFE Treaty obligations² in December 2007 after indicating it would do so if States Parties to the Treaty had not ratified the Agreement on Adaptation of the CFE Treaty (the “Adapted Treaty”) and had not addressed Russia’s calls for elimination of flank limits and other issues. The United States responded in a notice to the CFE Treaty Depositary and in a legal analysis presented to the Joint Consultative Group (JCG) that suspension, while an option under certain circumstances under international law, is not provided for in the CFE Treaty and that Russia’s “suspension” is not justified under customary international law under the circumstances cited by Russia. NATO Allies also registered their concern about Russia’s CFE “suspension” in a public statement on December 12, 2007, pointing out that the Treaty does not provide for suspension. Subsequent to the “suspension,” Russia has declined all CFE inspections and has not provided the data submissions or notifications required by the Treaty. At the same time, the United States, NATO Allies, and other States Parties have continued to observe their CFE Treaty obligations. Other significant issues relating to Russia that were addressed during the reporting period but not resolved prior to Russia’s “suspension” of implementation included, *inter alia*, the presence of Russian forces in Moldova and Georgia without those states’ consent, and Russian holdings in the original and revised flank zones.³ In addition, some questions were resolved regarding undeclared APCs and NICD limits, there were new questions regarding supplementary inspections, AIFV notification, and invocation of *force majeure*, and there was no change regarding previously reported issues involving the transfer of TLE to Armenia, site diagrams, and the failure to report APCs. The United States notes that Russia’s actions have resulted in noncompliance with its Treaty obligations.

Iran and the Nuclear Non-Proliferation Treaty (NPT). The United States finds that Iran continues to be in violation of Article III of the NPT. The United States found in the 2005 Report that Iran violated Article II of the NPT; the issues underlying that finding remain unresolved. Although the International Atomic Energy Agency (IAEA) was able to assess that no declared nuclear material has been diverted to non-peaceful uses, the United States assesses that Iran has not resolved questions regarding its nuclear program, nor provided the IAEA with requested information to enable it to provide credible assurances about the absence of undeclared nuclear material and activities in Iran. Iran continues to engage in enrichment activity in violation of UN Security Council Resolution 1737.⁴

² This Report refers to Russia’s “suspension” of implementation of the Treaty in quotation marks because views differ between Russia and other States Parties on whether Russia’s action may be justified, under the circumstances, based on customary international law or by the terms of the Treaty.

³ The 1996 CFE Flank Document created a revised flank zone with associated limits.

⁴ After the current reporting period ended, Iran notified the IAEA of the previously undisclosed uranium enrichment facility near the city of Qom, Iran. Iran’s failure to declare the existence of its new uranium enrichment facility at Qom is a violation of modified Code 3.1 of Iran’s Subsidiary Arrangements to its Safeguards Agreement, and of relevant UNSC resolutions requiring Iran to suspend enrichment-related activities.

North Korea and the NPT. North Korea was in violation of its obligations under Articles II and III of the NPT and under its IAEA safeguards agreement before its announced withdrawal from the NPT in 2003.

This Report will continue to include the Democratic People's Republic of Korea (DPRK) until it fulfills its commitment in the September 2005 Joint Statement to abandon all nuclear weapons and existing nuclear programs, and to return at an early date to the NPT and to IAEA safeguards.

Syria and Its IAEA Safeguards Agreement. Syria failed to declare and provide design information to the IAEA for the construction of the reactor at Al Kibar. Therefore, it failed to meet its obligations pursuant to modified Code 3.1 of the Subsidiary Arrangements to its Safeguards Agreement. Moreover, the reactor's apparent purpose was the clandestine production of plutonium for non-peaceful activities.

PART I: U.S. COMPLIANCE WITH ARMS CONTROL, NONPROLIFERATION, AND DISARMAMENT AGREEMENTS AND COMMITMENTS

U.S. INSTITUTIONAL AND PROCEDURAL ORGANIZATION FOR ENSURING COMPLIANCE

There are processes within the U.S. executive branch that operate to ensure U.S. plans and programs remain consistent with U.S. international obligations. These include internal U.S. Department of Defense (DoD) controls and U.S. Department of Energy (DOE) procedures and controls. Both operate in parallel, and in addition to, congressional oversight.

In 1972, by direction of the President, the DoD established a process to ensure that all DoD programs comply with U.S. international obligations. Under this compliance process (established with the Strategic Arms Limitation Treaty (SALT) agreements), key offices in DoD are responsible for overseeing DoD compliance with all U.S. arms control, nonproliferation, and disarmament commitments. DoD components ensure that their implementing program offices adhere to DoD compliance directives and seek guidance from the offices charged with oversight responsibility. Interagency reviews are also conducted in appropriate cases, such as when other treaty parties formally raise questions regarding U.S. implementation of its arms control obligations.

U.S. TREATY COMPLIANCE

The United States is in compliance with all its obligations under arms control, nonproliferation, and disarmament agreements, and continues to make every effort to comply scrupulously. When U.S. treaty partners have raised compliance questions regarding U.S. implementation activities, the United States has carefully reviewed the matter to confirm that its actions were in compliance with its treaty obligations.

ISSUES RAISED BY U.S. TREATY PARTNERS CONCERNING U.S. COMPLIANCE

Intermediate-Range Nuclear Forces (INF) Treaty. The Treaty between the United States of America and the Union of Soviet Socialist Republics on the Elimination of Their Intermediate-Range and Shorter-Range Missiles (INF Treaty) required the elimination of all U.S. and Soviet ground-launched ballistic and cruise missiles with ranges of between 500 and 5,500 kilometers, their launchers, and associated support equipment, and permanently banned the possession, production, and flight testing of such missiles. The United States and the Soviet Union completed the elimination of all declared INF-prohibited systems in 1991. Inspection rights under the Treaty ceased at midnight on May 31, 2001.

All U.S. activities are consistent with U.S. Treaty obligations. Russia did not raise any new INF compliance issues during the years 2004-2008.

Strategic Arms Reduction Treaty (START). The entry into force of the START Treaty on December 5, 1994, ushered in a verification regime of unprecedented complexity and intrusiveness. In addition to verification by national technical means of verification, data notifications, missile flight test telemetry exchanges, and other cooperative measures, the Treaty provided for twelve types of on-site inspections and exhibitions, as well as continuous on-site monitoring activities at specified facilities. As required, the Parties exchanged updated START Memorandum of Understanding (MOU) data on a semiannual basis and continued to exercise their right to conduct on-site inspections.

As might be expected under a verification regime with the breadth and intrusiveness of START, a number of compliance questions were raised by our Treaty partners. These questions primarily concerned procedural issues related to inspections, flight tests of submarine-launched ballistic missiles (SLBMs), and telemetry. A number of these issues were resolved in the Joint Compliance and Inspection Commission (JCIC) and through diplomatic channels, while others were under active discussion since 1995.

With regard to each of these issues, the United States determined that it was in full compliance with the START Treaty. U.S. officials addressed these issues in great detail in the JCIC, through diplomatic channels, and at meetings at the political level, explaining why U.S. actions were fully consistent with the Treaty.

PART II: COMPLIANCE WITH TREATIES AND AGREEMENTS CONCLUDED BILATERALLY WITH THE SOVIET UNION OR ITS SUCCESSOR STATES

INTERMEDIATE-RANGE NUCLEAR FORCES (INF) TREATY

The Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Elimination of Their Intermediate-Range and Shorter-Range Missiles (INF Treaty) was signed by President Reagan and Soviet General Secretary Gorbachev on December 8, 1987, and entered into force on June 1, 1988. Elimination of all declared missiles and launchers under the Treaty was completed in 1991.

The Treaty is of unlimited duration and bans the possession, production, and flight testing of intermediate- and shorter-range missile systems. The Treaty required the complete elimination of all the approximately 800 U.S. and approximately 1,800 former Soviet ground-launched missiles with ranges between 500 and 5,500 kilometers, their launchers, and their associated support equipment and structures. All such items were eliminated by May 28, 1991.

The Treaty established a verification regime using national technical means of verification (NTM), notifications, and an on-site inspection regime to detect and deter violations of Treaty obligations. The inspection regime concluded at the end of 13 years following the Treaty's entry into force, that is, on May 31, 2001. All inspection activities have now ceased in accordance with the provisions of the Treaty. The remainder of the verification regime continues for the life of the Treaty.

The Parties to the Treaty last met in the Special Verification Commission in October 2003. There have been no issues raised in the intervening period.

STRATEGIC ARMS REDUCTION TREATY (START)¹

Belarus, Kazakhstan, Russia, and Ukraine were in compliance with the START strategic offensive arms (SOA) central limits for the 15-year term of the Treaty. Both the United States and Russia met the START seven-year reduction final ceilings of 6,000 total START-accountable warheads; a sublimit of 4,900 ballistic missile warheads and 1,600 deployed heavy bombers, intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs), and their associated launchers by the December 5, 2001, deadline. By December 2001, the aggregate forces of the successor states to the former Soviet Union (FSU) had been reduced to 1,136 deployed ICBMs and SLBMs and their associated launchers, and deployed heavy bombers, and 5,518 deployed warheads, including 4,894 deployed ballistic missile warheads, as defined by Article III of the Treaty, and all strategic weapons had been removed or eliminated from the territories of Ukraine, Belarus, and Kazakhstan. Additionally, START required the four FSU successor states to eliminate at least 154 heavy (SS-18) ICBM silo launchers by December 2001. In the original Memorandum of Understanding (MOU), dated September 1, 1990, the Soviet Union declared 308 SS-18 heavy ICBM silo launchers. As of November 30, 2001, a total of 158 SS-18 silo launchers had been eliminated – 104 in Kazakhstan and 54 in Russia – leaving a total of 150 deployed SS-18 heavy ICBM silo launchers.

Notwithstanding the overall success of START implementation, a number of long-standing compliance issues that were raised in the START Treaty's Joint Compliance and Inspection Commission (JCIC) remained unresolved when the Treaty expired on December 5, 2009. Throughout the term of the Treaty, the Parties worked through diplomatic channels and in the JCIC to ensure smooth implementation of the Treaty and effective resolution of compliance issues and questions.

The United States raised new compliance issues since the 2005 Report. The United States considered several of these to have been closed. A number of the remaining issues highlighted the different interpretations of the Parties about how to implement the complex inspection and verification provisions of the START Treaty.

Major long-standing issues related to the reentry vehicle inspection (RVOSI) of ICBMs for mobile launchers were resolved since the 2005 Report. An issue over measurement of launch canisters on deployed mobile launchers for mobile ICBMs also was resolved. For some of the unresolved issues which did not change, the United States made a determination not to raise the issue with the other Parties unless there was some future change in the situation. One issue that was reported in the 2005 Report was the Russian practice of exiting SS-27 road-mobile launchers from the Barrikady production facility at Volgograd and transiting them over 100 kilometers to a "break-in" area near Kapustin Yar without declaring them Treaty-accountable upon their first exit from the

¹ This START section of the Report has been updated to reflect activities through the expiration of the START Treaty on December 5, 2009.

production facility. The Russian Federation ceased this practice and the United States considered this issue closed.

When the START Treaty was signed, Belarus inherited from the Soviet Union 80 fixed structures for mobile launchers of SS-25 ICBMs. Prior to entry into force of the Treaty, all of the SS-25 missiles and launchers had returned to Russia and Belarus had dismantled the fixed structures without destroying the concrete foundations for those fixed structures as required by the Treaty. Belarus agreed to report the fixed structures in its semiannual MOU update as required by the Treaty and the United States considered this issue closed.

Ukraine stores 43 non-deployed SS-24 ICBMs that are awaiting destruction at its Conversion or Elimination Facility in Pavlograd. In 2006, Ukraine declared a change in the function of the Pavlograd facility to the Pavlograd Storage Facility for First Stage ICBM Solid Rocket Motors for Mobile Launchers of ICBMs. Ukraine subsequently agreed not to change the function of the facility and the United States considered this issue closed.

PART III: OTHER NATIONS' (INCLUDING SUCCESSOR STATES') COMPLIANCE WITH MULTILATERAL AGREEMENTS

BIOLOGICAL AND TOXIN WEAPONS CONVENTION (BWC)

As of December 2008, there were 163 States Parties to the 1972 Biological and Toxin Weapons Convention (BWC or Convention), and an additional 13 countries had signed but had not yet ratified the agreement. This Report addresses the activities of China, Cuba, India, Iran, Iraq, Libya, North Korea, Pakistan, and Russia, all of which are States Parties to the BWC. Analysis focuses on whether these States Parties are complying with the obligations assumed under the BWC and are providing information consistent with the voluntary BWC Confidence-Building Measures (CBMs) that were agreed by the States Parties at the 1986 BWC Review Conference, adopted in 1987, and expanded at the 1991 Review Conference. This Report also addresses biological warfare (BW)-related activities of Egypt and Syria, which have signed but not ratified the BWC, and of Taiwan.

The following BWC provisions and agreed CBMs are central to this Report's analyses:

Article I of the BWC states:

Each State Party to this Convention undertakes never in any circumstance to develop, produce, stockpile or otherwise acquire or retain:

- (1) Microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes;
- (2) Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

Article II of the BWC states:

Each State Party to this Convention undertakes to destroy, or to divert to peaceful purposes, as soon as possible but not later than nine months after the entry into force of the Convention, all agents, toxins, weapons, equipment and means of delivery specified in Article I of the Convention, which are in its possession or under its jurisdiction or control. In implementing the provisions of this Article all necessary safety precautions shall be observed to protect populations and the environment.

Article III of the BWC states:

Each State Party to this Convention undertakes not to transfer to any recipient whatsoever, directly or indirectly, and not in any way to assist, encourage, or induce any State, group of States or international organizations to manufacture or otherwise acquire any of the agents, toxins, weapons, equipment or means of delivery specified in Article I of the Convention.

Article IV of the BWC states:

Each State Party to this Convention shall, in accordance with its constitutional processes, take any necessary measures to prohibit and prevent the development, production, stockpiling, acquisition, or retention of the agents, toxins, weapons, equipment and means of delivery specified in Article I of the Convention, within the territory of such State, under its jurisdiction or under its control anywhere.

The voluntary BWC Confidence-Building Measures call for an annual exchange of information and data for areas that include:

research centers, and maximum containment laboratories designated as Biosafety Level 4¹ or equivalent; national biological defense research and development programs; outbreaks of infectious diseases and similar occurrences caused by toxins; published research results; professional contacts; national legislation, regulations and other measures; past activities in offensive or defensive biological research and development programs; and vaccine production facilities.

There are significant challenges in monitoring and verifying a State Party's compliance with the BWC. The Convention prohibits development, production, stockpiling, acquisition, or retention of microbial or other biological agents or toxins, of types and in quantities that have no justification for prophylactic, protective, or other peaceful purposes. Thus, not only the existence, but also the purpose or intent of any country's biological activities is part of any compliance determination. Making a judgment about purpose or intent is challenging given the dual-use nature of most biotechnology equipment, facilities, and activities. Evidence of the types and quantities of agents or toxins, and an analysis of the justification advanced for the activities associated with each type and for possession of the quantities involved, provide some guidance in reaching a judgment. When direct evidence about a justifiable purpose is not available, intent can be inferred from circumstantial evidence requiring consideration of all available information over a period of time. For these reasons, absent the overt use or

¹ According to World Health Organization (WHO) guidelines, Biosafety Level 4 laboratories are designed for work with Risk Group 4 microorganisms. These are pathogens that usually cause serious human or animal disease and that can be readily transmitted from one individual to another, directly or indirectly. Effective treatment and preventive measures are not usually available. These are WHO guidelines only, however, and may not reflect actual standards used by national authorities that establish and designate biosafety laboratories.

open testing of biological weapons, a single piece of evidence may not be sufficient to substantiate a finding of noncompliance under the Convention.

COUNTRY ASSESSMENTS

CHINA

FINDING

Available information indicates China engaged during the reporting period in dual-use biological activities. Available information did not indicate these involved activities prohibited by the BWC. The United States continues to note that the voluntary BWC CBM declarations China has submitted have neither documented the offensive BW program it possessed prior to its accession to the BWC in 1984, nor documented that China has eliminated the program or any remaining biological munitions in accordance with the BWC.

BACKGROUND

China became a State Party to the BWC on November 15, 1984. Its compliance with the BWC was addressed in the 1993 Report. In that Report, the United States assessed it was highly probable that China had not eliminated its BW program since becoming a State Party to the BWC in 1984. In the 2005 Report, the United States reaffirmed its judgment that China maintains some elements of an offensive BW capability in violation of its BWC obligations. The Report also stated that indications suggest China maintained an offensive BW program prior to acceding to the Convention in 1984.

Available information indicates China engaged during the reporting period in dual-use activities that included: identifying factors that enhance the virulence, toxicity, or antibiotic resistance of pathogens, including through the use of genetic engineering; identifying, characterizing, and testing numerous new toxins; producing toxins synthetically; and examining advances in research on airborne microbial aerosols. Available information did not indicate these dual-use activities involved activities prohibited by the BWC.

Compliance Discussions

Discussions regarding China's compliance with its BWC obligations took place in U.S. and multinational fora during the reporting period. For example, the United States expressed reservations to the U.S.-China Economic and Security Review Commission in 2006 regarding China's research activities and dual-use capabilities. China has expressed support for improving the effectiveness of the BWC, including expanding BWC membership and controlling the export of biological materials without hampering

international cooperation for peaceful purposes. China has also continued to reject the view that it is not meeting its BWC obligations.

COMPLIANCE ANALYSIS

Previous editions of this Report noted that China possessed an offensive BW program prior to its accession to the BWC in 1984, and that China was obligated to eliminate this program upon acceding to the Convention. The United States continues to note that the voluntary BWC CBM declarations China has submitted have neither documented that offensive program, nor documented that China has eliminated the program or any remaining biological munitions in accordance with Article II of the BWC.

CUBA

FINDING

Available information did not indicate Cuba's dual-use activities during the reporting period involved activities prohibited by the BWC. In the past, there were issues regarding some of Cuba's biological activities that were not resolved.

BACKGROUND

Cuba signed the BWC on April 10, 1972, and became a State Party on April 21, 1976. Cuba's compliance with the BWC was first addressed in the 2003 Report. In that Report, the United States assessed that Cuba had at least a limited, developmental offensive biological warfare research and development effort. In the 2005 Report, the United States judged, *inter alia*, that Cuba has the technical capability to pursue some aspects of offensive BW.

Cuba has a sophisticated biotechnology infrastructure encompassing the pharmaceutical, biomedical, veterinary, and agricultural sectors. Cuba has qualified scientists skilled in microbiology, genetic engineering, virology, and biochemistry who collaborate with foreign scientists, including from countries of concern. Reflecting a large capital investment, Cuba's biotechnology industry is well-developed and includes modern facilities for research and development and large-scale production. Products and services supplied to other countries include: vaccines, research reagents, medical diagnostic supplies, transgenic animals and plants, agricultural materials, and various pharmaceuticals. Many of these products were developed using advanced technology and reflect a sophisticated technical capability. Available information did not indicate these dual-use activities involved activities prohibited by the BWC.

Compliance Discussions

Cuba has expressed support for improving the effectiveness of the BWC, including expanding BWC membership and international cooperation activities. Cuba has also noted the importance of the BWC confidence-building measures process. In 2004 during the reporting period, Cuba continued to reject U.S. concerns regarding whether Cuba is engaged in activities prohibited by the BWC.

COMPLIANCE ANALYSIS

Available information during the reporting period did not indicate Cuba's dual-use biological activities involved activities prohibited by the BWC. In the past, there were issues regarding some of Cuba's biological activities that were not resolved.

EGYPT

FINDING

Available information did not indicate that any of Egypt's biological research and development activities during the reporting period were inconsistent with the BWC. Since Egypt is a signatory and not a State Party to the BWC, its compliance under the Convention has not been formally assessed.

BACKGROUND

Egypt signed the BWC on April 10, 1972, but has yet to ratify the Convention.

Available information indicated Egypt pursued biological research and development activities, including scientific cooperation with other countries, during the reporting period. Available information did not indicate any of these activities were inconsistent with the BWC.

Given that Egypt is a signatory but not a State Party to the BWC, it is not expected to submit voluntary annual BWC CBM declarations.

Compliance Discussions

During the reporting period, the Egyptian Government affirmed that it remains committed to the prohibition of the development, production, and stockpiling of bacteriological and toxin weapons. No BWC compliance issues were raised between the United States and Egypt.

COMPLIANCE ANALYSIS

The United States notes that available information did not indicate that any of Egypt's biological research and development activities during the reporting period were inconsistent with the BWC. In addition, the United States acknowledges the Egyptian Government's affirmation that it remains committed to the prohibition of the development, production, and stockpiling of bacteriological and toxin weapons. Since Egypt is a signatory and not a State Party to the BWC, its compliance under the Convention has not been formally assessed.

INDIA

FINDING

India strengthened its export control of biological materials during the reporting period. Available information did not indicate that any of India's biological research and development activities were inconsistent with its BWC obligations. India has provided some voluntary annual BWC CBM declarations, but has not provided one each year.

BACKGROUND

India signed the BWC on January 15, 1973, and ratified the Convention on July 15, 1974. In 2005, the Indian Government enacted the Weapons of Mass Destruction (WMD) and their Delivery Systems (Prohibition of Unlawful Activities) Act or WMD Act. This included provisions regulating the export control of biological materials and capturing the "catch-all concept." India subsequently updated its national export control list, adding provisions on the export of microorganisms and toxins.

Available information indicates India has a rapidly growing biotechnology infrastructure whose activities during the reporting period included researching ricin and pursuing scientific cooperation with entities in other countries. Available information did not indicate that any of its biological research and development activities were inconsistent with the BWC.

India has provided some voluntary annual BWC CBM declarations, but has not provided one each year.

Compliance Discussions

During the reporting period, India called in multilateral discussions for a return to negotiations on a BWC verification instrument and for international cooperation to support BWC implementation. The United States and India continued to discuss issues relating to transfer of biotechnology, and to pursue cooperative activities relating to

customs and export controls. The United States and other countries continued to assess the effectiveness of India's export controls relating to BW-related materials.

COMPLIANCE ANALYSIS

The United States notes that the Indian Government strengthened its export control of biological materials during the reporting period. Available information did not indicate that any of India's biological research and development activities were inconsistent with its BWC obligations. The United States has continued to assess the effectiveness of India's BW-related export controls.

IRAN

FINDING

Available information indicates Iran has remained engaged in dual-use BW-related activities. The United States notes that Iran may not have ended activities prohibited by the BWC, although available information does not conclusively indicate that Iran is currently conducting activities prohibited by the Convention.

BACKGROUND

Iran signed the BWC on April 10, 1972, and became a State Party on August 22, 1973. Its compliance with the BWC was addressed in the 1993 Report. In that Report, the United States judged that Iran probably had produced biological warfare agents and apparently had weaponized a small quantity of those agents. In both the 2003 and 2005 Reports, the United States judged that Iran had an offensive biological weapons program in violation of the BWC.

Press reports and other available information indicate that, since becoming a State Party to the BWC in August 1973, Iran has considered the acquisition and use of biological weapons. Available information also indicates Iran has remained engaged in dual-use activities that include procuring dual-use biological equipment and materials, conducting research involving BW-related pathogens and genetic engineering, and developing mechanisms that could be used to deliver biological agents.

Compliance Discussions

Discussions regarding Iran's compliance with its BWC obligations took place during the reporting period in U.S. and multilateral fora. For example, in June 2004 testimony to the U.S. Congress, a U.S. Government official said it was time for Iran to declare its biological weapons program and make arrangements for its dismantlement. During the Sixth Review Conference of the BWC in 2006, a U.S. Government official articulated the U.S. view that Iran probably has an offensive biological weapons

program in violation of the BWC. During the reporting period, Iran failed to address or resolve issues regarding its compliance with its BWC obligations.

COMPLIANCE ANALYSIS

The United States notes that Iran may not have ended activities prohibited by subparagraphs (1) and (2) of Article I of the BWC. However, available information does not conclusively indicate that Iran is currently conducting activities prohibited by the Convention.

IRAQ

FINDING

The United States notes, based on available information, that Iraq is not engaged in activities prohibited by the BWC and is in compliance with the Convention.

BACKGROUND

Iraq signed the BWC on May 11, 1972, and ratified the Convention on June 19, 1991. The UN Security Council's adoption of Resolution 1483 in May 2003, following the fall of the Hussein regime, reaffirmed that Iraq must meet its disarmament obligations.

Iraq's compliance with the BWC was addressed in the 1993 Report. In that Report, the United States concluded that Iraq had developed and produced biological warfare agents and weapons, and that it was likely these agents and weapons were stockpiled.

The United States and the United Kingdom, along with the other UN members that constituted the Multinational Force in Iraq, took steps after the 2003 U.S.-led operations in Iraq and the fall of the Hussein regime to investigate each credible report of the presence of weapons of mass destruction (WMD) or their delivery systems in Iraq. The Iraq Survey Group (ISG), comprised of experts from several countries, began working in the spring of 2003 to investigate Iraq's WMD stockpiles, such as chemical and biological agents, and any research programs and infrastructure that could be used to develop WMD. ISG visited more than 1,000 suspect WMD sites in Iraq and found no evidence suggesting that Iraq possessed or was developing biological weapons agents or production facilities. In September 2004, the Special Advisor to the U.S. Director of Central Intelligence (DCI) on Iraq's WMD issued a comprehensive report regarding Iraq's WMD. In that report, ISG judged that Iraq abandoned its existing BW program in late 1995. ISG found no direct evidence that, after 1996, Iraq had plans for a new BW program or was conducting BW-specific work for military purposes.

Compliance Discussions

Since the adoption of UN Security Council Resolution (UNSCR) 1483 in 2003, Iraq has repeatedly stated its intent to comply with its BW-related international obligations. In July 2004, the national security adviser of the provisional Iraqi Government said Iraq officially declared it would be a country free of any weapons of mass destruction and that Iraq would honor international agreements against nuclear, chemical, and biological weapons. Next, in approving the Constitution of Iraq on October 15, 2005, the Iraqi people codified that:

The Iraqi Government shall respect and implement Iraq's international obligations regarding the non-proliferation, non-development, non-production, and non-use of nuclear, chemical, and biological weapons, and shall prohibit associated equipment, materiel, technologies, and delivery systems for use in the development, manufacture, production, and use of such weapons.
(Subparagraph 1(E) of Article 9)

Then, in an April 8, 2007, letter from the Minister for Foreign Affairs of Iraq addressed to the UN Security Council President, the Iraqi Government reiterated its commitment to the BWC and to the 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (1925 Geneva Protocol).

On June 29, 2007, the UN Security Council adopted Resolution 1762. This resolution reaffirmed Iraq's disarmament obligations under relevant resolutions; acknowledged Iraq's constitutional commitment to the non-proliferation, non-development, non-production, and non-use of nuclear, chemical, and biological weapons and associated equipment, material, and technologies for use in the development, manufacture, production, and use of such weapons, as well as delivery systems; and urged Iraq to continue to implement this commitment and to adhere to all applicable disarmament and non-proliferation treaties and related international agreements. UNSCR 1762 also invited the Government of Iraq to report to the Security Council within one year on progress made in adhering to all applicable disarmament and non-proliferation treaties.

In a letter of May 29, 2008, Iraq's Minister of Foreign Affairs noted that Iraq's National Monitoring Directorate was designated a national focal point to follow up implementation of the BWC, and that the Directorate annually undertakes confidence-building measures and submits information in that regard to the United Nations. The letter also reported that Iraq had prepared legislation to establish a permanent unified national system that would enable Iraq to fulfill its obligations under the international instruments on the non-proliferation of chemical, biological, and nuclear weapons and of systems for their delivery.

COMPLIANCE ANALYSIS

The United States assesses that Iraq's activities subsequent to the fall of the Hussein regime have remained in compliance with its BWC obligations. This assessment has been informed by the considerable work performed in Iraq by the Iraq Survey Group and the Multinational Force in Iraq.

LIBYA

FINDING

The United States notes that Libya is complying with its obligations under the BWC and is fulfilling the biological weapons-related commitments it made in December 2003 when it committed to rid itself of internationally proscribed weapons.

BACKGROUND

Libya became a State Party to the BWC on January 19, 1982. Its compliance with the BWC was addressed in the 1993 Report. In that Report, the United States judged that, while there were indications of BW programs in Libya, the evidence was insufficient at that time to reach a firm conclusion regarding the status of such a program.

On December 19, 2003, Libya's Foreign Ministry issued a statement indicating that Libya had decided of its own free will to eliminate the materials, equipments, and programs that lead to production of internationally proscribed weapons so that Libya may be completely free of such weapons. The Foreign Ministry's statement also confirmed that Libya would be bound by the BWC, among other international agreements. In a December 19, 2003, statement, President George W. Bush noted that Colonel Muammar al-Qadhafi had agreed immediately and unconditionally to allow inspectors from international organizations to enter Libya. The President added that these inspectors would render an accounting of all nuclear, chemical, and biological weapons programs and would help oversee their elimination. These statements reflect Libya's December 2003 BW-related commitments.

Compliance Discussions

During the reporting period, the United States and the United Kingdom worked with Libya to verify that it was meeting its BWC obligations and aforementioned December 2003 BW-related commitments. Libya permitted U.S. and UK experts to conduct site visits and to meet with Libyan officials who were responsible for Libya's WMD and missile programs. As a result of these collaborative efforts, the U.S. Administration was able to inform the Congress in September 2004 that it had verified with reasonable certainty that Libya had eliminated, or had set in place the elimination of, all its WMD and Missile Technology Control Regime (MTCR)-class missile programs.

This included Libya's biological weapons-related activities. By the 2005 Report, the United States had concluded that, while questions remained regarding Libya's past offensive program, there was no longer an offensive biological weapons program.

Libya has remained actively engaged in BWC-related activities and implementation discussions in the Trilateral Steering and Cooperation Committee (TSCC), a consultative process established between the United States, the United Kingdom, and Libya in 2004. U.S. officials have also continued to consult with members of the Libyan Permanent National Committee on Bioethics and Biosafety (LPNCBB). Activities pursued through these consultations have included: preparing Libya's BWC confidence-building measures; facilitating Libya's BWC national implementation and pathogen security legislation; conducting workshops on biosecurity, biosafety, and bioethics; and reviewing Libyan accomplishments in BWC compliance.

COMPLIANCE ANALYSIS

The United States notes that Libya's activities subsequent to its December 2003 commitments have remained consistent with its BWC obligations and its December 2003 BW-related commitments. These assessments have been informed by the considerable information obtained since 2003 as the result of cooperative efforts between the United States, the United Kingdom, and Libya, including visits to Libyan sites and continuing discussions.

NORTH KOREA (DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA (DPRK))

FINDING

Available information indicates that North Korea may still consider the use of biological weapons as a military option, and that it has continued its past effort to acquire specialized equipment, materials, and expertise, some of which could support biological weapon development. North Korea has yet to declare any of its biological research and development activities as part of the BWC confidence-building measures.

BACKGROUND

North Korea acceded to the BWC on March 13, 1987. Its compliance with the BWC was first addressed in the edition of this Report covering the year 2000. In that Report, the United States assessed that North Korea had pursued biological warfare capabilities since the 1960s and may have biological weapons available for use. In the 2003 and 2005 Reports, the United States expressed the belief that North Korea had developed, produced, and may have weaponized BW agents in violation of the Convention.

Available information indicates North Korea may still consider the use of biological weapons as a military option. Available information also indicates North Korea has continued its past effort to acquire specialized equipment, materials, and expertise, some of which could support biological weapon development. North Korea has yet, however, to declare any of its biological research and development activities as part of the BWC confidence-building measures agreed by the States Parties in 1991.

Compliance Discussions

Discussions regarding North Korea's compliance with its BWC obligations took place in U.S. and multilateral fora during the reporting period. For example, in February 2005 testimony to the U.S. Congress, the Director of the U.S. Central Intelligence Agency expressed the belief that North Korea has active CW and BW programs and probably has chemical and possibly biological weapons ready for use. In September 2005, a senior U.S. State Department official noted during the Fourth Round of the Six-Party Talks that North Korea's biological and chemical weapons programs were outstanding issues that needed to be addressed. During the Sixth Review Conference of the BWC held in 2006, a senior State Department official said the United States believed North Korea has a biological warfare capability and may have developed, produced, and weaponized biological weapons for use in violation of the BWC.

Also in 2006, the UN Security Council passed Resolution 1718 requiring all Member States to prevent the supply, sale, or transfer to the DPRK, and to prohibit procurement from the DPRK, of certain items that could contribute to the DPRK's nuclear-related, ballistic missile-related, or other weapons of mass destruction-related programs. The UN's DPRK Sanctions Committee soon thereafter issued a list (S/2006/853) of items, materials, equipment, goods, and technology related to biological and chemical weapons to be included under the sanctions provisions of UNSCR 1718.

Despite these multilateral efforts, North Korea continued to reject the view that it is not meeting its BWC obligations. It also stated that it opposes the development and use of biological weapons, and that it does not possess a single biological weapon.

COMPLIANCE ANALYSIS

There have been unresolved issues in the past regarding North Korea's dual-use biological activities. The United States notes that North Korea may not have abandoned consideration of the use of biological weapons as an option in future conflict, or abandoned all activities prohibited by subparagraphs (1) and (2) of Article I of the BWC.

PAKISTAN

FINDING

Pakistan improved its export control of biological materials during the reporting period. Available information did not suggest that any agent and toxin research activities by Pakistani entities were inconsistent with Pakistan's BWC obligations. Pakistan has yet to submit a voluntary annual BWC CBM declaration.

BACKGROUND

Pakistan signed the BWC on April 10, 1972, and ratified the Convention on September 25, 1974. In 2004, Pakistan enacted an export control act covering materials and technologies related, *inter alia*, to biological weapons and their means of delivery. Pakistan later issued a national export control list that included BW aspects.

Pakistan has a modernizing biotechnology infrastructure whose activities during the reporting period included pursuing scientific cooperation with entities in other countries, including the United States. Available information did not suggest that any agent and toxin research activities by Pakistani entities were inconsistent with Pakistan's obligations under the BWC.

Pakistan has yet to submit a voluntary annual BWC CBM declaration.

Compliance Discussions

In multilateral discussions during the reporting period, Pakistan spoke in favor of assistance under Article X of the Convention, and of a return to negotiations on a BWC verification mechanism. The United States and other countries continued during this period to assess the effectiveness of Pakistan's BW-related export controls. The United States and Pakistan cooperated in export control activities in areas such as countering the WMD threat, including biological weapons; establishing an export control organization; and conducting export control training. The United States also urged Pakistan to begin submitting annual BWC CBM declarations.

COMPLIANCE ANALYSIS

The United States notes that Pakistan improved its export control of biological materials during the reporting period. Available information did not suggest that any agent and toxin research activities by Pakistani entities were inconsistent with Pakistan's BWC obligations. The United States has continued to assess the effectiveness of Pakistan's BW-related export controls.

RUSSIAN FEDERATION

FINDING

Available information during the reporting period indicated Russian entities have remained engaged in dual-use, biological research activities. There were no indications that these activities were conducted for purposes inconsistent with the BWC. It remains unclear, however, whether Russia has fulfilled its BWC obligations in regard to the items specified in Article I of the Convention that it inherited.

BACKGROUND

The Soviet Union signed the BWC on April 10, 1972, and ratified the Convention on March 26, 1975. In April 1992, President Yeltsin signed a decree committing Russia as the BWC successor to the Soviet Union and prohibiting illegal biological warfare activity in Russia.

Russia's compliance with the BWC was first addressed in the 1993 Report, although noncompliance with the BWC by the Soviet Union was first addressed in the January 1984 Report to Congress on Soviet Non-compliance with Arms Control Agreements. As early as 1984, the United States judged that the Soviet Union was violating its legal obligations under the BWC. The 1993 Report stated that Russia violated the BWC through at least March 1992, and both the 2003 and 2005 Reports concluded that Russia continued to violate the BWC.

Russia's Acknowledgement of Inherited Soviet Activities. In January 1992, President Yeltsin announced that Russia renounced the former Soviet Union's reservations to the 1925 Geneva Protocol that had allowed for retaliatory use of biological weapons. (The Duma voted to remove these reservations in 2001.) In April 1992, President Yeltsin signed a decree committing Russia as the BWC successor to the Soviet Union and prohibiting illegal biological warfare activity in Russia. During discussions in Moscow in September 1992, Russian officials confirmed the existence of a biological weapons program inherited from the Soviet Union, committed themselves to dismantling it, and agreed to on-site verification procedures. Although Russia had inherited the past offensive program of biological research and development from the Soviet Union, Russia's annual BWC confidence-building measure declarations since 1992 have not satisfactorily documented whether this program was terminated.

Available information during the reporting period also indicated Russian entities have remained engaged in dual-use, biological research activities. Examples of these have included: identifying factors that enhance the virulence, toxicity, or antibiotic resistance of pathogens; and examining biological aerosols. There were no indications that these activities were conducted for purposes inconsistent with the BWC.

Compliance Discussions

Discussions took place during the reporting period in U.S. and multilateral fora regarding Russia's compliance with the BWC. The United States and other countries have offered to work with Russia to address issues. Cooperative U.S.-Russian efforts have been undertaken through the Cooperative Threat Reduction (CTR) and International Science and Technology Center (ISTC) programs. During the reporting period, the Russian Government expressed support for strengthening the BWC and maintained Russia is in compliance with the BWC.

COMPLIANCE ANALYSIS

The United States notes that Russia acknowledged it inherited past offensive programs of biological research and development from the former Soviet Union. It remains unclear, however, whether Russia has fulfilled its obligations under Article II of the BWC to destroy or divert to peaceful purposes the items specified in Article I of the Convention that it inherited.

SYRIA

FINDING

During the reporting period, Syria's President stated that Syria was entitled to defend itself by acquiring, *inter alia*, its own biological deterrent. Available information does not indicate that the Syrian Government subsequently modified or rescinded this statement, or that Syria has abandoned all intent to acquire biological weapons. The United States notes that, if Syria were a State Party to the BWC, BW-related activities in which it has engaged would have been prohibited by the Convention.

BACKGROUND

Syria signed the BWC on April 14, 1972, but has yet to ratify the Convention. Syria's BW-related activities were addressed in the 1993 Report. In that Report, the United States concluded that it was highly probable Syria was developing a biological warfare agent. Subsequent Reports judged that it was highly probable Syria was developing an offensive biological warfare capability. In the 2005 Report, the United States judged that Syria was developing an offensive biological warfare capability that would constitute a violation of the BWC if Syria were a State Party.

According to available information, Syrian President Bashar Al-Asad stated in 2004 that Syria was entitled to defend itself by acquiring its own chemical and biological deterrent. Available information does not indicate that the Syrian Government subsequently modified or rescinded this statement, or that Syria has abandoned all intent to acquire biological weapons.

Compliance Discussions

Discussions regarding Syria's BW-related activities have continued among the United States and other countries. For example, pursuant to U.S. Executive Order 13382, the United States designated four Syrian entities as WMD proliferators during the reporting period out of concern their activities focused on the development of biological and chemical weapons.

In November 2005, President George W. Bush signed into law amendments to the Iran Nonproliferation Act, renaming it the Iran and Syria Nonproliferation Act and broadening the scope of transfers reportable to the U.S. Congress to include transfers to or from Syria. The law also authorized sanctions against the transferring entity.

During the Sixth Review Conference of the BWC in 2006, the United States said it remained seriously concerned that Syria, a signatory to the BWC, has conducted research and development for an offensive BW program.

COMPLIANCE ANALYSIS

There is no information indicating Syria has abandoned its past, stated intentions to develop a biological deterrent. The United States notes that, during the reporting period, BW-related activities of Syrian entities compelled the United States to designate Syrian entities as WMD proliferators and to enact law authorizing sanctions against entities that transfer to or from Syria. The United States notes that, if Syria were a State Party to the BWC, BW-related activities in which it has engaged would have been prohibited by subparagraphs (1) and (2) of Article I of the Convention.

ADDITIONAL ASSESSMENT

TAIWAN

FINDING

Available information did not indicate that any biological research and development activities by Taiwan entities during the reporting period were inconsistent with the BWC. Moreover, there are no unresolved BWC compliance issues involving Taiwan.

BACKGROUND

The Republic of China (Taiwan) ratified the BWC on February 9, 1973. Effective January 1, 1979, the United States recognized the People's Republic of China as the sole legal government of China. Although Taiwan is no longer a BWC State Party, Taiwan

authorities state that they will continue to abide by the provisions of the Convention and the United States regards Taiwan as bound by the Convention's obligations. Taiwan's *Defense Report for the Republic of China 2002* stated that the defense technology policy of Taiwan would not permit the acquisition, production, or fielding of NBC weapons, and would firmly follow international conventions in this regard. The *Defense Report* also stated that Taiwan's armed forces would never produce, develop, procure, stockpile or deploy nuclear, chemical, and biological weapons. Taiwan's *2006 National Security Report* stated that Taiwan pledged to never develop weapons of mass destruction, including nuclear and biochemical weapons.

Taiwan has growing biotechnology and bio-pharmaceutical industries. Biotechnology entities in Taiwan have continued to pursue scientific cooperation with entities outside Taiwan. Available information did not indicate that any biological research and development activities by Taiwan entities during the reporting period were inconsistent with the BWC.

Given that Taiwan is no longer a BWC State Party, it is not expected to submit voluntary annual BWC CBM declarations.

Compliance Discussions

No BWC compliance issues were raised between the United States and Taiwan during the reporting period.

COMPLIANCE ANALYSIS

The United States notes that available information did not indicate that any biological research and development activities by Taiwan entities during the reporting period were inconsistent with the BWC. The United States assesses that there are no unresolved BWC compliance issues involving Taiwan.

TREATY ON CONVENTIONAL ARMED FORCES IN EUROPE (CFE)

The Treaty on Conventional Armed Forces in Europe (CFE) was signed November 19, 1990, by 22 States. On June 14, 1991, the Soviet Union issued two related statements in an extraordinary conference in Vienna and in the Joint Consultative Group (JCG). One contained legally binding obligations related to equipment of the same categories as Treaty-limited equipment (TLE) held by Naval Infantry/Coastal Defense (NI/CD), and Strategic Rocket Forces (SRF). The second contained political commitments related to equipment of Treaty-limited types removed from the CFE area of application (AoA) by the Soviet Union prior to Treaty signature.

In December 1991, the Soviet Union ceased to exist and twelve newly independent states (NIS) came into existence. In the Tashkent Agreement of May 15, 1992, eight NIS (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Moldova, Russia, and Ukraine) with territory in the CFE Treaty's AoA agreed on principles for, and most of the details of, allocating the CFE rights and obligations of the Soviet Union.¹ At the Oslo Extraordinary Conference of all CFE participants in June 1992, these eight states confirmed their acceptance of all CFE and CFE-related rights and obligations of the former Soviet Union (FSU) and the States Parties noted the division of allowances recorded in that Agreement.

On July 17, 1992, the CFE Treaty came into full provisional application.

The Concluding Act of the Negotiation on Personnel Strength of Conventional Armed Forces in Europe (CFE-1A), an associated political agreement that came into effect simultaneously with the CFE Treaty, establishes aggregate national ceilings for personnel in military forces in the AoA. It requires each State Party to provide data on its peacetime authorized personnel strength and to brief on-site inspection (OSI) teams on the personnel holdings of units inspected.

In January 1993, the Czech and Slovak Federal Republic (CSFR) split into two separate states, the Czech Republic and the Slovak Republic, which accepted the rights and obligations of the former CSFR and were accepted into the Treaty. This brought the number of States Parties to its present 30.

For additional discussion and details on the further history of the Treaty and its amendments (the CFE Flank Document), as well as the signed but unratified Agreement on Adaptation (referred to as the "Adapted Treaty"), see previous editions of this Report and of the Report on Compliance with the Treaty on Conventional Armed Forces in Europe (CFE) submitted in accordance with Condition (5)(C) of the Senate Resolution of

¹ Earlier, the three Baltic States (Estonia, Latvia, and Lithuania) had gained their independence from the USSR and had indicated that they did not want to be States Parties to the original CFE Treaty. All three have subsequently indicated an intention to accede to the Adapted Treaty when it becomes possible to do so (that is, after the Adapted Treaty enters into force).

Advice and Consent to Ratification of the CFE Flank Document (the latter report is commonly referred to as the Condition 5(C) Report).

CFE TREATY IMPLEMENTATION

From 1992 through the end of 2008, more than 52,000 pieces of conventional armaments and equipment were reduced inside the AoA in accordance with the Treaty's reduction provisions. Many States Parties reduced their holdings to lower levels than required – notifying over 17,955 voluntary reductions or conversions below limits by the end of 2008.² The States Parties also notified and carried out some 6,000 CFE inspections through the end of 2008, including CFE quota inspections, supplementary flank inspections, inspections according to bilateral agreements, and reduction inspections.

COUNTRY ASSESSMENTS³

ARMENIA

FINDING

Armenia has failed to comply with CFE Treaty provisions in regard to declaring and meeting required reduction liabilities, and to making notifications and other declarations under the Treaty. Armenia has not been assessed to have exceeded any CFE Treaty-limited equipment (TLE) limits.

BACKGROUND

Available information indicates Armenia has failed to: (1) notify properly and to carry out reductions required by the Treaty since the Treaty entered into force in 1992; (2) address the CFE issues surrounding TLE transfers from Russia to Armenia between 1994 and 1996; (3) address issues regarding the status and locations of all MT-LBu variant armored personnel carrier (APC) look-alikes; and (4) resolve issues about unreported holdings of conventional armaments and equipment subject to the Treaty (CAEST). Armenia has not been assessed to have exceeded any CFE Treaty-limited equipment (TLE) limits.

Armenia's failure either to notify properly or to complete its required CFE Treaty reduction obligations contributes to the collective failure by the eight USSR successor

² Currently, only some States Parties voluntarily make notifications of reductions below limits.

³ Georgia has not been cited for any compliance concerns previously. However, Georgia's data as of January 1, 2006, showed for the first time an overage in holdings in armored infantry fighting vehicles (AIFVs)/heavy armored combat vehicles (HACVs). This was corrected in an updated notification in May 2006 and is no longer an issue.

states that became States Parties to the CFE Treaty to meet the Oslo commitment to declare and to complete reduction requirements that are no less than the reduction requirements of the FSU (see the Collective Obligations section below).

Compliance Discussions

The United States and NATO Allies have continued to raise compliance issues involving Armenia in bilateral discussions as appropriate. Armenian officials have expressed their full support for the CFE Treaty.

COMPLIANCE ANALYSIS

In regard to declaring and carrying out reduction obligations, Article VII of the CFE Treaty requires each State Party to notify the maximum levels for its holdings of conventional armaments and equipment limited by the Treaty and not to exceed those limits. In addition, Article VIII requires each State Party to notify its reduction liability (the difference between Treaty-limited holdings and its own limits) not later than 30 days after entry into force, and to complete its reduction liability by specified means of reductions by the end of a 40-month reduction period.

In regard to the TLE transfers from Russia to Armenia between 1994 and 1996, the Treaty's Protocol on Notification and Exchange of Information (PONEI) requires timely notifications of increases of ten percent or more in unit holdings of TLE, and annual notifications of the aggregate numbers of TLE entering into service during the previous twelve months. None of these TLE transfers led to such notifications.

Regarding MT-LBu vehicles and other indications of undeclared CAEST, Article XIII of the Treaty and the PONEI require all States Parties to provide full data on the numbers of TLE held in their armed forces overall and in specified CFE zones. Article XIII and the PONEI also require such information on TLE (in addition to APC look-alikes and armored infantry fighting vehicle (AIFV) look-alikes) in each TLE-holding unit, as well as comparable data on such items not subject to Treaty limits because they are in a different status (e.g., held by internal security organizations, decommissioned and awaiting disposal, temporarily in the AoA while awaiting export, etc.).

AZERBAIJAN

FINDING

Azerbaijan has failed to comply with CFE Treaty provisions with regard to declaring and meeting required reduction liabilities, although it has notified and carried out some CFE reductions. In addition, Azerbaijan has continued to suspend selected Treaty provisions unilaterally, and declared TLE holdings that exceed its national limits.

BACKGROUND

Compliance issues have continued to be raised with Azerbaijan under the CFE Treaty for: (1) failing to notify and complete its required CFE reductions, although it notified and carried out some reductions that were confirmed by U.S. and Allied inspectors; (2) exceeding its TLE limits under the Treaty for tanks and artillery, although it notified some reductions; and (3) unilaterally suspending its provision of certain Treaty notifications and failing to report correctly certain objects of verification (OOVs).

Azerbaijan's failure either to notify or to complete its required CFE reductions contributes to the collective failure by the eight USSR successor states that became States Parties to the CFE Treaty to meet the Oslo commitment to declare and to complete reduction requirements that are no less than the reduction requirements of the FSU (see the Collective Obligations section below).

Compliance Discussions

The United States and NATO Allies have continued to raise unresolved compliance issues involving Azerbaijan in the JCG and bilateral discussions. Azerbaijan has expressed its full support for the CFE Treaty, but has said security concerns will continue to limit its ability to implement CFE provisions until the Nagorno-Karabakh issue is resolved.

COMPLIANCE ANALYSIS

In regard to declaring and carrying out reduction obligations, Article VII of the CFE Treaty requires each State Party to notify the maximum levels for its holdings of conventional armaments and equipment limited by the Treaty and not to exceed those limits. In addition, Article VIII requires each State Party to notify its reduction liability (the difference between Treaty-limited holdings and its own limits) not later than 30 days after entry into force, and to complete its reduction liability by specified means of reductions by the end of a 40-month reduction period.

In regard to exceeding TLE limits under the Treaty, Article XIII and the PONEI require all States Parties to provide full data on the numbers of TLE (in addition to APC look-alikes and AIFV look-alikes) held in their armed forces, as well as comparable data on such items not subject to Treaty limits because they are in a different status (e.g., held by internal security organizations, decommissioned and awaiting disposal, temporarily in the area of application while awaiting export, etc.).

Regarding the provision of CFE notifications and data, Article XIII and the PONEI require States Parties to provide full data on all OOVs and their locations in annual data. The PONEI also requires timely notifications of increases of ten percent or more in unit holdings of TLE and changes in unit structure, and annual notifications of the aggregate numbers of TLE entering into service during the previous twelve months.

BELARUS

FINDING

During some CFE inspections during the reporting period, Belarus provided site diagrams that did not meet Treaty requirements and, as a result, improperly denied inspection access to territory located on declared CFE inspection sites.

BACKGROUND

There continue to be some issues regarding Belarus' fulfillment of its CFE obligations. Past unresolved issues that recurred during the reporting period included Belarus' failure to: (1) provide site diagrams that meet the CFE Treaty requirements during some CFE inspections; and (2) permit inspection access to territory located on some declared CFE inspection sites as the result of inaccurate site diagrams. These issues did not recur during inspections in 2008, although there was no information confirming that Belarus has changed its Treaty interpretation regarding site diagrams.

Compliance Discussions

The United States and NATO Allies have continued to pursue resolution of compliance issues involving Belarus in the JCG and bilateral discussions. Belarus has stated its full support for the CFE Treaty.

COMPLIANCE ANALYSIS

With regard to providing proper site diagrams and site access, the Protocol on Inspection defines a declared site as including all territory within the outer natural or man-made boundary (plus associated areas, e.g., training areas). In addition, the Protocol requires that inspectors be given access, entry, and unobstructed inspection within the entire territory of the declared site except areas occupied by declared CFE OOVs other than the one being inspected and any sensitive points, the number and extent of which are to be as limited as possible.

RUSSIAN FEDERATION

FINDING

Russia "suspended" implementation of its CFE Treaty obligations⁴ in December 2007 after indicating it would do so if States Parties had not ratified the Agreement on

⁴ This Report refers to Russia's "suspension" of implementation of the Treaty in quotation marks because views differ between Russia and other States Parties on whether Russia's action may be justified, under the circumstances, based on customary international law or by the terms of the Treaty. The United States does not accept the legal argument that Russia has presented to justify its "suspension."

Adaptation of the CFE Treaty and had not addressed Russia's calls for elimination of flank limits and other issues. Since then Russia has not provided the data submissions or notifications required by the Treaty and has declined all CFE inspections. In addition, issues involving the presence of Russian forces in Moldova and Georgia without those states' consent and Russian holdings in the original and revised flank zones were not resolved during the reporting period. Issues that were resolved or whose status did not appreciably change during the reporting period involved accountability, declaration, and inspection provisions under the Treaty. The United States notes that Russia's actions have resulted in noncompliance with its Treaty obligations.

BACKGROUND

Russia's "Suspension" of Its Implementation of the CFE Treaty. On July 13, 2007, President Putin signed a decree notifying the Duma and the Federation Council of Russia's intent to suspend its adherence to the CFE Treaty at the end of a 150-day period if States Parties had not ratified the Agreement on Adaptation of the CFE Treaty (referred to as the "Adapted Treaty") and had not addressed Russia's calls for elimination of flank limits and other issues. On July 14, 2007, Russia transmitted to the Treaty Depository a notification of its intent to suspend its observance of its CFE Treaty obligations to be effective in 150 days. On December 12, 2007, Russia "suspended" implementation of the CFE Treaty. The United States responded in a notice to the CFE Treaty Depository and in a legal analysis presented to the JCG that suspension, while an option under certain circumstances under international law, is not provided for in the CFE Treaty and that Russia's "suspension" is not justified under customary international law under the circumstances cited by Russia. In addition, NATO Allies registered their concern about Russia's CFE "suspension" in a public statement on December 12, 2007, pointing out that the Treaty does not provide for suspension. Subsequent to the "suspension," Russia has declined all CFE inspections and has not provided the data submissions or notifications required by the Treaty. At the same time, the United States, NATO Allies, and other States Parties have continued to observe their CFE Treaty obligations.

Other CFE-related Issues. Other significant issues relating to Russia that were addressed during the reporting period but not resolved prior to Russia's "suspension" of implementation included, *inter alia*, the presence of Russian forces in Moldova and Georgia without those states' consent, and Russian holdings in the original and revised flank zones.⁵ In addition, some questions were resolved regarding undeclared APCs and NICD limits, there were new questions regarding supplementary inspections, AIFV notification, and invocation of *force majeure*, and there was no change regarding previously reported issues involving the transfer of TLE to Armenia, site diagrams, and the failure to report APCs.

⁵ The 1996 CFE Flank Document created a revised flank zone with associated limits.

Compliance Discussions

During the reporting period, the United States, Russia, and NATO Allies frequently held formal discussions and engaged through a variety of other diplomatic channels on CFE-related compliance issues. In 2007 and 2008, the United States and NATO Allies called for parallel actions on ratification by NATO of the Adapted Treaty and fulfillment by Russia of its remaining Istanbul commitments. They also regularly called at the highest levels of government for Russia to resume implementation of the CFE Treaty, and responded to all Russian denials of CFE inspections with formal statements in the JCG objecting to the denials. Russia maintained that its “suspension” is legal under the concept of a lesser included right under the withdrawal provision of the Treaty, a view not accepted by the United States or its NATO Allies. Russia also raised issues about U.S. and NATO compliance under the Treaty. Discussions between States Parties during the reporting period enabled an exchange of views on unresolved issues, such as notifying and conducting CFE supplementary inspections, reporting AIFVs, and declaring APC look-alikes and AIFV look-alikes.

COMPLIANCE ANALYSIS

The United States continues to hold the view that suspension, while an option under certain circumstances under international law, is not provided for in the Treaty and that under customary international law, Russia’s “suspension” is not justified by the circumstances Russia cites. In addition, although some previous CFE issues relating to Russia were resolved during the reporting period, others remained unchanged. The United States notes that Russia’s actions have resulted in noncompliance with its Treaty obligations. The United States also notes that, by not withdrawing from the CFE Treaty, Russia has kept open the possibility that it could resume implementation of the Treaty.

UKRAINE

FINDING

Although Ukraine reduced its overages above limits in active units during the reporting period, it remained above limits for APCs and artillery pieces for some zones through 2008. In addition, Ukraine did not use the CFE Treaty procedures in making its NI/CD reductions.

BACKGROUND

Ukraine has substantially complied with the CFE Treaty. However, since 1996 and through 2008, Ukrainian data have repeatedly indicated that Ukraine was above some of its notified limits for holdings in active units. In addition, as discussed in the Collective Obligations section below, Ukraine did not use the CFE Treaty procedures in making its NI/CD reductions.

Revised Flank Zone (zone 5.1 minus the Odessa oblast). During the reporting period, Ukraine regularly notified overages of APCs above limits in active units in this zone. Ukraine reduced these overages by over 50 percent between 2005 and 2008. In recent years, changes to holdings of equipment in active units in this zone have been affected by ACV transfers from the SRF to the conventional armed forces.⁶

Zones 4.1, 4.2, and 4.3. As of January 2008, Ukraine reported overages of artillery pieces above limits in active units in zones 4.1, 4.2, and 4.3. The overage in zone 4.1 was only a few artillery pieces. By January 2009, Ukraine had reduced the overages in zones 4.2 and 4.3 by over two-thirds.

Compliance Discussions

The United States has continued to encourage Ukraine to bring its TLE levels to within the limits for equipment in active units. Ukraine had not resolved this issue as of the end of the reporting period. Ukraine has stated its full support for the CFE Treaty.

COMPLIANCE ANALYSIS

Articles IV and V of the Treaty establish aggregate limits for each of the two groups of States Parties in each category of TLE, overall in the AoA, in each zone, and in the flank zone. In addition, Article VII prescribes that each State Party shall provide at signature the maximum levels for its holdings overall in the AoA, in each zone, and in the flank zone, and that each State Party shall be responsible solely for its own compliance with its notified limits.

COLLECTIVE OBLIGATIONS

FINDING

The eight USSR successor states that became States Parties to the CFE Treaty have not fulfilled their collective obligation to declare reduction liabilities and complete reductions that in the aggregate are no less than what the USSR would have had to declare and complete.

Although Ukraine is below its overall limits for TLE and its reductions in reported holdings in recent years have exceeded its remaining NI/CD-related reduction obligations, Ukraine did not use the Treaty procedures in making its NI/CD reductions.

⁶ ACVs assigned to the SRF in Russia, Belarus, and Ukraine are limited in number by a Treaty-related commitment, but do not count against TLE limits on equipment in service with the conventional armed forces.

BACKGROUND

Successor States' Collective Reduction Obligation. At a conference in Oslo in 1992, the eight USSR successor states that would become States Parties to the CFE Treaty committed to reduce in the aggregate at least as many pieces of TLE as the USSR would have had to reduce based upon its data at Treaty signature. During the reporting period, the successor states did not meet this commitment and there was no change in the status of this issue.

Ukrainian NI/CD Obligations. Russia and Ukraine share a legally binding obligation to declare and complete NI/CD-related reductions equal to those the USSR had committed to carry out. After the USSR dissolved, Ukraine and Russia inherited this obligation. These reductions must be carried out using Treaty procedures that include making the reduction events available for on-site inspections. In 2000, Russia completed its share of this obligation. However, Ukraine has never notified any NI/CD-related reduction events, nor have its NI/CD-related reduction events been subject to on-site inspections.

Compliance Discussions

There were no discussions regarding the successor states' collective reduction obligation during the reporting period.

Ukraine has continued to maintain that it should not be required to carry out NI/CD-related reductions because it advised other States Parties that it had completed destruction or conversion of an equivalent or greater amount of equipment and because it is already in compliance with its overall limits.

COMPLIANCE ANALYSIS

Decreases in Ukraine's reported holdings in recent years have exceeded Ukraine's remaining NI/CD-related reduction obligations. In addition, Ukraine has provided information correlating decreases to specific destruction or conversion events. Nevertheless, the NI/CD-related reductions were required to be carried out using specific Treaty reduction procedures and Ukraine has acknowledged that it did not use them.

VIENNA DOCUMENT 1999 ON THE NEGOTIATIONS ON CONFIDENCE- AND SECURITY-BUILDING MEASURES

STATUS

On March 4, 1992, the participating States in the Conference on Security and Cooperation in Europe (CSCE), including all successor states to the Soviet Union, adopted Vienna Document 1992 (VD92), which added to and built upon the undertakings in Vienna Document 1990 (VD90). Subsequently, most of the successor states of the former Yugoslavia also joined VD92. In November 1994, at the CSCE Summit in Budapest, VD92 was expanded and incorporated into Vienna Document 1994 (VD94). At that time, the CSCE became the Organization for Security and Cooperation in Europe (OSCE). During 1999, the participating States to VD94 completed discussions to update the Document, and improved provisions were accepted in Vienna Document 1999 (VD99) at the OSCE Istanbul Summit in November 1999. The measures contained in VD99 are politically binding upon the participating States.

ISSUES

With a few exceptions, compliance with VD99 has been good. During the period of this Report, over 460 inspections and over 200 evaluation visits of units and formations were conducted by the participating States under the provisions of VD99. In addition, some 60 inspections and almost 140 evaluation visits were conducted using VD99 procedures under bilateral agreements that offer additional quotas to the participants. Of these, more than 100 inspections and over 50 evaluation visits were conducted in 2008 by the participating States under the provisions of VD99.¹ In addition, over 10 inspections and almost 40 evaluation visits were conducted in 2008 using VD99 procedures, under bilateral agreements that offer additional quotas to the participants. Every year, however, some participating States did not provide annual Confidence- and Security-Building Measures data on time when required in December. Most of the participating States that did not submit data or nil reports did eventually submit this information late.

VD99 requires that each participating State with reported air combat units arrange at least one air base visit during each designated five-year period. During the five-year period ending December 31, 2006, several participating States were unable to host an air base visit as required. In addition, there have been other – mostly minor – notification, data, and inspection problems similar to those discussed under CFE.

¹ The number of evaluations and inspections conducted increased during 2008 above the levels of previous years because Russia, which was no longer conducting or accepting CFE inspections, dramatically increased its numbers of VD99 inspections and evaluations in other States.

CHEMICAL WEAPONS CONVENTION (CWC)

INTRODUCTION

The specific issues addressed in this Report fall primarily into three categories. First, there are several cases in which States Parties have responded to expressions of concern and taken concrete steps to come into compliance with their obligations. The second includes States that inherited the materials of predecessor governments' activities, and have thus far been unable to reconcile past programs and activities, while the third includes countries that are involved in activities that are a cause of significant compliance concern.

CONVENTION OBLIGATIONS

The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (Chemical Weapons Convention or CWC) was ratified by the United States on April 25, 1997, and entered into force on April 29, 1997. The CWC imposes a number of basic obligations upon States Parties. Under the "general obligations" provisions of Article I, States Parties undertake never to develop, produce, otherwise acquire, stockpile, or retain chemical weapons (CW), or to transfer them to anyone, directly or indirectly. Article I also obliges Parties "never under any circumstances" to use chemical weapons, engage in "military preparations" for their use, or "to assist, encourage or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Convention." Additionally, each State Party must destroy all chemical weapons in its possession, under its jurisdiction or control, or that it abandoned in another country, and it must destroy or convert all its chemical weapons production facilities (CWPFs) that it owns or possesses or are under its jurisdiction or control. Parties are also obliged not to use riot control agents (RCAs) as a method of warfare.

Article III imposes additional obligations, specifically by requiring the submission of detailed declarations of chemical weapons stockpiles, production facilities, other related facilities (e.g., laboratories and test and evaluation sites), and types of RCAs possessed. A State Party is required to declare, *inter alia*, whether it:

- Owns or possesses any chemical weapons, or whether there are any chemical weapons located in any place under its jurisdiction or control;
- Has on its territory old or abandoned chemical weapons, or has abandoned chemical weapons on the territory of another State;
- Has or has had any chemical weapons production facility under its ownership or possession, or that is or has been located in any place under its jurisdiction or control at any time since January 1, 1946;

- Has transferred or received directly or indirectly any equipment for the production of chemical weapons since January 1, 1946;
- Has any facility or establishment under its ownership or possession, or located in any place under its jurisdiction or control, that has been designed, constructed, or used since January 1, 1946, primarily for the development of chemical weapons; and,
- Holds chemicals for riot control purposes.

Countries that were original States Parties to the CWC were required to submit their initial data declaration not later than 30 days after entry into force. Countries that ratified after the CWC entered into force, or acceded, became States Parties 30 days after the deposit of their instrument of ratification or accession and are required to submit their initial data declaration 30 days after becoming a State Party. Articles IV and V, and the corresponding parts of the Verification Annex, provide detailed requirements governing the implementation of the obligations on the destruction of chemical weapons and production facilities.

Article VI of the CWC makes clear that each State Party has “the right, subject to the provisions of this Convention, to develop, produce, otherwise acquire, retain, transfer and use toxic chemicals and their precursors for purposes not prohibited under this Convention.” It thus makes clear that, even if the formal declaration and verification provisions of the CWC are followed, States Parties have no right to have or to deal in toxic chemicals or their precursors if their purpose in so doing is one that is prohibited under this Convention (e.g., to acquire chemical weapons or in any way to assist, encourage, or induce another to do so). Article VI also imposes specific obligations with respect to controlling specific chemicals listed in Schedules 1, 2, and 3 of the Annex on Chemicals – as well as facilities related to such scheduled chemicals – and subjects these chemicals to verification measures provided in the Convention’s Verification Annex.

Article VII of the CWC requires that each State Party, in accordance with its constitutional processes, adopt the necessary measures to implement its obligations under the Convention. These measures shall prohibit natural and legal persons anywhere on a State Party’s territory or in any other place under its jurisdiction as recognized by international law from undertaking any activity prohibited to a State Party. A State Party is also required to enact penal legislation with respect to such activity. The United States continues to play a key role in pursuing compliance in this area through the Organization for the Prohibition of Chemical Weapons’ (OPCW) Article VII Action Plan, agreed by States Parties at the Eighth Session of the Conference of the States Parties (CSP-8) in 2003. The United States has worked hard in providing assistance to other countries in an effort to reach the goal of the Action Plan, which is to have all States Parties establish a National Authority, enact implementing legislation, including penal measures, and establish administrative measures (e.g., submit declarations and related documentation required by the CWC). Follow-up plans were agreed to by CSPs-10 through 13, setting

specific actions to ensure the fulfillment of Article VII obligations by all States Parties to the Convention.

The OPCW Technical Secretariat (TS) reported in 2008 that there were:

- Seven States Parties that had yet to designate a National Authority: Barbados, Cape Verde, Comoros, Congo, Honduras, Mauritania, and Timor-Leste.
- 103 States Parties that had not adopted implementing legislation covering all key areas: Afghanistan, Antigua and Barbuda, Azerbaijan, Bahrain, Bangladesh, Barbados, Belgium, Belize, Benin, Bhutan, Bolivia, Botswana, Brunei Darussalam, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Chile, Comoros, Congo, Cote d'Ivoire, Democratic Republic of the Congo, Djibouti, Dominica, Ecuador, El Salvador, Equatorial Guinea, Eritrea, Fiji, Gabon, Gambia, Georgia, Ghana, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Iceland, Indonesia, Jamaica, Jordan, Kenya, Kiribati, Kuwait, Kyrgyzstan, Lao People's Democratic Republic, Liberia, Libya, Luxembourg, Malawi, Maldives, Mali, Marshall Islands, Mexico, Micronesia, Mongolia, Montenegro, Morocco, Mozambique, Namibia, Nauru, Nepal, Nicaragua, Niger, Nigeria, Niue, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Rwanda, Saint Kitts and Nevis, Samoa, San Marino, Sao Tome and Principe, Seychelles, Sierra Leone, Solomon Islands, Sri Lanka, Suriname, Swaziland, Tajikistan, Timor-Leste, Togo, Tonga, Trinidad and Tobago, Turkmenistan, Tuvalu, Uganda, United Arab Emirates, United Republic of Tanzania, Uruguay, Vanuatu, Venezuela, Yemen, Zambia, and Zimbabwe.
- 73 States Parties that have not taken administrative measures to control transfers of scheduled chemicals: Afghanistan, Antigua and Barbuda, Bahrain, Barbados, Belize, Benin, Bhutan, Botswana, Brunei Darussalam, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Democratic Republic of the Congo, Djibouti, Dominica, El Salvador, Equatorial Guinea, Eritrea, Gabon, Gambia, Grenada, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Iceland, Jamaica, Jordan, Kenya, Kuwait, Kyrgyzstan, Liberia, Libya, Malawi, Maldives, Marshall Islands, Micronesia, Morocco, Mozambique, Namibia, Nauru, Nepal, Nicaragua, Niger, Niue, Papua New Guinea, Paraguay, Philippines, Rwanda, Samoa, San Marino, Sao Tome and Principe, Sierra Leone, Solomon Islands, Suriname, Swaziland, Timor-Leste, Togo, Tonga, Trinidad and Tobago, Turkmenistan, Tuvalu, United Arab Emirates, United Republic of Tanzania, Vanuatu, Venezuela, and Yemen.

The OPCW was established pursuant to the CWC in order, among other things, to “ensure the implementation of its provisions, including those for international verification of compliance with it.” Under Article VIII, the CSP is authorized to “review compliance” with the CWC, and is to “[t]ake the necessary measures to ensure

compliance with this Convention and to redress and remedy any situation which contravenes the provisions of this Convention, in accordance with Article XII.” Article XII, in turn, provides that the Conference may, *inter alia*, “restrict or suspend” a violator State’s “rights and privileges” under the CWC until compliance resumes. In “cases of particular gravity,” the Conference can bring the issue to the attention of the United Nations Security Council and General Assembly.

For its part, both as a matter of national policy and as a guide to national policy, the United States undertakes its own independent review – based upon the best available information, including intelligence information – of the compliance of CWC States Parties with their obligations under the Convention. The United States believes that States Parties should be held to their obligations under the CWC, and places a high premium upon their compliance both with specific detailed declaration and implementation provisions (e.g., Articles III, IV, V, and VII) and with the “general obligations” of Article I.

U.S. compliance assessments under the CWC focus upon the degree to which States Parties fulfill not only their detailed declaration and destruction/conversion obligations under Articles III through V, but also their “general obligations” under Article I. Information tending to show that chemical weapons have actually been used, or that a State Party has helped or encouraged anyone to engage in any activity prohibited to a State Party under this Convention (e.g., by helping another country, or a non-state actor such as an international terrorist entity, acquire chemical weapons), would thus be highly relevant to an Article I compliance finding.

The United States also believes that, because of their obligation under subparagraph (1)(d) of Article I which requires States Parties not in any way to assist, encourage, or induce others to acquire chemical weapons, States Parties are under an obligation to exercise due diligence in their trade in precursor chemicals and dual-use equipment that could be employed in the development of chemical weapons. In particular, States Parties should exercise restraint in their dealings with recipient entities, and should not undertake any potential CW-related transfers of technology or chemicals to any entity about which there is a reasonable suspicion that it is engaged, or seeks to be engaged, in the development, production, stockpiling, or use of chemical weapons in any way that would be prohibited to a State Party to the CWC.

Moreover, under paragraph 5 of Article V of the CWC, a State Party may not “construct any new chemical weapons production facilities or modify any existing facilities for the purpose of chemical weapons production or for any other activity” prohibited by the CWC. This focus upon the *purpose* for which construction or modification occurs indicates that whether or not prohibited quantities of banned or controlled chemicals are actually present, the development and maintenance of a CW mobilization capability would amount to noncompliance with the Convention if it were undertaken with such CW applications in mind. In judging such CW mobilization intent, where more direct evidence is unavailable, a number of factors may be relevant,

including the country's record of CWC compliance in other respects; the accuracy and completeness of its declarations; its history of CW-related activity; the legitimate economic or commercial need for chemicals, the production of which requires the development of processes easily adaptable for CW production; and the degree to which production methods it adopts diverge in otherwise inexplicable ways from industry practice, or are uneconomical or implausibly inefficient in peaceful applications.

The United States notes that subparagraph 9(b) of Article II expressly permits possession of chemical agents for “[p]rotective purposes, namely those purposes directly related to protection against toxic chemicals and to protection against chemical weapons.” By contrast, subparagraph 1(c) of Article I prohibits engaging in “any military preparations to use chemical weapons.” Part VI, Section A of the Verification Annex spells out in more detail which activities are permitted under the CWC, making clear that a State Party may not “produce, acquire, retain, transfer or use” Schedule 1 chemicals unless they are applied to legitimate “research, medical, pharmaceutical or protective purposes,” and possessed only in small quantities “strictly limited to those which can be justified for such purposes,” but in no circumstances more than one metric ton. Part VI, Section C of the Verification Annex specifies allowable production quantities at declared and undeclared facilities, but it does not alter the basic rule that *purpose* is the touchstone of compliance with regard to research quantities of chemical agents. Appropriately scaled research undertaken for legitimate protective purposes *against* chemical weaponry is thus permitted, but research aimed at developing or improving *weapons* applications would constitute noncompliance. It should be noted, moreover, that under subparagraph 1(c) of Article I there is no requirement that “military preparations to use chemical weapons” actually involve chemical agents. Accordingly, research undertaken for the purpose of facilitating weapons uses rather than for protective purposes would constitute a violation of the CWC, regardless of whether or not chemical agents were involved. (Research using CW agent simulants or CW munitions development, for example, would thus present noncompliance problems if undertaken for weapons, rather than protective, purposes.)

Article X, paragraph 4 of the Convention, states that “for the purposes of increasing the transparency of national programs related to protective purposes, each State Party shall provide annually to the Technical Secretariat information on its program, in accordance with procedures to be considered and approved by the Conference pursuant to Article VII, paragraph 21 (i).” The OPCW TS reported in 2008 that the following States Parties had no national program for protection against chemical weapons, or had not provided information to the TS on their national programs:

Afghanistan, Andorra, Antigua and Barbuda, Argentina, Barbados, Belize, Benin, Bhutan, Bolivia, Botswana, Brunei Darussalam, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Cook Islands, Côte d’Ivoire, Cyprus, Democratic Republic of the Congo, Djibouti, Dominica, Ecuador, Equatorial Guinea, Eritrea, Fiji, Gabon, Gambia, Georgia, Ghana, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras,

Jamaica, Kiribati, Kuwait, Lao People's Democratic Republic, Latvia, Lesotho, Liberia, Liechtenstein, Luxembourg, Madagascar, Malawi, Mali, Malta, Marshall Islands, Mauritania, Mauritius, Micronesia, Mozambique, Namibia, Nauru, Nepal, Nicaragua, Niger, Niue, Oman, Palau, Panama, Papua New Guinea, Paraguay, Republic of Moldova, Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, San Marino, Seychelles, Sierra Leone, Solomon Islands, Sri Lanka, Sudan, Suriname, Swaziland, Thailand, The former Yugoslav Republic of Macedonia, Timor-Leste, Togo, Tonga, Trinidad and Tobago, Tunisia, Tuvalu, Uganda, United Republic of Tanzania, Uruguay, Uzbekistan, Vanuatu, Venezuela, Yemen, and Zambia.

As of December 31, 2008, there were 185 States Parties to the Convention, the latest being Lebanon, which became a State Party on December 20, 2008. This Report addresses additional U.S. compliance issues with six countries: Albania, China, India, Iran, Libya, and the Russian Federation.

COUNTRY ASSESSMENTS

ALBANIA

FINDING

In July 2007, the OPCW confirmed the destruction of the entire chemical weapons stockpile in Albania. The United States notes that Albania is in compliance with its obligations under the CWC.

BACKGROUND

The Convention entered into force for Albania on April 29, 1997. On July 11, 2007, the OPCW confirmed the destruction of the entire chemical weapons stockpile in Albania. The United States assisted with and funded the destruction operations under the U.S. Cooperative Threat Reduction Program.

Albania was the first nation to completely and verifiably destroy all of its chemical weapons. The Albanian stockpile had included mustard, lewisite, adamsite, and chloracetophenone. The destruction was conducted to fulfill Albania's obligations under the CWC.

Compliance Discussions

Cooperative diplomatic exchanges during the reporting period supported efforts to ensure the destruction of Albania's chemical weapons stockpile and resolution of CWC-related issues relating to Albania.

COMPLIANCE ANALYSIS

The TS has reported that Albania has fully implemented legislation under Article VII of the CWC that includes measures to control transfers of scheduled chemicals and penal provisions. Albania has declared that it has a national program for protection under paragraph 4 of Article X of the CWC. Albania made its first declaration under this article in 1998 and made subsequent Article X declarations in 2005 and 2008. In July 2007, the OPCW confirmed the destruction of the entire chemical weapons stockpile in Albania. The United States notes that Albania is in compliance with its obligations under the CWC.

CHINA

FINDING

Available information does not allow the United States to confirm whether China has fully declared or explained its historical CW activities, including CW production, disposition of produced CW agents, and transfer of CW agents to another country.

BACKGROUND

The Convention entered into force for China on April 29, 1997. In its initial declaration, China declared former CW-related facilities and activities and current activities not prohibited under the Convention. However, it did not declare details on the disposition of CW agent produced and has not provided sufficient information on transfers of CW agents to other countries.

Additionally, there has come to light information on a spill of the undeclared Schedule 1 chemical nitrogen mustard 2 at a pharmaceutical factory. This factory has not been declared.

Compliance Discussions

The United States has since 1998 maintained a dialogue with Beijing that has included discussing the Chinese declaration. While many issues have been resolved, some others remain.

COMPLIANCE ANALYSIS

Available information does not allow the United States to confirm whether China has fully declared or explained its historical CW activities, including CW production, disposition of produced CW agents, and transfer of CW agents to another country. China

also may have obligations to declare a Schedule 1 facility (and perhaps others) that uses the captively¹ produced Schedule 1 chemical nitrogen mustard 2.

The OPCW TS has reported that China has fully implemented legislation under Article VII of the CWC that includes measures to control transfers of scheduled chemicals and penal provisions. Text of the adopted measures has been provided to the OPCW. China also has acknowledged and declared that it has a national program for protection under paragraph 4 of Article X of the CWC. Beijing made its first declaration under this article in 2002 and has continued to do so annually.

INDIA

FINDING

India destroyed its CW stockpile in accordance with its destruction deadline extension. The United States notes that India is in compliance with its obligations under the CWC.

BACKGROUND

The Convention entered into force for India on April 29, 1997. In November 2006, the TS reported that India had destroyed more than 70 percent of its declared CW stockpile. In December 2006, the OPCW granted India an extension of the CWC destruction deadline until April 2009.²

Compliance Discussions

During diplomatic exchanges in the reporting period, India expressed its commitment to destroying its CW stockpile and States Parties supported this effort. The exchanges contributed to the resolution of CWC-related issues.

¹ Under this decision, the production of a Schedule 1 chemical “is understood for declaration purposes to include intermediates, by-products, or waste products that are produced and consumed within a defined chemical manufacturing sequence, where such ... products are chemically stable and therefore exist for a sufficient time to make isolation from the manufacturing stream possible, but where, under normal design or operating conditions, isolation does not occur.” China, like other States Parties to the Convention, would be expected to declare such “captive use” products if they otherwise fall within the declaration provisions of the CWC. More specifically, China would be expected to declare a Schedule 1 captive use facility consuming nitrogen mustard as an intermediate for the production of a pharmaceutical.

² India notified the TS on March 26, 2009, that it had completed destruction of its CW stockpile. Therefore, India became only the third State Party to destroy its entire CW stockpile, and it did so within its extended deadline.

COMPLIANCE ANALYSIS

The TS has reported that India has fully implemented legislation under Article VII of the CWC that includes measures to control transfers of scheduled chemicals and penal provisions. Text of the adopted measures has been provided to the OPCW. As part of its obligations under paragraph 4 of Article X of the CWC, India acknowledged that it has a national protection program, submitting a declaration in 2003. India has submitted Article X declarations annually since that time.³

IRAN

FINDING

Based on available information, the United States cannot certify whether Iran has met its chemical weapons production facility declaration obligations, destroyed its specialized CW equipment, or retained an undeclared CW stockpile.

BACKGROUND

The Convention entered into force for Iran on December 3, 1997. Iran made its initial declaration piecemeal in June 1998, January 1999, and March 1999.

The United States does not have sufficient information to be certain that some Iranian facilities may be involved in or retain the capability to produce CW agents. The United States also does not have sufficient information about the disposition of specialized CW equipment used in former CWPFs. And the United States has insufficient information about possible CW activity prior to entry into force of the Convention.

Compliance Discussions

On the margins of OPCW Executive Council meetings in 2001 and 2004, the United States engaged the Iranian delegation about Iran's CWC compliance. The outcome of the discussions did not completely resolve any of the issues.

COMPLIANCE ANALYSIS

Due to a combination of irregularities in the Iranian declaration and insufficient clarification from Iran, the United States cannot certify:

- That Iran has met its CWPF declaration obligations because of possible CW-capable infrastructure, to include the possibility of a clandestine offensive CW

³ The United States notes that India completed destruction of its CW stockpile and that India is in compliance with its obligations under the CWC.

production capability dispersed among industrial chemical plants and at military-owned facilities;

- That it has destroyed its specialized CW equipment (Iran has probably failed to meet its CWC obligations by failing to declare and destroy some of its specialized CW production equipment); and
- That it has not retained an undeclared CW stockpile.

The OPCW TS has reported that Iran has fully implemented legislation under Article VII of the CWC that includes measures to control transfers of scheduled chemicals and penal provisions. As part of its obligations under paragraph 4 of Article X of the CWC, Iran submitted a declaration in 2003 acknowledging that it had a national protection program. Iran has submitted declarations annually since that time.

LIBYA

FINDING

Libya's disclosure regarding its chemical weapons program, its accession to the CWC, and the destruction of its unfilled CW munitions, solid precursor chemicals, and specialized CW production equipment are significant steps toward Libya coming into full compliance with its CWC obligations, and serve as a model for those countries that have not yet ratified the CWC. Libya has destroyed all of its Category 3 munitions and some of its Category 2 precursors in accordance with Article IV, and Part IV(A) of the CWC's Verification Annex. It has presented plans to the OPCW for destruction of its Category 1 CW and conversion of its CW production facilities. Libya has not yet met its obligations under Article VII.

BACKGROUND

The Convention entered into force for Libya on February 5, 2004, and Libya made its initial declaration in March 2004. Tripoli declared a CW stockpile, CWPFs, and chemical industry facilities under Article VI of the Convention.

Libya requested and received approval in January 2005 to convert the CWPFs in Pharma 150 at Rabta to purposes not prohibited by the CWC.

In February and March 2004, under the oversight of OPCW inspectors, Libya completed destruction, and activities related to destruction, of its declared Category 3 CW unfilled aerial bombs. In addition, it secured all sensitive CW materials, agents, and equipment pending their elimination under the CWC.

Libya made significant progress in the elimination of its CW stockpile and facilities during the 2004-2005 time frame. The progress included submitting to the OPCW its detailed plan for the destruction of the mobile units that were declared as CWPFs, as well as all other spare and dismantled equipment from the Al Rabta CWPFs. Libya destroyed its solid Category 2 CW, i.e., precursor chemicals, in 2005 under the auspices of the OPCW TS. The TS also confirmed the destruction in March 2005 of Libya's mobile units that were declared as CWPFs, and of the specialized CW production equipment.

The Libyans began the conversion of the two former CWPFs at Al Rabta in January 2005, which included the dismantling of the CW production facilities, the elimination of all declared spare and dismantled equipment under full verification measures, and inspection by the OPCW inspectors. The TS informed States Parties that Libya planned to complete the conversions by January 2008. Libya later indicated it expected to complete conversion by December 31, 2009.⁴

In July 2005, Libya requested U.S. assistance in destroying its remaining CW and precursor chemicals. Libyan officials told the United States that Libya's cabinet had refused funding and desired U.S. assistance to demonstrate strong U.S.-Libyan political ties. The United States responded that it was prepared, in principle, to assist Libya in meeting its CWC obligations, provided that: (1) it was understood Libya remains ultimately responsible for destroying its CW stockpile and meeting its treaty obligations, including approved destruction deadlines; (2) U.S. funds were available; and (3) the United States and Libya were able to conclude the necessary implementing agreements and arrangements, including liability responsibility and cost-sharing by Libya.

In December 2006, the United States and Libya signed a government-to-government contract to provide financial and technical support to design, build, and operate a chemical weapons destruction facility (CWDF). Negotiations with a U.S.-designated firm to design and build a CWDF were initiated as agreed under the government-to-government contract. However, in June 2007, Libya terminated the Libya contract following a 30-day notification, citing disagreement with the negotiations with the U.S.-designated firm.

Libya has since stated its intention to contract with an Italian firm to build the CWDF.

In light of delays in Libya's CW destruction program, in November 2005, the CSP agreed further to extend Libya's 1, 20, and 45 percent deadlines "in principle," with specific dates to be proposed by Libya by March 31, 2006. The Executive Council meeting in July 2006 approved the Libyan request to extend all its deadlines for the destruction of its Category 1 and 2 CW. In December 2006, the CSP established December 31, 2010, as the deadline for destruction of all Libya's Category 1 CW, and December 31, 2011, as the deadline for destruction of all Category 2 CW. In addition to

⁴ Conversion of the Rabta CWPFs was completed by December 31, 2009.

obtaining approval of its conversion request for Rabta, Tripoli has thus twice requested, and the OPCW CSP approved, extensions of CWC-mandated interim destruction deadlines for 1, 20, and 45 percent of its stockpile. Libya is optimistic that it will be able to meet the new December 2011 deadline for destruction of its entire stockpile.

Compliance Discussions

Between March and December 2003, the United States and the United Kingdom had numerous exchanges with and visits to Libya to discuss the modalities of WMD destruction, including Libya's accession to the CWC. In March 2003, Libya approached the United Kingdom and the United States, expressing interest in removing concerns about whether it was pursuing WMD programs. In the course of subsequent discussions and visits, the Libyans made significant disclosures about their chemical weapons programs, as well as other WMD activities. The United States and the United Kingdom conducted a number of exchanges with the Libyans, with the intention of exploring the depth and commitment of their initiative. A team of American and British experts traveled to Libya twice – in October and December 2003 – to receive detailed presentations on Libya's nuclear, chemical, and biological activities. In addition to extensive discussion during a total of three weeks of meetings, the experts were shown covert facilities and equipment and were told about years of Libyan efforts to develop chemical weapons capabilities. With regard to chemical issues, Libya showed these initial U.S.-UK teams a significant quantity of sulfur mustard chemical agent that was produced at the Pharma 150 plant at Rabta more than a decade previously; aerial bombs that were designed to be filled with mustard agent on short notice; equipment in storage that could be used to outfit a second CW production facility; and dual-use chemical precursors that could be used to produce mustard and nerve agent.

After Libya terminated the contract with the United States in relation to U.S. assistance for Libyan CW destruction in July 2007, the United States has held several informal discussions with Libya, on the margins of meetings of the OPCW, concerning its progress toward destruction of its CW and conversion of the Rabta CWPFs.

COMPLIANCE ANALYSIS

Libya has made progress on meeting its CWC obligations in relation to destruction of its CW stockpile.⁵

Libya, however, has not yet met its Article VII obligations. The TS has reported that Libya's Article VII national implementation legislation has undergone legal review, but still has to go to the General People's Congress (National Assembly). The OPCW provided assistance with drafting Libya's legislation. Libya has a National Authority, but has not yet enacted implementing legislation or administrative measures required under Article VII. As part of its obligations under paragraph 4 of Article X of the CWC, Libya

⁵ In addition, Libya has met its obligations in relation to destruction and conversion of its CWPFs.

submitted a declaration in 2005 acknowledging that it had a national protection program. Libya has not submitted any subsequent Article X declarations.

RUSSIAN FEDERATION

FINDING

The United States is unable to ascertain whether Russia's CWC declaration is complete as it relates to CW production facilities, CW development facilities, and CW stockpiles, and whether Russia is complying with the CWC-established criteria for destruction and verification of its CW.

BACKGROUND

In May 1997, the Duma passed, and President Yeltsin signed, the Russian Federal Law on Chemical Weapons Destruction, approving implementation of a 1996 destruction plan. The Convention entered into force for Russia on December 5, 1997, and it made its initial declaration on time in March 1998. The Russian declaration included CWPFs, chemical weapons storage facilities (CWSFs), a CWDF, and a stockpile of 39,969 metric tons of CW agent, in both bulk and weaponized form. Its Article VI declaration included Schedule 2, Schedule 3, and other chemical production facility (OCPF) plant sites.

Russia submitted plans and received OPCW approval for the destruction or conversion of its declared CWPFs. Under the CWC, all CWPFs were required to be destroyed no later than April 29, 2007. According to the OPCW TS, all CWPF destructions had not yet been completed by December 31, 2007, but have since been completed.⁶

As noted above in May 1997, the Duma passed, and President Yeltsin signed, the Russian Federal Law on Chemical Weapons Destruction, approving implementation of a destruction plan. The Russians provided additional details on and changes to their destruction plan in June 2002 and September 2003. In recent years, Russia has taken steps to strengthen its CW destruction program, and has significantly increased funding for this program, although admittedly from a low starting point.

Russia completed destruction of both its Category 2 and 3 weapons within the Convention's timelines.

In July 2005, Russia's revised overall CW destruction plan received cabinet-level approval. Details of Russia's revised plan were later provided to the OPCW. Under this plan, Russia, with significant international assistance, will have constructed seven CW

⁶ The OPCW TS reported in February 2009 that the Dzerzhinsk CWPF has been destroyed and that Russia had completed destruction of CWPFs scheduled for destruction.

destruction facilities at Kambarka, Maradykovskiy, Leonidovka, Shchuch'ye, Pohep, Kizner, and Gorny.

Following two intermediate CW destruction deadline decisions, in March 2006, the OPCW established December 31, 2009, as the deadline for Russia to destroy 45 percent of its CW stocks with the final deadline remaining April 29, 2012. As of December 2008, Russia had destroyed 29.9 percent of its Category 1 stockpile.

The Russian CW Stockpile. The United States assesses that Russia's CWC declaration is incomplete with respect to chemical agent and weapons stockpiles.

Undeclared CWFs and CW-capable Facilities. The United States notes that there are additional facilities that Russia may have been required to declare as CWFs. The United States continues to seek clarification of reports about mobilization capabilities at declared and non-declared facilities.

Russian CW Development Facilities. The United States does not share the Russian view that development facilities, including CW testing facilities, should not be declared because of the Russian interpretation of the CWC "primarily for" criterion in Article III of the CWC.

The Issue of 100 Percent Destruction. Russia is using a two-step process to destroy its nerve agent stocks at some of its CWDFs: (1) neutralizing the nerve agent; and (2) disposal of the reaction mass (e.g., incineration et alia). Russia has argued that first-step neutralization of the nerve agents would meet CWC destruction requirements, but the United States and some other States Parties are not convinced that first-step neutralization satisfies the CWC requirement that CW destruction be "essentially irreversible," given the presence of a significant amount of Schedule 2 chemicals in the reaction mass. The TS has agreed to give Russia destruction credit for the completion of the first step of CW agent neutralization so long as Russia destroys, under TS supervision, the reaction mass in a second step. As of December 2008, the second-step destruction of the reaction masses had not yet begun at Maradykovskiy and Leonidovka, the two facilities in Russia currently neutralizing nerve agents.⁷

Compliance Discussions

The United States has engaged in numerous exchanges with Russia regarding a number of compliance issues in 2002, 2003, and 2006, during which the United States discussed the accuracy of Russia's CWC declaration.

In 2006, the United States reiterated its proposal to hold expert-level consultations, but, as of December 2008, Russia had not yet agreed to renew such consultations.

⁷ The OPCW TS reported in February 2009 that second-step destruction of reaction mass has begun.

COMPLIANCE ANALYSIS

Russia has completed destruction of its CWPFs scheduled for destruction, but has not met the CWPF conversion deadline. In the absence of additional information from Russia, the United States is unable to ascertain whether Russia has declared all of its CW stockpile, all CWPFs, and all of its CW development facilities. Additionally, the United States notes that second stage destruction reaction mass has not yet been destroyed at some CWDF sites.⁸

⁸ As noted above, in February 2009, the TS reported that second-step destruction of reaction mass has begun.

NUCLEAR NON-PROLIFERATION TREATY (NPT)

This section of the Report covers developments relevant to other nations' compliance with the 1968 Nuclear Non-Proliferation Treaty (NPT) and addresses, in particular, developments in Burma, China, Iran, Iraq, Libya, North Korea (DPRK), and Syria. Notwithstanding the DPRK's announced withdrawal from the NPT, this Report will continue to include the DPRK until it fulfills its commitment in the September 19, 2005, Joint Statement of the Fourth Round of the Six-Party Talks to abandon all nuclear weapons and existing nuclear programs, and to return at an early date to the NPT and to International Atomic Energy Agency (IAEA) safeguards.

As of January 31, 2009, 27 countries¹ had not complied with their obligations under Article III of the NPT to conclude with the IAEA, and put into effect, a full-scope safeguards agreement within 18 months after joining the NPT. The NPT does not require adherence to an IAEA Additional Protocol (AP), which contains measures that enable the IAEA to verify the non-diversion of declared nuclear material and to provide assurances as to the absence of undeclared nuclear material and activities in a State. Nevertheless, as of January 31, 2009,² 128 States had an Additional Protocol approved by the IAEA Board of Governors, 119 of those had been signed, and 90 had entered into force (the United States ratified its Additional Protocol on January 6, 2009). The United States will continue to urge that all NPT Parties required to do so conclude a full-scope safeguards agreement with the IAEA, and to urge universal adherence to the Additional Protocol. The United States has also urged the Nuclear Suppliers Group (NSG) to make agreement to the Additional Protocol a condition of nuclear supply.

North Korea acknowledged in 2003 that it had a nuclear weapons program, and it conducted a test of a nuclear explosive device on October 9, 2006.³ Although North Korea provided notice of its intent to withdraw from the NPT in January 2003, various aspects of the nuclear program violated the DPRK's obligations under Articles II and III of the Treaty prior to its announced withdrawal from the Treaty. In the context of the Joint Statement of the Fourth Round of the Six-Party Talks of September 19, 2005, issued by all six parties, North Korea committed to abandoning all nuclear weapons and existing nuclear programs and returning, at an early date, to the NPT and to IAEA safeguards. This commitment, along with the other Joint Statement commitments of the parties, was reaffirmed during the Third Session of the Fifth Round of the Six-Party Talks, at which the Initial Actions for the Implementation of the Joint Statement of February 13, 2007 ("Initial Actions Agreement"), was adopted by the six parties.

¹ As of May 27, 2010, there were 18 non-nuclear-weapon States party to the NPT that had not yet brought into force a comprehensive safeguards agreement with the IAEA.

² As of May 27, 2010, 139 States had an Additional Protocol approved by the IAEA Board of Governors, 132 of those had been signed, and 101 had entered into force.

³ North Korea claimed a second nuclear test was conducted on May 25, 2009.

The 2007 National Intelligence Estimate (NIE) on Iran’s nuclear intentions and capabilities assessed with high confidence that Iran was engaged in a covert effort to develop nuclear weapons until that program was ordered halted in late 2003. Despite United Nations Security Council Resolutions (UNSCRs) 1696, 1737, 1747, 1803, and 1835, three of which impose legally binding obligations (UNSCRs 1737, 1747, and 1803) under Chapter VII of the UN Charter, Iran refused to cooperate with the IAEA’s ongoing investigation into Iran’s past nuclear weapons development activities during the reporting period.

Libya and Iraq, found to be in violation in previous Reports, are no longer cited for failure to comply with the NPT and are included in this Report to note that previous compliance issues have been resolved.

AGREEMENT PROVISIONS

Article I. Article I of the NPT requires that each nuclear-weapon State (NWS) Party (1) not transfer nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices to “any recipient whatsoever” and (2) “not in any way to assist, encourage, or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.”

The NPT does not define the specific terms of the second obligation (i.e., “assist, encourage, or induce”), and the NPT negotiating record suggests no specific criteria for determining whether a NWS has “assisted,” “encouraged,” or “induced” a non-nuclear-weapon State (NNWS) to manufacture or acquire nuclear weapons.

For its part, however, the United States has made clear to the other NWS Parties that it views comprehensive controls over the following categories of items as helping fulfill a State Party’s obligations under Article I: (1) specialized nuclear equipment, nuclear material, and certain non-nuclear material covered by paragraph 2 of Article III of the Treaty; (2) nuclear-related dual-use equipment, material, and all nuclear-related technology covered by the guidelines of the Nuclear Suppliers Group; and (3) equipment, material, and technology with direct relevance to nuclear weapons. Moreover, it is also appropriate in Article I compliance analysis to take into account information available about whether the *purpose* of a particular technology transfer or activity was to further a NNWS’s ability to manufacture or acquire nuclear weapons.

Article II. Under Article II, non-nuclear-weapon States Parties undertake four specific obligations: (1) not to receive a nuclear weapon or other nuclear explosive device; (2) not to exercise control over such weapons or explosive devices directly or indirectly; (3) not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and (4) not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.

Article II assessments must look at the totality of the facts, including information supporting judgments as to the NNWS Party's purpose in undertaking the nuclear activities in question, to determine whether the Party has engaged in the manufacture or otherwise acquisition of a nuclear weapon or other nuclear explosive device, or has sought or received any assistance in such manufacture. Such compliance assessments are acquiring particular salience given the linkage between Article II compliance and a Party's rights to share in the benefits of nuclear technology pursuant to Article IV (see below).

Article III. To prevent the diversion of nuclear energy from peaceful uses to nuclear weapons, Article III requires that each NNWS Party enter into a safeguards agreement setting out the safeguards procedures to be applied to all source or special fissionable material in all peaceful nuclear activities. Paragraph 1 of Article III requires NNWS Parties "to accept safeguards, as set forth in an agreement to be negotiated and concluded with the International Atomic Energy Agency." The same article specifies that "[p]rocedures for the safeguards required by this article shall be followed with respect to source or special fissionable material whether it is being produced, processed or used in any principal nuclear facility or is outside any such facility," and goes on to state that "safeguards required by this article shall be applied on all source or special fissionable material in all peaceful nuclear activities within the territory of such State, under its jurisdiction, or carried out under its control anywhere."

As required by paragraph 2 of Article III, each State Party undertakes not to provide source or special fissionable material, or equipment or material especially designed or prepared for processing, use, or production of special fissionable material, to any NNWS for peaceful purposes unless it is subject to safeguards in that NNWS. Paragraph 4 specifies that, for States depositing their instruments of ratification or accession later than 180 days after the original entry into force of the Treaty, "[n]egotiation of such agreements shall commence not later than the date of such deposit" and "[s]uch agreements shall enter into force not later than eighteen months after the date of initiation of negotiations."

IAEA Additional Protocol. In May 1997, the IAEA approved the Model Additional Protocol under Part 2 of Program 93+2. The IAEA's strengthened safeguard system developed under this program was designed to enhance the IAEA's verification capacity with regard to NNWS Parties, including both (1) detecting the diversion of declared materials for nuclear weapons purposes and (2) detecting undeclared activities in those States. If a State adheres to an Additional Protocol, it accepts obligations additional to those of its full-scope safeguards agreement and expands the IAEA's rights with respect to that State. Among the provisions of the Additional Protocol are the following:

- States are required to submit an annual declaration to the IAEA. For example, under the Additional Protocol, States must provide a general description of each building on each site, including its use. States are also required, *inter alia*, to

include in their declarations specified nuclear-related activities, such as information regarding public and private nuclear-related fuel cycle research and development (R&D) not involving nuclear material.

- IAEA inspectors have “complementary access” rights to additional sites and locations, for the purpose of resolving a question about the correctness and completeness of a State’s declaration or resolving inconsistencies relating to that information. Such access, which may be conducted upon 24-hours notice or less, may include the collection of environmental samples. The IAEA also has the authority, under certain circumstances, to conduct environmental sampling at undeclared locations to verify the absence of activities that fall outside the scope of a State’s declaration.

While most countries with significant nuclear activities have signed an Additional Protocol, it is not a requirement under the NPT and it is not universal. The United States has made clear that achieving universal adherence to an Additional Protocol by NPT States Parties is a U.S. nonproliferation priority, and that such adherence is vital to the effectiveness of the NPT. While not a panacea, the Additional Protocol represents the strongest tool now widely available to the IAEA in its work to detect diversion of nuclear materials to nuclear weapons. In order to create a safe, orderly system to field civilian nuclear power plants without adding to the danger of nuclear proliferation, the United States is working with other nuclear suppliers to limit transfers of sensitive fuel cycle facilities. At the same time, the United States is working with the IAEA and its Member States to ensure that States have reliable access to fuel for civilian reactors so that they do not have to pursue domestic enrichment and reprocessing capability.

As suggested previously, Article III safeguards violations can sometimes be the result of mistake, error, or simple incapacity. In other cases, they can represent willful efforts to conceal more serious violations of nonproliferation obligations, such as the existence of a clandestine nuclear weapons program in violation of Article II. There is, therefore, a potential link between Article III compliance and compliance with Articles I and II. U.S. public statements have stressed the importance of Article III safeguards compliance and noted the potential connection between Article III violations and inferences of Article II noncompliance.

IAEA Safeguards Compliance. There is a distinction between IAEA safeguards compliance determinations and judgments about compliance with the NPT. Material noncompliance with an NPT-type safeguards agreement will likely constitute noncompliance with Article III as well. An IAEA noncompliance determination with respect to a safeguards agreement, however, does not automatically constitute a determination of an NPT violation. The IAEA does not make determinations regarding compliance with the NPT. Such questions are for the States Parties to the Treaty to decide.

With regard to assessing safeguards compliance, it may on occasion occur that an anomaly or question arises with respect to the implementation of a country's IAEA safeguards agreement. Some such anomalies or questions may be cleared up easily and quickly. Minor, merely technical errors in the implementation of safeguards are normally resolved between the IAEA Secretariat and the State concerned. Such incidents may raise compliance concerns, but generally do not constitute noncompliance in and of themselves or for purposes of the UN reporting requirement of the IAEA Statute.

It is the technical objective of the safeguards system to ensure the timely detection of the diversion of significant quantities of nuclear material to nuclear weapons, to other nuclear explosive devices, or to purposes unknown. Information that calls into question the IAEA's ability to verify that nuclear material required to be safeguarded (including previously undeclared material) has not been diverted can be of great significance to the IAEA, to national governments, and to the broader international community. Under paragraph 19 of the IAEA's Model Safeguards Agreement (INFCIRC/153), if the IAEA Board of Governors, upon examination of relevant information reported by the IAEA Director General, finds that the IAEA is unable to verify that there has been no diversion to nuclear weapons of nuclear material required to be safeguarded under the safeguards agreement, the IAEA may make the report to the United Nations provided for in Article XII.C of the IAEA Statute, and may also take other measures provided for in that article. Indeed, the United States believes that such instances of the IAEA's inability to verify non-diversion *should* be so reported, especially if circumstances suggest that the State intentionally failed to report nuclear material or activities, or if the matter continued for any significant length of time. (Even if the inability to verify occurred in the past and all materials have subsequently been accounted for, it may be appropriate to communicate with the UN to the extent that the episode reveals flaws in the safeguards system in that country or – more generally – flaws in the international safeguards system of which the UN should be aware.) If the IAEA determines that it is unable to verify a State Party's compliance with its safeguards agreement – for example, if that State refuses to allow timely access to a facility – then the IAEA might conclude that the State's denial of access constitutes noncompliance. In other words, in certain circumstances, a State's decision not to let the IAEA carry out its safeguards mission could be considered noncompliance.

Information may also come to light indicating that a country is or was in noncompliance with its safeguards obligations. This is a slightly different question than that which is raised by the inability to verify non-diversion under paragraph 19 of INFCIRC/153, though in some circumstances the same information will likely meet both standards, insofar as some noncompliance may naturally raise questions about the IAEA's ability to verify non-diversion. In any event, a finding by the Board of Governors of noncompliance with IAEA safeguards *must* be reported to the UN General Assembly and Security Council – as well as specifically to all IAEA Member States – pursuant to Article XII.C of the IAEA Statute. In pertinent part, Article XII.C states:

... The inspectors shall report any non-compliance to the Director General who shall thereupon transmit the report to the Board of Governors. The Board shall call upon the recipient State or States to remedy forthwith any non-compliance which it finds to have occurred. The Board shall report the non-compliance to all members and to the Security Council and General Assembly of the United Nations.

Article III.B.4 of the Statute also provides that the IAEA shall notify the Security Council, as the organ bearing the main responsibility for the maintenance of international peace and security, if in connection with the activities of the Agency questions arise within the competence of the Security Council. Issues of safeguards compliance might lie within the Security Council's competence because of their intrinsic connection to nuclear nonproliferation and hence the maintenance of international peace and security. Additionally, Article III.B.4 is broad enough to permit the IAEA to report an issue to the Council even when it is not specifically related to safeguards. For example, the IAEA should report to the Security Council any instances that suggest that criminals or non-state actors might be in a position to acquire nuclear materials for non-peaceful or unlawful purposes, given the threat such activities would pose to international peace and security.

Within the IAEA system, the Board of Governors has the responsibility for determining whether a matter qualifies as safeguards "noncompliance" subject to the mandatory reporting rule of Article XII.C of the Statute. A finding of noncompliance need not necessarily use the word "noncompliance," though such clarity is certainly preferable. The United States believes that noncompliance judgments by national governments or by the IAEA should be made on the basis of the facts, not based upon political calculation or the mere use (or avoidance) of specific trigger words.

The lapse of time between the occurrence of a violation and its discovery is not a relevant consideration for judging safeguards compliance. In addition, neither a country's lack of intent to violate its agreement nor its close cooperation with the IAEA subsequent to the point at which the violation occurred preclude a finding of noncompliance. Information suggesting that a problem is the result of *deliberate* actions would certainly support a finding of noncompliance, but some problems remain significant even if unintentional.

Safeguards compliance judgments are necessarily somewhat contextual, and may be affected by a number of factors. Such factors must be carefully considered in light of all the circumstances. The IAEA Safeguards Glossary also states that, under all types of agreements, noncompliance under Article XII.C of the Statute could include violation of the agreed recording and reporting system for nuclear material, obstruction of the activities of IAEA inspectors, interference with the operation of safeguards equipment, or prevention of the IAEA from carrying out its verification activities.

It should also be noted that a State Party that withdraws from the NPT after violating the Treaty's provisions is not absolved of those violations. In fact, the United States believes that NPT Parties should be committed to taking appropriate measures against such violators.⁴

Finally, in grappling with safeguards compliance issues, it must be remembered that the objective of IAEA safeguards is to ensure the timely detection of any diversion of nuclear material to nuclear weapons or other nuclear explosive devices, or to purposes unknown. Compliance with safeguards is critical because their role is to give the international community sufficient warning to permit responses before malefactors can capitalize upon such a diversion. In an era of increasing dissemination of proliferation-sensitive nuclear technologies, regional nuclear arms races, illicit nuclear smuggling and acquisition networks, and terrorist networks bent upon the acquisition of weapons of mass destruction (WMD), determinations about the significance of safeguards problems must be made in view of their potential consequences in today's dangerous world.

Article IV. Article IV of the NPT addresses both the right of States Parties to the Treaty to participate in taking advantage of the benefits of nuclear technology and their concomitant obligation to do so only in ways consistent with the nonproliferation obligations of the Treaty. Paragraph 1 of Article IV provides that “[n]othing in this Treaty shall be interpreted as affecting the inalienable right” of States Parties to pursue the use of nuclear energy “for peaceful purposes” and “in conformity with articles I and II of the Treaty.” Paragraph 2 of Article IV deals with international cooperation in developing nuclear energy. Paragraph 2 of Article IV, however, does not compel supplier states to provide any specific nuclear technology to any specific NPT Party. Therefore, it is not inconsistent with Article IV for an NPT Party to restrict nuclear supply to another NPT Party or otherwise exercise discretion in determining the nature of its relationship with other countries. (Therefore, nonproliferation efforts such as export control restrictions, Nuclear Suppliers Group technology transfer guidelines, end-use restrictions, activities such as the Proliferation Security Initiative, the imposition of national or international sanctions in response to nuclear-related proliferation problems, and efforts to restrict the spread of proliferation-sensitive enrichment and reprocessing technology are in no way inconsistent with Article IV.)

States Parties to the Treaty have accepted the condition that their nuclear activities must be carried out in conformity with Articles I and II of the Treaty. Thus, if a State Party has violated Article I or II, that State cannot argue that Article IV protects it from the consequences of breach, including the imposition of measures by other States against its nuclear program.

⁴ United Nations Security Council Resolution 1887 (2009) affirms that a State remains responsible under international law for violations of the NPT committed prior to withdrawal. In the same resolution, the Security Council undertakes to address without delay any State's notice of withdrawal from the Treaty.

COUNTRY ASSESSMENTS

BURMA

FINDING

The United States is concerned about Burma's interest in pursuing a nuclear program, including the possibility of cooperation with North Korea. The U.S. Government will continue to be alert to any indications of Burmese nuclear weapons-related activities or intentions to develop a nuclear weapons capability. At this time, the United States lacks evidence to support a conclusion that Burma has violated its NPT obligations or IAEA safeguards, but U.S. confidence in Burma's compliance would be enhanced by the adoption of an Additional Protocol.

BACKGROUND

In May 2007, Burma and Russia signed an agreement for Russia to assist in building a nuclear research center in Burma that would include a 10 Megawatt light-water research reactor. Russia has provided public assurances that the research reactor would be placed under IAEA guarantees. Available information suggests that Burma may have also received North Korean assistance in its efforts to establish a nuclear research center. Available information does not indicate that the nuclear research center called for in the Burma-Russia agreement has become operational, or that Burma's efforts to establish the center have involved activities prohibited by the NPT or IAEA safeguards.

Compliance Discussions

Since May 2007, numerous countries including the United States have exchanged views regarding Burma's nuclear intentions, and the potential nonproliferation, nuclear safety and security, and environmental issues that could result from nuclear development in Burma. Burma affirmed during diplomatic discussions in 2008 that it attaches paramount importance to the NPT and to nuclear disarmament and that it was preparing to take measures to align itself with IAEA safeguards.

COMPLIANCE ANALYSIS

The United States is concerned about Burma's interest in pursuing a nuclear program, including the possibility of cooperation with North Korea. The U.S. Government will continue to be alert to any indications of Burmese nuclear weapons-related activities or intentions to develop a nuclear weapons capability. At this point in time, the United States lacks evidence to support a conclusion that Burma has violated its NPT obligations or IAEA safeguards, but U.S. confidence in Burma's compliance would be enhanced by the adoption of an Additional Protocol.

CHINA

FINDING

China has made consistent progress in establishing a comprehensive national nuclear export control system. During the reporting period, foreign entities continued to attempt to acquire nuclear-related materials and dual-use equipment from Chinese suppliers. Available information does not suggest these activities involved activities by the Chinese Government that would be prohibited by the NPT or inconsistent with its nuclear nonproliferation commitments. The United States continues to work with China to strengthen the implementation and enforcement of its nuclear export controls as a means to enhance China's compliance with its nonproliferation commitments.

BACKGROUND

China acceded to the NPT in 1992, joining the Treaty as a nuclear-weapon State Party. An assessment of China's compliance with its Treaty obligations was raised in the 1993 Report. On May 11, 1996, China publicly pledged not to provide assistance to unsafeguarded nuclear facilities, and it joined the NPT Exporters ("Zangger") Committee in 1997. In October 1997, Beijing pledged to Washington to forgo any new nuclear cooperation with Iran. Under this commitment, China was allowed to complete two ongoing projects: a zero power reactor (ZPR) and a zirconium production plant (ZPP). In recent years, China has made consistent progress in establishing a comprehensive national nuclear export control system. NSG Guidelines govern exports of trigger list and dual-use nuclear items to countries such as Pakistan that lack IAEA full-scope safeguards, but the Guidelines allow for pre-membership contracts to be grandfathered. When China was accepted into the NSG in May 2004, it committed to follow the NSG Guidelines regarding supply to non-nuclear-weapon States, including the full-scope safeguards condition on supply of trigger list items. Thus, China committed not to supply such items to any facilities in Pakistan, other than certain safeguarded facilities that China identified as having been agreed on with Pakistan prior to China's joining the NSG and that were therefore "grandfathered" under the Guidelines.⁵

During the reporting period, foreign entities continued to attempt to acquire nuclear-related materials and dual-use equipment from Chinese suppliers. Available information does not suggest these activities involved activities by the Chinese Government that would be prohibited by the NPT or inconsistent with its nuclear nonproliferation commitments.

Compliance Discussions

Since it acceded to the NPT in 1992, China has joined several international nuclear regimes and has promulgated comprehensive nuclear export controls over the

⁵ The NSG Guidelines also have an exception for exports required for a safeguarded nuclear facility to correct an imminent hazard to public health and safety.

past decade. In laying out the principal elements of a comprehensive nuclear export control system, U.S. officials stressed to China that controls should apply to all private and public entities; that the control list should encompass all equipment, material, and technology covered by the NSG including dual-use items; that technology controls should extend to personnel as well as information; that some type of catch-all control should be part of the system; and that the controls should extend to nuclear weapons information and equipment.

In past years, the United States shared with Chinese Government officials information on known-to-be-completed transactions of nuclear proliferation concern, and on suspected proliferation activities believed to be planned for the future. The United States consistently has urged Chinese authorities to share the results of their investigations, to include information on export control enforcement actions, and to publicize cases of export control violations. On the basis of U.S.-provided information (on which China routinely seeks more detail) and evidence that it ascertained on its own, China has in some cases prevented or ceased the transfer of proliferation-sensitive nuclear materials or technology and has punished Chinese entities.

Chinese authorities have indicated that they are training customs officials to increase their awareness of relevant laws and regulations, and conducting an industry outreach program aimed at educating enterprises about nonproliferation. The goal is to encourage companies and industries to institute internal controls; strengthening export controls is a long-term project for China.

COMPLIANCE ANALYSIS

China's compliance with its nuclear nonproliferation obligations has been the subject of considerable scrutiny, and the United States has cited two key factors as being especially relevant to the U.S. judgment of China's compliance with the NPT: (1) rigorous adherence to China's May 1996 public and private commitments to the United States that, as a State Party to the NPT, China would not provide assistance to unsafeguarded nuclear facilities; and (2) the establishment of a comprehensive national nuclear export control system.

Chinese policy and nuclear export control systems contain all the elements necessary to permit China to implement its obligations under Article I of the NPT. Chinese regulations in place cover both trigger list items (i.e., those items relevant to Article III of the NPT) and nuclear dual-use items. "Catch-all" control authority exists for Chinese Government departments, and the government has the authority to control technology and tangible items which may not be on control lists. China's November 2006 amendments to the nuclear export control regulations also provided for further administrative and criminal penalties for violations. The United States continues to work with China to strengthen the implementation and enforcement of its nuclear export controls as a means to enhance China's compliance with its nonproliferation commitments.

IRAN

FINDING

Iran continues to be in violation of Article III of the NPT. The United States found in the 2005 Report that Iran violated Article II of the NPT; the issues underlying that finding remain unresolved. Although the IAEA has assessed that no declared nuclear material has been diverted to non-peaceful uses, Iran has not resolved questions regarding its nuclear program, nor provided the IAEA with requested information to enable it to provide credible assurances about the absence of undeclared nuclear material and activities in Iran. Iran continues to engage in enrichment and heavy water-related activities in violation of UN Security Council Resolution 1737.⁶

There have been a number of Iranian actions that give strong indication of past attempts at weaponization, such as Iran's acquisition of a document relating to the casting of uranium metal into hemispheres; the existence of a document in Iran relating to detonation of high explosive "in a hemispherical geometry;" known work on a Shahab-3 modified re-entry vehicle capable of housing a new payload for the Shahab-3 missile system; and documents relating to work on detonator systems and underground explosives testing. According to IAEA reporting as of September 2008, the IAEA's investigation into possible military dimensions to Iran's nuclear program was based on information "provided to the Agency by several Member States" and "appears to have been derived from multiple sources over different periods of time, is detailed in content, and appears to be generally consistent." However, the IAEA has been stymied in its efforts to investigate the possible military dimensions by Iran's refusal to provide any clarifications or explanations for the extensive array of documentation that demonstrates Iran's past efforts to develop nuclear weapons. Iran continues to fail to fully meet its obligations under modified Code 3.1 of the Subsidiary Arrangements to its NPT Safeguards Agreement by failing to report design changes to nuclear installations well in advance of any action taken to modify existing or construct new facilities.⁷ Further, Iran refuses to fully address IAEA and UNSC concerns regarding weaponization work and undeclared uranium conversion and enrichment-related activities that led to the IAEA's 2005 finding of noncompliance with safeguards obligations.

BACKGROUND

Over the last three decades, Iran has made substantial efforts to master an independent, indigenous nuclear fuel cycle. In 2002, an Iranian opposition group independent from the United States publicly revealed a number of covert nuclear

⁶ After the current reporting period ended, Iran notified the IAEA of the previously undisclosed uranium enrichment facility near the city of Qom, Iran.

⁷ In addition, Iran's failure to declare the existence of its new uranium enrichment facility at Qom is a violation of modified Code 3.1 of Iran's Subsidiary Arrangements to its Safeguards Agreement, and of relevant UNSC resolutions requiring Iran to suspend enrichment-related activities.

facilities under construction that Iran had failed to declare to the IAEA. In response, the IAEA undertook an intensive investigation in which it found that Iran conducted experiments to acquire the know-how for almost every aspect of the front and back end of the fuel cycle, including uranium mining and milling, uranium conversion, uranium enrichment, nuclear fuel fabrication, heavy water production, heavy water reactor technology, and plutonium reprocessing. Iran responded to IAEA inquiries with a shifting pattern of false or misleading statements as details gradually emerged, exposing a long-standing pattern of trying to hide nuclear activity. These developments led the IAEA to declare Iran in noncompliance with its IAEA Safeguards Agreement in 2005 and to report the case to the UN Security Council in 2006. The IAEA has subsequently presented Iran with numerous documents that raise concerns Iran has engaged in research that is applicable to nuclear weapons, including production of polonium-210, the design of a new payload for a Shahab-3 re-entry vehicle, detonator testing, and high explosive research. Since these public revelations, including the five years of this reporting period, Iran has continued to engage in a number of nuclear activities with varying degrees of transparency.⁸

Uranium Conversion. Prior to this reporting period, Iran had been cited for noncompliance in association with uranium conversion, both independently by the United States and formally by the IAEA. Among Iran's violations related to uranium conversion were the failure to report the import of natural uranium in various forms and the processing of the imported uranium, production of various uranium compounds, and failure to provide design information or updated design information for facilities where uranium conversion processes took place.

Iran's industrial-scale uranium processing facility, the Esfahan Uranium Conversion Facility (UCF), was declared to the IAEA in 2000. The IAEA has declared⁹ that no nuclear material from this facility has been diverted to non-peaceful uses, and Iran continues to maintain IAEA seals and containment of uranium hexafluoride (UF₆) produced at the UCF. However, concerns remain regarding undeclared research detailed in a process flow diagram for production of "green salt" – likely a reference to uranium tetrafluoride (UF₄) conversion processes – that appeared to be referring to uranium conversion activities unaffiliated with Iran's previously known conversion plans. While much of Iran's prior conversion activity has been accounted for and admitted to, Iran has continuously refused to answer IAEA questions about the possible existence of covert conversion activity, as indicated in this document.

Uranium Enrichment. Iran has been found noncompliant with its obligations under Article III of the NPT numerous times prior to this reporting period for its failure to declare the import of UF₆ for the testing of centrifuges; failure to declare and provide

⁸ In September 2009, Iran announced the previously undisclosed uranium enrichment facility near the city of Qom, Iran.

⁹ This information was contained in the IAEA Director General's August 28, 2009, report to the IAEA Board of Governors.

design information relating to uranium enrichment facilities; and failure to declare newly built enrichment facilities. Iran has provided some information about some of the activities, though long after it was due.¹⁰ Questions nonetheless remain regarding past uranium enrichment research and development. However, the limited cooperation that Iran has allowed with respect to declared facilities does not apply to the possible military dimensions of Iran's program. Iran has refused to cooperate with the IAEA during this reporting period and serious questions remain concerning potential military dimensions. During the reporting period, Iran's only operating declared enrichment site is the Natanz enrichment facility, where the IAEA maintains safeguards and has been able to declare no diversion of declared nuclear material since the beginning of enrichment operations in 2006, and also has been able to determine that the facility is not producing enriched uranium beyond its design standard.

Iran continues to develop, test, and install more advanced centrifuge designs, in addition to installing more IR-1 centrifuges in the large underground halls at Natanz. As of the end of the reporting period, Iran had installed and was testing the IR-1, IR-2, and IR-3 at the Pilot Fuel Enrichment Plant, according to IAEA safeguard implementation reports.¹¹

Heavy Water Reactor Technology and Plutonium Production. Previous editions of this Report have cited Iran's failure to comply with its obligations under Article III of the NPT on the production of plutonium, including with reference to IAEA findings of safeguards violations. These breaches included the failure to declare the irradiation of natural and depleted uranium dioxide (UO₂) targets in the Tehran Research Reactor (TRR), the separation and reprocessing of plutonium, and the failure to provide updated design information regarding the TRR and plutonium separation facilities. Iran has now admitted to past undeclared reprocessing experiments, and in 2007 the IAEA resolved its questions regarding past undeclared production and separation of plutonium in Iran. Over this reporting period there have been no additional questions raised regarding plutonium reprocessing.

In 2002, an Iranian opposition group revealed the existence of a heavy water production plant under construction in Arak, and Iran in 2003 was forced to admit attendant plans to build a heavy water reactor at the same site. Iran began construction on the heavy water reactor, IR-40, in 2004.¹²

¹⁰ Iran has also provided information regarding the previously undisclosed uranium enrichment facility near Qom.

¹¹ IAEA reporting has noted that, as of August 2009, 4,592 centrifuges at Natanz were being fed with UF₆, an additional 3,716 centrifuges had been installed, and Iran had produced 1,430 kg of low enriched UF₆. The IAEA also reported that environmental samples taken at Natanz indicated that both plants had been operating as declared (i.e., less than 5.0% uranium-235 (U-235) enrichment), with results of samples taken up to April 2009 showing particles of low enriched uranium of up to 4.4% U-235.

¹² IAEA reporting indicates Iran provided the IAEA with access to the IR-40 reactor at Arak on August 17, 2009, at which time the IAEA was able to carry out a design information verification (DIV). The IAEA

Nuclear Weaponization. Iran has not previously been cited for explicit work on nuclear weaponization or the acquisition of nuclear weapon designs, but the U.S. Intelligence Community now assesses that Iran was conducting a nuclear weapon development program until 2003, and IAEA reports provide credible evidence that Iran has both received nuclear weapons designs and worked indigenously on its own design. Among a cache of documents which Iran said that it received, but had not asked for, from the “procurement network” in 1987 was a 15-page paper setting out the procedures for reducing UF₆ to metal in “small quantities,” and for the casting and machining of enriched and depleted uranium into “hemispheres.” The IAEA has reported that it has received information from several states regarding Iranian intent to adapt the Shahab-3 Medium Range Ballistic Missile (MRBM) to carry a new re-entry vehicle. This documentation also included a schematic layout for underground, standoff explosives testing, references to the development of an explosive control system known as exploding bridge wire (EBW) used to initiate implosion-type nuclear weapons, and experiments regarding detonation systems.

Civilian Reactor Program. Iran’s civilian power reactor at Bushehr has been mentioned in previous editions of this Report, not as a compliance issue in itself, but as a possible means for Iran to use the facility as a cover for a nuclear weapons program. Russia has agreed to provide fresh fuel and repatriate the spent fuel for this reactor. Iranian officials declared that the reactor would come on line before the end of 2009, but this remained open to question given the slow rate of progress at the facility. Iran also has stated its intentions to build a second civilian power reactor at Darkhovin. The IAEA requested the design plan for this reactor in December 2007, but as of the end of the reporting period, Iran had refused to give the IAEA any information regarding the reactor.

Compliance Discussions

The United States continues to urge other countries to forgo nuclear cooperation with Iran, and continues to impose sanctions on a regular basis under the Iran Nonproliferation Act. These sanctions are designed, in part, to deny Iran the ability to fund the acquisition of technology to develop weapons of mass destruction and missile delivery systems.

In response to the IAEA’s report on Iran to the UNSC, the Council has adopted five resolutions on Iran (UNSCRs 1696, 1737, 1747, 1803, and 1835), three of which impose binding Chapter VII sanctions.¹³ On October 25, 2007, the U.S. Government took several major actions to counter Iran’s bid for nuclear capabilities and support for

verified then that the construction of the facility was ongoing, but noted that no reactor vessel was yet present. The operator stated that the reactor vessel was still being manufactured and that it would be installed in 2011. During the DIV, Iran estimated that the civil construction work was about 95 percent completed and that the plant itself was about 63 percent completed.

¹³ In addition, the UN Security Council adopted Resolution 1929 on June 9, 2010, imposing a new set of sanctions on Iran.

terrorism by exposing Iranian banks, companies, and individuals which have been involved in these dangerous activities, and by cutting them off from the U.S. financial system. Under Executive Order 13382, the Department of State designated the Islamic Revolutionary Guard Corps (IRGC) and the Ministry of Defense and Armed Forces Logistics (MODAFL) as two key Iranian entities of proliferation concern. In addition, the Department of Treasury designated IRGC-affiliated entities and individuals and the IRGC-Qods Force, as well as Iran's three largest banks, which fund their proliferation and terrorist activities, as entities of proliferation concern. The United States continues to expand the list of companies sanctioned under Executive Order 13382 when necessary.

The United States continues to support the IAEA in its efforts to answer all outstanding questions about Iran's nuclear program, and encourages the international community to take effective steps to persuade Iran that the continued pursuit of nuclear weapons is not in Iran's interest, making use of the full range of diplomatic, economic, political, and other pressures, as necessary and appropriate.

COMPLIANCE ANALYSIS

Article II of the NPT prohibits non-nuclear-weapon States Parties from receiving, manufacturing, or otherwise acquiring nuclear weapons, and from seeking or receiving any assistance in the manufacture of nuclear weapons or other nuclear explosive devices. Iran had a comprehensive nuclear weapons development program that was ordered halted in fall 2003. In addition to its indigenous research, Iran has possessed documents related to nuclear weapon design and manufacture. Iran did receive, whether it was requested or not, a document detailing the casting of uranium metal into hemispheres, which are components of nuclear weapons – evidence that in the past Iran received assistance that could be used in the manufacture of nuclear weapons. In the 2005 Report, the United States found that Iran had violated the “seeking or receiving any assistance” provision of Article II. When the IAEA has approached Iran regarding unresolved questions related to its past military nuclear activities, Iran has not adequately addressed those questions, continuing to claim that any allegations are “baseless” and “fabricated.” Iran refuses to resolve concerns regarding its former nuclear weapons program.

Iran's refusal to provide the IAEA with information on the construction of any new nuclear facility or design information for the proposed reactor at Darkhovin¹⁴ is an

¹⁴ According to a report issued by the IAEA Director General on May 23, 2007, Iran informed the IAEA on March 29, 2007, that it had “suspended” the implementation of the modified Code 3.1 and that it would “revert” to the implementation of the 1976 version of Code 3.1, which only requires the submission of design information for new facilities “normally not later than 180 days before the facility is scheduled to receive nuclear material for the first time.” The IAEA report noted that, in a letter dated March 30, 2007, the IAEA requested that Iran reconsider its decision. The IAEA report further noted that, in accordance with Article 39 of Iran's Safeguards Agreement, agreed Subsidiary Arrangements cannot be modified unilaterally; nor is there a mechanism in the Safeguards Agreement for the suspension of provisions agreed to in Subsidiary Arrangements.

apparent violation of modified Code 3.1 of Iran's Subsidiary Arrangements to its Safeguards Agreement.¹⁵

The "green salt" document contained in the information on weaponization is an example of past undeclared uranium conversion activities, and Iran still has not explained the origin or meaning of that document. Iran's centrifuge development and centrifuge enrichment program is not, in and of itself, a violation of the NPT, although it is in violation of Iran's obligations under UNSC resolutions.

Iran's engagement in the production of heavy water and continuing construction of the Arak heavy water reactor are not violations of its Safeguards Agreement, but are violations of obligations under UNSC resolutions. However, Iran's refusal to allow the IAEA to conduct a Design Information Verification inspection at the IR-40 is a violation of the modified Code 3.1 of Iran's Subsidiary Arrangement, and thus a violation of Article III of the NPT.

Iran continues to engage in uranium enrichment, uranium conversion, and heavy-water related activities despite applicable UNSC sanctions since 2006. Almost three decades of Iranian deception, the covert nature of Iran's nuclear weapons program, the opacity of its decision-making process, its failure to comply with IAEA demands or UNSC resolutions, and lingering suspicions of covert conversion and enrichment all suggest a need for continuing vigilance in our demands that Iran provide complete cooperation with the international community's efforts to inspect and verify that its nuclear program is, in fact, intended exclusively for peaceful purposes.

IRAQ

FINDING

Compliance issues arising from Iraq's past failure to comply with Articles II and III of the NPT and its obligation under UN Security Council resolutions to declare and destroy its prohibited weapons of mass destruction and long-range missile programs and to cooperate fully with UN and IAEA inspections and monitoring have been resolved.

BACKGROUND

Iraq signed the NPT in July 1968 and deposited its instrument of ratification in October 1969. Iraq's full-scope safeguards agreement with the IAEA entered into force in February 1972.

¹⁵ In addition, Iran's failure to declare the existence of its uranium enrichment facility at Qom is a violation of the modified Code 3.1 of Iran's subsidiary arrangements to its Safeguards Agreement, and of relevant UNSC resolutions requiring Iran to suspend enrichment-related activities.

During Saddam Hussein's regime prior to 1991, Iraq engaged in activities that raised concerns regarding compliance with its NPT Article II and Article III obligations. The United States assessed Iraq to be in noncompliance with the NPT in the 1993 Report. At that time, the United States concluded that, prior to 1991, Iraq had an active nuclear weapons program that violated its Article II NPT obligations and that noncompliance with its safeguards agreement constituted a violation of Article III.

After 1991, substantial light was shed on Iraq's pre-war nuclear weapons program as a result of the UN Special Commission (UNSCOM)/IAEA inspections called for under UNSC resolutions, which showed that Saddam Hussein's regime engaged in activities that violated its Article II and III obligations. In the 1996 Report, the U.S. finding included a determination that Iraq also had been "in violation of its obligation under UN Security Council Resolutions to declare and destroy its prohibited WMD and long-range missile programs and to cooperate fully with UN and IAEA inspections and monitoring." Since that time the U.S. compliance judgment has not changed regarding these pre-1991 activities. In the 2005 Report, the United States found that:

... Iraq, during the course of the Saddam Hussein regime prior to 1991, pursued an active nuclear weapons development program and that various aspects of this program violated its obligations under Articles II and III of the NPT. The United States has further determined that during this period Baghdad was in violation of its obligation under UN Security Council resolutions to declare and destroy its prohibited WMD and long-range missile programs and to cooperate fully with UN and IAEA inspections and monitoring.

Several Coalition task forces conducted WMD/missile exploitation operations until June 2003, when the Iraq Survey Group (ISG), composed of largely military experts from some Coalition countries, assumed responsibility for the WMD/missile effort. In September 2004, Charles Duelfer's Comprehensive Report of the Special Advisor to the DCI on Iraq's WMD noted the Iraq Survey Group discovered further evidence of the maturity and significance of the pre-1991 Iraqi nuclear program. Prior to 1991, Saddam Hussein's regime secretly irradiated indigenously manufactured target materials and IAEA-exempted fuel elements in a safeguarded research reactor at the Tuwaitha Nuclear Research Center. It also conducted undeclared uranium enrichment operations and produced associated feed materials in direct contravention of Iraq's NPT safeguards agreement, and built facilities intended to support a nuclear weapons program.

The Duelfer Report also noted that Saddam ended the nuclear program in 1991 following the Gulf War, and Iraq's ability to reconstitute a nuclear weapons program progressively decayed after that date. Although Saddam continued to see the utility of WMD and sought to preserve the ability to reconstitute the Iraqi nuclear program, Saddam's ambitions in the nuclear area were secondary to his prime objective of ending UN sanctions. The activities of the Iraqi Atomic Energy Commission (IAEC) sustained some talent and limited research that could have aided the reconstitution of the nuclear

weapons program once sanctions were lifted,¹⁶ but the Iraq Survey Group found no evidence to suggest concerted efforts to restart the program.

On October 2, 2003, the Special Advisor to the DCI on Iraq's WMD, Dr. David Kay, submitted an Interim Progress Report on the Activities of the Iraq Survey Group to Senate and House intelligence committees. Dr. Kay noted dozens of WMD-related program activities, but no stockpiles per se. He also reported that Saddam Hussein had not given up his aspirations and intentions to continue to acquire a nuclear weapons program and intended to resume WMD-related activities whenever external restrictions were removed. Dr. Kay added that Iraqi scientists and officials admitted to deliberately withholding WMD-related information from UN inspectors.

In 2004, a multi-agency U.S. team removed approximately 1.8 tons of low enriched uranium from the Tuwaitha complex. In July 2008, U.S. forces, in coordination with the IAEA, completed an operation to remove approximately 550 metric tons of yellowcake, the compound made from mined natural uranium ore, from Tuwaitha. The IAEA has publicly reported that all weapons-grade nuclear material was successfully removed from Iraq and that all known dedicated facilities and associated equipment have been destroyed or rendered harmless.

Compliance Discussions

Prior to Operation Iraqi Freedom's initial major combat operations, which took place between March 20 and May 1, 2003, Iraq was legally bound by the NPT (as is currently the case). Moreover, a suite of UN Security Council resolutions imposed additional obligations on Iraq to declare and destroy its WMD stockpiles and capabilities. The passage of UNSCR 1483 in May 2003 reaffirmed that Iraq must meet these disarmament obligations, and asked the United States and the United Kingdom to keep the UNSC informed of U.S. and UK activities in this regard.

Since Operation Iraqi Freedom, IAEA safeguards inspectors have conducted annual physical inventory verification (PIV) inspections of the declared nuclear material in Iraq. These annual inspections were carried out in 2003-2006. In the past two years, the IAEA has been working with Iraq to decommission former nuclear facilities, and to implement programs on radiation safety and waste management.

The Iraqi Government has declared that it will be a country free of weapons of mass destruction and that it will comply with its existing arms control, disarmament, and nonproliferation obligations. This nonproliferation commitment is embodied in the Iraqi Constitution (in Article 9, subparagraph 1(E)).

¹⁶ For example, the report cited a limited number of post-1995 projects, such as efforts to build a rail gun and a copper vapor laser that could have been useful in a future effort to restart a nuclear weapons program, but ISG found no indications of such purpose. Also, as funding for the Military Industrial Commission and the IAEC increased after the introduction of the Oil-for-Food program, there was some growth in programs that involved former nuclear weapons scientists and engineers.

COMPLIANCE ANALYSIS

Throughout the reporting period, the United States continued to work with the Iraqi Government to facilitate Iraq's progress in meeting its safeguards obligations and commitments related to UNSC resolutions. In 2008, Baghdad continued to take expected steps towards integration into the nuclear nonproliferation regime, including signing an IAEA Additional Protocol on October 9, 2008. As of the end of the period of this Report, Iraq still needed to bring the Additional Protocol into force. The United States has made clear that achieving universal adherence to an Additional Protocol by NPT States Parties is a U.S. nonproliferation priority, and that such adherence is vital to the effectiveness of the NPT.

LIBYA

FINDING

Compliance issues arising from Libya's past noncompliance with its NPT and IAEA obligations have been resolved. Libyan nuclear activities during the 2004-2008 period of this Report were consistent with these obligations.

BACKGROUND

The United States assessed Libya's compliance with the NPT in the 1993 Report. At that time the United States concluded that despite Libya's status as an NPT Party, Colonel Muammar al-Qadhafi had a well-known and long-standing desire for nuclear weapons and Libya was covertly seeking to acquire technology relevant to nuclear weapons production. The 2005 Report noted that:

Prior to December 19, 2003, the People's Libyan Arab Jamahiriya (Libya) engaged in activities that raised concerns regarding Libya's compliance with its NPT Article II and Article III obligations, as well as with its IAEA safeguards obligations.

In March 2003, Colonel Qadhafi decided to reach out to British intelligence to discuss Libya's WMD and missile programs. This launched nine months of delicate negotiations between Libya, the United States, and the United Kingdom, resulting in Libya's December 19, 2003, public commitment to reveal and eliminate its WMD and Missile Technology Control Regime (MTCR)-class missile programs. Libyan nuclear activities since its December 2003 disarmament pledge appear consistent with Libya's NPT and IAEA obligations.¹⁷

¹⁷ In early December 2003, Colonel Qadhafi publicly stated that the "future belonged to international economic relations, not to the creation of huge non-conventional military capabilities..." On March 2, 2004, he publicly explained further that during the Cold War, Libya had sought to develop nuclear weapons, but that "now ... if you built a nuclear bomb you would be in big trouble." He said that it was

Elimination of the Libyan Program. The United States and the United Kingdom developed a three-phase program to assist in the elimination of Libya's nuclear program.

Phases I and II: Removal Missions. Phase I involved removing some of the key material that was of greatest proliferation risk on a priority basis. In January 2004, nuclear weapons design documents, uranium hexafluoride, and key centrifuges and equipment, including material from the A.Q. Khan network, were removed from Libya.

Phase II was focused on removing or eliminating the remaining elements of Libya's programs, including nuclear equipment. In addition, an arrangement was made to remove more than 15 kg of fresh highly enriched uranium fuel to be returned to Russia.

Phase III: Verification Missions. U.S./UK teams spoke with many of the Libyans who were responsible for their WMD programs to better understand the extent of the programs and the procurement networks supporting them, and received thousands of pages of documents. Libya cooperated in providing full access to people and facilities, both declared and suspected sites. The nuclear team was able to obtain a coherent picture of the previously undeclared nuclear activities and uncovered no evidence of an ongoing hidden nuclear weapons or fissile material production program.

All of these activities were undertaken in close cooperation with the IAEA. The U.S. goal on this front was to ensure strong implementation of the IAEA's mandate. The IAEA Director General has issued several reports to the Board of Governors in which he concluded that Libya was meeting its safeguards obligations, including under the Additional Protocol, and safeguards in Libya were moving toward routine implementation.

Compliance Discussions

Since October 2003, Libyan officials have revealed the scope of Libya's previously undeclared nuclear activities as discussed above.

COMPLIANCE ANALYSIS

Libya signed the NPT in July 1968 and ratified it in May 1975. Its full-scope safeguards agreement with the IAEA entered into force in July 1980. In December 2003, Libya stated its intention to act as if the Additional Protocol were in force as of December 29, 2003, pending its formal entry into force. Libya subsequently signed the Additional Protocol on March 10, 2004, and formally brought its protocol into force on August 11, 2006. Libya signed the African Nuclear Weapon Free Zone Treaty in 1996, and deposited its ratification on May 11, 2005.

now in Libya's "own interest" to relinquish pursuit of nuclear weapons, because "the nuclear bomb represents a danger to the country which has them [sic]."

The IAEA conducted inspections, starting in January 2004, to confirm Libya's revised declarations. At the IAEA Board of Governors meeting in March 2004, the Director General of the IAEA was requested to report to the Security Council, for information purposes only, on Libya's past failure to meet its obligations under its safeguards agreement with the IAEA. On April 22, 2004, the UN Security Council took note of the IAEA resolution, welcomed Libya's decision to abandon its programs for developing WMD and their means of delivery, and encouraged Libya to ensure the verified elimination of all of its WMD programs. The IAEA noted during the September 2008 Board of Governors meeting the return of Libya's file to routine safeguards as a result of Tripoli's cooperation with the IAEA.

NORTH KOREA (DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA (DPRK))

FINDING

North Korea was in violation of its obligations under Articles II and III of the NPT and under its IAEA safeguards agreement before its announced withdrawal from the NPT in 2003.

The DPRK also violated its political commitments under Article I of the Agreed Framework by not maintaining and not allowing the IAEA to monitor the freeze on its plutonium production facilities, and under Article III of the Agreed Framework, by taking actions inconsistent with its commitment to take steps to implement the North-South Joint Declaration on Denuclearization of the Korean Peninsula, which states that North Korea and South Korea shall not possess nuclear reprocessing and uranium enrichment facilities.

This Report will continue to include the DPRK until it fulfills its commitment in the September 2005 Joint Statement to abandon all nuclear weapons and existing nuclear programs, and to return at an early date to the NPT and to IAEA safeguards.

BACKGROUND

The 2005 Report found that the DPRK was in noncompliance with its safeguards obligations from 1993.¹⁸

As of the end of the period of this Report, the DPRK had not returned to the NPT or to IAEA safeguards. In August 2008, North Korea, citing failure by the United States to deliver on Six-Party Second Phase political commitments, halted disablement, and in September 2008, began to reverse Second Phase disablement actions. On September 22,

¹⁸ The 2005 Report also found the DPRK to be in violation of its political commitments under Article III of the Joint Declaration on Denuclearization and under Article III of the Agreed Framework, by developing a clandestine uranium enrichment program, and by breaking the freeze on its plutonium production facilities.

2008, the DPRK asked the IAEA to remove the seals on the spent fuel reprocessing plant at Yongbyon. In October 2008, after the United States rescinded the DPRK's designation as a state sponsor of terrorism,¹⁹ the DPRK resumed disablement and allowed the IAEA to reinstall seals and resume monitoring. As of the end of the period of this Report, U.S. and IAEA personnel were monitoring disablement activities at the 5 Megawatt-electric (MW(e)) reactor, spent fuel reprocessing plant, and fuel fabrication plant at Yongbyon. The DPRK had completed eight of eleven agreed disablement steps, and had discharged 75 percent of the spent fuel rods from the 5 MW(e) reactor. At the December 2008 Six-Party Talks Heads of Delegation meeting in Beijing, the Parties failed to reach an agreement on verification.

On June 26, 2008, the DPRK destroyed the cooling tower of the disabled Yongbyon 5 MW(e) reactor. The day prior, the DPRK had provided a declaration of its nuclear programs to China, the Chair of the Six-Party Talks. It also provided over 18,000 pages of records related to those programs. As part of its declaration package, North Korea acknowledged U.S. concerns about the DPRK's uranium enrichment and nuclear proliferation activities. In July 2007, the IAEA returned to Yongbyon to verify that the DPRK had shut down the nuclear fuel fabrication plant, the reprocessing plant, the 5 MW(e) reactor, and the partially constructed 50 MW(e) and 200 MW(e) reactors, and to appropriately seal these sites as necessary. The IAEA continued to monitor and verify the shut-down and sealed status of those facilities.

NPT Accession and Withdrawal. In December 1985, the DPRK acceded to the NPT, but did not sign its safeguards agreement (INFCIRC/403) with the IAEA until January 30, 1992. By joining the NPT as a non-nuclear-weapon State, the DPRK was prohibited by Article II from acquiring or manufacturing nuclear weapons, and was required by Article III to conclude a safeguards agreement for its nuclear programs. The DPRK ratified its safeguards agreement on April 9, 1992, and it entered into force the next day. However, the IAEA was never able to verify the correctness and completeness of the DPRK's initial declaration of nuclear material subject to the DPRK's comprehensive safeguards agreement. In 1993, the DPRK provided notice of withdrawal from the NPT under Article X, then "suspended" its withdrawal notice one day short of the three-month period required for a withdrawal to become effective. On January 10, 2003, the DPRK announced its withdrawal from the NPT.

Compliance Discussions

In October 1994, pursuant to the Agreed Framework, the DPRK committed to initially freeze, and eventually dismantle, its graphite-moderated nuclear reactors and related facilities at Yongbyon and Taechon in exchange for two light-water reactors

¹⁹ The United States rescinded the designation on October 11, 2008, after the DPRK had agreed with the United States on a series of verification measures related to the DPRK's nuclear declaration.

(LWRs) and interim energy assistance in the form of heavy fuel oil.²⁰ U.S. Secretary of State Powell indicated on October 20, 2002, that, in light of the DPRK's statements and actions, the Agreed Framework was effectively nullified. As a result of this development, the members of the Korean Peninsula Energy Development Organization's (KEDO's) Executive Board (the United States, Republic of Korea, Japan, and the European Union) agreed in November 2002 to suspend shipments of heavy fuel oil beginning in December 2002, while calling on the DPRK to promptly eliminate its nuclear weapons program. In response to the KEDO action, the DPRK unfroze the 5 MW(e) reactor and reprocessing plant at Yongbyon.

The United States assesses that, at some point during the freeze on its plutonium program, the DPRK embarked on an effort to develop a centrifuge-based uranium enrichment program. Pakistan admitted that A. Q. Khan provided a starter kit for a highly enriched uranium program with approximately 20 P-1 centrifuges to the DPRK.

Following a U.S.-Republic of Korea (ROK) Presidential Summit meeting in May 2003, the United States and ROK released a joint statement noting with serious concern North Korea's statements about reprocessing, possession of nuclear weapons, and its threat to demonstrate or transfer these weapons.

In October 2003, the DPRK claimed that it had completed the reprocessing of some 8,000 spent fuel rods, and had made a "switchover in the use of plutonium" obtained from them "in the direction of increasing its nuclear deterrent force." The DPRK subsequently declared in October 2004 that it would strengthen its "nuclear deterrent" in quality and quantity. On February 10, 2005, North Korea publicly stated for the first time that it possessed nuclear weapons. The IAEA Board of Governors condemned this announcement, and urged the DPRK to verifiably eliminate its nuclear weapons program. On September 19, 2005, the DPRK committed in the Joint Statement of the Fourth Round of the Six-Party Talks to abandon all nuclear weapons and existing nuclear programs, and to return at an early date to the NPT and IAEA safeguards.

On October 9, 2006, the DPRK conducted a test of a nuclear explosive device. In response, the UN Security Council adopted UNSCR 1718, which condemned the test; demanded that the DPRK immediately retract its withdrawal from the NPT and return immediately to the NPT and to IAEA safeguards; decided that the DPRK shall abandon all nuclear weapons and existing nuclear programs in a complete, verifiable, and irreversible manner; and called upon the DPRK to return immediately to the Six-Party Talks without preconditions. The Fifth Round of the Six-Party Talks resulted in the Initial Actions for the Implementation of the Joint Statement on February 13, 2007, which stipulated the following: the DPRK committed to shut down and seal, for the purpose of eventual abandonment, the Yongbyon nuclear facility, including the reprocessing facility; the DPRK also committed to invite back IAEA personnel to conduct all necessary monitoring and verifications, as agreed between the IAEA and the

²⁰ Under the Agreed Framework, the DPRK was to be in *full* compliance with its IAEA safeguards agreement before any key nuclear components for the reactors could be delivered.

DPRK; and the DPRK also committed to discuss with the other parties a list of all its nuclear programs, including plutonium extracted from spent fuel rods.

In the Second Phase Actions for the Implementation of the Joint Statement, issued October 3, 2007, North Korea committed to disable the 5 MW(e) reactor, the reprocessing plant, and the fuel fabrication plant by December 31, 2007. The United States made parallel commitments to North Korea to begin the process of removing the designation of North Korea as a state sponsor of terrorism and terminating the application with respect to North Korea of the Trading with the Enemy Act. North Korea in November 2007 began disabling the three agreed-upon facilities at Yongbyon with oversight by a team led by U.S. Department of Energy officials.

Uranium Enrichment Program. As of December 31, 2008, the DPRK had denied the existence of a uranium enrichment program consistently throughout the period of this Report. U.S. concerns were heightened by repeated DPRK efforts to procure a substantial quantity of aluminum alloy tubes which could have been suitable for use in constructing gas centrifuge enrichment machines. In April 2003, Germany stopped a North Korean effort to procure 200 tons of 6061-T6 aluminum tubes suitable for centrifuge outer casings.

Plutonium Production. At issue is the quantity of plutonium that the DPRK has acquired from the Yongbyon 5 MW(e) reactor before 1994 and after 2002, when the DPRK restarted the reactor. The DPRK produced fissile material for nuclear weapons by reprocessing spent fuel rods irradiated in the gas-cooled, graphite-moderated 5 MW(e) reactor. In 1989 and 1990, the 5 MW(e) reactor at Yongbyon was shut down long enough to remove all or most of the spent fuel, although it is not known whether removal or reprocessing occurred.

Yongbyon Facility. From 1994 until December 2002, operations at the 5 MW(e) reactor at Yongbyon were frozen in accordance with the Agreed Framework. In July 2007, IAEA inspectors returned to Yongbyon where they monitored the shut-down status of the 5 MW(e) experimental nuclear power plant, and of the 50 MW(e) and 200 MW(e) nuclear power plant construction sites.²¹

Reprocessing Plant. There were 8,000 spent fuel rods stored at the reactor site at Yongbyon in 1994. The DPRK has maintained that it has reprocessed all of the 8,000 rods.

*Weaponization.*²²

²¹ In April 2009, the IAEA inspectors departed the DPRK after it decided to cease all cooperation with the IAEA.

²² On May 25, 2009, North Korea publicly announced that it had “successfully conducted one more underground nuclear test on May 25 as part of the measures to bolster up its nuclear deterrent for self-defence in every way as requested by its scientists and technicians.” In early September 2009, North Korea announced that reprocessing of spent fuel rods was at its final phase, extracted plutonium was being

COMPLIANCE ANALYSIS

The DPRK remains the only nation to give notice of withdrawal from the NPT when it was in material breach of the Treaty; it is also the only nation to give notice of withdrawal from the NPT. The DPRK remains the first nation unilaterally to disable IAEA containment and surveillance systems, and to expel IAEA inspectors. The United States continues to maintain that the DPRK's noncompliance with the NPT cannot be dismissed simply because of its subsequent effort to withdraw from the Treaty.

The United States agrees with the assessment of the IAEA Director General, who said on January 6, 2003, that: "the DPRK has been in chronic noncompliance with its safeguards agreement since 1993 when the Agency was unable to verify that the DPRK had declared to the Agency all nuclear material." The IAEA Board of Governors convened on February 12, 2003, and decided to report to the UN Security Council the DPRK's further noncompliance with its safeguards agreement and the IAEA's inability to verify non-diversion of nuclear material subject to safeguards.

SYRIA

FINDING

Syria failed to declare and provide design information to the IAEA for the construction of the reactor at Al Kibar. Therefore, it failed to meet its obligations pursuant to modified Code 3.1 of the Subsidiary Arrangements to its Safeguards Agreement. Moreover, the reactor's apparent purpose was the clandestine production of plutonium for non-peaceful activities.

BACKGROUND

Until September 2007, Syria was building a covert nuclear reactor at Al Kibar in Syria's eastern desert that would have been capable of producing plutonium. The reactor was destroyed on September 6, 2007, before it became operational. The reactor's intended purpose was apparently the production of plutonium, because the reactor was not configured for power production, was isolated from any civilian population, and was ill-suited for research.

Syria is an NPT Party that has implemented a Comprehensive Safeguards Agreement with the IAEA. However, Syria failed to declare and provide design information to the IAEA for the construction of the reactor at Al Kibar. Following the reactor's destruction, Syria went to great lengths to clean up the site and to destroy evidence of what had existed at the site. On October 10, 2007, Syria conducted a

weaponized, and experimental uranium enrichment had successfully been conducted to enter into completion phase. On November 3, 2009, North Korea announced that it had successfully completed the reprocessing of 8,000 spent fuel rods by the end of August.

controlled demolition of the reactor debris and promptly began removing equipment and debris from the site. By December 2007, Syria had constructed a large building over the location where the reactor once stood. Despite repeated requests by the IAEA, Syria did not allow inspectors to visit the site until June 2008. As of the release of this Report, Syria continued to reject IAEA requests for follow-up visits to the site and other suspected facilities.

The IAEA has continued to investigate concerns regarding the nature of the former facility at Al Kibar. The IAEA Director General's introductory statements to the September and November 2008 IAEA Board of Governors meetings noted that environmental samples were taken from the site during a June 2008 IAEA visit, and that the samples "revealed a significant number of natural uranium particles, which had been produced as a result of chemical processing."²³ The Director General's November 2008 statement also noted that the features of the building in question, along with the availability of adequate pumping capacity of cooling water, were similar to what may be found in connection with a reactor site. In these 2008 statements, the Director General urged Syria to show maximum cooperation and transparency and to provide all the information needed by the IAEA to complete its assessment.²⁴

Compliance Discussions

In April 2008, the United States provided information to the IAEA indicating that the installation destroyed in September 2007 at Al Kibar was a nuclear reactor being constructed with North Korean assistance. Nuclear verification in Syria has remained an unresolved IAEA issue, with many countries expressing concerns about Syria's nuclear-related activities. The United States and several other countries have urged the Syrian Government to demonstrate transparency and cooperate fully with the IAEA to address all outstanding questions about Syria's clandestine nuclear activities.

Syria has continued to reject concerns regarding its past activities at Al Kibar. It has stated that the Al Kibar site was a military site and was not involved in any nuclear activities. It has further stated that its cooperation with the IAEA would not be at the expense of military or national security.

²³ The IAEA Director General's introductory statement to the Board of Governors meeting in June 2009 noted that similar particles of chemically processed natural uranium were detected in environmental samples taken from the Al Kibar site (during the June 2008 visit) and from the hot cells of the Miniature Neutron Source Reactor facility in Damascus in 2008. The IAEA sought to understand the presence and origin of the uranium particles found at both sites, which are of a type not included in Syria's declared inventory of nuclear material.

²⁴ In an introductory statement to the March 2009 IAEA Board of Governors meeting, the IAEA Director General indicated that additional access to other locations alleged to be related to the Al Kibar site, together with the sampling of destroyed and salvaged equipment and debris, was essential for the IAEA to complete its assessment. In an introductory statement to the June 2009 IAEA Board of Governors meeting, the Director General noted that "[r]egrettably, the limited information and access provided by Syria to date have not enabled the Agency to determine the nature of the destroyed facility, nor made it possible for us to corroborate Syria's assertions in that regard."

COMPLIANCE ANALYSIS

That Syria clandestinely built a nuclear reactor, apparently intended for plutonium production, without providing any information to the IAEA indicates that Syria was likely pursuing a non-peaceful nuclear program. Furthermore, Syria's actions in razing the site of the destroyed reactor to remove all evidence of its existence, its denial of the construction of the reactor, and its continuing failure to demonstrate transparency and cooperation with the IAEA's investigation of this and related sites lend further credence to this conclusion regarding the intended purpose of the reactor. Finally, that Syria failed to report early design information on the reactor means it failed to meet its obligations pursuant to Code 3.1 of the Subsidiary Arrangements under its Safeguards Agreement.

TREATY ON OPEN SKIES

INTRODUCTION

The Treaty on Open Skies establishes a regime for the conduct of unarmed observation flights by States Parties over the territories of other States Parties. States Parties are allowed to utilize four types of sensors (optical panoramic and framing cameras, video cameras with real-time display, infra-red line-scanning devices, and sideways-looking synthetic aperture radar) during the observation flights. The Treaty was signed at Helsinki on March 24, 1992. The Treaty entered into force on January 1, 2002, and is of unlimited duration. As of December 31, 2008, 34 States Parties (Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Croatia, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Russia, the Slovak Republic, Slovenia, Spain, Sweden, Turkey, Ukraine, the United Kingdom, and the United States) have signed and ratified the Treaty on Open Skies.

Since entry into force and as of December 31, 2008, States Parties have conducted over 500 observation flights over the territories of other States Parties. The United States has conducted 55 observation flights over Russia and six observation flights over Ukraine. The United States has conducted observation flights over Russia by itself or shared with other States Parties to include Bulgaria, the Czech Republic, France, Georgia, Germany, Hungary, Italy, Latvia, Lithuania, Norway, Poland, Romania, the Slovak Republic, Turkey, and the United Kingdom. All six U.S. observation flights over Ukraine were shared with Canada.

Since entry into force and as of December 31, 2008, the United States has accepted 16 observation flights over its territory. The 16 flights were conducted by the Russian Federation. One of Russia's observation flights was shared with Sweden.

The 2005 Report covered the period from entry into force up to December 31, 2003. There are no outstanding Open Skies compliance issues from the last Report. This Report discusses two major compliance issues involving the Russian Federation from January 1, 2004, to December 31, 2008.

COUNTRY ASSESSMENTS

RUSSIAN FEDERATION

FINDING

During the period from 2004 through 2008, the Russian Federation's airspace restrictions on Open Skies observation flights operating in Russia were not in compliance with the provisions of the Treaty on Open Skies. The United States also notes that

Russia's inability to provide a first generation duplicate negative of processed photographic film from Open Skies flights is not in compliance with its obligations under Sections II and IV of Article IX of the Treaty on Open Skies.

BACKGROUND

The United States has addressed issues with Russia in the following areas:

1. In June 2004, during the film processing of a Russian observation flight over the United States, it was discovered that Russia's film duplication equipment was incapable of producing a first generation duplicate negative.

2. Airspace restrictions.

UUP-33 Prohibited Area. In July 2004, Russia denied Canada's request to conduct an observation flight over the UUP-33 prohibited area surrounding Moscow citing national flight rules and safety concerns as the reasons for the denial. At the Open Skies Consultative Commission (OSCC) in April 2005, Canada noted that UUP-33's oval-shaped area of approximately 40 km by 50 km does not permit observation by the sensors of any Open Skies aircraft, including obliquely mounted cameras.

In May 2005, Russia explained at the OSCC that UUP-33 was only an extended polyhedron-shaped area with a maximum length of 39 km and a maximum width of 31 km. Russia also acknowledged the right to observe any point of territory, but pointed out that a Treaty-allowed oblique camera would be able to observe all the points under UUP-33 without having to overfly it.

In July 2006, Russia modified its airspace restrictions over the UUP-33 prohibited area. Observation flights in the prohibited area are permitted at altitudes of 3,600 meters and above, with the exception of the airspace over the territory delimited by a radius of 2.5 km from a point centered on Moscow. In October 2006, the United States conducted an observation flight over UUP-33 to determine the impact of Russia's restrictions on the imagery results of the OC-135B sensors. Due to cloud cover, the United States was not able to obtain any imagery for analysis.

Russian UUP-33 prohibited area restrictions remain unchanged. The issue of observation flight and hazardous airspace remains on the agenda of the Informal Working Group on Rules and Procedures (IWGRP). However, there was little discussion on the UUP-33 prohibited area issue in 2007 and 2008. During an observation flight in September 2007, the United States attempted to overfly UUP-33. Due to aircraft maintenance issues, the UUP-33 segment was not executed. Another attempt was made to test Russia's UUP-33 prohibited area restrictions in November 2008 during a joint Romania/U.S. shared observation flight over Russia. On this flight the team requested an altitude of 3,300 meters over UUP-33. However, citing Russia's UUP-33 prohibited area procedures, the Russian team denied the request and stated that the flight must take place

at an altitude of 3,600 meters. The Romania/U.S. team accepted the restriction, and the UUP-33 segment of the flight was conducted at 3,600 meters.

Other Russian Airspace Restrictions in 2008. During its August 2008 conflict with Georgia and into the fall, Russia imposed several temporary airspace restrictions on Open Skies observation flights over its territory, citing safety of flight concerns in the area as the reason for the restrictions. During a Polish/U.S. joint observation flight in August 2008, Russia announced three new restricted areas (A4900/08, A4901/08, A4887/08) in which flights were not permitted. The Polish/U.S. team changed the flight path of the observation flight to avoid one of the restricted areas and formally objected to the Russian restrictions in the mission report.

During the first week of September 2008, Russia took various actions to impede a Spanish/Norwegian/Canadian observation flight from entering the Russian territory in the Rostov region. During the mission negotiation, Russia rejected the team's flight plan because it would enter into the restricted airspace in southwestern Russia (Rostov-Na-Donu). The team left without conducting the flight. The following week, Russia rejected a similar request by a joint German/U.S. team to conduct an observation flight in the same restricted area. After registering their objections in the mission report, the German/U.S. team departed Russia without conducting the observation flight.

In mid-September, Russia cancelled the airspace restrictions in southwestern Russia as well as in the three restricted areas imposed during the Polish/U.S. joint observation flight. In November and December 2008, the German/U.S. and Canadian teams rescheduled their previously cancelled flights over southwestern Russia, respectively. Bad weather prevented the German/U.S. flight from taking place. Canada was allowed to execute its observation flight without restrictions.

Compliance Discussions

The United States mainly uses the bilateral diplomatic channel with Russia to discuss the issues of first generation duplicate negatives and utilizes the OSCC forum with all Treaty States Parties, as well as bilateral meetings with Russia, to discuss the issue of airspace restrictions.

During bilateral discussions in 2006 and 2007, the United States raised the issue of Russia's inability to produce a first generation duplicate negative. Since the August 2007 bilateral meetings and as of December 31, 2008, there has been no compliance discussion with Russia on this issue.

In the fall of 2004, when Russia imposed the UUP-33 prohibited area restrictions, the United States worked with Canada and the United Kingdom to facilitate a detailed discussion on the issue of hazardous airspace restrictions in the OSCC. At the OSCC Plenary on May 23, 2005, the United States and the United Kingdom rejected Russia's safety rationale for not allowing flights through UUP-33. During the discussion, the

United States also told Russia that Open Skies flights through portions of the UUP-33 airspace should be accommodated to protect the rights and interests of all States Parties. U.S. compliance discussion efforts gained support from Spain, Italy, and Hungary.

In November 2005, a special meeting of the IWGRP addressed the issue of the observation of any point on the entire territory of a State Party and the influence of hazardous airspace. At the meeting, a number of states gave presentations on how their national procedures had structured airspace and clearance procedures to ensure access by Open Skies aircraft to comply with the Open Skies Treaty provision that all the territory within a State Party be subjected to observation. During the discussion, Russia acknowledged that not all aircraft can observe the whole area of UUP-33 due to technical limitations and that it was looking at reducing the size of the exclusion zone over Moscow.

In 2006, following the special meeting in the IWGRP on hazardous airspace in the fall of 2005, the United States continued to pressure Russia to allow access to the UUP-33 prohibited area. In July 2006, Russia modified its airspace restrictions over the UUP-33 prohibited area in order to ensure that observation flights can be carried out over the area.

In comparing the minimum height of all certified aircraft with Russian procedures for UUP-33, the United States determined that most States Parties' Open Skies sensors would not be able to achieve Treaty-allowed resolution of the area in UUP-33. In the fall 2006 session of the OSCC, the United States informed the Plenary that analysis indicated that most States Parties would not be able to achieve Treaty-allowed resolution with UUP-33's new minimum altitude of 3,600 meters. The United States provided a chart on certified aircraft and sensor configurations showing that most lack the capability to collect Treaty-allowed imagery at 3,600 meters. Russia rejected the U.S. analysis. It continued to cite safety concerns as the reason for the new altitude and cited its own study showing that, using UUP-33's new restrictions, States Parties should be able to achieve a resolution which corresponds to Treaty provisions.

Compliance discussion on UUP-33 was limited in 2007. The United States pushed to keep the issue of hazardous airspace on the agenda of the IWGRP and continued to consult with Allies regarding their views and plans on the UUP-33 prohibited area procedures.

In the fall of 2008, Russia's imposed additional temporary airspace restrictions brought the issue to the forefront again. The United States raised the issue of the Russian airspace restrictions over southwestern Russia that had negatively affected the Polish/U.S., Spanish/Norwegian/Canadian, and German/U.S. observation flights at the OSCC on September 22, 2008. Even though Russia had cancelled the airspace restrictions, the United States continued to emphasize that the Treaty permits an observation flight that allows for the observation of any point on the entire territory of the

observed Party, including areas designated as hazardous airspace, and that hazardous airspace does not constitute a legitimate reason for refusal of an Open Skies flight.

The United States continued to utilize the OSCC forum and diplomatic means to highlight the negative impact of UUP-33's 3,600-meter altitude restriction over Moscow with the goal of Russia removing all airspace restrictions that negatively impact observation flight.

COMPLIANCE ANALYSIS

Section II of Article IX of the Treaty states that when only one original film negative is developed, the observed Party has the right to receive a complete first generation duplicate, either positive or negative, of the original film negative. Additionally, Section IV of Article IX of the Treaty states that a State Party shall have the right to request and receive from the observing Party copies of data collected by sensors during an observation flight. Such requests include the right to ask for duplicate negative film.

Consistent with the rights established in Sections II and IV of Article IX of the Treaty, the United States has requested that Russia provide duplicate negative film of imagery collected during the Russian observation flights over the United States from 2004 through 2008. However, in each case, Russia was able to provide only duplicate positive film because their media processing facility was incapable of producing a duplicate negative. As a result, the United States was unable to exercise its rights under Sections II and IV of Article IX.

Paragraphs 1 and 2 of Article IV of the Treaty state that States Parties may use any of four sensor types to conduct observation flights. Additionally, Section II of Article VI of the Treaty states that the observation flight mission plan may provide for the observation of any point on the entire territory of the observed Party, including areas designated by the observed Party as hazardous airspace.

In January 2005, six months after Russia restricted the Canadian observation flight through the UUP-33 prohibited area, the United States confirmed that the size was large enough to prevent other States Parties from observing all of Russia's territory as required by the Treaty. Russia's modification of the UUP-33 prohibited area restrictions in 2006 does allow the U.S. Open Skies aircraft's KA-91C panoramic camera (four sensor configurations) to image targets in the UUP-33 prohibited area with Treaty-allowed resolution. However, the 3,600-meter altitude restriction prevents the OC-135B's KS-87E framing camera (and twelve other sensor configurations) from imaging targets within UUP-33 at the allowed Treaty resolution because the minimum altitude for these sensors to achieve this resolution is below 3,600 meters.

As of December 31, 2008, Russian UUP-33 restrictions were still in effect. The United States has concluded that Russia's UUP-33 airspace restrictions do not allow the

United States to have full territorial observability of Russia with all U.S. certified sensors. Nor do these restrictions permit the certified sensors of other sharing partner aircraft with minimum sensor altitudes less than 3,600 meters to achieve full territorial observability in accordance with Paragraphs 1 and 2 of Article IV of the Treaty.

Russia's denial of access to southwestern Russia and three smaller restricted airspaces in the fall of 2008 prevented three requested observation flights (Polish/U.S., Spanish/Norwegian/Canadian, and German/U.S.) from taking place. Russia's actions denied the observing Parties the Treaty right of full territorial observation and are not in compliance with Section II of Article VI of the Treaty. When Russia removed these airspace restrictions in mid-September 2008 and allowed the German/U.S. and Canadian observation flights to proceed, this ceased to be a compliance issue.

PART IV: OTHER NATIONS' (INCLUDING SUCCESSOR STATES') COMPLIANCE WITH THEIR INTERNATIONAL COMMITMENTS

MISSILE NONPROLIFERATION COMMITMENTS

INTRODUCTION

Multilateral missile-related nonproliferation regimes and arrangements and bilateral diplomacy are essential tools used by the United States to: (1) impede the proliferation of missile systems capable of delivering weapons of mass destruction (WMD); (2) dissuade supplier states from assisting the missile programs of proliferant states; and (3) induce proliferant states to end their missile programs. The Missile Technology Control Regime (MTCR) and the Hague Code of Conduct Against Ballistic Missile Proliferation (HCOC; originally known as the International Code of Conduct Against Ballistic Missile Proliferation (ICOC)) are the key multilateral mechanisms addressing the proliferation of missiles and missile-related technology. In addition, the United States holds frequent bilateral discussions on nonproliferation issues, often with states that are not members of or parties to multilateral regimes. The United States has sought and received separate, bilateral political nonproliferation commitments from nations to limit their missile proliferation activities. The United States expects these countries to fulfill their commitments.

Some nations that are significant proliferators of ballistic missile technology, such as North Korea and increasingly Iran, are not members of the MTCR or HCOC and have not made separate political nonproliferation commitments to the United States to halt their missile-related activities. The United Nations recognizes the threat to global peace and international security that the proliferation of WMD and their means of delivery poses and, through several Security Council Chapter 7 and Chapter 41 resolutions (e.g., UNSCRs 1540, 1673, 1695, 1696, 1718, 1737, 1747, 1803, 1835, and 1874), called on all nations to take actions to prevent the spread of these weapons and systems. Through participation in multilateral regimes and other bilateral and multilateral fora, the United States has worked with other countries to prevent transfers of equipment and technology that could contribute to missile programs of concern. In addition, the United States has used its national legal authorities to impose sanctions for missile-related transfers on numerous entities in several countries since 2003.

Missile Technology Control Regime. The MTCR is a voluntary arrangement among Partner countries sharing a common interest in controlling missile proliferation. The MTCR is not a treaty and it does not impose legally binding obligations on participating countries. Rather it is an informal political understanding among states that seek to limit the proliferation of missiles and missile technology. The MTCR Partners control exports of a common list of controlled items (the MTCR Equipment, Software, and Technology Annex, also referred to as the MTCR Annex) according to a common

export control policy (the MTCR Guidelines). The Guidelines and Annex are implemented according to each country's national legislation and regulations.

The MTCR Guidelines restrict transfers of missiles – and equipment and technology related to missiles – capable of delivering a payload of at least 500 kg to a range of at least 300 km (so-called “MTCR-class” or “Category I” missiles). The MTCR Guidelines originally restricted transfers related solely to nuclear-capable missiles. However, in January 1993, the MTCR Partners extended the Guidelines to cover delivery systems capable of carrying all types of weapons of mass destruction – biological, chemical, and nuclear.

The MTCR Annex of controlled items consists of two sections: Category I items and Category II items. MTCR Category I Annex items include complete MTCR-class missile systems, as well as their major complete subsystems, such as rocket stages, engines, guidance sets, and re-entry vehicles. Pursuant to the MTCR Guidelines, exports of MTCR Category I items are subject to an unconditional *strong presumption of denial* regardless of the purpose of the export and are licensed for export only on rare occasions. The MTCR Guidelines also specify that *transfers of production facilities for Category I items will not be authorized*. This is the only activity that is absolutely proscribed by the MTCR.

MTCR Category II Annex items include other less sensitive and dual-use missile-related components. Their export is to undergo case-by-case review against the six nonproliferation factors specified in paragraph 3 of the MTCR Guidelines, except that the exports judged by the exporting country to be intended for use in WMD delivery are to be subjected to a strong presumption of denial.

These MTCR export controls are not bans, but regulatory measures by individual Partners to prevent transfers of items that could contribute to delivery systems for WMD. Licensing such exports is consistent with the MTCR's objective of curbing the flow of missile equipment and technology worldwide. It also helps suppliers have confidence that they can provide access to sensitive items without fear of these items being diverted to programs of concern.

The MTCR Partners do not make export licensing decisions as a group. Rather, each individual Partner implements the MTCR Guidelines and Annex in accordance with national legislation and practice and on the basis of sovereign national discretion. However, Partners regularly exchange information on relevant licensing matters in order to ensure consistency with the Regime's overall nonproliferation goals. Moreover, while all licensing decisions – for both Category I and Category II items – remain the sole and sovereign decision of the exporting country, experience shows that proliferation concerns raised by another MTCR Partner figure prominently in the decision-making process of the exporting country.

The MTCR Guidelines do not distinguish between exports to Partners and exports to non-Partners. Moreover, the MTCR Partners have explicitly affirmed that membership in the Regime involves no entitlement to obtain technology from another Partner and no obligation to supply it. Partners are expected to exercise appropriate accountability and restraint in trade among Partners, just as they would in trade with non-Partners.

Since its 1987 founding, the Regime has made important strides in slowing missile proliferation worldwide. The MTCR Partners' efforts have induced most major suppliers to control their missile-related exports responsibly; reduced the number of countries with MTCR-class missile programs; and increased the Regime's influence and capabilities by adding countries with significant technical, economic, and political potential to its ranks. The MTCR Partners also have cooperated to halt numerous shipments of proliferation concern. Taken together, these actions have established the MTCR Guidelines and Annex as the international standard for responsible missile-related export behavior. For example, the MTCR Annex forms the basis of the lists of missile-related items prohibited from transfer to North Korea in UNSCR 1718 and Iran in UNSCR 1737. In addition, the Partners have established a broad outreach program to non-members to increase awareness of the global missile proliferation threat and to urge countries that have engaged in missile proliferation to desist. In recent years, the MTCR Partners also have focused increasingly on new ideas for addressing ongoing global missile proliferation challenges and the demand-side issues posed by non-MTCR members.

Membership in the MTCR has grown steadily since the Regime's creation in 1987, and 34 countries are now members. They are Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, the Republic of Korea, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, Russia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom, and the United States. New members are invited to join the Regime on a consensus basis.

The MTCR Guidelines and Annex are open to all nations to implement unilaterally, and the United States and its MTCR Partners encourage all governments to do so. A number of other countries have declared unilateral adherence to the MTCR Guidelines and have implemented export controls consistent with the MTCR Guidelines and Annex. The United States and several other MTCR Partner countries maintain an active nonproliferation dialogue with these countries. However, these countries do not participate as Partners in the Regime, i.e., they do not participate in the decision-making process regarding the activities and future orientation of the MTCR, or enjoy any of the other rights or responsibilities of Regime membership.

Consistent with its role as an informal, political commitment-based nonproliferation mechanism implemented according to each member's national laws and regulations, the MTCR has no Regime-wide compliance or verification provisions. The Regime does not review the Partners' individual national licensing decisions for

conformity with the Guidelines, and there are no penalties for a “wrong” decision. Instead, when questions arise, concerned Partners consult bilaterally to promote a common understanding of the issue and a consistent approach to the Regime’s overarching nonproliferation objectives. The only activity prohibited by the MTCR Guidelines, to which all 34 MTCR Partner countries voluntarily subscribe, is the transfer of production facilities for MTCR Category I Annex items. As of now, there are no compliance issues related to the actions of MTCR Partners related to this stricture.

Hague Code of Conduct Against Ballistic Missile Proliferation (HCOC). On November 25, 2002, the HCOC was launched in The Hague, Netherlands. The HCOC, initially referred to as the International Code of Conduct Against Ballistic Missile Proliferation (ICOC), intends to create a widely subscribed international predisposition against ballistic missile proliferation. The Code consists of a set of broad principles, general commitments, and modest confidence-building measures. It is a voluntary political commitment, not a treaty, and is open to all countries. The Code is intended to supplement, not supplant, the MTCR.

States subscribing to the HCOC “*resolve to implement*” the following General Measures: (a) ratify, accede, or otherwise abide by three space-related international agreements; (b) “*curb and prevent the proliferation*” of WMD-capable ballistic missiles; (c) “*exercise maximum possible restraint*” in the development, testing, and deployment of WMD-capable ballistic missiles; (d) “*exercise the necessary vigilance in the consideration of assistance to space launch vehicle programs in any other country*” so as to prevent contributing to WMD-capable delivery systems; and (e) “*not to contribute to, support or assist any ballistic missile program in countries that might be developing or acquiring weapons of mass destruction in contravention of norms established by, and of those countries’ obligations under, international disarmament and nonproliferation treaties.*”

In addition, the HCOC subscribing states “*resolve to implement*” the following transparency measures: (1) annual declarations outlining the nation’s ballistic missile policies and information on the numbers and generic class of ballistic missiles launched during the preceding year as declared under the HCOC’s pre-launch notification mechanism; (2) annual declarations outlining the nation’s space launch vehicle policies and information on the number and generic class of space launch vehicles launched during the preceding year as declared under the HCOC’s pre-launch notification mechanism; and (3) exchanges of pre-launch notifications on their ballistic missile and space launch vehicle launches and test flights.

As of December 2008, a total of 130 countries had subscribed to the HCOC.

For additional information on MTCR- and HCOC-related activities, please see the annual “Report on the Proliferation of Missiles and Essential Components of Nuclear, Biological, Chemical, and Radiological Weapons” and the “Periodic Report to Congress on the National Emergency Regarding Proliferation of Weapons of Mass Destruction.”

COUNTRY ASSESSMENTS

CHINA

FINDING

During the reporting period, Chinese companies continued to supply missile programs in countries of concern. The United States notes that China made a November 2000 Commitment not to assist “*in any way, any country in the development of ballistic missiles that can be used to deliver nuclear weapons (i.e., missiles capable of delivering a payload of at least 500 kilograms to a distance of at least 300 kilometers).*”

BACKGROUND

China is not a subscriber to the HCOC, nor a member of the MTCR. China has made both bilateral commitments to the United States and unilateral undertakings to control the proliferation of missile and missile-related items to other nations. Intensive bilateral dialogue and high-level political efforts augmented by trade sanctions resulted in China’s 2000 bilateral missile nonproliferation commitment to the United States that it would not assist “*in any way, any country in the development of ballistic missiles that can be used to deliver nuclear weapons (i.e., missiles capable of delivering a payload of at least 500 kg to a distance of at least 300 km).*” China’s unilateral political commitment to the United States is herein referred to as the November 2000 Commitment.

Since 2000, China has tightened its control over the export of important ballistic missile and military technologies. In August 2002, China’s Ministry of Commerce published “Regulations of the People’s Republic of China on Export Control of Missiles and Missile-Related Items and Technologies.” These regulations required the licensing of any missile or missile-related items and technologies, and promulgated a control list analogous to that contained in the MTCR Annex. The intent of these regulations to control the full range of WMD delivery systems was affirmed subsequently in two Chinese Government “White Papers” issued in 2003 and 2005.

In 2003, China issued a catalog of sensitive items and, after agreeing with various countries (including the United States) to three principles of stricter export controls, officially put into force two regulations: the “Interim Procedures Governing Export Permits for Sensitive Products and Technologies” and the “Catalogue of Export Permits for Sensitive Products and Technologies,” both of which went into effect on January 1, 2004. The Chinese Government has taken some limited enforcement actions against firms found to violate export controls. The United States has continued to assess Chinese implementation and enforcement of its missile nonproliferation commitments.

COMPLIANCE ANALYSIS

The 2005 Report noted that before the period ending December 31, 2003, Chinese entities had supplied sensitive missile-related items, technology, and expertise to missile programs of concern in Iran, Libya, North Korea, and Pakistan, including the transfer of a missile production facility to Pakistan. The 2005 Report specifically found that “items transferred by Chinese entities contributed to Category I missile programs contrary to the Chinese Government’s November 2000 missile nonproliferation commitments.”

During the 2004-2008 period of this Report, Chinese companies continued to supply missile programs in countries of concern. The United States continues to assess China’s adherence to its November 2000 Commitment.

LIBYA

FINDING

Available information indicates Libya is acting consistently with the commitment it made publicly in December 2003 that Libya would “limit itself to missiles of range standards agreed upon in the MTCR control system.”

BACKGROUND

On December 19, 2003, the Libyan Foreign Ministry issued a public statement that Libya would “*limit itself to missiles of range standards agreed upon in the MTCR control system.*” The standards referred to in Libya’s commitment were considered by the United States to include MTCR Category I complete delivery systems and major subsystems capable of delivering a payload of at least 500 kg to a range of at least 300 km as described in the MTCR Equipment, Software, and Technology Annex.

During the reporting period, all available information supported the assessment that Libya was acting consistently with its December 2003 MTCR-related commitment.

COMPLIANCE ANALYSIS

The United States notes that all available information supports the assessment that Libya is acting consistently with the commitment it made publicly in December 2003 that Libya would “limit itself to missiles of range standards agreed upon in the MTCR control system.”

RUSSIAN FEDERATION

FINDING

The Russian Government has enacted a number of laws and decrees to implement export controls on complete missile systems and dual-use items. While Russian entities continued during the reporting period to supply missile-related items to programs of concern, available information does not suggest that Russia has acted inconsistently with its MTCR commitments.

BACKGROUND

Russia became an MTCR Partner in 1995 and subscribed to the HCOC in 2002.

Russian Export Controls. The Russian Government has enacted a number of laws and decrees to implement export controls on complete missile systems and dual-use items. Russia's Federal Technical and Export Control Service (FSTEK) is responsible for developing and maintaining commodity classification lists, educating exporters about their responsibilities, and processing and granting export license applications for all dual-use controlled items. FSTEK is divided into divisions, including one related to the MTCR.

Transfers of Missile Technology. During the period of 2004-2008, Russian entities continued to supply sensitive missile-related items, technology, and expertise to several programs of concern.

COMPLIANCE ANALYSIS

In the 2005 Report, the United States found that "Russian entities have engaged in transfers that, although not directly precluded by Russia's commitments under the MTCR Guidelines, raise serious missile proliferation concerns and call into question Russia's ability to implement controls on missile-related technologies."

Exports of Controlled and Dual-Use Technology to Foreign Missile Programs. During 2004-2008, Russian entities exported missile-related items and technology. Some of these transfers are of concern and the United States regularly discusses such missile-related export issues with the Russian Government. Available information does not suggest that Russia has acted inconsistently with its MTCR commitments.

MORATORIA ON NUCLEAR TESTING

By September 1996, each of the nuclear-weapon States (NWS) under the NPT (China, France, the Russian Federation, the United Kingdom, and the United States) had declared a nuclear testing moratorium and had signed the Comprehensive Test Ban Treaty (CTBT), which has not yet entered into force. Although the scope of each moratorium has not been publicly defined, there were no indications during the reporting period that any NWS engaged in activities inconsistent with its declared moratorium.

ABBREVIATIONS

ACV	armored combat vehicle
AIFV	armored infantry fighting vehicle
AoA	area of application
AP	Additional Protocol
APC	armored personnel carrier
BW	biological warfare
BWC	Biological and Toxin Weapons Convention
CAEST	conventional armaments and equipment subject to the Treaty
CBM	confidence-building measure
CFE Treaty	Treaty on Conventional Armed Forces in Europe
CSCE	Conference on Security and Cooperation in Europe
CSP	Conference of the States Parties
CTBT	Comprehensive Test Ban Treaty
CTR	cooperative threat reduction
CW	chemical weapon
CWC	Chemical Weapons Convention
CWDF	chemical weapons destruction facility
CWPF	chemical weapons production facility
CWSF	chemical weapons storage facility
DCI	Director of Central Intelligence
DoD	Department of Defense
DOE	Department of Energy
EoU	East of the Urals
EU	European Union
HACV	heavy armored combat vehicle
HCOG	Hague Code of Conduct Against Ballistic Missile Proliferation
IAEA	International Atomic Energy Agency
ICBM	intercontinental ballistic missile
ICOC	International Code of Conduct Against Ballistic Missile Proliferation
INF Treaty	Intermediate-Range Nuclear Forces Treaty
ISG	Iraq Survey Group
IWGRP	Informal Working Group on Rules and Procedures
JCG	Joint Consultative Group
JCIC	Joint Compliance and Inspection Commission

LWR	light-water reactor
MOU	Memorandum of Understanding
MRBM	medium-range ballistic missile
MTCR	Missile Technology Control Regime
MW(e)	megawatt-electric
NI/CD	Naval Infantry/Coastal Defense
NIS	Newly Independent States
NNWS	non-nuclear-weapon State
NPT	Nuclear Non-Proliferation Treaty
NSG	Nuclear Suppliers Group
NTM	national technical means of verification
NWS	nuclear-weapon State
OCPF	other chemical production facility
OC-135B	certified Open Skies aircraft used by the United States
OOV	object of verification
OPCW	Organization for the Prohibition of Chemical Weapons
OSCC	Open Skies Consultative Commission
OSCE	Organization for Security and Cooperation in Europe
OSI	on-site inspection
PNIs	Presidential Nuclear Initiatives
PONEI	Protocol on Notification and Exchange of Information
P5+1	five permanent members of UN Security Council plus Germany
RCA	riot control agent
R&D	research and development
RVOSI	reentry vehicle inspection
SALT	Strategic Arms Limitation Treaty
SLBM	submarine-launched ballistic missile
SOA	strategic offensive arms
SRF	Strategic Rocket Forces
START	Strategic Arms Reduction Treaty
TLE	Treaty-limited equipment
TS	Technical Secretariat
TSCC	Trilateral Steering and Cooperation Committee
UCF	uranium conversion facility
UF ₄	uranium tetrafluoride
UF ₆	uranium hexafluoride
UN	United Nations

UNSC	United Nations Security Council
UNSCOM	United Nations Special Commission
UNSCR	United Nations Security Council Resolution
UO ₂	uranium dioxide
U.S.C.	U.S. Code
UTLE	unaccounted for and uncontrolled Treaty-limited equipment
U-235	uranium-235
VD	Vienna Document
WHO	World Health Organization
WMD	weapons of mass destruction
