

ARMS CONTROL AGREEMENTS

SYNOPSIS



Product No. 408P



This pamphlet was prepared for the Defense Treaty Inspection Readiness Program (DTIRP) to promote **Readiness Through Awareness** throughout the Department of Defense (DoD) and defense contractor community. It is intended to assist facility Commanders, security officers and treaty implementers with identifying the purposes, obligations and potential security pacts of current, future and previous arms control treaties and agreements.

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Introduction

The United States is party to a number of arms control treaties and agreements, and participates in negotiating new treaties supporting U.S. national security interests. To verify compliance with the provisions of these treaties, some agreements allow treaty partners to conduct on-site inspection activities or to fly specially equipped aircraft over U.S. territory. These activities can create unique security challenges for Department of Defense (DoD) and defense contractor facilities. For this reason, it is important for facility staff and treaty implementers to be aware of specific treaty provisions and the status of treaties potentially affecting U.S. facilities.

This pamphlet provides a synopsis of current and emerging arms control treaties, as well as certain legacy treaties, that have helped to shape the current arms control environment. Each synopsis outlines the treaty's purpose, background, date it entered into force (some have not yet entered into force) and the number of treaty partners ("States Parties" or "participating states") or signatory states. Most important, each synopsis also describes the treaty's compliance verification regime, potential facility security impacts and current activities relating to treaty implementation. The numbers of inspections, other confidence-building measures, or meetings conducted to promote treaty implementation are also included, as applicable.

Unless otherwise stated, the information in this pamphlet is current as of August 2012.

For the latest information, visit the treaty Synopses section of the Treaty Information Center on the DTIRP website at: http://dtirp.dtra.mil/TIC/tic_synopses.aspx.

Anti-Personnel Landmines Convention (APLC) (Ottawa Convention)

Purpose and Background

Entry into Force

March 1, 1999

Signatories/Parties

133 original Signatories including Canada, France, Germany and United Kingdom;

159 States Parties

Selected Nonmembers

United States, China, Russia and South Korea

The Anti-Personnel Landmines Convention (APLC) [long title: Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Landmines and on Their Destruction], also referred to as the Ottawa Convention or Mine Ban Treaty, obligates States Parties to never under any circumstances use, develop, produce, stockpile, retain, or transfer anti-personnel landmines (APL) to anyone, directly or indirectly. States Parties to the Convention are also obligated not to assist, encourage, or induce anyone, directly or indirectly, to engage in any activity prohibited by the Convention.

The Convention defines an “anti-personnel mine” as a mine designed to explode by the presence, proximity, or contact with a person, resulting in the incapacitation, injury, or death of one or more persons. The Convention does not address anti-tank or anti-vehicle mines, anti-handling devices attached to an anti-vehicle mine to prevent its removal, or command-detonated munitions triggered manually by combatants.

Each State Party also undertakes to destroy or to ensure the destruction of all APL in mined areas under its jurisdiction or control. Under the Convention, stockpiled APL are to be destroyed within 4 years of the Convention’s entry into force and all mines in the ground, whether in minefields or elsewhere, are to be destroyed within 10 years of the Convention’s entry into force. A small number of APL may be retained solely for training purposes and to develop mine clearance and destruction techniques.

Verification Measures

The Ottawa Convention includes several verification measures, including annual reporting requirements and, when necessary to clarify a compliance concern, fact finding missions. States Parties report information on all stockpiled APL and mined areas to the United Nations (UN) Secretary-General on an annual basis.

These reports contain information on mines retained for training purposes, mine destruction activities, and measures taken to prevent civilians from entering mined areas. In addition, States Parties provide detailed technical information about their past mine production activities in order to facilitate mine clearance.

When a compliance concern arises, it is first addressed by the UN Secretary-General. When necessary, a meeting of States Parties may be held to determine whether an obligatory fact-finding mission needs to be conducted. A fact-finding team may stay no longer than fourteen days on the territory of the requested State Party, and no more than seven days at one specific site. Based on the mission team's report, the meeting of States Parties may propose corrective actions or legal measures in accordance with the UN Charter.

The United States has not signed the Ottawa Convention and is not a State Party to the Convention. Two U.S. concerns, stated at the December 1999 signing ceremony in Ottawa, were:

- APL play a crucial role in the defense of South Korea; and
- the Convention's definition of anti-personnel landmines prohibits the munitions used by the United States that contain both anti-tank and anti-personnel sub-munitions and anti-handling devices.

In February 2004, the United States announced that it would not sign the Ottawa Convention but would seek global support for a worldwide ban on the sale or export of all persistent mines, which are capable of exploding many years after initial deployment. The United States also works toward ending its use of persistent anti-vehicle and anti-personnel landmines. Between 2004 and 2010, U.S. forces were prohibited from using persistent mines outside of the Korean Peninsula unless specifically authorized by the President. After 2010, the exception for persistent mines in Korea expired. In addition, U.S. facilities located on the territory of host countries that are States Parties could be subject to the Convention's fact-finding missions.

To promote effective adherence to the Convention, the States Parties established the Implementation Support Unit (ISU) in 2001. The ISU provides information and support to States Parties and prepares annual reports. It is part of the Geneva International Centre for Humanitarian Demining (GICHD).

At the Convention's first Review Conference (RevCon), held in Nairobi, Kenya from November 29 – December 3, 2004, the States Parties determined to:

- increase funding for humanitarian mine action and harmonize their efforts with other key mine action programs worldwide;

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- examine their own policies on the continued use of persistent anti-vehicle landmines, which pose substantial dangers to innocent life yet are not covered under the Ottawa Convention;
 - agree to negotiate, at the CD, a ban on the sale or export of all persistent mines, including anti-vehicle mines; and
 - eliminate all non-detectable landmines, which pose a particular hazard to de-miners.

On March 1, 2009, the States Parties marked the tenth anniversary of the entry into force of the Ottawa Convention. The Second RevCon was held from November 30 – December 4, 2009 in Cartagena, Colombia. The U.S. delegation – the first U.S. delegation to attend an Ottawa Convention meeting since the convention entered into force – described U.S. policy as follows:

- to abide by the provisions of Protocol II of the Convention on Certain Conventional Weapons (CCW);
- to remain strongly committed to humanitarian assistance for victims of explosive remnants of war (having provided more than \$1.5 billion toward humanitarian mine action and removing explosive remnants of war in 47 countries); and
- to end all use of persistent mines, both anti-personnel and anti-vehicle, by the end of 2010.

Recent Developments

As of September 2012, 155 countries no longer held APL stockpiles, and APLC States Parties had destroyed approximately 44.5 million stockpiled mines. Under the APLC, 54 countries have reported mined areas and, of those 54, 15 have completed demining operations. Another 19 States Parties were granted extensions for their final demining deadlines. Of the 50 countries that have manufactured APL, 34 have joined the APLC and most other countries have put in place moratoria on the production or transfers of landmines. Under the APLC, 26 States Parties have indicated they have significant numbers of APL survivors in need of humanitarian assistance from other States Parties.

On April 24, 2012, Jordan became the first known Middle Eastern country to remove all APL from its minefields in accordance with international standards.

Finland ratified the convention on January 9, 2012, bringing the total number of APLC States Parties to 159. In September 2011, Poland had indicated they were taking steps to join the Convention. Singapore and Tonga both received high-level visits from States Parties regarding their accession to the convention in

October 2011, and each indicated their support for the convention. In December 2011, Myanmar stated during the Meeting of States Parties that a “thorough study of the treaty will be continued.”

During the Second RevCon in 2009, the U.S. delegation also announced that the United States was conducting its first comprehensive review of U.S. landmine policy since 2003. This review was initiated at the direction of President Barack Obama and will take some time to complete, since the United States must ensure that all factors are considered. These factors include possible alternatives to meet U.S. national defense needs and security commitments to U.S. allies, and to ensure the protection of U.S. troops and the civilians they protect around the world. As of December 2011, the United States reported the review was still underway.

The eleventh meeting of States Parties (11MSP) took place in Phnom Penh, Cambodia during the week of November 28 – December 2, 2011. The States Parties discussed: budgetary concerns in the current economic climate; membership status of States who have not joined the convention, with fifteen observers attending from those States including the United States; and the States Parties’ responses to address the humanitarian needs of APL survivors. Also at the 11MSP, Turkey announced that it completed 100 percent destruction of its three million stock-piled APL; Burundi and Nigeria announced that they had completed their clearance obligations; and Guinea Bissau, Jordan and Uganda announced that they will complete their demining programs in the coming months. The 11MSP also extended demining program deadlines for Algeria (to 2017), Chile (to 2020), Congo (to 2013), Democratic Republic of the Congo (to 2015), and Eritrea (to 2015).

In 2012, the Standing Committees met from May 21-25 to discuss such issues as following the Cartagena Action Plan, compliance and implementation of current States Parties, victim assistance, financing, demining training, membership expansion, and deadline extensions. The twelfth meeting of States Parties (12MSP) takes place in Geneva from December 3-7, 2012.

Meetings of States Parties are held each year leading up to the Third RevCon in 2014.

For More Information

For the latest APLC information, visit the Treaty Information Center on the DTIRP website at:

APLC Synopsis: <http://dtirp.dtra.mil/TIC/synopses/ottawa.aspx>

APLC Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/ottawa.aspx>.

Biological Weapons Convention (BWC)

Purpose and Background

Entry into Force

March 26, 1975

Signatories/Parties

165 States Parties

12 signatories have not ratified

Selected Members

United States and Russia

Selected Nonmembers

Egypt, Israel, Somalia and Syria

The Biological Weapons Convention (BWC) [long title: Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction] prohibits States Parties from developing, producing, stockpiling, acquiring, or retaining biological agents or toxins: of types and in quantities that have no justification for prophylactic, protective, or other peaceful purposes; and of weapons, equipment, or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict. The BWC also obligates States Parties to destroy such material within nine months after entry into force, but permits biological research for defensive purposes.

Verification Measures

The Convention contains no compliance verification provisions, but calls for the States Parties to hold a Review Conference (RevCon) every five years to discuss Convention implementation and to draft measures for strengthening compliance with the BWC. During the Second RevCon in 1986, the States Parties agreed to establish voluntary confidence-building measures (CBMs), which included conducting annual data exchanges, sharing information and participating in joint research projects. These CBMs were introduced in 1994, and in 1997 many States Parties began submitting (to the United Nations) voluntary declarations detailing their biological activities.

At the Third RevCon in 1991, the States Parties established a group of governmental verification experts (VEREX) to identify and analyze potential verification measures from a scientific and technical perspective. The resulting VEREX Report, produced in September 1993, identified 21 potentially effective measures for verifying compliance with the BWC. The States Parties convened a Special Conference in September 1994 to consider the VEREX Report's recommendations and established an Ad Hoc Group (AHG) to negotiate and develop a legally binding protocol to enhance confidence in treaty compliance.

At the 24th session of the Ad Hoc Group of States Parties, which met in Geneva from July 23 to August 17, 2001, Ambassador Donald Mahley, U.S. Special Negotiator for Chemical and Biological Arms Control Issues, announced that the United States had determined that the proposed Protocol was not viable and could not meet its mandated objectives. Ambassador Mahley said that new approaches were necessary and he assured the delegates that the United States would work hard to support global efforts to counter the threat posed by biological weapons.

At the Fifth RevCon, held from November 19 – December 7, 2001, Under Secretary of State for Arms Control and International Security, John Bolton, proposed specific measures for enhancing confidence in BWC compliance. These included:

- formulating national legislation to criminalize activities prohibited by the BWC and to enhance extradition;
- increasing cooperation with the World Health Organization in disease outbreak surveillance and assistance;
- enhancing domestic biodefense and counter-bioterrorism capabilities;
- creating mechanisms to initiate investigations of alleged BW use on the basis of a determination by the United Nations Secretary-General; and
- establishing voluntary means for resolving compliance concerns.

The United States also proposed that the AHG responsible for negotiating the BWC Protocol be disbanded and the RevCon was adjourned for one year.

When the Fifth RevCon resumed November 11-22, 2002, the States Parties agreed on a program of work to develop means for strengthening BWC compliance. The program involved meeting twice each year (one Meeting of Experts and one Meeting of States Parties) for the next three years (2003-2005) leading up to the Sixth RevCon. In 2003 and 2004, these meetings focused on developing national measures and international capabilities. In 2005, the meetings focused on developing voluntary codes of conduct for scientists.

At the Sixth RevCon, held November 20 – December 8, 2006, the States Parties agreed to continue the intersessional work program and to create an Implementation Support Unit (ISU). The purpose of the ISU is to facilitate CBM implementation and to provide administrative support to the States Parties preparing CBMs. The ISU was launched at the 2007 Meeting of Experts and since that time submits a report on its activities to the Meeting of States Parties each year.

Recent Developments

Currently, there are 165 States Parties and 12 signatory states to the BWC. Eighteen countries have not signed the Convention. Burundi was the most recent country to join the treaty by depositing its instrument of accession on October 18, 2011. Of the 165 States Parties, 63 submitted CBM reports in 2011, compared to 74 in 2010, 65 in 2009 and 63 in 2008.

In March 2011, the foreign ministers from the Group of Eight states issued a ten-point statement calling on BWC States Parties to focus the Seventh Review Conference on strengthening the convention by conducting a thorough review of the means for improving transparency and increasing participation in the current CBMs. The ministers also supported renewing the Implementation Support Unit [ISU] “following an assessment of its tasks and resources” by the review conference.

The Seventh RevCon was held December 5-22, 2011, at the Palais des Nations in Geneva. The RevCon discussion and decisions focused on: the outcome of the 2007–2010 intersessional program; the agenda for the intersessional program 2012–2015; cooperation and assistance, with a particular focus on strengthening cooperation and assistance under Article X; the review of developments in the field of science and technology related to the Convention; strengthening national implementation; CBMs; and the promotion of BWC universalization.

The participants at the Seventh RevCon decided to include in the 2012-2015 intersessional program a standing agenda item on review of developments in the field of science and technology related to the Convention. The 2012 Meeting of Experts was held in Geneva from July 16-20, 2012, with two sessions devoted to each of the standing agenda items on: cooperation and assistance, with a particular focus on strengthening cooperation and assistance under Article X (U.S. status report); reviewing developments in the field of science and technology related to the Convention; and strengthening national implementation. Two sessions were also devoted to the biennial item on how to enable fuller participation in the CBMs.

The 2012 Meeting of States Parties is scheduled for December 10-14, 2012 in Geneva. The meeting is chaired by Ambassador Boujemâa Delmi of Algeria. In accordance with the decision of the Seventh RevCon, the Meeting of States Parties plan to consider the work of the 2012 Meeting of Experts on the three standing agenda items. The States Parties also plan to consider the biennial agenda item of how to enable fuller participation in the CBMs. On September 27, Ambassador Delmi wrote to the States Parties to update them on preparations, including the Chairman’s synthesis paper and a proposed provisional agenda.

U.S. Implementation

The U.S. view was clearly stated on December 7, 2009, by the U.S. Under Secretary for Arms Control and International Security, Ellen Tauscher, in her address to the Meeting of States Parties. She announced the newly approved U.S. national strategy for preventing biological weapons proliferation and bioterrorism and informed the Parties that the United States “will not seek to revive negotiations on a verification protocol to the Convention.” She explained that the United States had “determined that a legally binding protocol would not achieve meaningful verification or greater security.”

Ms. Tauscher said the United States supports the development of a “rigorous, comprehensive program of cooperation, information exchange and coordination.” This includes focusing on voluntary measures to strength confidence in BWC compliance and increasing States Parties’ participation in the current CBM regime.

On December 6, 2010, the U.S. Special Representative for Biological and Toxin Weapons Convention Issues, Ambassador Laura Kennedy, provided an update to the Meeting of States Parties on Ms. Tauscher’s address. This update included the following status of U.S. plans and commitments:

1. Ms. Tauscher pledged that the United States would work toward posting future CBM submissions on the public access side of the BWC website; the U.S. 2010 CBM submission is publicly available and is the most extensive submission provided to date.
2. The U.S. Centers for Disease Control and Prevention (CDC) have established the first World Health Organization (WHO) Collaborating Center for International Health Regulations (IHR) implementation. The CDC’s global health resources support at least one core IHR capacity area in more than 90 countries by using a network of laboratories, surveillance systems and training programs; these resources also support pandemic preparedness.
3. The United States hosted two international workshops on disease surveillance and IHR implementation, and their relationship to the BWC. The conferences had wide international participation and demonstrated the usefulness of bringing together the security and public health communities to address areas of common concern.

The Seventh Review Conference was held in Geneva from December 5-22, 2011. Secretary of State Hillary Rodham Clinton attended the meeting to provide the U.S. address, marking the highest ranking U.S. official to attend. Secretary Clinton outlined three U.S. policy goals for the BWC:

First, we need to bolster international confidence that all countries are living up to our obligations under the Convention. It is not possible, in

our opinion, to create a verification regime that will achieve this goal. But we must take other steps. To begin with, we should revise the Convention's annual reporting systems to ensure that each party is answering the right questions, such as what we are each all doing to guard against the misuse of biological materials.

Countries should also take their own measures to demonstrate transparency. Under our new Bio-Transparency and Openness Initiative, we will host an international forum on health and security to exchange views on biological threats and discuss the evolution of U.S. bioresearch programs. We will underscore that commitment by inviting a few state parties to the Convention to tour a U.S. biodefense facility next year, as Ambassador van den Ijssel and the UN 1540 Committee did this past summer. And we will promote dialogue through exchanges among scientists from the United States and elsewhere. In short, we are intending to meet our obligation to the full letter and spirit of the treaty, and we wish to work with other nations to do so as well.

Second, we must strengthen each country's ability to detect and respond to outbreaks and improve international coordination. As President Obama said earlier this year at the UN, "We must come together to prevent and detect and fight every kind of biological danger, whether it's a pandemic like H1N1, or a terrorist threat, or a terrible disease." Five years ago, 194 countries came together at the World Health Organization and committed to build our core capacities by June 2012, and we should redouble our efforts to meet that goal. We will support the WHO in this area, and I urge others to join us.

Finally, we need thoughtful international dialogue about the ways to maximize the benefits of scientific research and minimize the risks. For example, the emerging gene synthesis industry is making genetic material widely available. This obviously has many benefits for research, but it could also potentially be used to assemble the components of a deadly organism. So how do we balance the need for scientific freedom and innovation with the necessity of guarding against such risks?

The Russian Deputy Foreign Minister Gennady Gatilov also attended the Review Conference. He expressed Russia's concern for biological weapons proliferation. Gatilov asserted that a verification protocol was needed since "ordinary transparency measures, with all their importance and usefulness, cannot give such certainty."

For More Information

For the latest BWC information, visit the Treaty Information Center and the CBW Corner on the DTIRP website at:

BWC Synopsis: <http://dtirp.dtra.mil/TIC/synopses/bwc.aspx>

BWC Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/bwc.aspx>

CWC Corner: <http://dtirp.dtra.mil/CBW/cbw.aspx>

Biological Weapons Trilateral Statement/Agreement

Purpose and Background

Entry into Force

September 15, 1992

Signatories/Parties

United States, Russia and
United Kingdom

The Biological Weapons Trilateral Statement/Agreement [long title: Joint Statement of the Russian Federation, the United Kingdom and the United States of America of 1992 on Biological Weapons] details a number of steps to address compliance concerns regarding the Biological Weapons Convention (BWC). The Statement was precipitated by American and British concerns about Russian compliance with the BWC and

provides for visits – not inspections – “to any nonmilitary biological site at any time.” Such visits include access, sampling, personnel interviews and audio and video taping “to remove ambiguities” concerning BWC compliance. “Nonmilitary sites” include non-government commercial facilities.

Following the Statement’s issuance in September 1992, working groups concluded a Proprietary Agreement in May 1993 on the principles and procedures needed to protect proprietary information during visits to non-military biological sites. Visits to Russian facilities in Pokrov and Berdsk occurred in October 1993 and in Omutninsk and Obolensk in January 1994. Reciprocal Russian visits to three American facilities and one British facility occurred in February and March 1994. In the United States, the visits took place at the Pfizer facilities in Terre Haute, Indiana, and Groton, Connecticut, as well as at the Department of Agriculture Plum Island facility off the coast of New York. All visits to nonmilitary biological sites were completed in 1994.

Under the Statement, all sides also established expert working groups to reach agreement on the procedures for visits to military biological facilities. In 1996, negotiations broke down over the definition of a military biological facility. The Russians wanted to include any facility used in offensive or defensive biological warfare activities since 1946. This would have greatly expanded the number of eligible U.S. military facilities. The U.S. offensive program ended in 1969, and the United States wanted to include only facilities in use after 1975, when the BWC entered into force. No negotiations have taken place since 1996 and no visits to military sites have been conducted to date.

Verification Measures

Since the primary purpose of the Trilateral Statement is confidence building, there are no explicit verification measures. However, the dynamics of the initial round of visits and the draft procedures for visits to military biological facilities are comparable in many respects to inspections.

Should an agreement be reached on the procedures for visits to military biological facilities, Russian visits to U.S. military biological facilities could take place as early as 30 days after signature. A wide range of DoD facilities, possibly including facilities outside the continental United States, could then be impacted. If an agreement on military sites includes facilities involved in offensive production prior to 1969, a larger number of facilities would be affected.

Visits or other forms of observation continue to be possible in non-government facilities, but their probability is extremely low.

Chemical Weapons Convention (CWC)

Purpose and Background

Entry into Force

April 29, 1997

Signatories/Parties

188 States Parties

2 signatories have not ratified

Selected Members

China, Iran, Iraq, Japan, Russia and United States

Selected Nonmembers

Egypt, Israel, North Korea and Syria

Website

www.opcw.org

The Chemical Weapons Convention (CWC) [long title: The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction] is the first multilateral arms control and disarmament treaty to include a verification regime affecting both military and commercial industry activities. The Convention prohibits States Parties from developing, producing, otherwise acquiring, stockpiling, retaining, transferring directly or indirectly, and using chemical weapons (CW). The Convention also prohibits any State Party from assisting anyone to engage in CWC-prohibited activities.

Each State Party is required to submit a detailed initial data declaration and periodic updates. Each Party is also obligated to destroy all CW in its possession, or under its jurisdiction, and to destroy or convert all CW production facilities. In addition, each Party is obligated to destroy all CW it abandoned on the territory of other States Parties.

The Organization for the Prohibition of Chemical Weapons (OPCW) is the international organization responsible for CWC implementation. The OPCW consists of the Executive Council (EC), the Conference of the States Parties (CSP) and the Technical Secretariat (TS). The CSP is the principle organ of the OPCW for ensuring compliance with the Convention's provisions. As stipulated in the Convention, the CSP meets annually (at a minimum) and oversees the EC and the TS. The Convention also requires States Parties to hold a Review Conference (RevCon) every five years to discuss Convention implementation.

Verification Measures

To ensure compliance, the Convention includes an extensive verification regime under which States Parties submit data declarations and host on-site inspection activities conducted by inspection teams sent from the OPCW. Inspections and

continuous monitoring activities are regularly conducted by OPCW inspectors at CW destruction and storage facilities. The OPCW also conducts inspections at other government and commercial chemical industry facilities.

For purposes of verifying compliance with the Convention, the CWC categorizes chemicals into three lists or “schedules.” There is also a list of unscheduled discrete organic chemicals (UDOC). The types of chemicals in each of these four categories are described below.

- **Schedule 1** chemicals have little or no commercial use and either have been used in chemical weapons or have a high potential for use in activities prohibited under the Convention. Examples include nerve agents such as sarin, and blister agents such as Mustard and Lewisite.
- **Schedule 2** chemicals have some legitimate uses but are not produced in large commercial quantities. These agents include toxic chemicals and many precursor chemicals that could be used for CW production. Examples include certain chemicals used to manufacture fertilizers and pesticides.
- **Schedule 3** chemicals have many legitimate uses and are produced in large quantities for commercial use. However these agents include chemicals and some precursor chemicals that can be used for CW production. Examples include chemicals used to manufacture paint thinners, cleaners and lubricants.
- **UDOCs** are chemical compounds of carbon except for its oxides, sulfides and metal carbonates; and other chemicals – especially chemicals containing phosphorus, sulfur or fluorine (PSF) – whose use in production is monitored under the CWC.

The United States has declared a large number of commercial facilities under the CWC as well as relevant military facilities. Declared facilities are obliged to prepare and submit annual data declarations concerning their chemical or CW-related activities and may be obliged to host on-site inspection activities. In addition to declared facilities, any facility could be selected for a challenge inspection. A challenge inspection could be conducted to resolve a concern about non-compliance at a particular facility raised by another State Party and submitted to the Director-General of the OPCW.

Challenge inspections can be stopped by a two-thirds majority vote by the OPCW Executive Council. Also, in the United States, U.S. law empowers the President to “deny a request to inspect any facility in the United States in cases where the President determines that the inspection may pose a threat to the national security interests of the United States.”

The primary security concern for facilities during on-site inspection activities is the potential for the inadvertent loss of confidential business or other sensitive information due to the presence of highly qualified and experienced inspectors. Factors to be considered with assessing these risks include the types of equipment the inspectors may be allowed to operate on site to collect information, the types of inspection activities that may be conducted, and the level of access the inspectors may have to facility records, buildings and other areas.

One way to limit security risks is to conclude facility agreements with the OPCW. Facility agreements enable States Parties to limit the inspection team's access during routine inspections in order to protect national security, confidential business and other sensitive information. OPCW TS inspectors are also bound by the OPCW's confidentiality regime, which requires all OPCW employees to safeguard confidential information obtained from data declarations and during on-site inspection activities.

In the event of a challenge inspection, the United States also has the right to establish procedures to protect sensitive information. Such procedures, however, should not prevent the United States from demonstrating compliance with the CWC. To successfully develop and implement appropriate and cost-effective procedures for any type of inspection is a complex task. Advice and assistance is available from the DTIRP Outreach Program, the Department of Commerce (DOC) and other U.S. Government agencies when requested.

Recent Developments

As of July 2012, there were 188 States Parties to the CWC. Two signatory states had not yet ratified the Convention, Israel and Myanmar (Burma), and five countries had not signed the Convention: Angola, North Korea, Egypt, Somalia and Syria.

The Sixteenth Session of the CSP took place November 28 – December 2, 2011 in the Hague. States Parties addressed the concern that not all CW possessor states will meet the April 29, 2012 deadline for destroying all chemical weapons. Libya, Russia and the United States notified the OPCW that destruction operations would not be completed by that time. Noting the commitment of each of these countries to complete their CW stockpile destruction activities as soon as possible, the CSP resolved that the three countries would not be penalized for missing the deadline, but that additional measures, including providing detailed destruction plans and interim milestone dates, would need to be provided to the OPCW immediately after the expiration of the deadline.

At the CSP, U.S. Permanent Representative Robert P. Mikulak stated that the United States had destroyed more than 89 percent of its CW stockpile and that these operations were continuing at Tooele, Utah. Mr. Mikulak also affirmed that the necessary construction operations were progressing at Blue Grass, Kentucky and at Pueblo, Colorado, and outlined the ongoing position of the United States concerning its commitments under the CWC:

We are also committed to transparency of our chemical weapons destruction program, so that States Parties can evaluate our efforts for themselves. To that end, we have provided 90-day reports for the past five and one-half years that track our progress in three-month intervals. We have also made informal destruction presentations at every informal meeting of the Executive Council on chemical weapons destruction to offer frank and honest information on our program. We have invited Executive Council representatives to make site visits to our facilities and meet with senior officials – which allow an opportunity for these representatives to judge for themselves what we are doing, based on their own observations. In fact, the participants in an Executive Council visit to two U.S. facilities in March 2011 stressed that they came away with a better understanding of the local and technical challenges the United States has successfully overcome and the strong U.S. commitment to the Chemical Weapons Convention.

When the April 29, 2012, final extended deadline passed, the OPCW convened the Sixty-Eighth Session of the Executive Council on May 1, 2012, at The Hague. Mr. Mikulak delivered the U.S. statement, announcing that the United States had destroyed 90 percent of its stockpile and had recently submitted the detailed destruction plan for the remaining 10 percent to the Executive Council. Mr. Mikulak also expressed the U.S. position on the OPCW budget, noting that austerity measures are in place for many CWC States Parties and that, with the declining number of inspections necessary, the OPCW is expected to streamline personnel and procedures accordingly.

In preparation of the Third RevCon in 2013, the Open Ended Working Group (OEWG) held its first meeting on June 7, 2012. The OEWG focused on the status of implementation of CWC universality, as well as the RevCon agenda. Review conferences occur every five years after the CWC entered into force, with the last being held in 2008. The Third RevCon is scheduled for April 8-19, 2013, in The Hague.

Destruction Status and Declarations

Three of the seven CW possessor states have completely destroyed their CW stockpiles: Albania (July 2007); another State Party (July 2008); and India (March 2009). The remaining possessor states are Iraq, Libya, Russia and the United States.

Due to Iraq's unique circumstances, a final destruction deadline has not been set for the country. In September 2011, H.E. Mr. Hoshiyar Zebari, Iraqi Foreign Minister, visited the OPCW and discussed with the Director General issues related to the CWC, including preparatory measures for the destruction of Iraq's remnant CW stockpiles and production facilities stored in bunkers at Al Muthanna. The Foreign Minister informed the Director-General that the Council of Ministers of Iraq has authorized funding for the destruction activities.

In February 2012, Iraq submitted to the OPCW a national paper detailing its approach towards the destruction of the contents in the Al Muthanna bunkers. The destruction plan was the result of consultations with other States Parties, the latest of which occurred in November 2011 at Aberdeen, Maryland, with the participation of 38 experts representing Iraq, Germany, United Kingdom, United States and the OPCW Secretariat.

In May 2012, Iraq amended its submission, noting that the remnants in Bunker 13 were especially hazardous and that the lowest risk course of action would be to irreversibly encapsulate in concrete the bunker contents. A Committee headed by the Minister of Science and Technology was appointed to oversee the implementation of the Al-Muthanna Bunkers Decommissioning Project, with financial allocations approved at a level of about \$55 million (U.S. dollars).

Also in September 2011, the OPCW announced that the new Libyan government – recognized by the United Nations – had secured the CW stockpiles previously declared to the OPCW, and has inherited Libya's obligations as a State Party to the CWC. The remaining CW stockpiles are stored at a military facility 700 kilometers southeast of Tripoli. The stockpiles now consist of about 9 metric tonnes of sulfur mustard agent and over 800 metric tonnes of precursor chemicals at the Ruwagha depot. Before the outbreak of the crisis, the previous regime had destroyed 55 percent of its declared amounts of sulfur mustard and 40 percent of its precursor chemicals, as well as its entire stockpile of more than 3,500 aerial bombs. Destruction activities were halted in February 2011, when the destruction facility malfunctioned, at which point the OPCW withdrew its team of inspectors until repairs could be made. The new Libyan government formally declared on November 28, 2011, additional CW munitions discovered at the Ruwagha depot, which the OPCW verified on January 17-19, 2012.

After the April 2012 extended final deadline passed, the Libyan government provided to the OPCW Executive Council a detailed plan for the destruction of its remaining stockpile. In April 2012, Canada provided \$6 million (in Canadian dollars) to Libya through the OPCW for assistance with its CW destruction under the Global Partnership Program, some of which will go to inspection and destruction oversight. The Director-General visited with Libyan officials on May 27-28, 2012, to discuss Libya's planning and preparations, as the Director General praised the cooperative approach and transparency demonstrated by the Libyan government.

At the Second RevCon, held from April 7-18, 2008, the States Parties extended the 100 percent destruction deadline of the United States and Russia to April 29, 2012. In the Department of Defense Appropriations Act of 2008, the U.S. Congress mandated that the U.S. CW stockpile be destroyed no later than December 31, 2017.

The United States destroyed 90 percent of its stockpile by the treaty deadline of April 2012. This represents more than 27,000 tons of agent and more than 2.3 million munitions that were under the safeguarding of the U.S. Army Chemical Materials Agency (CMA) at the following facilities:

- Tooele Chemical Agent Disposal Facility (TOCDF), Utah: Completed destruction of its stockpile on January 21, 2012, and is currently in the process of closing the facility. The Desert Chemical Depot stored 44 percent of the total U.S. stockpile, the Army's single largest CW stockpile.
- Umatilla Chemical Agent Disposal Facility (UMCDF), Oregon: Completed destruction of its stockpile on October 25, 2011, and is currently in the process of closing the facility.
- Anniston Chemical Agent Disposal Facility (ANCDF), Alabama: Completed destruction of its stockpile on September 22, 2011, and is currently in the process of closing the facility.
- Pine Bluff Chemical Agent Disposal Facility (PBCDF), Arkansas: Completed destruction of its stockpile on November 12, 2010, and is currently in the process of closing the facility.
- Newport Chemical Agent Disposal Facility (NCDF), Indiana: Completed destruction of its stockpile in August 2008 and was officially closed in January 2010.
- Aberdeen Chemical Agent Disposal Facility (ABCDF), Maryland: Completed destruction of its stockpile in February 2006. ABCDF's permit was officially closed in June 2007.

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- Johnston Atoll Chemical Agent Disposal System (JACADS), Johnston Island: Completed its mission in 2000.

With the CMA destruction mission complete as of January 2012, CMA is in the process of managing and closing the destruction facilities at Anniston, Pine Bluff, Deseret and Umatilla, and will continue to safely store stockpiles at Blue Grass Chemical Activity and Pueblo Chemical Depot.

The Assembled Chemical Weapons Alternatives Program (ACWA), headquartered at Aberdeen Proving Ground in Maryland, has two facilities that will use alternative methods of CW destruction on the remaining 10 percent of the total U.S. stockpile. Operations have not yet begun, but construction of these two remaining CW destruction facilities is underway.

- Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP), Kentucky: The Blue Grass Army Depot in stores 523 tons of VX, sarin, and mustard munitions. This constitutes less than two percent of the total U.S. CW stockpile. Construction of BGCAPP began in September 2009. In 2003, working in partnership with the local community, ACWA selected neutralization of chemical agents, followed by supercritical water oxidation (SCWO), as the destruction technology that will be used to destroy CW at BGCAPP. Current projections estimate destruction to be completed by 2020 or 2021, and for the facility to be dismantled by 2027.
- Pueblo Chemical Agent Destruction Pilot Plant (PCAPP), Colorado: The Pueblo Chemical Depot stores mustard agent munitions, which constitutes a little more than eight percent of the U.S. CW stockpile. Construction has begun on PCAPP as well as on a biotreatment facility that will break down the hydrolysate byproduct resulting from the neutralization process. Currently, CW destruction operations are scheduled to begin in January 2015, and to be completed by December 2017.

To date, the United States has expended an estimated \$22.1 billion for the destruction of chemical weapons in the United States.

More information on the status of CW destruction activities in the United States is available on the CMA website at: <http://www.cma.army.mil> and the ACWA website at: <http://www.pmacwa.army.mil/>

As of April 2012, Russia reported that it had destroyed more than 62 percent of its 40,000 tonne CW stockpile. In June 2012, Russia authorized approximately \$1.54 billion in new funds for CW destruction, and had submitted to the OPCW Executive Council a detailed destruction plan for the remainder of its stockpile. Russia expects to complete its CW destruction activities in 2015.

In March 2012, a delegation of OPCW Executive Council members and the Director-General visited Moscow. The delegation attended two days of high-level meetings to discuss issues relating to the CWC, including Russia's plans for completing the destruction of its CW stockpile. They also made a day-long visit to inspect a new CW destruction facility under construction at Kizner, in the Udmurtia region. The facility is the seventh and final to be built by Russia to destroy its stockpiles. Two facilities at Gorny and Kambarka have already completed operations, while four other facilities at Leonidovka, Maradykovsky in the Kirov region, Pochep in the Bryansk region, and Shchuchye were operating in 2011.

Inspection Status

As of August 28, 2012, worldwide, the OPCW had overseen the destruction of more than:

- 75.37 percent of the world's declared stockpile of chemical agents (53,661 MT of chemical agent out of a declared total of 71,196 MT);
- 45.56 percent of the declared chemical munitions and containers (3.95 million munitions/containers out of a declared total of 8.67 million munitions/containers); and
- 100 percent of the 70 declared chemical weapon production facilities have been inactivated; of which 43 have been destroyed and 21 have been converted to peaceful purposes.

The OPCW TS has conducted 4,779 inspections (including 2,576 inspections of chemical weapon-related sites) as of August 28, 2012, at 1,298 sites (out of a total of 5,677 eligible declared sites) located in 81 countries. Out of a total of 227 declared, 211 chemical weapon-related sites have been inspected. Details are provided in the chart on page 23.

In the United States, the OPCW had conducted 184 inspections at U.S. industry facilities as of October 1, 2012.

For More Information

For the latest CWC information, visit the Treaty Information Center, CBW Corner, and Products sections on the DTIRP website at:

CWC Synopsis: <http://dtirp.dtra.mil/TIC/synopses/cwc.aspx>

CWC Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/cwc.aspx>

CBW Corner: <http://dtirp.dtra.mil/CBW/cbw.aspx>

CWC-related Products: <http://dtirp.dtra.mil/Products/Products.aspx#CWC>

CWC Inspections Worldwide *as of August 28, 2012*

CW Production Facilities (CWPFs)	438
CW Destruction Facilities (CWDFs)	1,499
CW Storage Facilities (CWSFs)	460
Schedule 1 Facilities	228
Schedule 2 Facilities	581
Schedule 3 Facilities	342
UDOC Facilities	1,052
Old CW (OCW)	108
Abandoned CW (ACW)	71

Total 4,779

OPCW Inspections at U.S. Industry Facilities *as of October 1, 2012*

Schedule 1 Facilities	5
Schedule 2 Facilities	64
Schedule 3 Facilities	53
UDOC Facilities	62

Total 184

Comprehensive Nuclear Test-Ban Treaty (CTBT)

Purpose and Background

Entry into Force

Not in force

Signatories/Parties

154 States Parties

182 Signatories

Selected States Parties

Russia, Japan, South Korea, Ukraine and United Kingdom

Selected Signatory States

China, Egypt, Iran, Iraq, Israel, Kazakhstan and United States

Selected Non-Signatory States

India, North Korea, Pakistan and Syria

Website

www.ctbto.org

The Comprehensive Nuclear Test-Ban Treaty (CTBT) places a global ban on “any nuclear weapon test explosion or any other nuclear explosion.” The treaty relies primarily on a global information collection and monitoring network to verify compliance, but the treaty’s verification provisions also include confidence-building measures and the right to conduct on-site inspections when necessary to investigate ambiguous events indicating that a nuclear explosion has occurred.

The CTBT will enter into force 180 days after all of the required 44 states ratify the treaty. The required 44 states are identified as follows:

- the five acknowledged nuclear-weapon states – United States, Russia, United Kingdom, France and China (all have ratified the CTBT except for China and the United States);
- India, Pakistan and Israel;
- members of the Conference on Disarmament (CD) as of June 18, 1996, which also participated in the CD’s 1996 session; and
- states possessing nuclear research or power reactors.

All except three of the required 44 states have signed the CTBT. The three exceptions are India, Pakistan, and North Korea. Thirty-six of the 44 required states have also ratified the treaty.

The United States signed the CTBT on September 24, 1996, but the U.S. Senate declined to ratify the treaty (48 for, 51 against, 1 abstention) on October 13, 1999. More recently, the Obama administration has emphasized ratification of the CTBT as part of its nonproliferation agenda and President Obama announced that Vice President Biden is spearheading U.S. CTBT ratification endeavors.

India and Pakistan each tested nuclear devices in May 1998. On February 21, 1999, the two states signed the Lahore Declaration, pledging their intent to take “immediate steps” to reduce the risk of accidental or unauthorized use of nuclear weapons and discuss further confidence-building measures. In the accompanying Memorandum of Understanding (MOU), both sides committed to continue to abide by their unilateral moratoriums on nuclear test explosions, unless deemed necessary for national security reasons.

Verification Measures

To verify compliance, the CTBT relies primarily on the International Monitoring System (IMS) and the International Data Center (IDC). The IDC will be accessible to all States Parties and will receive, collect, process, analyze, report and archive data from the IMS stations.

The IMS is designed to include four global monitoring technologies:

- seismological – 42 of the 50 primary stations have been constructed and 102 of the 120 auxiliary stations. Significant improvements during the past few years have enabled IMS seismic stations to have a very high accuracy rate;
- radionuclide – 62 of the 80 stations monitoring particulates have been constructed (40 of these stations also monitor noble gases) and 16 radionuclide laboratories. Nearly 75 percent of the projected radionuclide stations are certified and 11 of the 16 laboratories have been certified. All technical specifications have been met and the detection capability of the network meets expectations;
- hydroacoustic – Ten of the projected 11 hydroacoustic stations are certified. The stations use underwater hydrophone sensors and seismometers on small, steep-sloped islands for a very high detection capability;
- infrasound – 45 of the 60 stations have been certified. These stations monitor very low atmospheric frequency sound waves, which could potentially be caused by a nuclear explosion. The IMS network of infrasound stations is larger and more sensitive than any other previously operating network. To further improve the monitoring capabilities of these stations, it will be necessary to develop more reliable atmospheric models.

As of October 2012, 272 of the 337 planned IMS stations had been certified and integrated into the IMS, which is more than 80 percent of the network. The United States currently supports 33 certified monitoring facilities, four operational Noble Gas Experiment facilities, one certified radionuclide laboratory, and three

planned monitoring facilities, for a total of 41 facilities under the IMS. The previously-certified auxiliary seismic station at Attu Island, Alaska, was shut down when the Coast Guard facility at the island was decommissioned in 2010, and an alternative location is under consideration. An interactive map showing the location, type, and operational status of each IMS station is provided on the CTBTO website at: <http://www.ctbto.org/map/#ims>.

The treaty's verification regime also includes provisions for on-site inspections, consultations and clarifications, as well as confidence-building measures. On-site inspections may be conducted to determine whether a suspected nuclear explosion – detected either by the IMS or by the national technical means of a State Party – actually occurred.

The CTBTO conducted its first large-scale integrated CTBT on-site inspection exercise from September 1-25, 2008. This exercise, the Integrated Field Exercise (IFE) 2008, was conducted at the former Soviet nuclear test site in Semipalatinsk, Kazakhstan and involved 40 inspectors and more than 40 tons of equipment.

Treaty provisions specify a maximum inspection area of 1,000 square kilometers and limit the inspection to 60 days, although a 70-day extension is an option. Inspection activities may include:

- overflight/visual observation, photography, multi-spectral imaging, radioactivity measurement, environmental sampling and passive seismic monitoring for aftershocks;
- active seismic surveys to locate underground anomalies, plus magnetic and gravitational field mapping, ground-penetrating radar surveys and electrical conductivity measurements; and
- drilling to obtain radioactive samples.

During an on-site inspection, the inspected State Party will have certain rights to protect sensitive installations and locations. Treaty provisions allow the inspected State Party to designate 4-square kilometer maximum exclusion zones and up to a total of 50-square kilometers of restricted-access sites.

In addition, measures allowed under the CTBT to manage access include:

- shrouding sensitive displays, stores and equipment;
- restricting measurements of radionuclide activity and nuclear radiation to only enable the inspectors to determine the presence or absence of relevant radiation and energies;

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- restricting sampling procedures to only allow inspectors to determine the presence or absence of radioactive or other relevant products;
 - managing access to buildings and other structures; and
 - declaring restricted-access sites.

When implemented, the CTBT is expected to raise few facility security concerns since most of the treaty's compliance verification activities will be conducted remotely and passively through the IMS and IDC. IMF sensors will not jeopardize legitimate sensitive information, although, occasionally a naturally occurring event (e.g., an earthquake) or a non-nuclear activity (e.g., mining) could raise questions that would need to be addressed by other means. Consultations, clarifications and confidence-building measures will reduce the need for an on-site inspection in such instances but, in exceptional cases, an on-site inspection conducted by a team of international inspectors could be necessary.

In the event of an on-site inspection, potential security concerns would arise. Security risk factors to consider at specific sites and facilities include the length of time an inspection team would be physically present on site and the inspection team's level of access to specific facilities and programs, the instruments and inspection equipment used, and the types of inspection activities conducted. Under the CTBT, these concerns would be somewhat mitigated by the probability that on-site inspections would most likely occur in remote, non-industrial locations.

Recent Developments

As of October 2012, 157 States Parties had deposited their instruments of ratification and 183 states had signed the CTBT. In February 2012, Indonesia – an Annex 2 state – ratified the treaty, becoming the 36th out of 44 Annex 2 States to ratify the CTBT.

In his April 5, 2009 speech in Prague, Czech Republic, President Barack Obama announced that his administration would “immediately and aggressively” pursue ratification of the CTBT. During the 2009 Carnegie Nonproliferation Conference, Deputy Secretary of State John Steinberg announced that Vice President Joe Biden will lead U.S. nonproliferation efforts, including promoting consent to CTBT ratification by the U.S. Senate.

In September 2009, the CTBTO met for the sixth Conference on Facilitating the Entry into Force of the CTBT (also called the Article XIV Conference) in New York. Consistent with the Obama administration's decision to actively pursue U.S. ratification of the CTBT, the United States sent a high-level representative to the

Article XIV Conference, which is the first the United States has sent a representative to an Article XIV Conference since 1999. At this conference, U.S. Secretary of State Hillary Clinton encouraged other states to sign or ratify the treaty. In addition, she said,

The Obama Administration has already begun the work necessary to support U.S. ratification of the treaty. We know this task will not be quick or easy. But as long as we are confronted with the prospect of nuclear testing by others, we will face the potential threat of newer, more powerful, and more sophisticated weapons that could cause damage beyond our imagination. A test ban treaty that has entered into force will permit the United States and others to challenge states engaged in suspicious testing activities – including the option of calling on-site inspections to be sure that no testing occurs on land, underground, underwater, or in space. CTBT ratification would also encourage the international community to move forward with other essential nonproliferation steps.

The September 2011 Article XIV Conference was also held in New York and continued the work of the 2009 Article XIV Conference. Under Secretary for Arms Control and International Security Ellen Tauscher delivered U.S. remarks at the meeting, emphasizing continued U.S. support for CTBT monitoring and verification measures, and the Administration's intent to pursue U.S. ratification:

One of our highest priorities is the ratification and entry into force of the Comprehensive Nuclear Test-Ban Treaty. The treaty is an essential step toward the peace and security of a world without nuclear weapons, the vision President Obama articulated in Prague in April 2009. [...]

We have continued to provide the full costs of operating, maintaining and sustaining 34 certified IMS stations among those assigned by the treaty to the United States. We announced last month a voluntary in-kind contribution of \$8.9 million to support projects that will accelerate development of the CTBT verification regime. This month, we concluded a Memorandum of Understanding with the Provisional Technical Secretariat to contribute up to \$25.5 million to underwrite the rebuilding of the hydroacoustic monitoring station on Crozet Island in the southern Indian Ocean.

Together, U.S. extra-budgetary contributions to the Comprehensive Nuclear Test-Ban Treaty Organization this year total \$34.4 million, more than our annual assessed contribution. Given the tough budget climate in Washington and other capitals, those contributions clearly

demonstrate our ongoing commitment to the treaty and the vital importance the United States attaches to completing the verification regime.

On January 19, 2011, during Chinese President Hu Jintao's official visit to Washington DC, the People's Republic of China and the United States issued a Joint Statement declaring that "both sides support early entry into force of the Comprehensive Nuclear Test-Ban Treaty (CTBT)" and "agreed to work together to achieve this goal." This reinforced the previous U.S.-China Joint Statement of November 17, 2009, issued upon President Obama's visit to China. The ratification of the CTBT by the United States and China, being NWS, is necessary for the CTBT to enter into force.

In March 2011, the Preparatory Commission for the CTBTO started sharing its monitoring data and analysis reports with the International Atomic Energy Agency (IAEA) and the World Health Organization (WHO). The action was a CTBTO response to respective requests communicated on 17 March to use its data in assessing the situation following the nuclear accident in Fukushima, Japan, and the possible dispersion of radioactive substances in Japan and the wider region.

The CTBTO conducted an inspection exercise from November 1 through 12, 2010, in Jordan. The exercise included a simulated nuclear test site beside the Dead Sea and a team of more than 35 international experts. The goal of the exercise was to determine through observable signatures which could be connected to a possible nuclear explosion whether a nuclear test was conducted by a fictitious country. Jordan volunteered to host the exercise due to the unique geologic features of the Dead Sea area, such as sinkholes.

In October 2011, 182 Member States of the [CTBTO] Preparatory Commission approved a \$10.3 million budget for the 2014 Integrated Field Exercise (IFE) designed to boost the CTBTO's on-site inspection capabilities. The plan also foresees a host of preceding smaller ("directed") exercises and other run-up activities. IFE 2014 will be the second large-scale undertaking of its kind after the IFE 2008, held in Kazakhstan in September 2008.

In February 2012, the CTBTO marked the 15th anniversary of the Preparatory Commission of the CTBTO. At festivities held in Vienna, Austria, CTBTO Executive Secretary Tibor Tóth stated:

At age 15, we are proud of our achievements. The family of CTBT Member States has grown to 182, 157 of which have ratified. The network has grown, station by station. 285 facilities, more than 80% of

the International Monitoring System, are up and running. An around the globe and around the clock system. A system of 1 billion dollars and 10,000 scientist years of investments.

On September 27, 2012, the foreign ministers and other high-level representatives of CTBT Member States met at the UN headquarters in New York to mark the 50th anniversary of the Cuban Missile Crisis. At this meeting, the foreign ministers issued a joint statement calling for the entry into force of the CTBT.

During 2012, the Preparatory Commission held its Thirty-Eighth Session from June 14-15 and its Thirty-Ninth Session from October 22-24. The plenary body, which is composed of two working groups and an advisory group, meets throughout the year to discuss administrative and verification issues.

At the meeting of the Preparatory Commission in October 2012, the Member States elected Dr. Lassina Zerbo, from Burkina Faso, to become the new Executive Secretary of the CTBTO on August 1, 2013. Dr. Zerbo is a geophysicist who has served as Director of the CTBTO's International Data Center Division since November 2004. He will replace the current Executive Secretary, Tibor Tóth, who has held the office since August 2005 and will remain as Executive Secretary through July 31, 2013.

For More Information

For the latest CTBT information, visit the Treaty Information Center, Nuclear Corner, and Products sections on the DTIRP website at:

CTBT Synopsis: <http://dtirp.dtra.mil/TIC/synopses/ctbt.aspx>

CTBT Treaty Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/ctbt.aspx>

Nuclear Corner: <http://dtirp.dtra.mil/NC/nc.aspx>

CTBT-related Products: <http://dtirp.dtra.mil/Products/Products.aspx#CTBT>

Convention on Certain Conventional Weapons (CCW)

Purpose and Background

Entry into Force

December 2, 1983

Signatories/Parties

115 States Parties

5 Signatories

Selected Members

United States, China and Russia

Selected Nonmembers

North Korea, Iran and Syria

The Convention on Certain Conventional Weapons (CCW) [long title: Convention on Prohibitions or Restrictions on Use of Certain Conventional Weapons which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects] is one of several legally binding international agreements that fall under the general heading of “Laws of War,” regulating the means and methods of warfare. The CCW is composed of a convention and five protocols. Together, they restrict or prohibit the use of conventional weapons whose effects have been declared to cause indiscriminate harm to civilians or to produce unnecessary suffering to combatants.

Protocol I prohibits the use of weapons whose primary effect is to cause injury with fragments that cannot be detected in the human body by X-ray, such as plastic fragments.

Protocol II prohibits or restricts the use of mines, booby traps and other devices against civilians or military targets in ways that may cause indiscriminate harm to civilians. Such devices are prohibited in populated areas where combat is not taking place unless directed against a specific military target. In addition, the Protocol restricts the use of remotely delivered mines, requires that the location of minefields be recorded and disclosed at the end of hostilities, and calls for international cooperation to remove mines and other devices at the end of hostilities.

Protocol II was amended May 3, 1996, as agreed by the States Parties at the first Review Conference held from April-May 1996, and entered into force two years later on December 3, 1998. The purpose of the amended Protocol was to extend its provisions to apply to internal conflicts as well as to international conflicts. The amended Protocol II, often referred to as the Amended Mines Protocol, also shortened the duration of unmarked anti-personnel landmines and required all anti-personnel landmines to be detectable.

Protocol III prohibits or restricts the use of incendiary weapons against civilians and the use of air-delivered incendiary weapons against military targets located in areas where civilian populations are concentrated. The use of non-air-delivered weapons under the same circumstances is allowed in cases where the military target is clearly separated from the surrounding civilian population. Additionally, the use of incendiary weapons on forests and plant cover is restricted.

Protocol IV was adopted in October 1995 and entered into force on July 30, 1998. It prohibits the use and sale of lasers specifically designed to cause permanent blindness to unenhanced vision.

Protocol V was adopted on November 28, 2003, and entered into force on November 12, 2006. It addresses the threat of explosive remnants of war (ERW) and covers munitions, such as artillery shells, grenades, and gravity bombs, which fail to explode as intended. It also addresses any unused explosives left behind and uncontrolled by armed forces.

The Amendment to Article 1 was proposed in 2001 at the Second Review Conference and entered into force on May 18, 2004. The Amendment expands the scope of the CCW to address situations of internal, as well as international, armed conflicts.

States Parties to the CCW are required not only to sign and ratify the Convention but also to consent to be bound by at least two of the Protocols. The United States signed the CCW in 1982, ratified the Convention on March 24, 1995, and gave its consent to be bound by Protocols I and II in 1995. The United States submitted the Amended Protocol II, as well as Protocol III and Protocol IV, to the Senate for its advice and consent to ratification on January 7, 1997. The Amended Protocol II was ratified on May 24, 1999. The President submitted Protocol V and the Amendment to Article 1 to the Senate for advice and consent to ratification on June 20, 2006. Protocols III, IV, and V, and the Amendment to Article 1 were ratified by the United States on January 21, 2009.

Verification Measures

The CCW contains no verification measures. However, at the April – May 1996 CCW Review Conference (RevCon), the United States proposed a Compliance Annex to Protocol II pertaining to landmines. The Annex would permit any State Party to convene a Compliance Meeting for the purpose of conducting an inquiry to clarify or resolve compliance concerns. The proposed Annex would also allow Meeting members to dispatch teams of experts to areas and installations where they could reasonably collect facts (with limited access)

relevant to compliance issues. The United States renewed this offer in December 1999 at the First Annual Conference of Parties to the Amended Mines Protocol.

Should the U.S.-proposed Compliance Annex to Protocol II be adopted, a large number of facilities could be subject to on-site inspections or to other forms of monitoring. This proposed Annex would also provide inspected States Parties with the right to make necessary arrangements to:

- protect sensitive equipment, information and areas;
- comply with any constitutional obligations regarding proprietary rights, searches and seizures, or other constitutional protections; and
- protect the conduct of actual military operations.

The Second RevCon was held in December 2001. In preparation for the RevCon, the United States submitted a set of proposals to “significantly improve the protection of civilians, peacekeepers and friendly armed forces.” These proposals included:

- requiring anti-vehicle mines to be detectable;
- requiring remotely delivered anti-vehicle mines to be equipped with self-destruction capabilities;
- improving the existing requirements for self-destruction and self-deactivation features of anti-personnel landmines;
- establishing a compliance mechanism to deal with legitimate complaints related to misuse of mines, booby-traps and other devices; and
- expanding the CCW’s scope to apply in civil wars and internal armed conflicts.

The States Parties also considered issues related to ERW (e.g., cluster munitions) and small caliber weapons and ammunition. At the conclusion of the RevCon, the States Parties agreed to a number of specific measures, which included:

- an Amendment to Article 1 of the CCW expanding the provisions of the Convention to apply to internal as well as to international conflicts;
- commissioning a Group of Governmental Experts (GGE) to meet three times annually to examine ways of dealing with ERW and anti-vehicle landmines; and
- consultations on options to promote compliance with the CCW and its four Protocols.

On November 12, 2006, the CCW's Protocol V on ERW entered into force. This Protocol requires each State Party to clear or destroy all ERW in the territories under its control at the end of a conflict. If the state that used the ERW does not control the territory where the ERW are located, the user state is required to provide assistance with clearing and destroying the ERW, if feasible. In addition, the Protocol requires States Parties to protect the civilians in their territories from the effects of ERW.

The Third RevCon was held from November 7-17, 2006, in Geneva. At this meeting the States Parties agreed to meet bilaterally to discuss matters relating to CCW compliance. The parties also decided that a Meeting of the High Contracting Parties should review the status of the CCW and identify means for assisting states with implementing the Convention and its Protocols. Implementation involves recommending appropriate national legislation and providing information to armed forces and civilians regarding the actions required to meet the CCW's technical requirements. In addition, a group of experts was created to provide assistance and answer questions regarding CCW compliance.

Recent Developments

The United States ratified Protocols III, IV and V and the Amendment to Article 1, on January 21, 2009. As of July 2012, the world-wide status of the Convention is as follows:

- 115 Total States Parties
- 76 States Parties to the Amendment to Article 1;
- 110 States Parties to Protocol I;
- 92 States Parties to Protocol II;
- 98 States Parties to Amended Protocol II;
- 106 States Parties to Protocol III;
- 100 States Parties to Protocol IV; and
- 80 States Parties to Protocol V.

The 2009 Meeting of the High Contracting Parties was held in Geneva from November 12-13, 2009. During this meeting the Parties were encouraged to continue to submit annual reports on CCW implementation (by October 1st of each year), as agreed in 2007. It was also agreed to continue to consider the issue of Mines Other Than Anti-Personnel Mines (MOTAPM) and to establish an

“Implementation Support Unit” (ISU). The ISU is located at the United Nations Office in Geneva (UNOG) and consists of two full-time staff members who work under the authority of the annual Meetings of the High Contracting Parties.

At the 2010 Meeting of High Contracting Parties, held in Geneva from November 25-26, Mr. Bantan Nugroho, Head of the ISU, was confirmed as Secretary-General of the Meeting. The 2010 Meeting focused on promoting the universality of the CCW, supporting the CCW Sponsorship Program, and continuing development of the Compliance database and the Roster of Experts by the Secretariat. It was also agreed to continue to consider the issue of MOTAPM and the continued development of a cluster munitions protocol by the Group of Governmental Experts (GGE).

Since 2008, the GGE has met several times each year to consider the issue of cluster munitions. The GGE drafted a working definition of cluster munitions for future negotiations, and discussed the humanitarian and military impacts of munitions, and the legal and technical aspects of cluster munitions use.

The United States supports the development of an additional Protocol to the CCW designed to minimize the impact of cluster munitions. The United States also does not believe any independent agreements banning cluster munitions are strategically sound. For more information on cluster munitions initiatives and U.S. policy, please see the DTIRP synopsis for the Convention on Cluster Munitions.

In 2011, the GGE met three times in Geneva on February 21-25, March 28 – April 1, and August 22-26, to conduct preparatory sessions for the Fourth Review Conference (RevCon). During the preparatory meetings, Ambassador Gancho Ganev of Bulgaria, President of the Fourth RevCon, underscored that the key issues would be universalization, compliance, addressing cluster munitions, and thoroughly reviewing the Convention and its Protocols. The GGE continued its negotiations throughout 2011 informed by the 2010 Chair’s Text, document CCW/GGE/2010-II/WP.2 on a draft protocol on cluster munitions, and taking into account other past, present and future proposals by delegations, to address the humanitarian impact of cluster munitions, while striking a balance between military and humanitarian considerations. The GGE made a recommendation on a draft cluster munitions protocol for consideration by the Fourth RevCon.

During November 2011, the meetings at Geneva included the Fifth Conference of the High Contracting Parties to CCW Protocol V from November 9-10; and the Thirteenth Annual Conference of the High Contracting Parties to Amended Protocol II, which met on November 11.

The Fourth RevCon took place November 14-25, 2011, at Geneva. Chaired by Bulgaria, the Fourth RevCon held six plenary meetings to discuss the scope and operation of the CCW Protocols, as well as the proposed additional Protocol on Cluster Munitions. During discussions, producers of cluster munitions maintained that the weapons still serve military purposes even while agreeing to the proposed restrictions of the Protocol, and non-producers argued that humanitarian concerns should lead to greater restrictions than those proposed. By the final day of the RevCon, more than half of the CCW's States Parties opposed the proposed Protocol and negotiations stalled. The RevCon concluded without reaching an agreement, and the issue of cluster munitions is not expected to be revisited at such a large scale for several years.

The next Meeting of the High Contracting Parties took place on November 15-16, 2012 in Geneva. The meeting was presided over by the Philippines. Advanced meeting documents focused primarily on MOTAPM issues.

For More Information

For the latest CCW information, visit the Treaty Information Center on the DTIRP website at:

CCW Synopsis: <http://dtirp.dtra.mil/TIC/synopses/ccw.aspx>

CCW Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/ccw.aspx>

Convention on Cluster Munitions (CCM)

Purpose and Background

Entry into Force

August 1, 2010

Signatories/Parties

108 Signatory States
57 States Parties

The Convention on Cluster Munitions (CCM) (also referred to as the Oslo Convention) is an international ban of unlimited duration on the use, acquisition, transfer, or development of cluster munitions. The Convention is directly modeled after the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction (also

referred to as the Anti-Personnel Landmine Convention (APLC) or Ottawa Convention), but it does not apply to mines.

The Convention draft text was adopted at the Dublin Conference on May 30, 2008, and was opened for signature on December 3, 2008, in Oslo, Norway. The Convention entered into force (EIF) on August 1, 2010, six months after it was ratified (or acceded to) by thirty States Parties. For states acceding to or ratifying the Convention after its entry into force, the Convention will take effect six months after accession or ratification.

The Convention defines cluster munitions as “a conventional munition that is designed to disperse or release explosive submunitions each weighing less than 20 kilograms, and includes those explosive submunitions.” The Convention will *not* apply to a munition designed to avoid indiscriminate area effects which has *all* of the following characteristics:

- contains less than ten explosive submunitions; and
- each explosive submunition weighs more than four kilograms; and
- each explosive submunition targets a single target; and the munition
- contains an electronic self-destruct function as well as a self-deactivation function.

States Parties agree to destroy their current cluster munition stockpiles within eight years after ratification or accession, and to decommission all cluster munition production facilities. States Parties may request four-year extensions to this deadline when necessary and may transfer their cluster munitions to another state for destruction purposes. Recipient States are then obligated to provide a full accounting of all actions taken.

Each State Party also agrees to assist with removing the cluster munitions it has deployed on the territories of other states. The deadline for removing these remnants of cluster munitions is ten years after the Convention's entry into force. In addition, each State Party agrees to provide victim assistance within its territory, including "medical care, rehabilitation and psychological support, as well as ... [providing] social and economic inclusion."

Pursuant to Resolution 64/36 of the United Nations General Assembly in 2009 and in accordance with Article 11, paragraph 2, of the Convention, the Secretary-General of the United Nations convened the First Meeting of States Parties (1MSP) in Vientiane, Lao People's Democratic Republic, from November 9-12, 2010. These meetings will be held annually until the first Review Conference (RevCon), which will be conducted in 2015, five years after entry into force. The meetings and the RevCon will be open to all non-member states and to relevant organizations.

Verification Measures

The CCM contains no on-site inspection provisions. To verify compliance, States Parties agree to participate in annual data exchanges. Information pertaining to the previous calendar year will be submitted to the UN Secretary-General by April 30 each year.

Within 180 days after the Convention entered into force, or is acceded to, each State Party is obligated to submit an initial data declaration. The information to be provided includes:

- national implementation measures on the destruction and clearance of cluster munitions, including technical descriptions and quantities of cluster munitions;
- cluster munitions development prior to ratifying the Convention and information on any states to which that technology was transferred;
- the size and location of any contaminated area within the state's territory, and the clearance actions taken; and
- national implementation of victim assistance programs, including risk reduction education.

This information will serve as a baseline for future annual data exchanges.

If a State Party has a concern about whether another State Party is in compliance with the Convention, the concerned state may submit a Request for Clarification to the UN Secretary-General. If the concerned state is not satisfied with the

response from the Secretary-General, the matter can be addressed at the next Meeting of States Parties. At these meetings, the States Parties may recommend or adopt appropriate measures to obtain satisfactory clarification of compliance.

The United States does not intend to sign the Convention. As stated in a February 2008 White Paper, the Department of State detailed the following concerns:

- cluster munitions should be addressed within the framework of the humanitarian impact of all explosive remnants of war (ERW), of which cluster munitions are a small percentage;
- redundant single-weapon mechanisms can divert necessary resources from efforts to eradicate all ERW by focusing on only one sub-type;
- the U.S. Humanitarian Mine Action Program assists survivors regardless of what ERW injured them;
- cluster munitions are still a strategically viable alternative to other, non-discriminating munitions types; and
- the Convention on Certain Conventional Weapons (CCW) already has support for ERW consequence management and can be amended to include a Protocol addressing cluster munitions.

The Convention on Cluster Munitions does not prohibit States Parties from engaging in military cooperation and operations with non-member states that engage in activities prohibited by the Convention. However, States Parties cannot assist in the development, stockpile or transfer of cluster munitions during that cooperation, nor can States Parties encourage the use of cluster munitions during operations with non-member states.

Recent Developments

As of October 2012, the CCM had 108 signatories and had been ratified by 76 States Parties.

The Second Meeting of States Parties took place in Beirut, Lebanon, from September 12-16, 2011. States Parties reviewed progress made on the Vientiane Action Plan adopted as the 2010 Vientiane Declaration at the First Meeting of States Parties. Topics discussed included the adoption of informal intersessional meetings to be held in Geneva in the first half of each year. States Parties also agreed to the establishment of working groups led by Coordinators from the States Parties, to discuss the general status and operation of the Convention, universalization, victim assistance, clearance and risk reduction, stockpile destruction and retention, and cooperation and assistance. A Coordination

Committee was also established under the chairmanship of the President of the Meeting of States Parties, and two Coordinator positions were established for reporting and national implementation measures.

The first informal intersessional meeting for 2012 was held at the World Meteorological Organization in Geneva from April 16-19, 2012. The next informal intersessional meeting for 2013 is scheduled for April 16-19, 2013, also in Geneva.

The Third Meeting of States Parties took place in Oslo, Norway, from September 11-14, 2012, and was attended by 90 States Parties and signatories. During the meeting, seven plenary meetings were held to discuss issues related to treaty implementation and compliance, including the progress made toward implementing the Vientiane Action Plan (agreed between the Second and the Third Meetings of States Parties). Participants also discussed the possibility of establishing an Implementation Support Unit, whose work is currently being performed by the UNDP Bureau for Crisis Prevention and Recovery, and resolved to present a plan to the States Parties for their approval prior to the Fourth Meeting of States Parties in 2013. Finally, the 2013 coordinators of the working groups were confirmed and the Minister of Foreign Affairs of Zambia was designated as the President of the Fourth Meeting.

The Fourth Meeting of States Parties is scheduled for September 10-13, 2013, in Lusaka, Zambia.

U.S. Policies on Cluster Munitions

On June 19, 2008, the U.S. Secretary of Defense released the DoD Policy on Cluster Munitions and Unintended Harm to Civilians. The Policy reiterates the U.S. position on cluster munitions, which is that the United States considers cluster munitions to be strategically viable for minimizing hazards to civilians and civilian infrastructure.

DoD policy defines cluster munitions as “munitions composed of a non-reusable canister or delivery body containing multiple, conventional explosive submunitions.” The new policy expands the previous 2001 DoD policy on submunition reliability, which placed a ban after 2018 on the employment of cluster munitions containing submunitions that do not have an unexploded ordnance rate of one percent or less. Until 2018, cluster munitions which have more than a one percent unexploded ordnance rate must have Combatant Commander approval for use, and can only be transferred to other states if the recipient state agrees to discontinue use of such cluster munitions after 2018.

Also in accordance with DoD policy, cluster munitions that exceed operational planning requirements were to be demilitarized within the constraints of funding and industrial capacity by June 19, 2009. When cluster munitions are employed, Combatant Commanders are to record and retain information in accordance with the ERW Protocol of the CCW.

Since 2007, the U.S. Congress has imposed an annual export moratorium on cluster munitions. President Obama signed the Consolidated Appropriations Act of 2010 (P.L. 111-117, SEC 7056) into law on December 15, 2009, which imposed the following requirements on DoD:

- No military assistance shall be furnished for cluster munitions, no defense export license for cluster munitions may be issued, and no cluster munitions or cluster munitions technology shall be sold or transferred, unless –
 - » the submunitions of the cluster munitions, after arming, do not result in more than one percent unexploded ordnance across the range of intended operational environments; and
 - » the agreement applicable to the assistance, transfer, or sale of the cluster munitions or cluster munitions technology specifies that the cluster munitions will only be used against clearly defined military targets and will not be used where civilians are known to be present or in areas normally inhabited by civilians.
- The Consolidated Appropriations Act of 2010 effectively prohibits almost the entire U.S. cluster munitions stockpile from use in fiscal year 2010.

The “Cluster Munitions Civilian Protection Act” (H.R. 1755 and S.594) was originally introduced into the U.S. House and Senate in March 2007, but remained under review in the Senate Committee on Foreign Relations and in the House Committee on Armed Services until the end of the session. It was not adopted at that time and has since been reintroduced in 2011 as H.R. 996 and S. 558. If passed, it would have brought the DoD Policy on Cluster Munitions into immediate effect, rather than waiting until 2018. Under this legislation, no funding would have been provided for the procurement or use of cluster munitions that do not meet the 99 percent reliability standard.

In addition, cluster munitions would have been banned from use in civilian areas. Cluster munitions could be used only with a Presidential waiver specifying that such use was vital to protect the interests of the United States. Within 30 days of use, a report would be due to Congress specifying the steps taken to protect civilians, as well as the failure rate of the cluster munitions used and the types of

self-destruct devices used with the munitions. Within 90 days, another report would be due to Congress. This report would be from the President detailing the plan to clean up unexploded cluster munitions. The Act did not leave Congressional committee review during 2011, and has not been re-introduced as of October 2012.

The United States does not intend to sign the CCM. Instead, the United States supports adding a new Protocol to the Convention on Certain Conventional Weapons (CCW), which addresses cluster munitions.

For More Information

For the latest CCM information, visit the Treaty Information Center on the DTIRP website at:

CCM Synopsis: http://dtirp.dtra.mil/TIC/synopses/cluster_munitions.aspx

CCM Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/munitions.aspx>

Conventional Armed Forces in Europe (CFE) Treaty

Purpose and Background

Entry into Force

July 17, 1992
(provisionally)
November 9, 1992
(legally)

Signatories/Parties

Originally: 16 NATO and 6
Warsaw Pact States Parties

After the breakup of the
Soviet Union,
Czechoslovakia and the
Warsaw Pact, membership
increased to 30 States
Parties.

Russia's suspension of the
CFE Treaty entered into
force on December 12,
2007

The Treaty on Conventional Armed Forces in Europe (CFE) was designed to ensure stability and security in Europe. It established equal lower levels for five categories of offensive conventional armaments: battle tanks, armored combat vehicles, artillery, combat aircraft, and attack helicopters. Since 1990, States Parties have destroyed more than 70,000 pieces of treaty-limited equipment (TLE) under the CFE treaty and its associated documents, and have conducted thousands of on-site inspections.

On November 19, 1999, at the Organization for Security and Cooperation in Europe (OSCE) Conference in Istanbul, Turkey, the 30 States Parties to the CFE treaty signed the Agreement on Adaptation of the treaty on Conventional Armed Forces in Europe (Adaptation Agreement). The Adaptation Agreement amends the CFE treaty to Europe's current security environment, as opposed to that existing during the Cold War.

Specific, noteworthy changes called for in the Adaptation Agreement include:

- raising quotas on mandatory on-site inspections;
- requiring States Parties to provide more information on their forces than they currently provide;
- replacing the CFE treaty's obsolete bloc-to-bloc (NATO and the Warsaw Pact) structure with a new structure of national and flank limits on TLE and troop levels; and
- establishing a territorial ceiling on the total amount of equipment located on the territory of states within the CFE area of application. This will:
 - » remove the requirement for new NATO allies to coordinate TLE limits with Russia and other former Warsaw Pact countries;

-
- » strengthen the territorial sovereignty of individual States Parties by setting limits on a state-by-state basis; and
 - » preserve the special restrictions on forces, including Russian forces, in the treaty's flank region.

The Adaptation Agreement also strengthens the requirement for host-nation consent to the presence of a foreign state's forces. This includes a provision for notifying all States Parties of such consent and addresses a fundamental security concern of several non-NATO states including Azerbaijan, Georgia, Moldova, and Ukraine.

To facilitate routine training exercises or peacekeeping operations under the auspices of the United Nations or the OSCE, the Adaptation Agreement adds the Basic Temporary Deployments provision. This provision allows deployed forces to exceed treaty flank limits with advance notification.

The Adapted treaty will enter into force 10 days after instruments of ratification have been deposited by all States Parties. Russia ratified the Adapted treaty in July 2004. The United States has not submitted the Adaptation Agreement to the Senate for its advice and consent to ratification.

At the Third Review Conference, held from May 30 to June 2, 2006 in Vienna, Austria, no consensus could be reached on ratification of the Adapted CFE treaty.

Current levels of forces in Europe are as follows:

- under 25,000 for battle tanks;
- under 45,000 for armored combat vehicles;
- under 29,000 for artillery pieces:
- under 2,000 for attack helicopters; and
- under 8,000 for combat aircraft.

Also 20,000 items of equipment located east of the Ural Mountains have been disposed of and personnel have decreased to less than three million troops in agreed areas.

Verification Measures

The CFE treaty's compliance verification measures include:

- phased national reductions of TLE over 3 years (1992-1995);
- overall numerical limits on the five categories of conventional armaments within the Atlantic-to-the-Urals (ATTU) Zone;
- sublimits in geographic subzones;
- detailed national data exchanges and notifications on force structure and equipment holdings; and
- on-site inspections to verify compliance with numerical limits.

During the reduction period (1992-1995), on-site inspections permitted the Parties to witness the destruction of TLE, thereby promoting stability. Today, inspections continue to help CFE members verify the accuracy of each State Party's declared inventory of TLE. In addition, data exchanges among States Parties allow the Parties to monitor each others' inventories and the movement of TLE within the ATTU Zone.

On-site inspections have been conducted under the CFE treaty since 1992. As a result, U.S. Forces in Europe have developed an experienced and effective arms control security regime to protect sensitive information during inspection activities. Access provisions under the treaty, specifically the right of access to areas beyond doors in excess of 2 meters, may give rise to security concerns. Sensitive facilities possessing such characteristics require the application of treaty-compliant protective measures.

Other potential security concerns during on-site inspection activities include the right to take photographs and, in some cases, to use video photography and to conduct aerial overflights. In addition, U.S. facilities collocated with the inspectable facilities of other States Parties may be vulnerable during inspections of host nation facilities.

Recent Developments

At Russia's request, an Extraordinary Conference of the States Parties was held in Vienna, Austria from June 12-15, 2007. Representing the United States at the Conference, Daniel Freed, Assistant Secretary of State for European and Eurasian Affairs, stated on June 12, 2007, that "[i]t [was] the intention of the United States and our NATO and other European allies to defend the CFE treaty's regime and to help it remain what it has been since 1990 ... a major success and a cornerstone of European security."

During the Conference, the States Parties were unable to resolve Russia's concerns relating to the ratification of the Adapted CFE treaty. On July 14, 2007, then-Russian President Vladimir Putin announced Russia's intention to suspend participation in the CFE treaty. This suspension entered into force on December 12, 2007. As part of the suspension, Russia stopped hosting CFE inspections or participating in annual exchanges of military information. Previously, Russia had hosted approximately 50 inspections each year.

According to the official statement issued by Russia's Foreign Ministry on December 12, 2007, the following issues need to be resolved in order to "restore the viability of the CFE treaty:"

- compensation for the additional potential acquired by NATO as a result of NATO expansion;
- set parameters for restraining the stationing of forces on foreign territories;
- resolve flank restrictions pertaining to Russia's territory so as not to hinder Russia's common struggle against terrorism;
- ensure CFE treaty participation by the new NATO members: Latvia, Lithuania, Estonia, and Slovenia;
- enact the adapted version of the CFE treaty as soon as possible, without "artificial conditions;" and
- embark on the treaty's further modernization.

Russian officials continue to consult with other CFE States Parties on these issues.

On January 29, 2010, U.S. Secretary of State Hillary Clinton reiterated the United States' commitment to bolstering and modernizing the CFE treaty's regime:

We must not allow the transparency and stability that the CFE regime has provided to erode further. We should revive discussions on the way forward with our allies, Russia, and other signatories. Our goal should be a modern security framework that takes into account developments in Europe since the original treaty was drafted, limits military deployments, and strengthens the principles of territorial integrity, non-first use of force, the right of host countries to consent to stationing foreign troops in their territory.

In early September 2010, Russian Defense Minister Anatoly Serdyukov called for a new modernized treaty to replace the existing CFE treaty, stating that Russia will continue its moratorium until the issues previously stated are addressed with NATO countries. Serdyukov stated that, through talks with Western partners, the countries agreed to resume the groups of experts on CFE treaty issues.

Later in September 2010, Secretary Clinton spoke to NATO foreign ministers and Russian Foreign Minister Sergei Lavrov in a sidebar of the UN General Assembly. Clinton announced that Russia and the CFE treaty partners had agreed to prepare “a short framework of essential CFE elements for further discussion before the NATO and Organization for Security and Cooperation in Europe (OSCE) summits.” She noted that, for the framework to be successful, it would be necessary to address reciprocal military transparency, real military limitations and restraints, and the right of participating states, including Georgia and Moldova, to agree to the stationing of foreign forces on their sovereign territory.

In February 2011, NATO Deputy Assistant Secretary-General for Political Affairs James Appathurai reported progress in discussions on the terms for ratification of the adapted CFE. He emphasized the importance of treaty flank restrictions and acknowledged that some issues still required coordination. Russia had previously requested that flank limits be removed and that the new adapted treaty take into account the conventional weapons of new NATO member states.

During an April 2011 Russia-NATO Council meeting of foreign ministers held in Berlin, Minister Lavrov discussed the CFE treaty with Secretary Clinton. Clinton stated that it would be necessary for Russia to ensure complete transparency of its military forces. Lavrov urged the start of official negotiations for ratification of the adapted treaty in order to break the current stalemate.

On November 22, 2011, the United States announced its decision to cease carrying out most of its CFE treaty obligations with Russia. The announcement released by the U.S. Department of State explained that this decision came after the United States and NATO allies had unsuccessfully tried over the past four years to find a diplomatic solution to Russia’s decision in 2007 to cease implementing the CFE with the other 29 CFE States Parties. Since that time, Russia has refused to accept inspections and has ceased to provide information to other CFE Parties on its military forces as required by the treaty.

The United States continues to implement the CFE with all other States Parties and pledged to resume treaty implementation activities with Russia when Russia also resumes its treaty obligations. In the meantime, the United States reiterated its firm commitment to revitalizing conventional arms control in Europe and, for purposes of continuing to promote stability in Europe, the United States pledged to voluntarily inform Russia of significant changes in U.S. force posture in Europe.

In January 2012, Under Secretary of State for Arms Control and International Security Rose Gottemoeller confirmed the cessation of CFE implementation regarding Russia, and reiterated that the United States is looking to modernize conventional arms control in Europe:

It is still premature to talk about negotiations, but ceasing the implementation of the CFE treaty toward Russia actually opens up an environment to explore new opportunities for the future of conventional arms control in Europe. But first we need to do some very basic work on the concepts and substance, together with our allies and partners, including the Russians. Everybody knows that the CFE treaty simply is not relevant anymore to the current security situation in Europe. [...]

What we have now is an opportunity for a regime that would be clearly post Cold War. We need to think ahead about what will be most helpful, contributing to resolving the frozen conflicts and strengthening regional security. I think the Russians have the same interest in stable and predictable security relationships as other countries.

At the Annual Security Review Conference 2012, hosted by Ireland in June, members of the OSCE discussed, among other issues, the current impasse of CFE treaty negotiations. Food-for-thought papers were presented during the summer conference, focusing on the current political climates and threats regarding the CFE regions, which will influence future OSCE discussions in Astana.

In September 2012, Under Secretary Gottemoeller discussed the current issues of CFE treaty negotiations, noting that the original treaty eliminated over 72,000 pieces of Cold War military equipment and increased confidence through thousands of inspections:

The CFE regime remains important to the United States, and for European security as a whole. Unfortunately, Russia ceased implementation of its CFE obligations in December 2007. Since then, Russia has refused to accept inspections and ceased to provide information to other CFE treaty parties on its military forces as required by the Treaty.

After trying for several years to encourage Russia to resume implementation, in November 2011, the United States ceased carrying out certain obligations under the CFE treaty with regard to Russia. We were joined by our NATO Allies that are party to the treaty, as well as Georgia and Moldova, in taking this important step – in all, 24 of the 30 countries that are party to the treaty. [...]

We stand ready to return to the negotiating table whenever we have a signal that real progress can be made on the remaining issues, including the right of states to choose whether to allow foreign forces to be

stationed on their territories and transparency among all parties essential for preserving confidence during the negotiations. In the meantime, we have also embarked upon a ground-up reexamination of the entire conventional arms control enterprise.

Inspection Status

Baseline inspections were completed November 13, 1992 and the 3-year reduction period ended in November 1995. Residual validation inspections were completed May 1996. Declared site and challenge inspections will continue for the duration of the treaty.

The United States continues to conduct inspections and reduction inspections, and to conduct escort missions at U.S. facilities hosting inspection missions conducted by the other States Parties, with the exception of Russia. In November 2011, the United States ceased carrying out most CFE obligations with Russia, including on-site inspections.

For More Information

For the latest information on the CFE treaty, visit the Treaty Information Center and Products sections on the DTIRP website at:

CFE Synopsis: <http://dtirp.dtra.mil/TIC/synopses/cfe.aspx>

CFE Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/cfe.aspx>

CFE-related Products: <http://dtirp.dtra.mil/Products/Products.aspx#CFE>

Fissile Material Cutoff Treaty (FMCT)

Purpose and Background

Entry into Force

Not in force
Awaiting negotiation

Signatories/Parties

None

A Fissile Material Cutoff Treaty (FMCT) would prohibit the production of fissile materials for nuclear weapons or other nuclear explosive devices and any other such materials not currently subject to the application of Safeguards by the International Atomic Energy Agency (IAEA). The treaty would also prohibit States Parties from assisting other states with plutonium separation or with producing highly enriched uranium (HEU) for weapons use.

A decision to negotiate an FMCT was agreed by the international community at the Review Conference for the Nuclear Nonproliferation Treaty (NPT) in 2000. The FMCT is to be negotiated in the Conference on Disarmament (CD) at the United Nations Office in Geneva (UNOG). Key issues precluding final resolution include whether the treaty should cover existing stockpiles of weapons-usable plutonium and HEU along with future stocks, and whether the treaty should include a verification regime.

On May 18, 2006, the United States delivered a draft FMCT (CD/1777) for consideration. This draft contained no verification regime and defined the scope of the FMCT narrowly. In 2009, an alternative draft FMCT and article-by-article analysis was prepared by a panel of arms control and nuclear nonproliferation experts – the International Panel on Fissile Materials (IPFM) – and was provided to the CD Working Group on May 11, 2009. This draft was officially introduced to the CD by representatives from Japan, Canada, and the Netherlands on September 17, 2009. The IPFM draft contains recommendations for verification – designating the IAEA as the appropriate body – and organizational requirements to enable treaty implementation. The IPFM draft also supports a total halt to the production of fissile materials for weapons use.

Although the United States is committed to negotiating a verifiable, legally binding treaty prohibiting the production of fissile material for nuclear weapons or other nuclear explosive devices, the United States is opposed to having the treaty include a new verification regime. Alternative options for verifying compliance include the use of national means and measures.

Verification Measures

If the eventual FMCT either includes a verification regime or authorizes the IAEA to assume this responsibility, verification measures would likely include on-site inspection activities and obligate States Parties to declare inspectable sites. These sites would likely include shuttered nuclear facilities, active uranium enrichment or plutonium reprocessing plants, and military nuclear sites. Challenge inspections could also be allowed at both declared and undeclared nuclear facilities when needed to provide a credible assurance of the absence of undeclared activities involving the production of weapons-usable fissile material.

On-site inspection activities would likely focus on verifying a State Party's declarations and on the legitimate uses of fissile materials by the party's military for the purpose of detecting clandestine production or diversion of fuel-grade fissile materials (excluding legacy stocks, end-use stocks produced after the treaty's entry-into-force, and fissile material produced for non-explosive purposes, such as for naval propulsion fuel).

Recent Developments

On February 28, 2011, U.S. Secretary of State Hillary Rodham Clinton addressed the CD in Geneva. Reiterating the Obama Administration's commitment to negotiating an FMCT, Secretary Clinton urged the CD to end the current stalemate on FMCT negotiations and to implement the Program of Work agreed to in May 2009. She expressed U.S. support for reducing stocks of separated plutonium and highly enriched uranium and minimizing the future use of highly enriched uranium for civilian purposes.

In November 2011, the UN First Committee proposed a resolution drafted by Austria, Mexico and Norway, urging the General Assembly to take action in the event that the deadlock continued at the CD. The measure called for the next assembly session to discuss other options for promoting international disarmament talks such as potentially establishing working groups. Although the First Committee failed to approve this resolution, the General Assembly as a whole adopted a resolution on December 5, 2011, calling for action on the CD deadlock to be taken during its 67th Session. The resolution was approved in a vote of 158-2, with North Korea and Pakistan providing the only opposing votes. Twenty-one nations abstained from the decision.

Addressing the first CD session of 2012, Under Secretary of State for Arms Control and International Security Rose Gottemoeller reiterated U.S. support for the negotiation of an FMCT and echoed the growing frustration at the current impasse within the CD:

At the most recent session of the [UN General Assembly (UNGA)] First Committee, we all witnessed and experienced the growing international frustration with the status quo here in Geneva. Not surprisingly, and with no small amount of justification, many in the international community are losing patience with the current situation in the CD. Every government represented in this room has national security concerns and obligations associated with an FMCT, including my own. But as responsible governments, we also have a collective obligation to and responsibility for international peace and security, to which an FMCT would significantly contribute. [...]

The U.S. position is clear: FMCT obligations, including verification obligations, should cover only new production of fissile material. Step-by-step approaches to arms control and nonproliferation have been very successful over the years. A step-by-step approach would serve us well with an FMCT. One essential step in the process should be a legal ban on the production of fissile material for use in nuclear weapons. [...]

We hope 2012 will be the year when the Conference on Disarmament emerges from its prolonged impasse and once again contributes to international peace and security by beginning negotiations on an FMCT. The CD and its predecessor bodies have a long history of delivering landmark agreements, all of which were contentious in their own right and took years to complete.

As of the end of the second CD session of 2012, FMCT negotiations had not moved forward. The U.S. Representative to the UN CD 2012 Session, Mr. John A. Bravaco, emphasized the U.S. position:

[The FMCT] remains an absolutely essential step on the path to global nuclear disarmament, one repeatedly endorsed by the international community. The reality of the situation is simply this: the longer an effectively verifiable FMCT is delayed, or more accurately, denied, the longer a world free of nuclear weapons will remain out of reach.

For this reason, we regret that the Conference on Disarmament (CD) did not agree to the recent compromise Program of Work that would have advanced efforts toward an FMCT, along with serious work on other important issues. We are disappointed at this lost opportunity, but appreciate the vigorous efforts of Egypt and the other "P-6" CD

Presidency countries to move this issue forward. We are currently consulting with our P5 partners and others on the most appropriate next steps for an FMCT.

In October 2012, Ms. Gottemoeller addressed the UNGA First Committee's 67th Session in order to provide the U.S. perspective on multiple arms control and nonproliferation treaties, including the negotiation of an FMCT:

The United States is continuing its fight for the verifiable end to the production of fissile material for use in nuclear weapons. A Fissile Material Cut-off Treaty (FMCT) is a logical and absolutely essential next step in the path towards global nuclear disarmament. The CD remains our preferred venue for negotiating an FMCT, since it includes every major nuclear-capable state and operates by consensus, ensuring everyone's national security concerns are protected.

A year ago the United States initiated consultations among the P5 and others on unblocking FMCT negotiations in the CD, and to prepare our own countries for what we expect would be a challenging negotiation. This "P5 Plus" has potential to move FMCT forward. That said, our patience on this issue is not infinite and we will push for what is in the best interest of global security. We will work hard to convince others that commencement of negotiations is not something to fear.

For More Information

For the latest FMCT information, visit the Treaty Information Center and Nuclear Corner sections on the DTIRP website at:

FMCT Synopsis: <http://dtirp.dtra.mil/TIC/synopses/fmct.aspx>

FMCT Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/fmct.aspx>

Nuclear Corner: <http://dtirp.dtra.mil/NC/nc.aspx>

Global Exchange of Military Information (GEMI)

Purpose and Background

Entry into Force

January 1, 1995

Signatories/Parties

All (56) OSCE Participating States

Selected Members

United States and Russia

The Global Exchange of Military Information (GEMI) is a politically-binding transparency measure obligating the Participating States of the Organization for Security and Cooperation in Europe (OSCE) to report their military force structures. GEMI thereby serves as a confidence and security-building measure (CSBM) promoting openness and preventing conflicts potentially resulting from misinformation or a misunderstanding. GEMI entered into force on January 1, 1995, and the first data exchange occurred on July 1, 1995.

GEMI evolved from a proposal in the 1992 Helsinki Document's Program for Immediate Action. As a CSBM, GEMI is part of the OSCE's broad political-military transparency framework, which also includes agreements such as the Vienna Document 2011 (VDOC11) and the Treaty on Conventional Armed Forces in Europe (CFE). However, GEMI is unique in its global scope. Participating States discuss issues relating to GEMI implementation, including grievances, in the OSCE's Forum for Security Cooperation (FSC). The FSC hosts the Annual Implementation Assessment Meeting (AIAM) every March to evaluate the implementation of all OSCE CSBMs, which include GEMI and VDOC11.

Verification Measures

GEMI includes no on-site inspection provisions. However, at the AIAM, OSCE Participating States may request clarification of information provided by another state in its annual data declaration.

Data declarations under GEMI are submitted annually by April 30 and contain information current as of January 1 of that year. States are obligated to include information on its military command structure and personnel, as well as information on major weapons and equipment systems holdings. The information is divided into land forces and other forces. Land forces are reported down to the division level and other forces are reported down to the army or equivalent level. All force totals, both inside and outside the state's territory, are reported.

Data reported concerning the military command structure includes information on general staff locations and peacetime personnel strengths. Personnel strength information includes conscripts, enlisted personnel and officers by rank, reserves, and those serving under UN or OSCE mandates. Major weapons and equipment systems subject to reporting include: battle tanks; armored combat vehicles (armored personnel carriers, armored infantry fighting vehicles, and heavy armament combat vehicles); armored vehicle launched bridges; anti-tank guided missile launchers; self-propelled and towed artillery; aircraft (combat, military transport, and primary trainer aircraft); helicopters (attack, combat support, and military transport helicopters); surface warships; and submarines.

For each type or class of weapon, states are obligated to provide technical data and relevant photographs. The numbers of new weapons or equipment systems entering into service either through national production or as an import are also required to be reported each year.

Recent Developments

The 21st AIAM was held March 1-2, 2011 in Vienna, Austria, to discuss VDOC 99 (now VDOC11) and GEMI, as well as many issues concerning small arms, light weapons (SALW), and man portable air-defense systems (MANPADs). Participating States also presented “food-for-thought” papers on implementing GEMI and other CSBMs. Several participants proposed an amendment to VDOC 99 paragraph 17, on OSCE inspections for clarification regarding military activities giving rise to concern.

The 22nd AIAM was held March 6-7, 2012, in Vienna, Austria. The 22nd AIAM was chaired by Estonia and Finland, and focused on continuing updates to the recently revised Vienna Document, as well as improving the implementation of GEMI and other CSBMs.

The 23rd AIAM is scheduled for March 5-6, 2013, in Vienna, Austria. Working session discussion topics include implementation of GEMI and the VDOC11 Preamble and Chapters I to XII.

For More Information

For the latest GEMI information, visit the Treaty Information Center on the DTIRP website at:

GEMI Synopsis: <http://dtirp.dtra.mil/TIC/synopses/gemi.aspx>

GEMI Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/gemi.aspx>

IAEA Safeguards

Purpose and Background

Entry into Force

U.S.-IAEA Safeguards Agreement
December 9, 1980

U.S.-IAEA Additional Protocol (AP)
January 6, 2009

Signatories/Parties

United States and IAEA

Website

www.iaea.org

The U.S.-IAEA Additional Protocol (INFCIRC/288. Add.1) [long title: Protocol Additional to the Agreement Between the United States of America and the International Atomic Energy Agency (IAEA) for the Application of Safeguards] entered into force on January 6, 2009. The earlier U.S.-IAEA Safeguards Agreement (INFCIRC/288), entered into force on December 9, 1980. Both agreements remain in effect, although in the event of a conflict, the provisions of the Additional Protocol take precedence. Together, these agreements are sometimes referred to as “integrated,” “comprehensive” or “strengthened” safeguards.

The United States is one of the five acknowledged nuclear weapon state (NWS) under the Nuclear Nonproliferation Treaty (NPT). Under the NPT, NWS are obligated not to transfer nuclear weapons or other nuclear explosive devices or technologies to non-nuclear weapon states (NNWS). Although NWS are not obligated to conclude safeguards agreements or additional protocols with the IAEA, all five NWS, including the United States, have voluntarily done so to demonstrate their support for the IAEA’s safeguards regime and to encourage NNWS to conclude these agreements with the IAEA.

Under the NPT, NNWS are obligated not to acquire or produce nuclear weapons or nuclear explosive devices. To verify compliance, the NPT also obligates NNWS to conclude safeguards agreements with the IAEA. Under these agreements, NNWS agree to declare their nuclear materials and activities, and to allow the IAEA to conduct on-site inspections to verify the accuracy of declared information and to ensure no nuclear material has been diverted away from peaceful nuclear activities.

The need to strengthen the IAEA’s safeguards regime, as it was implemented under Safeguards Agreements (INFCIRC/153) became clear in the 1990s when secret nuclear weapons programs were discovered in Iraq and North Korea. Following these discoveries, the United States encouraged the IAEA to increase its capabilities for detecting clandestine nuclear activities in NNWS. The IAEA undertook this effort, known as the “Strengthened Safeguards Program,” in 1993.

Although some strengthened safeguards measures could be implemented under the authority granted to the IAEA by a country's Safeguards Agreement, other important measures could not, such as the right to access undeclared locations potentially related to developing or producing nuclear weapons.

The Model Additional Protocol (AP) (INFCIRC/540) was subsequently developed to expand the IAEA's rights to collect information and to access more types of sites, facilities and locations, including nuclear fuel-cycle locations not involving nuclear materials. The Model AP was adopted by the IAEA Board of Governors in May 1997 and became the basis for all additional protocols concluded with the IAEA.

Verification Measures

The U.S.-IAEA AP expands the IAEA's rights to collect information and to access more types of sites, facilities, and locations, including nuclear fuel cycle-related locations not involving nuclear material. IAEA inspectors may also conduct more types of on-site inspection activities.

Under the U.S.-IAEA AP, the United States declares its civil nuclear and nuclear-related activities, with one important exception. As is its right as an NWS, the United States does not declare activities with direct national security significance and applies managed access procedures during on-site inspection activities to protect national security, confidential business, and proliferation-sensitive information from disclosure.

The U.S. right to exempt all activities, locations, and information with direct national security significance from declaration or access by IAEA inspectors is described in Article 1.b of the U.S.-IAEA AP. This provision is known as the U.S. national security exclusion (NSE).

The U.S. right to apply managed access procedures as it deems appropriate to maintain U.S. safety and security standards during on-site inspections, is specified in Articles 1 and 7 of the U.S.-IAEA AP and in a specially negotiated U.S.-IAEA subsidiary arrangement on managed access. The types of managed access measures the United States may apply could include removing sensitive papers from offices, logging off computers, shrouding sensitive equipment, and restricting the use of safeguards equipment, among other measures.

When the United States declares a facility, location, or activity to the IAEA, the United States is obligated to submit a variety of relevant and detailed information. This information may include a site design and descriptions of individual buildings, building contents and uses. U.S.-declared sites are also obligated to maintain safeguards records and to regularly submit safeguards reports.

On-site Inspections

During on-site inspection activities, the IAEA has a right to verify the accuracy of declared information. IAEA inspectors may examine records, apply tamper-indication seals, take measurements of nuclear material, take samples at specified key measurement points, and use radiation detection and measurement devices. To resolve questions or inconsistencies, the inspectors may request “complementary” access to “any place on the [declared] site” or to “locations outside facilities,” including collocated or decommissioned facilities, and may request environmental or location-specific samples.

Before requesting environmental samples or complementary access, the IAEA will provide the United States with the opportunity to clarify and resolve any questions or inconsistencies. Additionally, U.S. officials have stated they foresee no need for the IAEA to request environmental samples in the United States except, possibly, for training purposes.

The purpose for conducting on-site inspections in the United States is fundamentally different from conducting inspections in NNWS. As an NWS, the primary purpose of conducting inspections in this country is to assist IAEA inspectors with developing the skills and techniques they need to improve their capabilities for detecting and deterring a diversion of nuclear materials or the development of nuclear weapons in NNWS.

The United States believes the IAEA’s Model Additional Protocol is a vital tool for preventing the proliferation of nuclear weapons and voluntarily concluded the U.S.-IAEA AP to demonstrate its support for strengthening the IAEA’s safeguards regime.

Recent Developments

As of September 2012, the IAEA had 155 Member States. As of September 20, 2012, approximately 180 countries had a Safeguards Agreement in force with the IAEA and 117 countries, including the United States, had an Additional Protocol in force. Twenty-two other countries had signed an Additional Protocol with the IAEA, but these agreements had not yet entered into force. Thirteen NNWS (Parties to the NPT) did not have comprehensive safeguards in force.

At the 2012 Nuclear Nonproliferation Treaty (NPT) Preparatory Commission meeting, the U.S. interagency delegation made the following statements:

The PrepCom provided the opportunity for a valuable, substantive exchange of views on all aspects of the NPT, including disarmament, nonproliferation, and the peaceful uses of nuclear energy. [...]

At the PrepCom the United States reaffirmed its commitment to implement the 2010 NPT Action Plan as well as its obligations under Article VI of the NPT. In this connection, the United States announced it would host a third P5 Conference in Washington June 27-29, 2012, where discussions on key disarmament and nonproliferation topics will progress. [...]

The United States will continue to address the serious challenge of cases of noncompliance with Treaty obligations, and will continue to support expanding access to the peaceful uses of nuclear energy in areas as human health, water resources, agriculture, and food security. The United States is the largest single contributor to IAEA peaceful uses programs, and has pledged an additional \$50 million to the IAEA Peaceful Uses Initiative, which seeks to expand support for peaceful uses programs by \$100 million before the 2015 NPT Review Conference.

Inspection Status

Globally, more than 2,000 safeguards inspections are conducted by IAEA inspectors each year at over 900 declared facilities located in NNWS. By the end of 2011, the IAEA had a total of 154 unattended monitoring systems in operation worldwide and 1,199 cameras connected to 589 systems operating at 252 facilities in 33 States. The total number of electronic seals transmitting data to IAEA Headquarters in 2011 increased to 172 from 147 in 2010. In 2011, 271 safeguards systems with remote monitoring were installed at 109 facilities in 21 States.

In the United States, more than 270 civil nuclear facilities are eligible for IAEA inspections. These facilities include power and research reactors, commercial fuel fabrication plants, and uranium enrichment plants, among others. Currently, the highly enriched uranium (HEU) at the DOE storage facility in Savannah River, South Carolina, is under IAEA safeguards and is inspected monthly by the IAEA.

For More Information

For the latest information in IAEA Safeguards, visit the Treaty Information Center, Nuclear Corner, and Products sections on the DTIRP website at:

IAEA Safeguards Synopsis: <http://dtirp.dtra.mil/TIC/synopses/iaea-s.aspx>

IAEA Safeguards Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/iaea.aspx>

Nuclear Corner: <http://dtirp.dtra.mil/NC/nc.aspx>

IAEA-related Products: <http://dtirp.dtra.mil/Products/Products.aspx#IAEASafeguards>

Intermediate-Range Nuclear Forces (INF) Treaty

Purpose and Background

Entry into Force

June 1, 1988

Signatories/Parties

Original signatories:

United States and Soviet Union

Parties now include:

(former Soviet republics)
Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan

The Intermediate-Range Nuclear Forces (INF) Treaty [long title: 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] sought to strengthen regional (i.e., European) security and strategic stability and reduce nuclear arms. It was the first major arms control agreement to establish a verification regime that included on-site inspections.

The treaty mandated the complete elimination (and prohibited further production) of all U.S. and Soviet nuclear-armed, ground-launched ballistic and cruise missiles with ranges of 500-5,500 kilometers and their infrastructure within 3 years of entry into force (EIF). All shorter-range INF systems were to be destroyed within 18 months of EIF, while all longer-range systems were to be eliminated

within 3 years of EIF. Relevant INF facilities became subject to inspection upon EIF.

Although the treaty is of unlimited duration, the inspection regime at declared facilities ended on May 31, 2001. Before this date, Soviet/Russian inspectors continuously monitored a former Pershing II missile production facility in Magna, Utah. Russian inspection teams also periodically inspected two U.S. industrial facilities that produced launchers for Pershing II ballistic missiles and ground-launched cruise missiles. No further inspection activities are provided for under the treaty.

Verification Measures

The States Parties to the treaty provided initial and updated data declarations of treaty-limited items (TLI), deployment locations, and support facilities. The Parties were also required to provide notifications of movement of TLI between declared facilities. National technical means and on-site inspections were used to verify treaty compliance. Due to the end of the inspection regime, no potential facility impacts remain.

Recent Developments

All TLI were eliminated as of May 28, 1991, when the last SS-20 launch vehicle and its transfer vehicle were destroyed. In total, 846 U.S. INF missile systems and 1,846 former Soviet INF missile systems were destroyed.

December 8, 2007 marked the twentieth anniversary of the signing of the INF treaty. To commemorate this occasion, the United States and Russia released a joint statement expressing continued support for the treaty and noted that participation in the INF helped to fulfill their Nuclear Nonproliferation Treaty (NPT) article VI obligation to pursue negotiations in good faith on nuclear disarmament.

The United States and Russia also expressed concern regarding the continued proliferation of intermediate- and shorter-range missiles. The two countries encouraged “all interested countries to discuss the possibility of imparting a global character” to the INF “through the renunciation of ground-launched ballistic and cruise missiles with ranges between 500 and 5,500 kilometers,” using the INF as a model for further agreements between other states.

Inspection Status

Monitoring and quota inspections at both U.S. and Russian facilities ended May 31, 2001. The United States conducted 540 inspections; Russia conducted 311 inspections. A summary of inspections (listed by inspection type) conducted under the treaty’s inspection regime appears in the following chart.

INF Inspection Summary

Inspection Type	Conducted by United States	Conducted by S.U./Russia
Elimination	137	109
Quota	185	141
Closeout	101*	27
Baseline	117	34
Total	540	311

* Includes the closeout inspection at Saryozek, which the Special Verification Commission determined to be invalid; does not include closeout inspections due to MOU omissions (17) or collocated sites (12).

For More Information

For the latest INF treaty information, visit the Treaty Information Center on the DTIRP website at:

INF Treaty Synopsis: <http://dtirp.dtra.mil/TIC/synopses/inf.aspx>

INF Treaty Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/inf.aspx>

Missile Technology Control Regime (MTCR)

Purpose and Background

Entry into Force

April 16, 1987

Signatories/Parties

34 Partners

4 Unilateral Adherents

Selected Members

Canada, France, Germany, Italy, Japan, Russia, United Kingdom and United States

Selected Nonmembers

China, India, Iran and North Korea

The Missile Technology Control Regime (MTCR) is an informal voluntary export control framework formed in April 1987 by Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. The MTCR is intended to help prevent the proliferation of weapons of mass destruction by proposing minimum standards on the transfer of unmanned weapons delivery technology and equipment. MTCR membership is open to all states, subject to the consensus approval of the member states.

Plenary meetings are held annually, and meetings of technical and enforcement experts are conducted on an as-needed basis. Although there is no secretariat for the MTCR, administrative support is provided by the French Ministry of

Foreign Affairs.

MTCR member states each implement national legislation to enforce the export policies of the MTCR Guidelines for Sensitive Missile-Relevant Transfers. These guidelines are intended to control the transfer of materials listed in the MTCR Equipment, Software, and Technology Annex. Member states also exchange information on export licensing issues on a regular basis.

MTCR guidelines are meant to provide common export control policies for missile technology transfers, but do not directly dictate legislative action to member states. The guidelines call for members to consider the transfer of sensitive technology on a case-by-case basis and to be responsible for the end-use of the relevant technology. According to the guidelines, the following factors should be considered when assessing technology transfers:

- impact on weapons proliferation and the concerns stated in any relevant arms control agreements;
- capabilities and objectives of the recipient state's weapons program(s), and impact on the potential development of weapons delivery systems;

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- end-use of the technology, with assurances from the recipient state that the technology will only be used for the intended purpose agreed, and will not be re-transferred without notifying the original member state; and
 - risk of terrorist groups obtaining the technology.

Although the decision to transfer any technology is the sole responsibility of the transferring member state, the MTCR's Equipment, Software and Technology Annex expressly prohibits the transfer of Category I production facility technology. This Annex separates materials into Categories I and II.

Category I items are the most sensitive. They include complete rocket systems and complete unmanned aerial vehicle systems (UAVs) having a range greater than 300 kilometers and a payload greater than 500 kilograms. Other Category I items include complete subsystems, production facilities, and production equipment. All transfers of Category I items are subject to strict scrutiny. Member states agree to grant such transfers only on rare occasion and only when the appropriate end-use contracts are in place.

Category II items include system components, test facilities, and launch support. If a Category I component is on, or part of, a system to be transferred, the entire transfer is considered to be at the Category I level.

To better control the proliferation of missile technology, in 1999 the MTCR member states began negotiating a set of standards which eventually became known as The Hague Code of Conduct (HCOG). The HCOG officially separated from the MTCR process in 2001, and currently has more than 130 member states.

In 2004, after the UN Security Council (UNSC) adopted UN Resolution 1540 and established the 1540 Committee, the focus of the MTCR expanded to include working to prevent missile delivery systems from being diverted to terrorist organizations and individuals. The MTCR works with the 1540 Committee to ensure compliance with export control sanctions and resolutions. For more information about the UN 1540 Committee, go to the 1540 Committee's website at: <http://www.un.org/sc/1540/>.

Verification Measures

The MTCR has no compliance verification regime. Member states regularly exchange information on export license issues.

Recent Developments

As of October 2012, there were 34 MTCR member states. China's application for MTCR membership was submitted in 2004, but remains under review by MTCR member states. China officially reiterated its commitment to MTCR goals in February 2008.

On April 16, 2012, the U.S. Department of State released the following statement marking the 25th year since the MTCR entered into force:

The United States salutes the MTCR as an outstanding example of international nonproliferation cooperation, which has contributed significantly to global peace and security. The MTCR has made it more difficult, time-consuming, and costly for proliferators to produce or acquire WMD-capable missiles than otherwise would be the case. And the MTCR has helped reduce the reliability and effectiveness of the missile systems proliferators are still able to obtain.

Under the U.S.-India civil nuclear deal (U.S.-India 123 Agreement), India is required to adhere to MTCR Guidelines. The U.S. Secretary of State and the External Affairs Minister of India signed the agreement on October 10, 2008, and the two countries continue to work toward full implementation.

The 25th Plenary Meeting was held in Buenos Aires from April 11-15, 2011, under the chairmanship of Argentina. Members agreed to redouble their efforts to encourage and assist, upon request, non-partner countries that are supportive of MTCR objectives and purposes, to contribute to the efforts of missile nonproliferation.

MTCR members conducted extensive discussions on missile proliferation-related activities worldwide, and these discussions showed that additional export control efforts by MTCR countries could have an even greater impact. MTCR members reiterated their support for UN Security Council Resolutions 1874 and 1929. They also confirmed their individual implementation of the missile-related export controls mandated under UN Security Council Resolution 1540 and agreed to work with the 1540 Committee.

At the 25th Plenary Meeting members also reviewed the internal functioning of the MTCR, including issues related to future membership. Individual applications for membership were thoroughly discussed but no consensus was reached on the admission of new members. The membership issue will continue to be discussed.

The MTCR agreed in December 2011 to add controls on managing steel in the pre-heat-treated stage and in tubular forms; and technology for development, production, and use of liquid propellant tanks.

The 26th MTCR Plenary Meeting was held in Berlin, Germany, in October 2012.

For More Information

For the latest MTCR information, visit the Treaty Information Center on the DTIRP website at:

MTCR Synopsis: <http://dtirp.dtra.mil/TIC/synopses/mtrc.aspx>

MTCR Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/mtrc.aspx>

New Strategic Arms Reduction Treaty (New START or NST) and Predecessors

Purpose and Background

Entry into Force

February 5, 2011

Date Signed

April 8, 2010

Signatories/Parties

United States and Russia

New START

The New Strategic Arms Reduction Treaty (New START or NST) [long title: Treaty Between the United States of America and the Russian Federation on Measures for The Further Reduction and Limitation of Strategic Offensive Arms] was negotiated to reduce the number of U.S. and Russian deployed and non-deployed strategic offensive arms below

the limits established by the Strategic Arms Reduction Treaty (START) and the Strategic Offensive Reductions Treaty (SORT or Moscow Treaty).

Within seven years after New START entered into force, treaty provisions call for each Party to have reduced their strategic nuclear armaments to no more than 1,550 deployed warheads; 800 deployed and non-deployed intercontinental ballistic missile (ICBM) launchers, submarine-launched ballistic missile (SLBM) launchers, and heavy bombers equipped for nuclear armaments; and to have reduced their deployed ICBMs, SLBMs, and heavy bombers equipped for nuclear armaments to no more than 700.

When counting strategic nuclear warheads against the New START limit of 1,550, the Parties count the actual number of warheads carried on deployed ICBMs and SLBMs. For each deployed heavy bomber, the Parties count one warhead against this limit. Using this attribution counting rule for heavy bombers was agreed as being preferable to counting each deployed heavy bomber as having zero warheads. This is because even though neither Party's heavy bombers carry nuclear warheads on a day-to-day basis, these aircraft are capable of carrying nuclear armaments.

The New START limits reduce strategic nuclear warheads to a level 74 percent lower than the limits set by START and 30 percent lower than the limits set by SORT. New START limits for deployed strategic nuclear delivery vehicles (SNDVs) are 56 percent lower than the limits set by START. Within the limits established by New START, each Party has the right to determine for itself the composition and structure of its strategic offensive arms.

The life-span of New START is ten years from the date it entered into force. The treaty also contains provisions whereby it may be extended for up to five years if both Parties agree. To resolve questions concerning treaty compliance and implementation, New START establishes the Bilateral Consultative Commission (BCC). According to the treaty, the BCC is required to meet at least twice each year unless otherwise agreed, and all work conducted within the BCC is to remain confidential unless both Parties agree to publically release specific information.

Historical Perspective: SORT (or Moscow Treaty)

The Strategic Offensive Reductions Treaty (SORT) or Moscow Treaty [long title: Treaty Between the United States of America and the Russian Federation on Strategic Offensive Reductions], was signed by Presidents Bush and Putin on May 21, 2002, during a Summit meeting in Moscow, and entered into force on June 1, 2003.

Under SORT, each Party agreed to reduce the number of operationally deployed strategic nuclear warheads to between 1,700-2,200 by December 31, 2012. Although no verification regime or timetable for reducing strategic nuclear warheads were stated in SORT, bilateral meetings and annual reporting requirements provided transparency regarding each Party's progress toward fulfilling their treaty commitments. The verification measures implemented under the START provided additional transparency until START expired on December 5, 2009.

The Parties agreed to meet at least two times each year in the Bilateral Implementation Commission (BIC), the forum established by the treaty for the purpose of discussing issues relating to treaty implementation. The Parties also met in the Consultative Group for Strategic Security established by the Joint Declaration on the New Strategic Relationship Between the United States and Russia, signed on May 24, 2002. The Consultative Group was chaired by Foreign and Defense Ministers and included the broad participation of other senior officials.

Annual reporting requirements were specified in Condition (2) of the U.S. Senate's resolution providing its advice and consent to ratification on March 6, 2003. As a result, the United States and Russia exchanged annual reports on the status of relevant force levels as of December 31st, planned strategic offensive reductions for the coming year, and other relevant information. SORT would have remained in force until December 31, 2012. Instead, SORT expired on February 5, 2011 when it was superseded by the entry into force of New START.

Historical Perspective: START

The Strategic Arms Reduction Treaty (START) [long title: Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Reduction and Limitation of Strategic Offensive Arms] was the first treaty to reduce the number of deployed strategic offensive arms. START remained in force for 15 years, from December 5, 1994 until it expired on December 5, 2009.

Under START, the United States and Russia reduced their deployed SNDVs to 1,600, eliminated the launchers associated with eliminated missiles, and reduced their warheads to 6,000 (attributed to deployed ballistic missiles and deployed heavy bombers). Ukraine, Belarus and Kazakhstan eliminated all strategic delivery systems deployed on their territories. These items were either destroyed or transferred to Russia. All reductions were successfully achieved prior to the 2001 treaty deadline.

START provisions included a detailed compliance verification regime. Under this regime the Parties provided initial and updated data declarations concerning items of inspection (IOI) and were able to conduct 13 different types of on-site inspections at declared facilities. The verification regime also included provisions for using national technical means (NTM) and exchanging telemetric data.

During the 15 years START was in force (1994-2009), the United States conducted 659 inspections and Russia conducted 481. The United States also conducted portal monitoring activities at Votkinsk, Russia.

Historical Perspective: START II

On January 3, 1993, the United States and Russia signed the Strategic Arms Reduction Treaty II (START II). Under START II, the Parties agreed to reduce the number of SNDVs to carry no more than 3,000-3,500 deployed warheads. Achieving this goal would have reduced the number of deployed warheads to one-third of pre-START levels. Under START II, Russia also agreed to eliminate all of its SS-18 missiles and not to deploy any intercontinental ballistic missiles (ICBMs) carrying multiple warheads. Under START II, heavy bombers would have been counted based on the number of nuclear weapons they were equipped to carry (as opposed to the number each actually carried).

START II never entered into force even though the U.S. Senate provided its advice and consent to ratification in January 1996, and Russia ratified the treaty in April 2002. Much changed between 1996 and 2002. On September 26, 1997, the United States and Russia signed the START II Protocol and the Anti-Ballistic Missile

(ABM) Demarcation Agreement. Both agreements required ratification and were submitted to the U.S. Senate for its advice and consent.

The START II Protocol and ABM Demarcation Agreement were intended to address Russia's concerns regarding START II implementation costs and U.S. plans to deploy a National Missile Defense system. The Demarcation Agreement delineated between strategic (banned by the ABM Treaty) and tactical (allowed by the ABM Treaty) missile defense systems.

Although Russia ratified START II and its 1997 Protocol in April 2002, the Russian legislation prohibited the depositing of Russia's instrument of ratification until the United States also ratified the START II Protocol and ABM Demarcation Agreement. START II, the START II Protocol, and the ABM Demarcation Agreement have now become obsolete.

On June 14, 2002, Russia withdrew from START II – one day after the United States formally withdrew from the Anti-Ballistic Missile (ABM) Treaty. Importantly, a few weeks earlier, both countries had signed the Strategic Offensive Reductions Treaty (SORT or the Moscow Treaty) on May 24, 2002. SORT stipulates lower levels for deployed nuclear warheads than those called for under START II.

Verification Measures

The verification provisions in New START are based on the START verification regime. However, the New START verification regime is a simplified version of the START verification regime and is less costly to implement. It includes on-site inspections for both deployed and non-deployed strategic offensive arms located at the same types of facilities that were subject to on-site inspections under START. The New START verification regime also provides for extensive notifications, six-month data exchanges, maintaining a detailed database, exhibitions, and demonstrations. Under New START, each ICBM, SLBM, and heavy bomber is assigned a unique identifier, which enables the Parties to monitor individual weapon systems over the life of the treaty.

There are two types of on-site inspections provided for under New START. Each Party may conduct up to 18 inspections each year divided between two types as follows: up to 10 Type One inspections and up to 8 Type Two inspections. Type One inspections enable the Parties to confirm the accuracy of declared information regarding the numbers and types of deployed and non-deployed strategic offensive arms (SOA) which include ICBMs, SLBMs, heavy bombers, launchers, and the warheads declared to be deployed on SOA.

Type Two inspections may be conducted at formerly declared facilities and at declared facilities such as loading, storage, repair, and training facilities; test ranges; and at conversion and elimination facilities. Type Two inspections enable the Parties to confirm the accuracy of declared information and to confirm that converted or eliminated SOA have not been reconverted and remain incapable of employing nuclear armaments.

In addition to inspections, New START provides for the use of and non-interference with national technical means (NTM) of verification, such as satellites. Treaty provisions explicitly prohibit interference with NTM and the use of concealment measures that would impede monitoring by NTM. As with START, these prohibitions do not apply to cover or concealment practices at ICBM bases or to the use of environmental shelters.

To further increase confidence and transparency, New START provides for the exchange of telemetric information, on a parity basis, for up to five ballistic missile flight tests per year. The actual number of launches on which telemetric information will be exchanged will be determined in the BCC within 65 days of the beginning of each calendar year.

Recent Developments

U.S. President Barack Obama and Russian President Dmitry Medvedev signed New START on April 8, 2010, in Prague, Czech Republic. The treaty was submitted to the U.S. Senate on May 13, 2010 and to the Russian parliament on May 28, 2010. On December 22, 2010, the Senate gave its advice and consent to the ratification of the treaty, and Russia completed its domestic ratification process and approved the New START Treaty on January 26, 2011.

On February 5, 2011, the United States and Russia exchanged instruments of ratification and the New START Treaty entered into force. Inspections began in April 2011.

The second session of the Bilateral Consultative Commission (BCC) under the New START Treaty was held in Geneva, Switzerland from October 19 – November 2, 2011. During the meeting, the United States and Russia discussed a number of practical issues relating to treaty implementation.

The third session of the BCC under the New START Treaty was held in Geneva from January 24 – February 7, 2012. The meeting resulted in two BCC agreements on technical aspects of the treaty, and one decision regarding the number of 2011 launches to exchange telemetric information on during 2012.

The fourth session of the BCC was held in Geneva from September 11-21, 2012 and resulted in two agreements. The first agreement on the acquisition of telemetric information playback equipment was released in accordance with the stipulations of the New START Annex on Telemetric Information, and declared that for the life of the treaty the Russian Federation would use the RS120/E5 playback device and the United States would use the Wideband DRS8200X playback device. The second agreement was regarding the use of tamper detection equipment on the containers of radiation detection equipment (RDE) at the POE, so that each country may store their own RDE at the other's POE.

Implementation Status

New START aggregate numbers of strategic offensive arms are listed in the following chart. These numbers were provided in the most recent biannual data exchange, which occurred between the Parties on September 1, 2012.

U.S. and Russian Strategic Nuclear Forces under New START as of September 1, 2012

Category of Data	United States of America	Russian Federation
Deployed ICBMs, Deployed SLBMs, and Deployed Heavy Bombers	806	491
Warheads on Deployed ICBMs, on Deployed SLBMs, and Nuclear Warheads Counted for Deployed Heavy Bombers	1722	1499
Deployed and Non-deployed Launchers of ICBMs, Deployed and Non-deployed Launchers of SLBMs, and Deployed and Non-deployed Heavy Bombers	1034	884

Source: U.S. Department of State Fact Sheet, October 3, 2012.

Inspection Status

On-site inspections began in April 2011, 60 days after New START entered into force. Each Party may conduct up to 18 on-site inspections each year: up to 10 Type One inspections and up to 8 Type Two inspections.

As of February 5, 2012, the first anniversary of New START entry into force, both sides had conducted 18 inspections total each.

As of September 20, 2012, the United States had conducted 11 inspections and Russia had conducted 10 inspections during Treaty Year 2. The United States and Russia had also exchanged 2,929 notifications since New START entered into force.

U.S. Strategic Nuclear Forces

A Congressional Research Service (CRS) report released in January 2011 estimated the number of U.S. strategic nuclear forces under New START in 2010, and projected for 2017, as shown in the following chart.

U.S. Strategic Nuclear Forces under New START

Estimated Current Forces and Potential New START Forces

	Estimated Forces, 2010		Possible Forces by 2017 ^a		
	Launchers	Warheads	Total Launchers	Deployed Launchers	Warheads
Minuteman III	450	500	420	400	400
Trident	336	1,152	280	240	1,090
B-52	76	300	74	42	42
B-2	18	200	18	18	18
Total	880	2,152	792	700	1,550

Source: Congressional Research Service (CRS) estimates.

a. This force assumes that the United States retains 14 Trident submarines with 2 in overhaul. In accordance with the terms of New START, the United States will eliminate 4 launchers on each submarine, so that each counts as only 20 launchers. In this case, the United States could retain 420 total and 400 deployed Minuteman III ICBMs.

For More Information

For the latest information on New START, visit the Treaty Information Center, Nuclear Corner, and New START-related Products on the DTIRP website at:

NST Synopsis: <http://dtirp.dtra.mil/TIC/synopses/start.aspx>

NST Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/start.aspx>

Nuclear Corner: <http://dtirp.dtra.mil/NC/nc.aspx>

New START-related Products: <http://dtirp.dtra.mil/Products/Products.aspx#NewStart>

Nuclear Nonproliferation Treaty (NPT)

Purpose and Background

Entry into Force

March 5, 1970

Signatories/Parties

190 States Parties

Includes the five “acknowledged” nuclear weapon states (NWS): France, China, Russia, United Kingdom and United States

The NPT defines an NWS as a state that has “manufactured and exploded a nuclear weapon or other nuclear device prior to January 1, 1967.”

Nonmembers

Israel, India, Pakistan and North Korea (North Korea withdrew from the NPT in January 2003)

Website

www.iaea.org

The Nuclear Nonproliferation Treaty (NPT) [long title: Treaty on the Nonproliferation of Nuclear Weapons] is the world’s primary legal and political barrier against further proliferation of nuclear weapons. There are 190 States Parties to the NPT, making it the single most universal arms control agreement. The specific objectives of the treaty are to prevent the spread of nuclear weapons and their technologies; promote the peaceful uses of nuclear energy; and to achieve general and complete nuclear disarmament.

Under the NPT, the five acknowledged nuclear weapon states (NWS) – China, France, Russia, the United Kingdom, and the United States – are obliged not to transfer nuclear weapons, other nuclear explosive devices, or their technologies, to any non-nuclear weapon state (NNWS). All States Parties (NWS and NNWS) are obliged not to provide the following to any non-nuclear weapon state:

- special fissionable material or a source of such material; or
- equipment or material especially designed or prepared for the processing, use, or production of special fissionable material unless the state is under international safeguards.

NNWS also agree not to acquire or produce nuclear weapons or nuclear explosive devices. To verify compliance with the NPT, each NNWS agrees to conclude nuclear safeguards agreements with the International Atomic Energy Agency (IAEA). Under these agreements, NNWS agree to declare all nuclear-related activities and to allow IAEA inspectors to conduct on-site inspection activities to verify the accuracy of the state’s declarations and to ensure nuclear materials are not diverted or used to develop nuclear weapons.

The NPT's role in promoting cooperation between NWS and NNWS was clearly and succinctly stated by President Barack Obama during his speech in Prague on April 5, 2009, where he said:

The basic bargain is sound: countries with nuclear weapons will move toward disarmament; countries without nuclear weapons will not acquire them; and all countries can access peaceful nuclear energy.

To strengthen the treaty, we should embrace several principles: we need more resources and authority to strengthen international inspections; we need real and immediate consequences for countries caught breaking the rules or trying to leave the treaty without cause; and we should build a new framework for civil nuclear cooperation, including an international fuel bank, so that countries can access peaceful power without increasing the risks of proliferation.

Russian President Dimitry Medvedev described the NPT in February 2010 as providing "a long-term comprehensive strategy of well-balanced and phased elimination of nuclear arsenals and the conditions for equal security for all."

To assist in implementing the objectives of the NPT, an informal working group known as the Zangger Committee, or the "NPT Exporters Committee," maintains a Trigger List (triggering IAEA safeguards as a condition of supply) of nuclear-related strategic goods. The purpose of this list is to assist NPT States Parties with identifying equipment and materials subject to export controls. The Zangger Committee is also responsible for analyzing and adapting export control conditions and criteria for the NPT.

Verification Measures

There are no verification provisions under the NPT or requirements for NWS to conclude safeguards agreements with the IAEA. However, the United States voluntarily concluded the U.S.-IAEA Safeguards Agreement and the U.S.-IAEA Additional Protocol (AP) to demonstrate its leadership and support for the NPT and for the international application of nuclear safeguards by the IAEA.

An NPT Review Conference (RevCon) is held every five years to promote treaty implementation and the universal application of nuclear safeguards by the IAEA. The most recent NPT RevCon was held in May 2010 in New York City. The next RevCon will take place in 2015.

Recent Developments

As of September 20, 2012, all except thirteen NPT States Parties had at least one Safeguards Agreement in force with the IAEA.

The eighth NPT RevCon was held from May 3-24, 2010 in New York City where the following topics were discussed:

- security assurances for NNWS against the use or threat of use of nuclear weapons;
- nuclear nonproliferation, disarmament and international security;
- nuclear-weapon-free zones;
- peaceful uses of nuclear energy;
- the threat of nuclear terrorism;
- international compliance and noncompliance with the NPT;
- universal implementation of the NPT;
- appropriate actions when a State Party withdraws from the NPT (Article X);
- importance of IAEA Safeguards Agreements and Additional Protocols;
- support for a New START treaty between the United States and Russia;
- support for the entry-into-force of the Comprehensive Nuclear Test-Ban Treaty (CTBT); and
- support for a ban on the production of fissile material (a fissile material cutoff treaty or FMCT).

In her closing remarks at the eighth NPT RevCon, U.S. State Department Under Secretary for Arms Control and International Security, Ellen Tauscher, said:

The Final Document this conference adopted today... reflects our collective commitment to uphold and strengthen this cornerstone of the international nonproliferation regime. It also demonstrates our unified resolve to strengthen the treaty's three pillars – disarmament, nonproliferation and peaceful uses of nuclear energy – with the inclusion of recommendations for follow-on actions.

The Final Document adopted by consensus at the eighth RevCon included an Action Plan for NPT States Parties consisting of a total of 64 action items. The Final Document indicated agreed support for the topics listed above as well as other actions including the following:

-
- an unequivocal statement that a goal of the NPT is the total elimination of NWS nuclear arsenals through NWS efforts to “reduce and ultimately eliminate all types of nuclear weapons, deployed and non-deployed, including through unilateral, bilateral, regional and multilateral measures”;
 - establishment of a subsidiary body in the Conference on Disarmament (CD) to focus on nuclear disarmament;
 - to hold a summit of the five NWS to promote greater openness and to conduct expert level discussions on verification and transparency measures [this meeting will be held in the summer of 2011 in Paris]; and
 - to hold a regional conference in 2012 to discuss issues relevant to supporting the 1995 NPT resolution for a Middle East zone free of weapons of mass destruction (WMD) and their delivery systems.

The eighth RevCon Final Document also requires NWS to report their nuclear disarmament activities to the Preparatory Committee in 2014. The focus of the 2015 Review Conference will be to consider the next steps to be taken toward achieving nuclear disarmament.

On May 11, 2012, 111 States Parties and 60 non-governmental organizations met for the first session of the Preparatory Committee for the 2015 NPT Review Conference, chaired by Ambassador Peter Woolcott of Australia. The Committee discussed the commitments outlined in the 2010 RevCon Final Document, and submitted proposals for consideration and adoption at the 2015 RevCon.

After the 2012 Preparatory Commission meeting, the U.S. interagency delegation released the following statement:

The PrepCom provided the opportunity for a valuable, substantive exchange of views on all aspects of the NPT, including disarmament, nonproliferation, and the peaceful uses of nuclear energy. [...]

At the PrepCom the United States reaffirmed its commitment to implement the 2010 NPT Action Plan as well as its obligations under Article VI of the NPT. In this connection, the United States announced it would host a third P5 Conference in Washington June 27-29, 2012, where discussions on key disarmament and nonproliferation topics will progress. [...]

The United States will continue to address the serious challenge of cases of noncompliance with Treaty obligations, and will continue to support expanding access to the peaceful uses of nuclear energy in

areas as human health, water resources, agriculture, and food security. The United States is the largest single contributor to IAEA peaceful uses programs, and has pledged an additional \$50 million to the IAEA Peaceful Uses Initiative, which seeks to expand support for peaceful uses programs by \$100 million before the 2015 NPT Review Conference.

The 2012 session was the first of three to be held prior to the 2015 RevCon. The second session is scheduled for April 22 – May 3, 2013 in Geneva.

At the P5 Conference held in Washington DC in June 2012, the P5 reaffirmed their unconditional support for the NPT and for the Action Plan developed at the NPT RevCon. They also pledged to continue working toward achieving their shared goal of nuclear disarmament under Article VI. The P5 recognized the need to strengthen IAEA safeguards and to promote universalization of the Additional Protocol. In addition, the P5 continued their discussion the procedures whereby they would report their relevant activities and considered proposals for a standard reporting form. A fourth P5 Conference will be held after the next NPT Preparatory Committee meeting in 2013.

For More Information

For the latest NPT information, visit the Treaty Information Center and Nuclear Corner on the DTIRP website at:

NPT Synopsis: <http://dtirp.dtra.mil/TIC/synopses/npt.aspx>

NPT Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/npt.aspx>

Nuclear Corner: <http://dtirp.dtra.mil/NC/nc.aspx>

Open Skies Treaty

Purpose and Background

Entry into Force

January 1, 2002

Signatories/Parties

35 States Parties

34 Signatories

(Kyrgyzstan has not yet ratified)

Selected Members

United States and Russia

The Open Skies Treaty is intended to strengthen peace, stability, and security among the participating states of the Organization for Security and Cooperation in Europe (OSCE) by mandating cooperative observation flights over the territories of the States Parties. Through the establishment of these confidence and security-building measures, the treaty promotes greater transparency and openness in military activities “from Vancouver to Vladivostok.”

Treaty negotiations began in 1989 between the members of NATO and the former Warsaw Pact. The Warsaw Pact dissolved during these negotiations, and the treaty was signed on March 24, 1992, at the Helsinki Conference on Security and Cooperation in Europe. The treaty entered into force (EIF) on January 1, 2002. Following EIF, OSCE participating states that were not already States Parties could apply to the Open Skies Consultative Commission (OSCC), the treaty’s implementation organization, to accede to the treaty.

Although the security environment has changed significantly since the Open Skies Treaty was negotiated and signed, the treaty continues to promote stability within the European security framework. To review and promote treaty implementation, a Review Conference (RevCon) is held every five years in Vienna. The first RevCon was held from February 14-16, 2005, and the second was held June 7-9, 2010.

Verification Measures

The Open Skies Treaty provides States Parties with the right to fly over the entire territory of other States Parties using unarmed, specially equipped, and certified Open Skies aircraft to collect data. The types of imaging sensors that may be installed on Open Skies aircraft, along with the ground resolution limits for each type of sensor, are specified in the treaty and are listed in the following table.

Imaging Sensors	Ground Resolution Limits
Optical panoramic and framing cameras	30 centimeters
Video cameras with real-time display	30 centimeters
Infrared line-scanning devices <i>(not currently in use)</i>	50 centimeters
Sideways-looking synthetic aperture radar (SAR) <i>(not currently in use)</i>	3 meters

“Ground resolution” refers to the minimum distance on the ground between individual objects for each to be distinguishable as a separate object. Although four types of imaging sensors are approved by the treaty, no State Party is currently using infrared line-scanning devices or sideways-looking synthetic aperture radar (SAR). At present, all Open Skies aircraft are equipped only with optical wet film panoramic and framing cameras and with video cameras with real time display.

The observing Party is obligated to provide a copy of the sensor data collected during the mission to the observed Party. Other States Parties may also request a copy of the data collected during any Open Skies mission. By these means, the amount of data available to each State Party is much greater than the amount each is able to collect when flying its own observation missions.

The number of observation flights a State Party may fly each year over other States Parties is limited by the quota maximums established in the treaty. In addition, the actual number of flights a Party may fly (“active” quota) or be required to receive (“passive” quote) each year, is negotiated each fall in the OSCC.

The United States' passive quota is up to 42 observation flights each year. However, to date, the United States is receiving four overflights each year, with five expected in 2011. No State Party may use more than 50 percent of its quota to fly over another single State Party.

Within the States Parties' quota limitations and obligations, the observed party has no right of refusal and may not restrict observation flights for national security reasons. Flights may only be restricted for legitimate reasons specifically identified in the treaty.

The observing Party is required to give at least 72 hours advance notice of their estimated time of arrival at a point of entry (POE). On arrival, the observed Party may conduct a pre-flight inspection to verify that all equipment and sensors onboard the Open Skies aircraft meet treaty specifications. In addition, the Parties will negotiate the mission plan, specifying the flight path. The Open Skies mission is required to be completed within 96 hours after the estimated time of arrival at the POE.

Individual sites and facilities in the United States wishing to be notified of impending overflights may subscribe to the Open Skies advance notification system. This service is operated by the Open Skies Division at the Defense Threat Reduction Agency (DTRA). To subscribe, sites need to provide only general information about their facility, such as the name of the facility, a point of contact, telephone numbers, and specific location information including latitude, longitude, elevation, and geographic orientation.

For more information and to subscribe to this advance notification service, contact the Open Skies Division at 1-703-767-0802.

Recent Developments

As of March 2012, the States Parties to the Open Skies Treaty had collectively flown 836 Open Skies observation missions.

The second Open Skies Review Conference (RevCon) was held from June 7-9, 2010 in Vienna. It was chaired by the United States and participants discussed means for updating sensor technologies and fiscal matters relating to treaty implementation. U.S. Assistant Secretary of State for the Bureau of Arms Control, Verification and Compliance, Rose Gottemoeller, reiterated U.S. support for the treaty and pledged to continue cooperating with European countries to increase military transparency. She also proposed a Five Year Transition Plan to assist Open

Skies States Parties with rejuvenating the treaty. The Five Year Plan includes:

- asking the OSCC to take up the tasks identified in the Final Document adopted at the RevCon;
- talking to States Parties about the possibilities for sharing resources in the future, and options for collaborating on aircraft, sensors and data systems;
- inviting all States Parties to a workshop on future digital sensor options held in the summer of 2010 in Dayton, Ohio; and
- continuing to provide U.S. leadership and technical expertise for the Informal Working Group on Sensors as well as the Informal Working Group on Notifications and Formats.

Secretary Gottemoeller also announced a U.S. study focusing on the following aspects of the Open Skies Treaty:

- moving to digital sensors in all treaty categories;
- updating the fleet of Open Skies aircraft in the most cost effective way possible;
- increasing partner participation in observation flights;
- proposing options for more shared flights and broader utilization of the active quotas available under the treaty;
- expanding treaty membership within the OSCE community; and
- ensuring that the benefits derived from the treaty serve a broad variety of government agencies and that the imagery and other sensor data collected serves the OSCE's evolving security needs.

On March 27, 2012, Hungary and Canada co-hosted a commemorative event celebrating the 20th anniversary since the signing of the treaty on March 24, 1992, as well as the treaty's 10th anniversary since it entered into force on January 1, 2002. The event was attended by all States Parties to the treaty, the Observers to the treaty and OSCE Partners as well as special guest Rose Gottemoeller, U.S. Acting Under Secretary for Arms Control and International Security. Ms. Gottemoeller stated,

The United States remains firmly committed to the Open Skies Treaty, and I am pleased to inform you all that we have completed our internal policy review and have started the process for transition to digital electro-optical sensors on U.S. aircraft. We will keep you informed through the Working Group on Sensors as our plans progress. [...]

While much has happened under the treaty and much has been accomplished, its potential, in our view, has not yet been fully tapped. Extending the Open Skies concept to the OSCE partners is an idea to be explored. Parties need to upgrade to digital sensors as soon as possible, and application of the results should be used to address a wider range of transnational threats and verification challenges.

The biggest single challenge we face for the continued success of the treaty is the future availability of resources. The treaty will only be as good as the States Parties make it, so we urge all parties to redouble their efforts to modernize the treaty to allow for the use of new technologies and ensure sufficient assets for future operations. Ongoing implementation of the Open Skies Treaty is essential to meet our shared objectives. We want to see the treaty thrive into the future, and I invite you to join me in continuing to develop its impressive legacy.

In March 2011, Russia announced that the Kazan Aircraft Production Association (KAPO) had finished construction of the first of two new Open Skies aircraft, the TU-214OS. The TU-214OS will support digital and analogue photography equipment, sideways-looking synthetic aperture radar, and infrared equipment. Ground trials began in March 2011 and air trials began in June 2011. The TU-214OS aircraft was exhibited at the International Air Show MAKS-2011 in Zhukovsky, near Moscow, in August 2011. In June 2012, a digital aerial survey system – including three Z/I Imaging DMC II 140 digital cameras – was delivered to the Russian Radio Engineering Corporation “VEGA” after a 10-month period of manufacturing and system adaptation. The system went through an intensive three-stage acceptance procedure and was successfully installed on the TU-214OS. As of July 2012, VEGA was testing the digital system.

Once the aircraft is declared ready, the Open Skies States Parties must then certify the new aircraft before it can be used for treaty observation flights. Russia expects to have these certifications completed in late 2012. A briefing on the TU-214 prepared by the OSCC on June 22, 2010, is available on the Open Skies page of the DTIRP website at: <http://dtirp.dtra.mil/OST/ost.aspx> (click the “Snapshots!” image of the TU-214).

Observation Flights

From March 14-18, 2011, the United States and Russia flew their first joint mission. The flight route was developed by Russian and American experts, and the mission was flown over Sweden using the Russian AN-30B Open Skies aircraft. The flight was the final in a series of cross-observation missions between Russia,

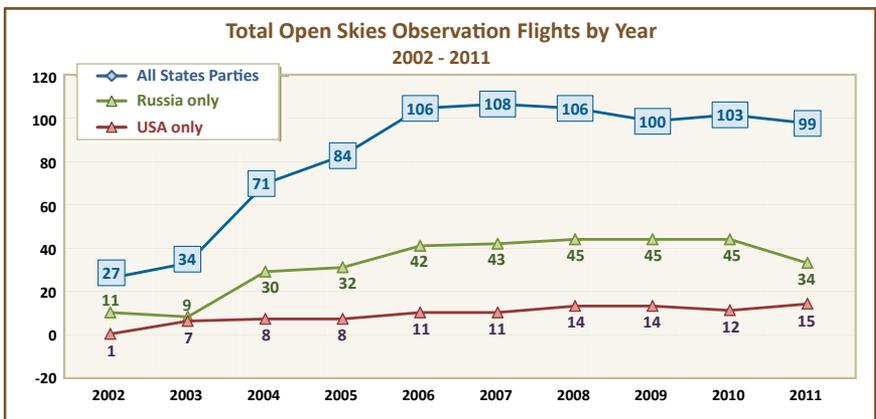
the United States and Sweden. In 2008 a Russian-Swedish flight was conducted over the United States, and in 2009, U.S. and Swedish flight crews flew a joint observation mission over Russia.

The 2008 Russian-Swedish flight over the United States was the first time any country other than Russian had flown an observation mission over this country. From 2002, when the treaty entered into force, through the end of 2011, Russia had flown a total of 333 Open Skies observation missions. Thirty-one of those missions were flown over the United States: two each year in 2004 and 2005; four each year in from 2006-2009; five in 2010; and six in 2011.

Through 2011, the United States had flown 101 observation missions: 91 over Russia, nine over Ukraine, and one over Sweden. Of these flights, 59 were joint missions flown with other countries, including Russia, Bulgaria, Canada, Czech Republic, France, Georgia, Germany, Hungary, Italy, Latvia, Lithuania, Norway, Poland, Slovakia, Sweden, Turkey, Romania and the United Kingdom. In addition to mission flights, the United States continues to participate in joint training flights (JTFs).

The chart below illustrates the total number of observation flights conducted since the treaty's entry into force in 2002 through 2011. The blue line indicates the total number of missions flown by all States Parties, and the red and green lines, respectively, indicate those flown by the United States and by Russia.

A complete list of Open Skies missions is available on the DTIRP website at: http://dtirp.dtra.mil/pdfs/tic_os_flights.pdf.



For More Information

For the latest Open Skies information, visit the Treaty Information Center, Open Skies, and Products sections on the DTIRP website at:

Open Skies Synopsis: <http://dtirp.dtra.mil/TIC/synopses/os.aspx>

Open Skies Treaty Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/os.aspx>

Open Skies Corner: <http://dtirp.dtra.mil/OST/ost.aspx>

Open Skies-related Products: <http://dtirp.dtra.mil/Products/Products.aspx#OpenSkies>

Plutonium Management and Disposition Agreement (PMDA)

Purpose and Background

Entry into Force

July 13, 2011

Announced

June 4, 2000

Amendment Signed

April 13, 2010

Signatories/Parties

United States and Russia

The Plutonium Management and Disposition Agreement (PMDA), [long title: Agreement Between the Government of The United States Of America and the Government of The Russian Federation Concerning the Management and Disposition of Plutonium Designated as no Longer Required for Defense Purposes and Related Cooperation] is designed to make arms reductions irreversible by ensuring that the United States and Russia transparently dispose of weapons-grade plutonium from their respective defense programs and, thereby, prevent the plutonium from ever being reused for weapons or any other military purpose.

Under the PMDA the United States and Russia each agreed to dispose of no less than 34 metric tons of weapons-grade plutonium by converting it into fuel for use in civil reactors that produce electricity. Combined, this represents enough material for approximately 17,000 nuclear weapons. The PMDA also provides that additional weapons-grade plutonium declared in excess as arms reductions go forward should be disposed of under the same or comparable transparency terms.

In 2006, Russia announced its nuclear energy strategy. This strategy was incompatible with the 2000 PMDA. In 2007, Russia provided clarification of its preferred approach to the disposition of weapons-grade plutonium. This clarification served as the basis for updating the PMDA via the protocol signed on April 13, 2010 by U.S. Secretary of State Hillary Clinton and Russian Foreign Minister Sergey Lavrov. The 2010 protocol enables each party to proceed with completing and operating the facilities needed to dispose of weapons-grade plutonium. These facilities will use the plutonium to produce electricity for civilian purposes.

In December 2010, the U.S. Deputy Secretary of Energy and the Russian Director General for the State Corporation “Rosatom” issued the Joint Statement on the Results of the Nuclear Energy and Nuclear Security Working Group Meeting, including the intent to create milestones by February 2011 for bringing the PMDA into force. On May 20, 2011, Russia’s State Duma ratified the PMDA and its

Protocols. Russian President Dmitry Medvedev approved the amendments to the PMDA on June 7, 2011. On July 13, 2011, Secretary Clinton and Foreign Minister Lavrov exchanged diplomatic notes in Washington, D.C., bringing the PMDA and its Protocols into force.

Weapons-grade plutonium, unlike weapons-grade uranium, cannot be blended with other materials to make it unusable in weapons. However, weapons-grade plutonium can be fabricated into mixed oxide uranium-plutonium (MOX) fuel and irradiated in civil nuclear power reactors to produce electricity. This irradiation results in spent fuel – a form that is not usable for weapons or other military purposes. The protocol also prohibits spent fuel from being changed in the future unless it is subject to agreed international monitoring measures and is used only for civilian purposes.

Russia and the United States both plan to begin disposition activities by 2018.

Verification Measures

To provide confidence that the Parties are disposing of weapons-grade plutonium in accordance with the terms and conditions of the amended PMDA, disposition activities on both sides will be subject to monitoring and on-site inspection. The Parties met in the PMDA Joint Consultative Commission to clarify key elements of the PMDA's compliance verification regime. Next steps include consulting with the International Atomic Energy Agency (IAEA) and negotiating an agreement whereby the IAEA will monitor the Party's disposition activities and conduct on-site inspections to verify compliance with the PMDA.

In August 2010, Secretary Clinton and Foreign Minister Lavrov submitted a joint request to IAEA Director General Amano for consultation regarding an agreement whereby the IAEA would monitor the Parties' disposition activities and conduct on-site inspections to verify compliance with the PMDA. As of July 2012, the two countries and the IAEA are making progress on appropriate IAEA verification measures for each country's disposition program.

Recent Developments

The United States is expected to provide \$400 million in assistance for the disposal of surplus Russian plutonium, according to the Russian Foreign Ministry. Moscow will fund the remaining balance, setting aside an estimated \$3.5 billion for the effort. Next, the United States and Russia must reach an agreement on milestones for allocation of the U.S. contribution.

To implement the PMDA in the United States, the National Nuclear Security Administration (NNSA) is building a Mixed Oxide (MOX) Fuel Fabrication Facility at the Savannah River Site (SRS) near Aiken, South Carolina. The facility will provide a capability to disassemble nuclear weapons pits and convert the resulting plutonium into a form suitable to be made into MOX fuel. A Waste Solidification Building will handle the waste resulting from pit disassembly and MOX operations. When operational, the facility will be capable of turning 3.5 metric tons of weapon-grade plutonium into MOX fuel assemblies annually. The facility will be licensed for 20 years, with operations to continue into the 2030s.

The U.S. Nuclear Regulatory Commission is overseeing construction of the facility. It will be a hardened facility, similar to a nuclear reactor. As of June 2012, the MOX facility is scheduled to begin operation in 2016 and is more than 60 percent complete. Since construction began in 2007, more than 19,000 tons of rebar have been installed and over 118,000 cubic yards of concrete have been placed. More than 400,000 feet of process piping and nearly six million feet of electrical cable are currently being installed, while installation of the process tanks is 90 percent complete. Eleven of the sixteen auxiliary buildings needed to support construction and operation of the MOX facility have been finished, including a new electrical substation which was completed in September 2010.

For More Information

For the latest PMDA information, visit the Treaty Information Center and Nuclear Corner on the DTIRP website at:

PMDA Synopsis: <http://dtirp.dtra.mil/TIC/synopses/pmda.aspx>

PMDA Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/pmda.aspx>

Nuclear Corner: <http://dtirp.dtra.mil/NC/nc.aspx>

Plutonium Production Reactor Agreement (PPRA)

Purpose and Background

Entry into Force

September 23, 1997

Signatories/Parties

United States and Russia

The Plutonium Production Reactor Agreement (PPRA) [long title: The Agreement between the Government of the United States of America and the Government of the Russian Federation Concerning Cooperation Regarding Plutonium Production Reactors] prohibits the resumption of operations at specific U.S. and Russian plutonium production reactors that have been shut down. The

Agreement established the Joint Implementation and Compliance Commission (JICC), which meets in Moscow or Washington, DC (usually no more than twice per year) to discuss and resolve implementation concerns.

In March 2003, the United States and Russia signed an amendment to the PPRA, calling for Russia to shut down its three remaining plutonium production reactors at Seversk and Zheleznogorsk, and to replace energy production capabilities with fossil fuel sources. These reactors provide essential heat and power for tens of thousands of residents of Siberia. The Seversk reactors were shut down on April 21 and June 5, 2008, and the reactor at Zheleznogorsk was shut down on April 15, 2010. U.S. contractors provided oversight on the work, most of which was accomplished by Russian firms.

Verification Measures

The PPRA applies to 14 shutdown U.S. plutonium reactors and 13 shutdown Russian plutonium reactors. The United States and Russia are permitted to conduct monitoring visits once each year at the other's shutdown reactors to monitor the non-weapons use of the plutonium. The United States also has the right to monitor the two Russian plutonium storage facilities, located at Seversk and Zheleznogorsk, twice each year. During these visits, personnel visually inspect and place seals on plutonium oxide storage containers, and observe the non-destructive assay of containers to ensure they contain weapons-grade plutonium.

The PPRA allows the Parties to designate information transmitted under the Agreement as “sensitive” to prevent nonparty individuals and organizations from having access to this information. Because the U.S. reactors were government-owned and are located at current U.S. government facilities, there is no potential impact to any other nuclear facility.

As of Fiscal Year 2011, the Defense Threat Reduction Agency (DTRA) continues to perform inspections and to escort missions to monitor U.S. and Russian shutdown reactors and the Russian plutonium oxide storage facilities under the PPRA. Negotiations are on-going to establish technical equipment that will be used to measure plutonium oxide stored in Russia.

Recent Developments

The Agreement continues to be implemented. Both sides host reciprocal visits by joint expert groups at their respective shutdown reactors. The United States continues to monitor the fissile material stored at Seversk and Zheleznogorsk.

To assist with implementing the PPRA amendment, the Department of Energy’s National Nuclear Security Administration (NNSA) Office of Nuclear Risk Reduction established the Seversk Plutonium Production Elimination Project (SPPEP) and the Zheleznogorsk Plutonium Production Elimination Project (ZPPEP).

In Seversk, refurbishment of a 1950s era fossil fuel plant began in April 2005 to replace the output of the two reactors there. The NNSA assisted the Russian state corporation Rosatom to provide fossil fuel and electricity during the transition from nuclear energy to fossil fuels.

On April 21, 2008, the NNSA announced that the first of the two Seversk reactors had been shut down eight months ahead of schedule. This marked the first shutdown of a weapons-grade plutonium production reactor in fifteen years. The second reactor at Seversk was shut down on June 5, 2008. NNSA project closeout activities continued throughout 2009 at Seversk.

In Zheleznogorsk, a new coal-powered plant replaced the remaining reactor. This work began in the fall/winter of 2005 and continued through early 2010. Also in 2005, the United States Congress agreed to allow the Department of Energy to accept international funds for the completion of the work at Zheleznogorsk. Six additional countries contributed more than \$31 million to the on-going project design and construction. Contributors include the United Kingdom, Canada, and the Netherlands.

On April 14, 2010, the Department of Energy announced that the shutdown of the ADE-2 reactor at Zheleznogorsk was imminent, and a representative for the Russian Mining-Chemical Complex in Zheleznogorsk confirmed that the reactor had been shut down at 0400 GMT on April 15, 2010. The closure of the Zheleznogorsk reactor brought a final and permanent end to all weapons-grade plutonium production in Russia.

In December 2010, the U.S. Deputy Secretary of Energy and the Russian Director General for the State Corporation “Rosatom” issued the Joint Statement on the Results of the Nuclear Energy and Nuclear Security Working Group Meeting. The Statement identified concrete steps for the near term as a result of the Working Group meeting, including:

In order to fulfill the “Agreement between The Government of The United States of America and The Government of the Russian Federation Concerning Cooperation Regarding Plutonium Production Reactors,” the Russian Party will continue to take the necessary steps to transition ADE-4, ADE-5, and ADE-2 reactors to a condition necessary to initiate long term monitoring provisions of the Plutonium Production Reactor Agreement.

The NNSA, under the Department of Energy, is the Executive Agent for all monitoring-related activities under the PPRA where monitoring visits are conducted at shutdown U.S. and Russian plutonium production reactors and at Russian plutonium oxide storage facilities to monitor the non-weapon use of the plutonium. The Office of Nonproliferation Policy (NA-241) is the NNSA representative to the JICC.

The U.S.-Russia Bilateral Presidential Commission Joint Report of Spring 2012 announced that the joint project to shut down reactors producing weapons-grade plutonium and start up the Zheleznogorsk thermal heating system as a substitute was completed successfully in 2011.

For More Information

For the latest PPRA information, visit the Treaty Information Center and Nuclear Corner on the DTIRP website at:

PPRA Synopsis: <http://dtirp.dtra.mil/TIC/synopses/ppra.aspx>

PPRA Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/ppra.aspx>

Nuclear Corner: <http://dtirp.dtra.mil/NC/nc.aspx>

Proliferation Security Initiative (PSI)

Purpose and Background

Announced

May 31, 2003

Participating States

102 participating states

Selected Participating States

Afghanistan, Belarus, Brazil, France, Georgia, Japan, Kazakhstan, Israel, Italy, Libya, Morocco, Panama, Qatar, Saudi Arabia, Russia, South Korea, Turkey, Ukraine, United Kingdom, United States and Yemen

Selected Nonparticipating States

Brazil, China, India, Pakistan and North Korea

The Proliferation Security Initiative (PSI) is a global cooperative effort launched by the United States in May 2003 to prevent the trafficking of weapons of mass destruction (WMD), their delivery systems, and related technologies. This agreement evolved from the 2002 U.S. National Strategy to Combat Weapons of Mass Destruction and from UN Security Council Resolution (UNSCR) 1540, Nonproliferation of WMD.

The PSI relies on the voluntary cooperative actions of participating states to implement existing national and international legal authority to interdict air, land, or sea shipments containing WMD technology. These efforts are intended to deny, delay, or disrupt such shipments, particularly those to states and non-state actors of concern.

The PSI defines states and non-state actors of concern as countries or entities PSI participants determine should be subject to interdiction activities. These determinations are based on an

assessment of a country's or entity's efforts to conduct the following proliferation-related activities:

- develop or acquire chemical, biological, or nuclear weapons and their delivery systems; or
- transfer (sell, receive, or facilitate) WMD, their delivery systems, or related materials.

On September 4, 2003, PSI participating states agreed on a Statement of Interdiction Principles (SOP), also referred to as the "Paris Principles." The SOP provides a framework for coordinating participating states' interdiction activities. Key standards of conduct agreed in the SOP include the following:

-
- implement effective measures for interdicting WMD shipments;
 - adopt procedures for exchanging information with other PSI participants and enhancing coordination;
 - strengthen national authority to implement necessary measures;
 - take appropriate action when interdicting shipments, to include:
 - » refusing to transport proliferation shipments to states and non-state actors of concern;
 - » implementing proper national authorities to prevent the transport of proliferation shipments through the state's territory;
 - » conducting searches of suspect vehicles, vessels, and aircraft inside the state's territory (land, sea, and air); and
 - » allowing other participating states to search the state's flag vessels, if necessary.

Some frequently cited accomplishments of the PSI include preventing a shipment of WMD-related technologies from reaching Syria in 2007 and seizing uranium enrichment equipment bound for Libya on the BBC China in 2003. This seizure is considered to have been significant in deterring Libya from continuing its WMD programs.

Verification Measures

Since the PSI is a voluntary agreement among participating states, there are no established verification measures. However, participants can establish national authorities which have the right to search suspect vessels and to seize WMD-related technologies. Participating states may also consent to allow their own vessels to be searched by other participating states if the ships are suspected of transporting proliferation-related cargo.

The PSI encourages participating states to establish bilateral and multilateral agreements to increase their capabilities for working together to prevent the spread of WMD. The United States has signed bilateral ship-boarding agreements with eleven countries: Antigua and Barbuda, the Bahamas, Belize, Croatia, Cyprus, Liberia, Malta, Marshall Islands, Mongolia, Panama and St. Vincent and the Grenadines. These bilateral agreements allow the United States and its treaty partner to board and inspect suspect ships flying the other country's flag.

To strengthen their interdiction capability, PSI participants conduct multi-country exercises. In addition, PSI participants voluntarily share information among themselves, as needed. The PSI Operational Experts Group (OEG) meets to discuss relevant PSI implementation issues.

Recent Developments

As of November 2012, there were 102 states participating in the PSI. Since the PSI was announced in 2003, there have been more than 40 exercises involving the participation of more than 70 PSI nations. The most recent states to endorse the PSI Principles were St. Lucia in July 2012 and the Dominican Republic in August 2012.

The United States and other partner nations marked the sixth anniversary of the PSI on May 30, 2009, and on April 5, 2009, President Obama declared his full support for the PSI. The United States is currently reviewing ways to ensure the PSI remains sustainable over the long term and continues to improve states' capabilities for stopping illicit shipments of WMD, WMD delivery systems, and related materials worldwide.

In 2011, PSI events included:

- PSI Critical Capabilities and Practices (CCP) Planning Conference in Honolulu, Hawaii, June 6-7, resulting in the endorsement of OEG PSI States for the CCP effort.
 - » Under the CCP effort, OEG countries who volunteer to participate will do so by identifying and sharing tools and resources that support interdiction related activities and by conducting events in a coordinated manner to develop, implement, and exercise CCPs.
- Regional Operational Experts Group Meeting in Honolulu, Hawaii, June 8-10.
- Operational Experts Group Meeting in Berlin, Germany, in November.

In 2012, PSI events included:

- A German-hosted PSI Outreach Seminar in Frankfurt, Germany, March 7-8;
- SAHARAN EXPRESS 2012, a U.S. Naval Forces Africa-led maritime interoperability exercise with PSI maritime interdiction scenario injects in Western Africa, April 23-30;
- PHOENIX EXPRESS 2012, a U. S. Naval Forces Africa-led maritime interoperability exercise with PSI maritime interdiction scenario injects in the Mediterranean Sea, May 7-30;

-
- PACIFIC SHIELD 2012, a Japan-hosted Air Interdiction Exercise in Sapporo, Japan, July 3-5;
 - PSI CCP Regional Event in Poland, July 11-12;
 - PANAMAX 2012 exercise in the United States, August 6-17; and the
 - OEG Meeting in Korea, September 24-25.

May 2013 marks the 10th anniversary of the PSI.

For More Information

For the latest PSI information, visit the Treaty Information Center and Nuclear Corner on the DTIRP website at:

PSI Synopsis: <http://dtirp.dtra.mil/TIC/synopses/psi.aspx>

PSI Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/psi.aspx>

Nuclear Corner: <http://dtirp.dtra.mil/NC/nc.aspx>

United Nations Transparency in Armaments (UNTIA)

Purpose and Background

Adopted

December 9, 1991

UNCAR Established

January 1, 1992

Signatories/Parties

172 states have reported at least once

Selected Signatories/Parties

United States, United Kingdom and Russia

Selected Nonparticipants

North Korea, Saudi Arabia and Sudan

The United Nations Transparency in Armaments (UNTIA or TIA) resolution (46/36 L) is politically-binding and was adopted by the United Nations General Assembly (UNGA) on December 9, 1991. The purpose of UNTIA is to promote global transparency regarding the exchange and possession of arms, and to facilitate timely intervention in the event of a nascent arms build-up. These goals are accomplished by means of annual, voluntary data exchanges, which serve as confidence and security building measures (CSBMs). Information reported for activities conducted during a particular calendar year are due by April 30 of the following year.

Annex A of the UNTIA resolution established the UN Register of Conventional Arms (UNCAR) as a public repository for the data exchanged under the UNTIA. The Register is maintained by the UN

Secretary-General and is stored at the UN headquarters in New York.

The UNTIA does not prohibit or limit a state's arms transfers, nor does it require states to report their weapons sales. It encourages self-restraint in participating states by increasing transparency. The information recorded in the Register is available to the public. All states are encouraged to report data to the Register annually whether or not they are members of the United Nations.

The Register documents annual imports, exports, and holdings of the following seven categories of conventional weapons:

1. battle tanks;
2. armored combat vehicles;
3. large caliber artillery systems;
4. attack helicopters;
5. combat aircraft;
6. warships; and
7. missiles and missile launchers, including MANPADs.

The first data exchange occurred in April 1993. Since that time, the UN Secretary-General has issued an annual report on the UNCAR. The UNCAR report includes the detailed data submitted by each reporting state pertaining to its arms transfers and stockpiles. Every three years, beginning in 1994, the Group of Governmental Experts (GGE) convenes to review the UNCAR. The GGE also discusses topics relating to increasing participation, adding or adjusting specified weapons categories, and the possibility of expanding the Register's scope.

In 2003, the GGE released a review of the Register. To better reflect the weapon systems used in conflict zones, the GGE recommended lowering the caliber threshold from 100mm to 75mm for large caliber artillery systems. The GGE also recommended including Man Portable Air-Defense Systems (MANPADs) in the missile and missile-launchers category.

Verification Measures

UNTIA has no measures for verifying the accuracy of the data reported by participating states or the resulting data contained in the Register. However, since states report the numbers of weapons they transfer each year and name the countries involved in these transactions, it is possible to cross-check entries between countries. A discrepancy could signal a concern to the international community.

Recent Developments

The UN Secretary-General issued the 20th consolidated annual report on the Register of Conventional Arms on July 30, 2012. Twenty-eight countries submitted information on their international transfers of major conventional arms covered by the Register for 2011.

In December 2011, the sixty-sixth session of the UN General Assembly issued a decision to include "transparency in armaments" in its sixty-eighth session, and to continue the review of the operation of the Register through the triennial GGE meeting held in 2012. The most recent previous triennial review by the GGE was conducted in 2009.

For More Information

For the latest UNTIA information, visit the Treaty Information Center on the DTIRP website at:

UNTIA Synopsis: <http://dtirp.dtra.mil/TIC/synopses/untia.aspx>

UNTIA Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/untia.aspx>

Vienna Document of 2011 (VDOC11)

Purpose and Background

Entry into Force

January 1, 2000

Participating States

All (55) OSCE Participating States

Selected Participating States

Canada, Belarus, Czech Republic, France, Georgia, Germany, Hungary, Kazakhstan, Moldova, Poland, Russia, Turkey, Ukraine, United Kingdom and United States

The Vienna Document of 2011 (VDOC11) is composed of politically binding confidence and security-building measures (CSBMs). These measures are designed to promote mutual trust and security among the 56 participating States of the Organization for Security and Cooperation in Europe (OSCE).

VDOC11 was released under the OSCE Forum for Security Co-operation (FSC) Decision on Reissuing the Vienna Document (FSC.DEC/14/11) adopted at the 665th Special Meeting the OSCE FSC in Vienna on November 30, 2011. Under FSC Decision No. 1/10 of 2010, the participating States of the OSCE agreed to update the Vienna Document at least every five years, starting in 2011, through a process known as the Vienna Document Plus.

VDOC11 retains the core documents of the Vienna Document 1999 (VDOC99), which integrated a set of new CSBMs with measures previously adopted in successive predecessor documents: the Document of the Stockholm Conference of 1986; the Helsinki Document of 1992; and the Vienna Documents of 1990, 1992, and 1994. In addition to these predecessor documents, VDOC11 also integrates the resolutions within Ministerial Council Decision No. 16/09 for strengthening the OSCE CSBMs; FSC Decision No. 1/10 of 2010; and the Astana Commemorative Declaration of 2010, on revitalizing, updating and modernizing of arms control and CSBMs regimes.

Each of these documents represents progress “in stages” toward enabling participating States to better achieve the OSCE’s disarmament goals and refraining from the threat or use of force.

The measures of VDOC11, retained from VDOC99, are intended to:

- limit a wider array of military activities;
- increase site visits, inspections, and observations; and
- promote further consultations and cooperation between participating States.

The CSBMs in VDOC11 focus on increasing openness and transparency concerning military activities conducted inside the OSCE's zone of application (ZOA), consisting of the whole of Europe and parts of Central Asia. The ZOA includes the territory, surrounding sea areas, and air space of all European and Central Asian participating States. In the case of the United States, only U.S. military activities conducted inside the ZOA are impacted by these CSBMs.

The FSC is the multinational body responsible for overseeing VDOC11 implementation. It was created by the OSCE in 1992 and provides a forum where representatives from participating States discuss, negotiate, and clarify matters relating to CSBMs. The FSC meets weekly in Vienna, and hosts the Annual Implementation Assessment Meeting (AIAM).

The United States is committed to being in full compliance with all provisions of VDOC11. These provisions include a wide variety of information exchanges, on-site inspections, evaluation visits, observation visits, and other military-to-military contacts. Some of the core CSBMs contained in VDOC11 are listed below:

- **Annual exchange of military information (AEI)** – exchanging information on command organization, personnel strength, and major conventional weapon and equipment systems;
- **Defense planning** – exchanging information on defense policy, force planning, budgets, procurements, and calendars;
- **Demonstrations of new major weapon systems or equipment** – arranging observation visits at military facilities;
- **Prior notification of certain (large-scale) military activities** – providing at least 42 days advance notice and, in certain cases, inviting observers;
- **Constraining provisions** – specifying limits on certain types of large-scale military activities;
- **Compliance and verification** – specifying participating States' rights and obligations with regard to on-site inspections and evaluation visits;
- **Regional measures** – encouraging participating States to conclude additional agreements among themselves that are tailored to regional needs and complement VDOC11 measures.

Verification Measures

VDOC11 allows participating States to conduct on-site inspection activities and evaluation visits to confirm the accuracy of information provided in information exchanges. Participating States are obligated to accept no more than three on-site inspections each year, and no more than one inspection from the same participating State. The participating State requesting the inspection may designate the “specified area” for the inspection. The specified area may comprise terrain where notifiable military activities are conducted or where another participating State believes a notifiable military activity is taking place.

The inspecting State may invite other participating States to be part of the inspection team, but the size of an inspection team is limited to no more than four inspectors. The maximum time allowed for inspection activities is 48 hours, which begins when the inspection team arrives at the specified area. The inspection team may access the specified area by ground and air, except for areas or sensitive points where access is normally denied or restricted.

Evaluation visits are shorter and less intrusive than inspections. Each visit must be completed within a single working day and there is no requirement for the host State (receiving State or stationing State) to provide access to sensitive facilities and equipment. Evaluation teams may consist of no more than three members and are obligated not to interfere with the activities of the formation or unit being visited. The maximum number of evaluation visits a participating State is obligated to accept each year is 15.

In 2009, the Forum for Security Cooperation (FSC) announced its decision to develop the “Best Practice Guide for Implementation of the Vienna Document 1999.” At the FSC’s plenary meeting in November, participating States considered whether to expand the use of digital cameras as a means for improving VDOC99 compliance and facilitating verification.

In September 2010, the FSC was tasked with updating Chapter V “Prior Notification of Certain Military Activities” and Chapter IX “Compliance and Verification.” Participating States also reached decisions relating to the eligibility of airbases for hosting visits and the timing of demonstrations of new types of weapon systems and equipment. In addition, participating States partially updated Chapter IV “Contacts,” Chapter IX, and Chapter XII “Final Provisions.”

Recent Developments

In 2010, FSC Decision No. 1/10 established the Vienna Document PLUS (VD PLUS) procedure for incorporating relevant FSC decisions into the Vienna Document. Most notably, VD Plus includes a resolution to revise the Vienna Document “on a regular basis [...] reissuing it every five years or more frequently, starting not later than 2011.”

This process was used in September 2011, when the FSC issued Decision No. 10/11 renaming VDOC99 as the Vienna Document 2011, and rewriting the Introduction (paragraphs 1-8) to the Vienna Document. The FSC convened a special meeting in November 2011 to adopt the changes, after which VDOC11 entered into force.

The 22nd AIAM was held March 6-7, 2012 in Vienna, Austria, to discuss VDOC11 and the Global Exchange of Military Information (GEMI), as well as other topics relating to CSBMs. During the AIAM, delegations were encouraged to bring forward suggestions or topics of interest by means of food-for-thought papers, and before the meeting, participants reviewed the following for discussion:

- the revised Annual Survey on CSBM Information Exchanged and the AIAM Survey of Suggestions 2011;
- a summary report on recent trends in the implementation of the Vienna Document 1999 and other measures; and
- a summary report on the meeting of the Heads of Verification Centers held on December 14, 2011.

In July 2012, the Chairperson of the FSC, H.E. Ambassador Gints Apals of Latvia, remarked at the closing of the second working session of the FSC:

Since the beginning of the year we went through a turbulent period while internal legal requirements delayed the appropriate implementation of the Vienna Document 2011.

Nevertheless, we have used this time actively to enrich the agenda of the working group “A” and reflect, discuss and review the Vienna Document proposals on the table, such as, on lowering thresholds, prior notification of major military activities, and on notification of permanent changes in the command organization of military forces. We have welcomed with appreciation the new Vienna document proposals: first, on including selected non-combat units in the Annual Exchange of Military Information proposed by Germany; second - a draft decision on reporting of military expenditures.

The 23rd AIAM is scheduled for March 5-6, 2013, in Vienna, Austria. Working session discussion topics include implementation of the VDOC11 Preamble and Chapters I to XII, as well as GEMI implementation.

Inspection Status

Since 1992, an average of four inspections and evaluation visits have been conducted each year at U.S. facilities located within the ZOA. On average, participating States conduct a total of 90 inspections and 45 evaluation visits each year. These evaluation visits and inspections may be conducted under regional or bilateral agreements and “guest” inspectors or evaluators may be invited to be members of an inspection or evaluation team.

For More Information

For the latest VDOC11 information, visit the Treaty Information Center on the DTIRP website at:

VDOC11 Synopsis: <http://dtirp.dtra.mil/TIC/synopses/vdoc99.aspx>

VDOC11 Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/vdoc99.aspx>

Wassenaar Arrangement (WA)

Purpose and Background

Entry into Force

July 13, 1996

Signatories/ Participating States

41 Participating States

Selected Participating States

United States, United Kingdom, South Korea and Russia

The Wassenaar Arrangement (WA) [long title: Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies], named for the Austrian city where it was first discussed, is a voluntary multilateral technology transfer and arms export control arrangement. The WA is intended to promote regional and international security through increased transparency and responsibility by Participating States concerning arms and technology transfers.

Participating States rely on the coordination of individually maintained national export controls to prevent the transfer and re-transfer of WA-listed items to unauthorized entities or states of concern. The WA currently maintains two control lists, a Munitions List and a Dual-use Goods and Technologies List. There are twenty-two items on the Munitions List. These items are considered to have military uses. The Dual-use Goods and Technologies List consists of nine categories and two annexes: one for sensitive items and one for very sensitive items.

The governing body for the WA is the plenary, which is composed of representatives from all Participating States. The plenary chair rotates among the Participating States. The first meeting of the plenary was held in April 1996, in Vienna, Austria. There the Participating States established the “Initial Elements” as the core document of the WA. WA control lists were implemented and the first data exchanges occurred on November 1, 1996. The second WA plenary meeting was held in December 1996, and WA plenary meetings have been conducted at least once each year since that time. These usually occur in December.

Plenary meetings are conducted primarily to discuss WA implementation and to review and update the WA control lists. New export control methods may be discussed and developed, and other issues of concern to Participating States may be addressed. The plenary may also establish subsidiary groups when necessary to assist the plenary. Current subsidiary groups are the General Working Group, which studies policy matters, and the Experts Group, which studies issues relating to the control lists. The WA Secretariat supports WA operations as needed.

Verification Measures

The WA contains no enforcement or verification provisions, nor does it provide a standard protocol or criteria for approving or denying the sale of goods. The WA is implemented by the national export controls established by each individual Participating State. Verification of compliance with the WA relies on the unclassified data exchanges due April 30 and October 31. These report the transfers to non-WA states of items on the WA's two control lists.

The information reported includes data on conventional arms exports, license denials for dual-use list items, license denials for sensitive and very sensitive items, and transfers or licenses granted for sensitive and very sensitive items.

Data is reported for exports of the following eight categories of conventional arms:

1. Battle tanks
2. Armored combat vehicles
3. Large caliber artillery systems
4. Military aircraft/unmanned aerial vehicles
5. Military and attack helicopters
6. Warships
7. Missiles or missile systems
8. Small arms and light weapons, including man portable air-defense systems (MANPADs)

Data on the transfers of dual-use goods and technologies is reported for the following categories on the dual-use control list:

- Category 1 – Advanced Materials
- Category 1 – Special Materials and Related Equipment
- Category 2 – Materials Processing
- Category 3 – Electronics
- Category 4 – Computers
- Category 5 – Part 1: Telecommunications
- Category 5 – Part 2: Information Security
- Category 6 – Sensors and Lasers

Category 7 – Navigation and Avionics

Category 8 – Marine

Category 9 – Aerospace and Propulsion

Annex 1 – Sensitive List

Annex 2 – Very Sensitive List

Recent Developments

The 17th Plenary meeting was held on December 13-14, 2011, in Vienna, and was chaired by the Czech Republic. The plenary meeting concluded the fourth assessment undertaken by the Arrangement to carry out a wide-ranging review and evaluation of its overall functioning and its contribution to regional and international security and stability. Assessments are carried out every four years, and the previous one was completed in 2007. Participating States are currently in the process of identifying entries on the control list that have never been reviewed.

The fourth assessment concluded that the Arrangement has kept pace with advances in technology and market trends. It has continued its efforts to contribute to international and regional security and stability, although it was recognized that further work was needed to address new challenges. Participating States have continued to work to make the existing control lists more readily understood and user-friendly for licensing authorities and exporters, and to ensure the detection and denial of undesirable exports.

The 17th Plenary adopted the following changes to existing policy:

- best practice guidelines for Internal Compliance Programs (ICP) and re-exports of conventional arms;
- new elements on controlling transport of arms between third countries; and
- amendments to the 1998 Elements for Objective Analysis concerning Destabilizing Accumulations of Arms.

Participating States also approved changes to 56 entries on its control lists. Among the most significant were:

- clarification of controls on probe technology for Coordinate Measuring Machines;
- relaxation of controls on high-performance rechargeable batteries;
- tightened controls on certain integrated circuits;

-
- new controls on devices used to intercept mobile telecommunications; and
 - restructuring and relaxation of certain controls on gas turbine engine technology.

Significant efforts have been undertaken to promote the Arrangement and to encourage voluntary adherence to the Arrangement's standards by non-Participating States.

Participating States continue to undertake outreach in support of WA aims and objectives, in particular through post-Plenary briefings, interaction with industry and bilateral dialogue with non-Participating States. Continuing outreach activities will include a technical briefing on recent changes to the WA control lists for a number of non-Participating States in 2012. The WA is open to membership by all states who comply with the agreed criteria.

The next regular Wassenaar Arrangement Plenary meeting will take place in Vienna in December 2012. Germany will assume the Chair of the Plenary from January 1, 2012. In addition, from January 1, 2012, Poland will assume the Chairmanship of the General Working Group, Japan will continue to chair the Experts' Group and The Netherlands will continue to chair the Licensing and Enforcement Officers' Meeting (LEOM). On April 16, 2012, Participating States announced the appointment of New Zealand's representative as the next Head of the WA Secretariat effective June 2, 2012, replacing Sweden's ambassador, whose tenure expired on June 1, 2012.

Mexico became the 41st Participating State on January 25, 2012.

For More Information

For the latest WA information, visit the Treaty Information Center on the DTIRP website at:

WA Synopsis: <http://dtirp.dtra.mil/TIC/synopses/wassenaar.aspx>

WA Texts & Fact Sheets: <http://dtirp.dtra.mil/TIC/treatyinfo/wassenaar.aspx>

Conclusion

This pamphlet has provided a brief overview of the purpose, status, and security challenges associated with implementing current and emerging arms control treaties and agreements. The pamphlet also reviewed important legacy and recently expired treaties. Taken together, the arms control treaties and agreements summarized in this pamphlet continually shape the international arms control security environment.

For more information about arms control treaties and how to protect your facility's security during compliance verification activities, contact the DTIRP Outreach Program at: 1-800-419-2899, or send an email to: dtirpoutreach@dtra.mil.

Additional arms control and security awareness materials are also available on the DTIRP website at: <http://dtirp.dtra.mil>.

Direct links to the most current versions of the treaty synopses contained in this pamphlet, and to copies of official treaty texts and fact sheets, are available on the DTIRP website's Treaty Information Center at: <http://dtirp.dtra.mil/TIC/tic.aspx>.

Abbreviations

ACWA	Assembled Chemical Weapons Alternatives Program (U.S. Army)
AIAM	Annual Implementation Assessment Meeting
AP	Additional Protocol (IAEA)
APL	Anti-personnel landmine
APLC	Anti-Personnel Landmines Convention
BCC	Bilateral Consultative Commission (New START)
BGCAPP	Blue Grass Chemical Agent-Destruction Pilot Plant
BWC	Biological Weapons Convention
CBM	Confidence building measure
CCM	Convention on Cluster Munitions
CCW	Convention on Conventional Weapons
CD	Conference on Disarmament
CFE	Convention Armed Forces in Europe Treaty
CMA	Chemical Materials Agency (U.S. Army)
CSBM	Confidence and security building measures
CSP	Conference of the States Parties
CTBT	Comprehensive Nuclear Test-Ban Treaty
CTBTO	Comprehensive Nuclear Test-Ban Treaty Organization
CW	Chemical weapon
CWC	Chemical Weapons Convention
DOC	Department of Commerce
DoD	Department of Defense

DTIRP	Defense Treaty Inspection Readiness Program
DTRA	Defense Threat Reduction Agency
EC	Executive Council
EIF	Entry into force
ERW	Explosive remnants of war
FMCT	Fissile Material Cutoff Treaty
FSC	Forum for Security Cooperation
GEMI	Global Exchange of Military Information
GGE	Group of Governmental Experts
HB	Heavy bomber
HCOC	Hague Code of Conduct
HEU	Highly enriched uranium
IAEA	International Atomic Energy Agency
ICBM	Intercontinental ballistic missile
IDC	International Data Center (CTBT)
IMS	International Monitoring Station (CTBT)
INF	Intermediate-Range Nuclear Forces Treaty
INFCIRC	Information Circular (IAEA)
IOI	Item of inspection
ISU	Implementation Support Unit (Biological Weapons Convention)
JTF	Joint training flight (Open Skies Treaty)
LEU	Low enriched uranium
MANPADS	Man-portable air defense systems
MOTAPM	Mines other than anti-personnel mines

MOX	Mixed oxide
MSP	Meeting of States Parties
MTCR	Missile Technology Control Regime
NATO	North Atlantic Treaty Organization
New START	New Strategic Arms Reduction Treaty (NST)
NSA	National Nuclear Security Agency (Department of Energy)
NNWS	Non-nuclear weapon state
NPT	Nuclear Nonproliferation Treaty
NSE	National security exclusion
NST	New Strategic Arms Reduction Treaty (New START)
NTM	National technical means
NWS	Nuclear weapon state
OCW	Old chemical weapon
OPCW	Organization for the Prohibition of Chemical Weapons
OSCC	Open Skies Consultative Commission
OSCE	Organization for Security and Cooperation in Europe
PCAPP	Pueblo Chemical Agent-Destruction Pilot Plant
PMDA	Plutonium Management Disposition Agreement
POE	Point of entry
PPRA	Plutonium Production Reactor Agreement
PSF	Phosphorus, sulfur, or fluorine
PSI	Proliferation Security Initiative
RevCon	Review Conference
SAR	Sideways-looking synthetic aperture radar
SLBM	Submarine-launched ballistic missile

SNDV	Strategic nuclear delivery vehicle
SORT	Strategic Offensive Reductions Treaty (or Moscow Treaty)
START	Strategic Arms Reduction Treaty (see also “New START”)
TLE	Treaty-limited equipment
TLI	Treaty-limited items
TS	Technical Secretariat
UDOC	Unscheduled discrete organic chemicals
UN	United Nations
UNGA	United Nations General Assembly
UNOG	United Nations Office at Geneva
UNSC	United Nations Security Council
UNSCR	United Nations Security Council Resolution
UNTIA	United Nations Transparency in Armaments
VDOC	Vienna Document
VEREX	Verification experts
WA	Wassenaar Arrangement
WMD	Weapons of mass destruction
ZOA	Zone of Application

Related Materials

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DTIRP Arms Control Outreach Catalog (907P)

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Articles and Bulletins (available only on the DTIRP website)

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Notes

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