

A Survey of United States Global Nonproliferation Efforts

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Executive Summary

Commissioned by DTRA's Advanced Systems and Concepts Office, this survey examines the range of U.S. global nonproliferation efforts. In preparing this survey, the SAIC research team conducted thorough reviews of open-source material to identify and capture nonproliferation efforts. Initial evaluations and summary data relied heavily on USG fact sheets, statements, and speeches. The research team derived more substantive data from official GAO reports, agency budgets and annual program reviews, as well as third-party evaluations. The overall objective of this survey is to seek greater definition of the parameters of the 21st Century U.S. international nonproliferation regime.

Each U.S. global nonproliferation initiative is assessed using six specific evaluation criteria. First, a description of the initiative and its objectives are outlined. Second, the initiative is described in terms of its historical significance. That is, how was the initiative started and under what prevailing context? Third, the U.S. lead agency and partner agencies are listed. Fourth, all international partners associated with the initiative are listed. Fifth, the modalities of each initiative are described. For example, how does the initiative describe its progress? Does the initiative have any particular outputs, and if so, what are they? How does the initiative conduct its business (i.e.: working groups, exercises, etc...)? Finally, each nonproliferation effort is assessed in terms of value and general consensus (international and domestic) surrounding the initiative.

In terms of categorization, each initiative is organized into to six separate "baskets." Each basket attempts to survey and capture a critical aspect of the global nonproliferation regime, though some overlap is present. The baskets are:

- **Arms Control Treaties and Agreements:** This basket includes formal bilateral arms control treaties and agreements such as the Strategic Arms Reduction Treaty and the Conventional Forces in Europe Treaty.
- **Conventions and Treaties on Nonproliferation:** This basket includes formal multilateral treaties which required accession to, and later ratification by the U.S. Senate. Examples include the Nuclear Nonproliferation Treaty and the International Convention for the Suppression of Acts of Nuclear Terrorism.
- **Export and Technology Controls:** These initiatives are comprised of U.S. efforts to control the spread of the WMD-related technology, materials, and knowledge. The Department of State Export Control and Related Border Security Assistance Program (EXBS) would be an example.
- **Legacy Cooperative Threat Reduction Programs:** These programs primarily include legacy initiatives which seek to reduce or eliminate strategic forces and materials. Department of Defense programs such as the Strategic Offensive Arms program and the Chemical Weapons Destruction program; each of which focus on eliminating the strategic arsenals of the Former Soviet Union.
- **Combating WMD Activities:** These include the activities within the Department of Defense, Department of State, and Department of Energy which focus on building partner capacity in areas such as nuclear detection. Examples of these initiatives include: DOE Second Line of Defense and Megaports Initiative, DHS Container Security Initiative, and Customs and Border Control Protection programs.
- **Major Political Initiatives:** These initiatives include the more contemporary "high profile" initiatives which originated in the White House. For example, the Proliferation Security Initiative and the Global Nuclear Energy Program are included as well as the U.S. role in United Nations Security Council Resolution 1540.
- **Financial Initiatives:** These programs are those which seek to address WMD proliferation through targeted financial action. The Egmont Group and the Treasury Department's Financial Action Task Force are examples of these programs.

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Introduction

Twenty-first century U.S. nonproliferation efforts reflect a distinct shift in the geopolitical threat environment. As the geopolitical threat has shifted from Cold War bipolarism to regional conflict, so too have nonproliferation concerns and efforts. For example, many of the major political initiatives reflect the need to bring all States into the global nonproliferation regime, not just nuclear weapons states. UNSCR 1540 is one such initiative which seeks to impose binding obligations on all States to establish controls on the proliferation of chemical, biological, nuclear, and radiological (CBRN) weapons, materials, and technology.

Moreover, the current global nonproliferation regime is facing unique challenges in the ability to handle challenges the threat posed by non-state actors. U.S. initiatives such as the Proliferation Security Initiative and the Global Initiative to Combat Nuclear Terrorism clearly reflect the growing concerns over the adequacy of existing nonproliferation regime as well as the need for dynamic and diverse solutions.

As globalization continues to challenge the international nonproliferation regime through the increased diffusion of WMD-related technology, states, regions, and international organizations continue to develop resourceful and dynamic approaches to combating the spread and acquisition of WMDs. As a leader in the global fight against the proliferation of weapons of mass destruction, the U.S. is undertaking a cross-cutting approach to nonproliferation and combating WMDs.¹ The 9/11 terrorist attacks on the United States helped center nonproliferation as a primary focus in the U.S. foreign policy agenda. This renewed energy in terms of addressing emerging proliferation threats helped to underwrite many new CBRN initiatives which span federal agencies as well as international borders.

Among U.S. global nonproliferation regimes, very few report their measures for success or their results. Though some programs such as the Proliferation Security Initiative do not report in detail due to security issues, others do not report because of a lack of clear objectives. This begs the question, how should the U.S. accurately report initiative outcomes in terms of success or failure, and what is the total aggregate performance for all U.S. global nonproliferation initiatives?

The dataset contained in this report clearly shows that legacy Cooperative Threat Reduction (CTR) programs, especially those which have robust reporting requirements, are far more accurate in their reporting of performance measures than the more contemporary or ad hoc initiatives. The likely reason for such a difference between nonproliferation initiatives lies in the objectives of the traditional regimes versus the objectives of the contemporary regimes. For example, counting missile silos and weapons facility disassembly is far more an objective process than the subjectivity of programs such as Immigration and Customs Enforcement's (ICE) border controls or the Container Security Initiative (CSI).

Thus in terms of measuring success, defining the parameters of performance measures for ad hoc nonproliferation programs will pose a challenge to policy makers. As global diffusion of dual-use technology becomes more prevalent, and the U.S. nonproliferation regime begins to look towards economic-based solutions, measures of performance will likely become even less clear and more of a challenge.

During the process of detailing each U.S. global nonproliferation effort, multiple dimensions began to surface in terms of quality and consistency, quantity, and accuracy of the information available.

Quality and Consistency of Information

In mining the data used for each assessment, the quality of available information widely varied and ranged from brief summary descriptions to detailed programmatic break-downs. Typically, more detailed information existed for programs which are less-sensitive in terms of national security. For example, the annual reports for the DoD CTR programs provided detailed budgetary and program assessment information. On the other hand, very little programmatic information other than brief summaries was found on the Proliferation Security Initiative. For example, PSI data on measures of success were not found, and most likely due to the sensitive nature surrounding the PSI.

¹ The Bush Administration's National Strategy to Combat WMD placed new emphasis on counterproliferation – to deter, detect, defend against, and defeat WMD in the hands of U.S. enemies. Further, the National Strategy also focused on consequence management, to reduce as much as possible the potentially horrific consequences of WMD attacks at home or abroad.

Furthermore, it became apparent while researching each initiative that greater transparency existed amongst U.S. led programs than foreign led programs. For example, DOE led materials programs are far more transparent in terms of accomplishments than larger multi-nation programs such as IAEA Safeguards and Additional Protocols which the U.S. does not chair or solely regulate. However, in terms of procedural matters and delineation of duties, roles and responsibilities, the larger multi-national regimes tended to be clearer.

Finally, in terms of the overall level of difficulty in finding and establishing quality information, accessibility was widely varied. Web-site organization was particularly a problem, especially when two or more programs have overlapping components. Unclear organization resulted in difficulties in discerning program leads and partner agencies. This was particularly the case for most U.S. led programs.

Quantity of Information

The quantity of available information for each assessment varied across the board. In some cases entire websites contained comprehensive program history, objectives, assessment modalities, and measures of performance. In other cases sources only provided short summaries. However, it was typically the case that the more recent the program is, the more information available.

Two primary repositories of information that proved useful were the 1) Center for Nonproliferation Studies (CNS): Inventory of International Nonproliferation Organizations and Regimes and 2) the Nuclear Threat Initiative (NTI) websites. The CNS database is an inventory of, "...all actual and potential international organizations, treaties, and agreements relevant to WMD disarmament and nonproliferation, existing institutional ties, inter-relationships, and overlapping areas of responsibility." While the CNS inventory provided accurate and detailed summaries of current nonproliferation efforts, detailed programmatic information such as performance measures of success were typically excluded. Additionally the CNS database does not cover some of the major political efforts such as the Proliferation Security Initiative.

The NTI website provided a great deal of information regarding primary source documentation for multilateral regimes. For example, NTI consistently provided references and access to official texts from multilateral regime meetings such as the G8 summits and IAEA official texts. However, in terms of a complete and comprehensive survey of global nonproliferation efforts, NTI is largely incomplete.

Another valuable source was the UNSCR 1540 source documents. As part of the UNSCR 1540 reporting requirements, member States must submit to the UNSCR 1540 Committee detailed lists of all nonproliferation efforts and the status of their implementation. However, though authoritative, this document was not complete and tended to focus on statutes and regulations underwriting certain U.S. nonproliferation policies and programs.

Accuracy of Information

The accuracy of information varied across all baskets. Typically, the most accurate information was derived from primary source data such as official treaty texts and associated documentation or official government sponsored studies such as GAO assessments. Furthermore, some information for older programs has not recently been updated. Taking into account the change in the geopolitical landscape after the 9/11 terrorist attack, this significantly alters the accuracy of data that has not been updated since 2001.

Assessing the general consensus in terms of success for each nonproliferation program varied in consistency. Legacy CTR programs usually were accompanied by specific measures of success while the more ad hoc initiatives defined their success in terms of conceptual applicability to contemporary threat environments.

Arms Control Treaties and Agreements

This section includes:

1. Intermediate-Range Nuclear Forces Treaty
2. Nuclear Weapons Free Zones (NWFZ)
3. Strategic Arms Reduction Treaty (START)
4. Treaty on Conventional Forces in Europe (CFE)
5. Open Skies Treaty
6. Strategic Offensive Reductions Treaty (SORT/ Moscow Treaty)

Intermediate-Range Nuclear Forces Treaty

Sources:

<http://www.fas.org/nuke/control/inf/index.html>

The Intermediate-Range Nuclear Forces Treaty (INF) is a 1987 agreement between the United States and the Soviet Union. Signed in Washington, D.C. by U.S. President Ronald Reagan and General Secretary Mikhail Gorbachev on December 8, 1987, the United States Senate ratified the INF treaty by on May 27, 1988 and came into force on June 1 of that year.

Historical Perspective:

Despite dissatisfaction with the deployment of US weapons in Europe, the Soviet Union agreed to open negotiations and preliminary discussions began in Geneva in 1980. Formal talks began in September 1981 with the US "zero-zero offer" - the complete elimination of all Pershing, GLCM, SS-20, SS-4 and SS-5 missiles. Following disagreement over the exclusion of British and French delivery systems, the talks were suspended by the Soviet delegation in November 1983. In 1984, despite public protest, the US began to deploy INF systems in West Germany, Italy, and the United Kingdom.

The INF Treaty is the first nuclear arms control agreement to actually reduce nuclear arms, rather than establish ceilings. Altogether it resulted in the elimination by May 1991 of 846 longer-and shorter-range U.S. INF missile systems and 1846 Soviet INF missile systems, including the modernized U.S. Pershing II and Soviet SS-20 missiles.

The treaty eliminates nuclear and conventional ground-launched ballistic and cruise missiles with intermediate ranges, defined as between 500-5500 km (300-3400 miles). By the treaty's deadline of June 1, 1991, a total of 2692 of such weapons had been destroyed, 846 by the U.S. and 1846 by the Soviet Union. Under the treaty both nations were allowed to inspect each other's military installations.

This treaty terms strongly favored the U.S. and thus it was considered a major defeat of Soviet diplomacy during nuclear arms reduction talks. Many treaty provisions, such as counting Soviet RSD-10 Pioneer (SS-20) multiple independently targetable reentry vehicle (MIRV) missiles as equivalent to single-warhead Pershing II systems, including TR-1 Temp (SS-12) and R-400 Oka (SS-23) short-range ballistic missiles (SRBMs) into INF the treaty—while excluding all U.S. nuclear naval cruise missiles (in which U.S. had an advantage over Soviet Union), and not taking into account expanded British and French nuclear arsenals—were clearly provisions unfavorable for the USSR. (Source: Wikipedia).

U.S. Lead and Partner Agencies:

U.S. Department of State is the lead agency.

DOD agencies aid the implementation of the INF verification and compliance regime.

International Partners:

Former Soviet Union

Modalities:

Provisions: The INF Treaty eliminates all nuclear-armed ground-launched ballistic and cruise missiles with ranges between 500 and 5,500 kilometers (about 300 to 3400 miles) and their infrastructure. Altogether it resulted in the elimination by May 1991 of 846 longer-and shorter-range U.S. INF missile systems and 1846 Soviet INF missile systems, including the modernized U.S. Pershing II and Soviet SS-20 missiles.

Verification: In addition to measures to enhance national technical means of verification, the Treaty contained pioneering on-site inspection provisions, including baseline data inspections, inspections of closed-out facilities, short-notice inspections of declared sites and inspections to observe eliminations of the missile systems. It also established the first ever continuous monitoring operations at the portal and perimeters of a former missile production facility in each country to confirm that production of prohibited missiles had ceased.

Assessment:

President Reagan and Soviet General Secretary Gorbachev signed the INF Treaty at a Washington Summit on December 8, 1987. On January 15, 1988, President Reagan signed National Security Directive 296 which instructed Secretary of Defense Frank Carlucci to establish a new agency -- the On-Site Inspection Agency -- to implement the

Treaty's unprecedented on-site inspection and escort responsibilities. Thirty days after the INF Treaty entered into force on June 1, 1988, OSIA began inspections of 130 Soviet INF sites in East Germany, Czechoslovakia and the Soviet Union and the escort of Soviet inspection teams at 31 INF sites in the United Kingdom, the Netherlands, Belgium, Germany, Italy and the United States. Continuous monitoring operations began in the Soviet Union and the U.S. in July 1988.

By May 1991, all intermediate-range and shorter-range missiles, launchers, related support equipment and support structures were eliminated. Both sides have conducted hundreds of INF inspections since 1988. INF inspection activity continued through June 2001.

United States

- Pershing Ib and Pershing II
- BGM-109 Tomahawk (ground-launched version only)

Soviet Union

- SS-4 'Sandal'
- SS-5 'Skean'
- SS-12 'Scaleboard'
- SS-23 'Spider'
- SS-20 'Saber'
- SSC-X-4

As of 2007, the Russian Federation is seeking to withdraw from the INF Treaty.

Nuclear Weapons Free Zones (NWFZ)

Sources:

<http://www.fas.org/nuke/control/menwzf/index.html>

<http://www.armscontrol.org/factsheets/nwzf.asp>

A nuclear-weapon-free zone (NWFZ) is a specified region in which countries commit themselves not to manufacture, acquire, test, or possess nuclear weapons.

Historical Perspective:

Initial efforts to create an area free of nuclear weapons began in the late 1950s with several proposals to establish such a zone in Central and Eastern Europe. Poland offered the first proposal-named the Rapacki Plan after the Polish foreign minister-in 1958. The Rapacki Plan sought to initially keep nuclear weapons from being deployed in Poland, Czechoslovakia, West Germany, and East Germany, while reserving the right for other European countries to follow suit. The Soviet Union, Sweden, Finland, Romania, and Bulgaria also floated similar proposals. All these early efforts, however, floundered amidst the U.S.-Soviet superpower conflict, although the Rapacki Plan would serve as a model to the nuclear-weapon-free zones that were eventually set up in other regions of the globe.

Three such NWFZ zones exist today, and two others have been negotiated but have yet to enter into force. Countries in Latin America (the 1967 Treaty of Tlatelolco), the South Pacific (the 1985 Treaty of Rarotonga), and Southeast Asia (the 1995 Treaty of Bangkok) have all forsworn nuclear weapons. African countries also agreed to prohibit nuclear weapons on their continent, but the 1996 Treaty of Pelindaba has not entered into force. Most recently, five countries of the former Soviet Union in September 2006 signed the Central Asian nuclear-weapon-free zone, which has yet to enter into force.

U.S. Lead and Partner Agencies:

U.S. Department of State is the lead agency.

International Partners:

(See "Assessment" for list of current NWFZ agreements)

Modalities:

Duration: The treaties are to remain in force indefinitely. Yet, each treaty includes a withdrawal option for states-parties. With the exception of the Treaty of Tlatelolco, which simply requires three months' advance notice before a withdrawal can take effect; all the NWFZ treaties require 12 months advance notice for a state-party to end its treaty obligations.

Conditions: None of the treaties can be subjected to conditions by its non-nuclear-weapon states-parties.

Verification: Each state-party adopts comprehensive safeguards administered by the International Atomic Energy Agency, which verifies that states-parties are not pursuing nuclear weapons illicitly.

Territory Covered: Each zone applies to the entire territories of all of its states-parties. Territory is understood to include all land holdings, internal waters, territorial seas, and archipelagic waters. The Latin American treaty also extends hundreds of kilometers from the states-parties' territories into the Pacific and Atlantic Oceans, but the nuclear-weapon states, citing their freedom at sea, assert that this does not apply to their ships and aircraft that might be carrying nuclear weapons. A dispute also exists over the inclusion of the Chagos Archipelago, which includes the U.S. military base at Diego Garcia in the Indian Ocean, as part of the proposed African nuclear-weapon-free zone. Neither the United States nor the United Kingdom recognizes Diego Garcia as being subject to the Pelindaba Treaty.

Assessment:

African Nuclear-Weapon-Free Zone Treaty: Treaty of Pelindaba

<http://www.fas.org/nuke/control/anwzf/index.html>

- The Organization of African Unity (OAU) first formally enunciated the desire to draft a treaty insuring the denuclearization of Africa in Cairo in July 1964 at the first OAU Summit. No real progress toward a treaty was made until South Africa joined the NPT in mid-1991. In April 1993, a UN/OAU "experts group" convened to begin drafting a treaty. The Treaty was opened for signature on April 11, 1996, in Cairo. The United States,

United Kingdom, France, and China all signed the relevant protocols to the Treaty on the same day. The United States was eligible to sign the non-use and non-testing Protocols only, as it has no territories for which it is internationally responsible in the African region. France ratified Protocols I, II and III in September 1996. Russia signed the relevant protocols in 1997.

Treaty for the Prohibition of Nuclear Weapons in Latin America: Treaty of Tlatelolco

<http://www.fas.org/nuke/control/opanal/index.html>

- On February 14, 1967, Treaty parties signed at a regional meeting of Latin American countries at Tlatelolco, a section of Mexico City. As of January 1, 1989, the Treaty entered into force for 23 Latin American states. President Reagan ratified Protocol I in November 1981, and the US instrument of ratification was deposited in Mexico City on November 23, 1981.

South Pacific Nuclear Free Zone (SPNFZ) Treaty: Treaty of Rarotonga

<http://www.fas.org/nuke/control/spnfz/index.html>

- In August 1985, eight members of the South Pacific Forum signed the Treaty of Rarotonga. The Treaty is now in force for 12 of 15 Forum members: Australia, Cook Islands, Fiji, Kiribati, Naurau, New Zealand, Niue, Papua New Guinea, Solomon Islands, Tuvalu, Vanuatu, and Western Samoa. Tonga signed the Treaty on August 2, 1996, but has yet to ratify. The United States, along with the United Kingdom and France, signed all three Protocols on March 25, 1996, in a special ceremony in Suva, Fiji, the site of the depositary of the Treaty. Russia (with understandings) and China signed and ratified Protocols II and III; neither has zonal territories that would require adherence to Protocol I. France ratified the Protocols on September 20, 1996, and the United Kingdom ratified the Protocols on September 19, 1997.

Southeast Asia Nuclear Weapon Free Zone (SEANWFZ): Treaty of Bangkok

<http://www.fas.org/nuke/control/seanwfz/index.html>

- Indonesia and Malaysia proposed the establishment of a Southeast Asia Nuclear Weapon Free Zone (SEANWFZ) in the mid-1980's; opposition from some ASEAN members, however, slowed the drafting of a proposed treaty. Ten Southeast Asian states signed the SEANWFZ Treaty on December 15, 1995 at the ASEAN Summit in Bangkok.
- US Secretary of State Christopher told ASEAN in 1993 that the United States was willing to take a fresh look at SEANWFZ, but would need to see a draft of a treaty. President Clinton sent a letter in early February 1995 to President Soeharto of Indonesia, stating that the United States is prepared to consider favorably a SEANWFZ treaty, in the context of its conformity with U.S. longstanding criteria. The United States explained to the ASEAN states that the text of the Treaty and Protocol does not meet all fundamental US concerns, and that these concerns must be addressed if ASEAN wishes the United States to give serious consideration to signing the Protocol.

Central Asian Nuclear Weapon Free Zone (CANWFZ)

<http://www.fas.org/nuke/control/canwfz/index.html>

- The five Central Asian states issued at the Tashkent conference a Foreign Ministers' Statement supporting the conclusion of a Treaty. A UN resolution supporting the initiative for a CANWFZ passed the UN First Committee by consensus in November 1997. A subsequent meeting was held in Bishkek, Kyrgyzstan, in 1998 to begin drafting the text of a Treaty. The United States has told the Central Asian states that the United States is willing to review and provide comments on any draft text of a Treaty. The United States was represented at the conference by a delegation of experts from ACDA, State, and DoD who participated in the conference as observers.

Central Europe Nuclear Weapon Free Zone

<http://www.fas.org/nuke/control/cenwfz/index.html>

- To help allay concerns, NATO has made clear that it has no reason, no plan and no intention to station nuclear weapons on the territory of new members, nor build related infrastructure on their territory.

Mideast Nuclear Weapon Free Zone (MENWFZ)

<http://www.fas.org/nuke/control/menwfz/index.html>

- The 1991 Madrid Peace Conference established a multinational mechanism to work on making the Middle East a nuclear weapon-free zone. The activities of the multilateral working group on Arms Control and Regional Security in promoting mutual confidence and security in the Middle East include establishment of a NWFZ. This mechanism, however, stalled in 1995 as a result of the Israeli position.

Strategic Arms Reduction Treaty (START)

Sources:

<http://www.fas.org/nuke/control/start1/index.html>

START (Strategic Arms Reduction Treaty) is a treaty between the United States of America and the Union of Soviet Socialist Republics (USSR) on the reduction and limitation of strategic offensive arms. The United States and the USSR signed the treaty, barring each party from deploying more than 6,000 nuclear warheads atop a total of 1,600 ICBMs, submarine-launched ballistic missiles, and bombers.

Historical Perspective:

President Ronald Reagan presented the first START proposal in Geneva on 29 June 1982. Reagan proposed a dramatic reduction in strategic forces in two phases, which he referred to as SALT III at the time. The first phase would reduce overall warhead counts on any missile type to 5,000, with an additional limit of 2,500 on ICBMs. Additionally, a total of 850 ICBMs would be allowed, with a limit of 110 "heavy throw" missiles like the SS-18, with additional limits on the total "throw weight" of the missiles as well. The second phase introduced similar limits on heavy bombers and their warheads, and other strategic systems as well.

Five months after the parties officially signed START, the Soviet Union dissolved and four independent states with strategic nuclear weapons on their territory came into existence -- Belarus, Kazakhstan, Russia and Ukraine. In anticipation of entry into force within a few months of treaty signing, technical characteristic exhibitions of strategic ballistic missiles and distinguishability exhibitions of heavy bombers began in September 1991 and completed in March 1992.

U.S. Lead and Partner Agencies:

U.S. Department of State negotiated the START treaty and is responsible for issues of compliance
The DOD is responsible for verification

International Partners:

Former Soviet Union, Belarus, Kazakhstan, Ukraine

Modalities:

Provisions: Reductions are to equal aggregate levels in strategic offensive arms, carried out in three phases over seven years from the date the treaty enters into force. Specific, equal interim levels for agreed categories of strategic offensive arms by the end of each phase. Central limits include: 1,600 Strategic Nuclear Delivery Vehicles (SNDVs); 6,000 accountable warheads; 4,900 ballistic missile warheads; 1,540 warheads on 154 heavy intercontinental ballistic missiles (ICBMs) for the Soviet side. Belarus, Kazakhstan and Ukraine committed in the Lisbon Protocol and its associated documents to accede to the Nuclear Non-Proliferation Treaty (NPT) as non-nuclear weapon states in the shortest possible time, and to eliminate all nuclear weapons and all strategic offensive arms from their territories within the process of achieving their START reductions.

In addition to the elimination of missiles, their launchers and bombers, START establishes prohibitions on locations, training, testing and modernization. When reductions are completed in 2001, Belarus, Kazakhstan and Ukraine will have no strategic nuclear forces and the strategic arsenals of the U.S. and former Soviet Union will have been reduced by 30–40 percent.

Verification: START includes an intrusive verification regime consisting of a detailed data exchange, extensive notifications, 12 types of on-site inspection, and continuous monitoring activities designed to help verify that signatories are complying with their treaty obligations. Baseline inspections to confirm the accuracy of the numbers and types of items were conducted at 72 former Soviet and 35 U.S. facilities from March through June 1995.

Assessment:

In December 2001 both Russia and the United States announced they met final START I requirements. Set to expire in 2009, the U.S. and Russia are currently seeking a follow-on agreement to START.

Treaty on Conventional Forces in Europe (CFE)

Sources:

<http://www.fas.org/nuke/control/cfe/index.html>

<http://cns.miis.edu/pubs/inven/pdfs/cfe.pdf>

The original Treaty on Conventional Armed Forces in Europe (CFE) was negotiated and concluded during the last years of the Cold War. The Treaty established comprehensive limits on key categories of conventional military equipment in Europe (from the Atlantic to the Urals) and mandated the destruction of excess weaponry. Additionally, the Treaty proposed equal limits for the two "groups of states-parties", NATO and the Warsaw Pact.

Historical Perspective:

(Source: Wikipedia)

In 1972, US president Richard Nixon and Soviet General Secretary Leonid Brezhnev reached a compromise agreement to hold separate political and military negotiations. The Conference on Security and Cooperation in Europe (CSCE) would deal with political issues, and Mutual Balanced Force Reductions (MBFR) with military issues. The CSCE resulted in 1975 in 35 nations signing the concluding document: the Helsinki Final Act. Negotiations for MBFR were stalled by the USSR in 1979 because of NATO's decision to deploy new intermediate-range nuclear weapons in Europe. In 1986, General Secretary Gorbachev proposed in the context of MBFR negotiations to reduce ground and air forces, and to include conventional and nuclear weapons from the Atlantic to the Urals. Later that year the proposal was formalized during a Warsaw Pact meeting. NATO's North Atlantic Council of foreign ministers issued the Brussels Declaration on Conventional Arms Control, which called for two distinct sets of negotiations: one to build on the CSBM results of the Stockholm Conference and the other to establish conventional stability in Europe through negotiations on conventional arms control from the Atlantic to the Urals. In 1987, the Stockholm Document entered into force and provided for the first time for a negotiated right to conduct on-site inspections of military forces in the field.

Informal talks between the 16 NATO and the 7 Warsaw Pact nations began in Vienna on February 17, 1987 on a mandate for conventional negotiations in Europe, which would set out treaty negotiating guidelines. Several months later, on June 27, NATO presented a draft mandate during the 23-nation conference in Vienna. The mandate called for elimination of force disparities, capability for surprise attack, and large-scale offensive operations, and the establishment of an effective verification system. Meanwhile, in December the INF Treaty between the United States and the Soviet Union was signed, effectively allowing mutual inspections. During the May-June 1988 Moscow Summit, US President Ronald Reagan and General Secretary Gorbachev emphasized the importance of stability and security in Europe, specifically calling for data exchange, verification of these data, and then reductions. In December Gorbachev announced at the United Nations a unilateral withdrawal of 50,000 troops from Eastern Europe, and demobilization of 500,000 Soviet troops.

CFE negotiations: In January 1989, NATO and the Warsaw Pact members produced the Mandate for the Negotiation on Conventional Armed Forces in Europe. The mandate set out objectives for the CFE Treaty and established negotiating principles, and formal negotiations began on March 9, 1989 in Vienna. When US President George H.W. Bush and France's President François Mitterrand met in May, Bush announced the acceptance of reductions of combat aircraft and helicopters. He also proposed a ceiling of 275,000 personnel stationed in Europe by the US and Soviet Union. Bush's proposal was formally adopted during the 1989 Brussels NATO summit and subsequently presented in Vienna.

In November the Berlin Wall fell and in the following months revolutions broke out in Hungary, Czechoslovakia, Romania, and Bulgaria. Bush and Gorbachev agreed to speed up arms control and economic negotiations. Bush proposed even steeper reductions, and the Soviet Union negotiated and concluded troop withdrawal agreements with Warsaw Pact states.

After the signing of the Treaty in 1990, Treaty parties continued negotiations on the basis of the CFE mandate in order to deal with personnel strength. They led to the Concluding Act of the Negotiation on Personnel Strength of Conventional Armed Forces in Europe (so-called CFE-1A agreement), establishing limits on the manpower of certain kinds of forces, excluding, however, sea-based naval forces, internal security forces, or forces serving under UN command. Ceilings declared by each State take effect 40 months after entry into force. The agreement, also, contains

provisions for information exchange, notification and verification. It was signed in Helsinki on 6 July 1992 on the occasion of the 1992 CSCE Summit. In contrast to the CFE Treaty, it is not legally binding but rather a political commitment.

U.S. Lead and Partner Agencies:

Department of State is the lead U.S. agency

International Partners:

NATO member countries

30 total signatories.

Modalities:

Provisions: The Treaty on Conventional Armed Forces in Europe (CFE) is a complex instrument which established a military balance between the two groups of States by providing equal ceilings for major weapons and equipment systems, namely for each group in the whole area from the Atlantic to the Urals:

- 20,000 tanks;
- 20,000 artillery pieces;
- 30,000 armored combat vehicles;
- 6,800 combat aircraft
- 2,000 attack helicopters.

The group ceilings were subsequently translated into national limits for each individual State-Party. It also establishes within the Treaty area several sub regions where both groups would be allowed to keep equal numbers of the mentioned weapons systems, with further provisions on how many items could be kept in active units. Furthermore, the Treaty limits the proportion of armaments to be held by a single country to one third of the total numbers, the so-called "sufficiency rule". The Treaty stipulates that arms or equipment beyond the agreed limits have to be destroyed so that within 40 months from entering into force the limits will have been reached. It also includes a thorough notification and verification regime of on-site inspections for the notified holdings, challenge inspections, and the monitoring of destruction of treaty-limited items. Finally, the Treaty established in Vienna a body composed of all Treaty members, the Joint Consultative Group (JCG), as a forum for further consultations.

Verification: To ensure verification of compliance with the provisions of the Treaty, Article XIII obligated the States Parties to provide notifications and exchange information in accordance with the Protocol on Information Exchange, as well as gave them the right to conduct inspections and obligation to accept such inspections, in accordance with the Protocol on Inspection. The purpose of such inspections is to verify States Parties' compliance with the Treaty's limitations and monitor the process of reduction. Inspections fall into three categories: passive inspection quotas (inspections, which a State Party is obliged to receive within a specified time period at declared inspection sites), active inspection quotas (the total number of inspections each State is entitled to conduct within a specified time period), and passive challenge inspection quotas (inspections carried out anywhere on the territory of a State Party within an area of application other than a site otherwise subject to inspection). In addition, according to Article XV, the States Parties are entitled to use national and multinational technical means (NTM and MTM) to ensure verification of compliance with the provisions of the Treaty. The use of concealment measures that impede verification by means of NTM and MTM is prohibited.

Compliance: The Joint Consultative Group, established by the Treaty, considers disputes arising out of the implementation of this Treaty, and is the body to which claims of non-compliance may be addressed.

Assessment:

In July 2007 Russian President Vladimir Putin stated that Russia would no longer observe their CFE treaty obligations. An explanatory document from Russia's presidential administration enumerates the following reasons for suspending compliance with the treaty:

- NATO countries' requiring the withdrawal of Russian troops from Georgia and Moldova as a condition to ratifying the 1999-adapted treaty. The Russian presidential administration's document describes this linkage "illegitimate" and "invented," and the troop-withdrawal issue a bilateral Russia-Georgia and Russia-Moldova issue.
- With the 1990 CFE Treaty not covering the three Baltic States [they were still Russian-occupied at that time] and the 1999-adapted treaty unratified, Russia wants speedy ratification and accession of the Baltic States to a

ratified treaty, hoping to restrict emergency deployments of allied forces there. The absence of such restrictions could “negatively affect the fulfillment of Russia’s political obligations of military restraint in Russia’s northwest.”

- The treaty-limited equipment (four categories of combat hardware) of NATO’s new member countries has “increased the overall holdings” of such equipment within NATO since the alliance’s 1999 and 2004 enlargements. Consequently, Russia demands a “compensatory lowering” of overall NATO numerical ceilings on such equipment.
- The planned basing of U.S. military units in Romania and Bulgaria “negatively affects” those countries’ compliance with the CFE Treaty’s force ceilings.
- Without citing any specific threats to Russia, the presidential administration’s document demands a “removal” (otmena) of Flank ceilings on Russian forces by “political decision” between NATO and Russia, ostensibly to “compensate” Russia for the alliance’s enlargement.
- Russia wants to re-negotiate and “modernize” the 1999-adapted CFE treaty as soon as it is brought into force. But it would proceed unilaterally to suspend the treaty’s validity unless NATO countries bring it into force by July 1, 2008, or at least comply with its terms on a temporary basis, pending the treaty’s re-negotiation.

Open Skies Treaty

Sources:

<http://www.state.gov/t/ac/rls/fs/2004/33147.htm>

<http://www.fas.org/nuke/control/os/index.html>

Historical Perspective:

The Treaty on Open Skies entered into force on January 1, 2002, and currently has 30 States Parties. The Treaty establishes a regime of unarmed aerial observation flights over the entire territory of its participants. The Treaty is designed to enhance mutual understanding and confidence by giving all participants, regardless of size, a direct role in gathering information about military forces and activities of concern to them. Open Skies is one of the most wide-ranging international efforts to date to promote openness and transparency of military forces and activities.

President Eisenhower proposed the original concept of mutual aerial observation in 1955; the Treaty itself was an initiative of President George H.W. Bush in 1989. The then-members of NATO and the Warsaw Pact negotiated the Treaty and signed in Helsinki, Finland, on March 24, 1992. The United States ratified it in 1993. This Treaty is not related to civil-aviation open skies agreements.

U.S. Lead and Partner Agencies:

Department of State

International Partners:

NATO and former WARSAW Pact members: 30 total signatories

Modalities:

Provisions: The Treaty is a complex instrument which establishes a regime for the conduct of observation flights over the territories of States-Parties to the Treaty, and regulates the technicalities, including, inter alia, the quotas for observation flights, based upon reciprocity between the States-Parties or groups of States-Parties; the notification of points of entry for observation flights for each State; the technical details for sensors (photo and video cameras, infra-red line scanning devices, and radar equipment) used for the purposes of conducting observation flights as well as their inspection by the State concerned; the designation and use of personnel and aircraft for observation flight, and the conduct during observation, including provisions to prohibit flights, or to change mission plans, or for emergency situations. Other provisions include:

- Territory. The Open Skies regime covers the territory over which the State Party exercises sovereignty, including land, islands, and internal and territorial waters. The Treaty specifies that the entire territory of a State Party is open to observation. Observation flights may only be restricted for reasons of flight safety; not for reasons of national security.
- Aircraft. Observation aircraft may be provided by either the observing Party or (the "taxi option") by the observed Party, at the latter's choice. All Open Skies aircraft and sensors must pass specific certification and pre-flight inspection procedures to ensure that they are compliant with Treaty standards. The official certified U.S. Open Skies aircraft is the OC-135B (a military version of the Boeing 707).
- Sensors. Open Skies aircraft may have video, optical, panoramic and framing cameras for daylight photography, infra-red line scanners for a day/night capability, and synthetic aperture radar for a day/night, all weather capability. Photographic image quality will permit recognition of major military equipment (e.g., permit a State Party to distinguish between a tank and a truck), thus allowing significant transparency of military forces and activities. Sensor categories may be added and capabilities improved by agreement among States Parties. All equipment used in Open Skies must be commercially available to all participants in the regime.
- Quotas. Each State Party is obligated to receive observation flights per its passive quota allocation. Each State Party may conduct as many observation flights -- its active quota -- as its passive quota. During the first 3 years after EIF, each State will be obliged to accept no more than 75% of its passive quota. Since the overall annual passive quota for the United States is 42, this means that it will be obligated to accept no more than 31 observation flights a year during this 3-year period. Only two flights were requested over the United States during 2004, by the Russian Federation and Republic of Belarus Group of States Parties (which functions as a single entity for quota allocation purposes). The United States is entitled to 8 of the 31 annual flights available over Russia/Belarus. Additionally, the United States is entitled to one flight over Ukraine, which we share with Canada.

- Data Sharing/Availability. Imagery collected from Open Skies missions is available to any State Party upon request for the cost of reproduction. As a result, the data available to each State Party is much greater than that which it can collect itself under the Treaty quota system.

The Treaty further established the Open Skies Consultative Commission (OSCC) in Vienna as a body representing all States Parties to the Treaty, for further consultations, clarification of issues, and the proposal of amendments to the Treaty.

Implementation: Provisional application of portions of the Treaty took place from signature in 1992 until entry into force in 2002. During that period, participants conducted joint trial flights for the purpose of training flight crews and testing equipment and sensors. With entry into force of the Treaty, formal observation flights began in August 2002. During the first Treaty year, States Parties conducted 67 observation flights. For 2004, States Parties have planned 82 missions. The OSCC continues to address modalities for conducting observation missions and other implementation issues.

Assessment:

Since the signature of the Open Skies Treaty in 1992, the security environment in Europe has changed significantly. The Open Skies Treaty continues to contribute toward European security by enhancing openness and transparency among the Parties.

Strategic Offensive Reductions Treaty (SORT/ Moscow Treaty)

Source:

<http://www.fas.org/nuke/control/sort/fs-sort.html>

Historical Perspective:

On March 6, 2003, the U.S. Senate approved the resolution of ratification providing its advice and consent to the Strategic Offensive Reductions Treaty (SORT), also known as the Moscow Treaty. This agreement was first signed by President Bush and Russian President Vladimir Putin on May 24, 2002 in Moscow. It requires both sides to reduce their deployed strategic nuclear warheads to between 1,700 and 2,200 by 2012.

The Moscow Treaty requires the United States and the Russian Federation to reduce their number of operationally deployed strategic warheads to between 1,700 and 2,200 each by December 31, 2012.

The Treaty codifies the reductions announced by President Bush and President Putin during the November 2001 Washington/ Crawford Summit. Each side may determine for itself the composition and structure of its strategic forces consistent with this limit. A Bilateral Implementation Commission will meet at least twice a year to discuss issues related to the Treaty.

U.S. Lead and Partner Agencies:

Department of State/ Bureau of Verification, Compliance, and Implementation

International Partners:

Former Soviet Union

Modalities:

Provisions: The Treaty requires each country to reduce and limit its strategic nuclear warheads to 1700-2200 by December 31, 2012. Each side may determine for itself the composition and structure of its strategic forces consistent with this limit. A Bilateral Implementation Commission will meet at least twice a year to discuss issues related to the Treaty.

Assessment:

Relationship to START: The five-Party Strategic Arms Reduction Treaty (START) of 1991 continues in force unchanged. (Belarus, Kazakhstan, Russia, Ukraine, and the United States are Parties to START.) START's comprehensive verification regime will provide the foundation for transparency and predictability regarding implementation of the new bilateral Treaty. As noted in the Joint Declaration on the New Strategic Relationship also issued today in Moscow, the United States and Russia also will continue discussions to explore additional ways to enhance transparency and predictability.

The treaty has been criticized for various reasons:

1. There are no verification provisions to give confidence, to either the signatories or other parties, that the stated reductions have in fact taken place.
2. The arsenal reductions are not required to be permanent; warheads are not required to be destroyed and may therefore be placed in storage and later redeployed.
3. The arsenal reductions are required to be completed by December 31, 2012, which is also the day on which the treaty loses all force, unless extended by both parties.
4. Because there exists a clause in the treaty which provides that withdraw can occur upon the giving of three month's notice, and no benchmarks are required in the treaty, either side could feasibly perform no actions in furtherance of the treaty, and then simply withdraw in September of 2012.

Conventions and Treaties on Nonproliferation

This section includes:

1. Nuclear Non-Proliferation Treaty (NPT)
2. Partial Test Ban Treaty (PTBT)
3. Biological and Toxin Weapons Convention (BTWC)
4. Convention on the Physical Protection of Nuclear Material
5. Comprehensive Nuclear Test Ban Treaty (CTBT)
6. IAEA Safeguards Agreement & Additional Protocol
7. Convention on Nuclear Safety
8. Joint Spent Fuel Management Convention
9. Chemical Weapons Convention
10. International Code of Conduct against Ballistic Missiles
11. Suppression of Acts of Nuclear Terrorism

Nuclear Non-Proliferation Treaty (NPT)

Sources:

<http://cns.miis.edu/pubs/inven/pdfs/npt.pdf>

<http://disarmament.un.org/wmd/npt/>

The NPT is a landmark international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy, and to further the goal of achieving nuclear disarmament and general and complete disarmament. The Treaty represents the only binding commitment in a multilateral treaty to the goal of disarmament by the nuclear-weapon States.

Historical Perspective:

In December 1953, US President Dwight D. Eisenhower in his “Atoms for Peace” proposal, presented to the eighth session of the United Nations General Assembly, and urged that an international organization be established to disseminate peaceful nuclear technology, while guarding against development of weapons capabilities in additional countries. His proposal resulted in the establishment of the IAEA, which is charged with the dual responsibility of promotion and control of nuclear technology.

IAEA technical assistance activities began in 1958. An interim safeguards system for small nuclear reactors, put in place in 1961, was replaced in 1964 by a system covering larger installations and, over the following years, was expanded to include additional nuclear facilities (INFCIRC/66 and revisions). In recent years, efforts to strengthen the effectiveness and improve the efficiency of the IAEA safeguards system culminated in the approval of the Model Additional Protocol (INFCIRC/540) by the IAEA Board of Governors in May 1997.

Opened for signature in 1968, the Treaty entered into force in 1970. On 11 May 1995, the Treaty Parties extended the Treaty indefinitely.

To further the goal of non-proliferation and as a confidence-building measure between States parties, the Treaty establishes a safeguards system under the responsibility of the International Atomic Energy Agency (IAEA). Safeguards are used to verify compliance with the Treaty through inspections conducted by the IAEA. The Treaty promotes cooperation in the field of peaceful nuclear technology and equal access to this technology for all States parties, while safeguards prevent the diversion of fissile material for weapons use.

Obligations:

- Nuclear weapon states (NWS) are not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices and not to assist, encourage, or induce any non-nuclear weapon states (NNWS) to manufacture or otherwise acquire them.
- NNWS are not to receive nuclear weapons or other nuclear explosive devices from any transferor, and not to manufacture or acquire them.
- NNWS must place all nuclear materials in all peaceful nuclear activities under IAEA safe-guards.
- All Parties are obligated to facilitate and participate in the exchange of equipment, materials, and scientific and technological information for the peaceful uses of nuclear energy.
- All Parties must pursue negotiations in good faith on effective measures relating to the cessation of the nuclear arms race and to nuclear disarmament, and on a treaty on general and complete disarmament

U.S. Lead and Partner Agencies:

U.S. Delegation to the United Nations Conference on Disarmament

International Partners:

190 member states (including DPRK)

Depositories: Russia, United Kingdom, and United States.

Modalities:

The provisions of the Treaty, particularly article VIII, paragraph 3, envisage a review of the operation of the Treaty every five years, a provision which was reaffirmed by the States parties at the 1995 NPT Review and Extension Conference.

The NPT Review Process:

Conferences to review the operation of the Treaty are held at five-year intervals since the Treaty went into effect in 1970. Each conference has sought to find agreement on a final declaration that would assess the implementation of the Treaty's provisions and make recommendations on measures to further strengthen it. Parties reached consensus on a Final Declaration at the 1975, 1985 and 2000 Review Conferences, but could not achieve consensus in 1980, 1990, and 1995. Differences centered on the question of whether or not the nuclear-weapon States had sufficiently fulfilled the requirements of Article VI (nuclear disarmament) as well as on issues such as nuclear testing, qualitative nuclear-weapon developments, security assurances to non-nuclear-weapon States by nuclear-weapon States, and on co-operation in the field of nuclear energy for peaceful purposes.

The 1995 NPT Review and Extension Conference had two objectives: to review the Treaty's operation and to decide on its extension. While not being able to agree on a consensus review of the Treaty's implementation, States parties adopted without a vote a package of decisions. These decisions consisted of (a) elements for a strengthened review process for the Treaty, (b) principles and objectives for nuclear non-proliferation and disarmament, and (c) the indefinite extension of the Treaty; as well as a resolution on the Middle East.

The 2000 Review Conference was expected to test both the strength of the new review mechanism and the concept of accountability which had been agreed upon when States parties accepted the "permanence of the Treaty" and extended it indefinitely. The Conference was successful in concluding its deliberations with agreement on the Treaty's past performance and on a number of key issues pertaining to nuclear non-proliferation and disarmament, nuclear safety and the peaceful uses of nuclear energy. This marked the first time in 15 years that the States parties had been able to achieve an agreed Final Document.

Topics discussed at the 2005 Review Conference included: universality of the Treaty, nuclear non-proliferation and disarmament, safeguards, verification and compliance, nuclear-weapon-free zones, security assurances, peaceful uses of nuclear energy, and withdrawal from the Treaty.

Assessment:

One major criticism of the NPT is that unlike the CWC and the CTBT, the NPT does not have a built-in mechanism for non-compliance. In case of non-compliance with IAEA safeguards, the IAEA Board is to call upon the violator to remedy such non-compliance and should report the non-compliance to the UN Security Council and General Assembly; The UN bodies may impose specific penalties, such as curtailment or suspension of assistance, return of materials, or suspension of privileges and rights. An incentive to comply is peaceful nuclear assistance.

Partial Test Ban Treaty (PTBT)

Sources:

<http://cns.miis.edu/pubs/inven/pdfs/atosuw.pdf>

<http://www.state.gov/t/ac/trt/4797.htm>

As a treaty of unlimited duration, the Treaty requires Parties to prohibit, prevent, and abstain from carrying out nuclear weapons tests or any other nuclear explosions in the atmosphere, in outer space, under water, or in any other environment if such explosions cause radioactive debris to be present outside the territorial limits of the State that conducts an explosion; to refrain from causing, encouraging, or in any way participating in, the carrying out of any nuclear weapon test explosion, or any other nuclear explosion, anywhere which would take place in any of the above-described environments.

Historical Perspective:

In 1954, India made the first proposal calling for an agreement to ban nuclear weapons tests. In 1958, the United States, the Soviet Union, and the United Kingdom began a Conference on the Discontinuance of Nuclear Tests in Geneva, aimed at reaching agreement on an effectively controlled test ban. The Conference did not come to fruition because the sides could not reach an agreement on the issue of verification procedures. On 5 August 1963, the Partial Test Ban Treaty (PTBT) – also known as the Limited Test Ban Treaty (LTBT) – was signed in Moscow by the United States, the Soviet Union, and the United Kingdom.

U.S. Lead and Partner Agencies:

The United States Department of State, Bureau of Verification, Compliance, and Implementation is charged with oversight.

International Partners:

There are 131 signatories to the PTBT.

The United States, Russia, and the United Kingdom act as depositories.

China is not a signatory to the PTBT, and denounced the treaty in 1964, calling it "a big fraud" designed to "consolidate the nuclear monopoly" of the US, USSR, and UK and legitimize underground nuclear testing. China was preparing for its first nuclear explosion when the PTBT was signed, and alleged that a US representative to the Moscow signing of the Treaty admitted that one of the primary purposes of the Treaty was to prevent China from acquiring a nuclear capability. However, although China is still not a signatory of the PTBT, it last conducted an atmospheric nuclear test on 16 October 1980 (the last country to do so). On 21 March 1986, China announced a permanent halt to atmospheric testing, but did not promise to dismantle the technical capability to conduct such tests.

Modalities:

The PTBT does not provide for international verification; however, it is understood that each party may do so by its own national technical means.

Assessment:

The Comprehensive Test Ban Treaty has largely superseded the PTBT.

Biological and Toxin Weapons Convention (BTWC)

Source:

<http://www.opbw.org/>

The United States is party to the 1975 Biological Weapons Convention (BWC), which establishes a ban on biological and toxin weapons. Specifically, the BWC prohibits the development, production, stockpiling, acquisition and/or retention of biological or microbial agents or toxins of type and in quantities that have no justification for prophylactic, protective or other peaceful purposes; and weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

Historical Perspective:

The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction — more commonly known as the Biological and Toxin Weapons Convention (BTWC) — was simultaneously opened for signature in Moscow, Washington and London on 10 April 1972 and entered into force on 26 March 1975.

The Convention bans the development, production, stockpiling, acquisition and retention of microbial or other biological agents or toxins, in types and in quantities that have no justification for prophylactic, protective or other peaceful purposes. It also bans weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict. The actual use of biological weapons is prohibited by the 1925 Geneva Protocol and Article VIII of the BTWC recognizes that nothing contained in the Convention shall be construed as a derogation from the obligations contained in the Geneva Protocol.

U.S. Lead and Partner Agencies:

Department of State/ Bureau of International Security and Nonproliferation.

U.S. Department of Commerce/ Office of Nonproliferation and Treaty Compliance

International Partners:

There are currently 177 signatories to the Convention (16 have yet to Ratify, including China). The full status of the BTWC can be found at: <http://www.opbw.org/>.

China has made the following reservations about the BTWC:

Statement:

- *The basic spirit of the Convention on the Prohibition of Biological Weapons conforms to China's consistent position and is conducive to the efforts of the world's peace-loving countries and peoples in fighting against aggression and maintaining world peace. China once was one of the victims of biological (bacteriological) weapons. China has not produced or possessed such weapons and will never do so in future. However, the Chinese Government considers that the Convention has its defects. For instance, it fails to provide in explicit terms for the 'prohibition of the use of' biological weapons and the concrete and effective measures for supervision and verification; it lacks forceful measures of sanctions in the procedure of complaint against instances of violation of the Convention. It is the hope of the Chinese Government that these defects maybe made up or corrected at an appropriate time.*
- *It is also the hope of the Chinese Government that a convention on complete prohibition and thorough destruction of chemical weapons will soon be concluded.*
- *The signature and ratification of the Convention by the Taiwan authorities in the name of China on 10 April 1972 and 9 February 1973 are illegal and null and void.*

Modalities:

The United States has a strong outreach program to encourage other nations to join and fully implement the Convention. The United States provides information and assistance to other States on adherence to, and implementation of, the BWC.

Verification: There is no formal verification regime to monitor compliance. Member States are encouraged to abide by numerous confidence-building measures (CBMs) prescribed by State Parties at various review conferences. These include: domestic implementation measures, if considered necessary; consultation and co-operation among parties; lodging of complaints with the UN Security Council; and incentives, such as assistance to victims.

Review Conference: The Review Conference of the BTWC takes place every five years and is preceded by a Preparatory Committee.

At the second Review Conference in September 1986, the parties agreed to implement data exchange measures to enhance confidence and to promote cooperation in areas of permitted biological activities. In accordance with the Final Declaration of that Review Conference, scientific and technical experts held an ad hoc meeting March 31 - April 15, 1987, to develop procedures for implementing annual data exchanges.

At the third Review Conference in September 1991, Parties agreed to reaffirm and extend confidence building measures agreed at the second Review Conference and to create an Ad Hoc Group of Governmental Experts open to all parties to identify, examine, and evaluate from a scientific and technical standpoint potential verification measures with respect to the prohibitions of the convention. The Ad Hoc Group met four times in 1992 and 1993, completing its work and submitting a consensus report circulated to all States Parties. As provided in the mandate, a majority of States Parties called for a Special Conference to discuss the final report and consider further actions. The Special Conference, held in September 1994, agreed to establish an Ad Hoc Group, open to all States Parties, to consider appropriate measures, and draft proposals to strengthen the Convention in a legally binding instrument.

Assessment:

Current efforts are underway to strengthen the BTWC. "Increased knowledge about diseases and the availability of advanced technology have made biological weapons a more attractive option for governments seeking to acquire weapons of mass destruction. Moreover, the modernization of biotechnology has made it much easier to produce biological materials and to modify these materials to enhance their effects." [Graham S. Pearson, "The Threat of Deliberate Disease in the 21st Century," from Henry L. Stimson Centre Report No. 24, "Biological Weapons Proliferation: Reasons for Concern, Courses of Action," January 1998.]

Effectively countering the threat from biological weapons requires a number of mutually-reinforcing actions, including a strengthened prohibition regime for of biological weapons, enhanced control of the storage, use and transfer of pathogens and dual-purpose equipment, preparedness and the development of protective measures against biological weapons, and determined responses to threats or cases of biological weapons possession and use.

The benefits to the international community from strengthening the Convention Regime are clear as it will bring improved health, safety, security and prosperity to all States Parties through various integrated measures. A strengthened BTWC Regime will, over time, increase transparency and build confidence that all States Parties are in compliance with the Convention as well as deter would-be violators. The Protocol regime will facilitate and encourage international trade in microtechnology, biotechnology and related fields -- which are increasingly important to global health and prosperity - - without the fear that dual-purpose materials, equipment and facilities may be misused for prohibited weapons purposes.

Convention on the Physical Protection of Nuclear Material

Source:

<http://www.iaea.org/Publications/Documents/Conventions/cppnm.html>

The Convention on the Physical Protection of Nuclear Materials (CPPNM) establishes a legal obligation on States Parties to apply physical protection to nuclear materials used for peaceful purposes in international transport.

Historical Perspective:

State Parties signed the Convention on the Physical Protection of Nuclear Material at Vienna and at New York on 3 March 1980. The Convention is the only international legally binding undertaking in the area of physical protection of nuclear material. It establishes measures related to the prevention, detection and punishment of offenses relating to nuclear material.

The United States is a party to the CPPNM and has always strongly supported its goal of assuring that nuclear material used for peaceful purposes is accorded effective physical protection. In 1998, the United States launched an effort to strengthen the Convention by broadening its coverage to all nuclear material used for peaceful purposes in domestic use, storage, and transport (not just that in international transport) and by criminalizing the act of sabotage on a nuclear facility.

U.S. Lead and Partner Agencies:

Department of State

The U.S. Nuclear Regulatory Commission requires licensees to protect nuclear material during international transport.

International Partners:

There are 130 members and 45 signatories

Full status of the Convention can be found at:

http://www.iaea.org/Publications/Documents/Conventions/cppnm_status.pdf

China has signed the convention, but has not yet ratified. The Russian Federation has withdrawn from the Convention.

Modalities:

The convention requires each State Party take appropriate steps within the framework of its national law and consistent with international law to ensure as far as practicable that, during international nuclear transport, nuclear material within its territory, or on board a ship or aircraft under its jurisdiction insofar as such ship or aircraft is engaged in the transport to or from that State, is protected at the levels described

In terms of compliance and review, State Parties shall identify and make known to each other directly or through the International Atomic Energy Agency their central authority and point of contact having responsibility for physical protection of nuclear material and for coordinating recovery and response operations in the event of any unauthorized removal, use or alteration of nuclear material or in the event of credible threat thereof.

Assessment:

In 2006, Secretary Bodman (DOE) highlighted the nonproliferation successes achieved internationally through the President's Global Threat Reduction Initiative. He stressed the need for all nations to redouble efforts to secure radioactive and radiological material and further expand cooperative work in nuclear nonproliferation. Secretary Bodman encouraged compliance with international safeguards, the amended Convention on the Physical Protection of Nuclear Materials and Facilities, and related requirements for nuclear safety and security. He also discussed the United States and Russia's Global Initiative to Combat Nuclear Terrorism which aims to secure nuclear materials and called on all nations to act decisively and responsibly to thwart terrorists bent on nuclear and radiological violence.

Comprehensive Nuclear Test Ban Treaty (CTBT)

Sources:

<http://cns.miis.edu/pubs/inven/pdfs/ctbt.pdf>

<http://disarmament.un.org/wmd/ctbt/index.html>

http://www.armscontrol.org/act/2002_05/focmay02.asp

The CTBT bans any nuclear weapon test explosion or any other nuclear explosion (i.e., true zero yield).

Historical Perspective:

The roots to the CTBT lie in the Threshold Test Ban Treaty (TTBT) and Peaceful Nuclear Explosions Treaty (PNET). The TTBT established a nuclear testing "threshold," by prohibiting tests having a yield exceeding 150 kilotons (equivalent to 150,000 tons of TNT).

Negotiators at the summit meeting in Moscow reached agreement on the TTBT in July 1974. The treaty limited testing to specific designated sites to assist in verification. Its protocol provided for the exchange of technical data, including information on the geographical boundaries and geology of testing areas. The TTBT also stipulated that data be exchanged on a certain number of tests for calibration purposes, which improved assessments by other parties of the yields of explosions based primarily on the measurements derived from seismic instruments.

Although the TTBT was signed in 1974, it was not submitted to the US Senate for ratification until July 1976. Submission was held up until the companion Peaceful Nuclear Explosions Treaty (PNET) had been successfully negotiated. In the PNET, the United States and the Soviet Union agreed: not to carry out any individual nuclear explosions having a yield exceeding 150 kilotons; not to carry out any group explosion (consisting of a number of individual explosions) having an aggregate yield exceeding 1,500 kilotons; and not to carry out any group explosion having an aggregate yield exceeding 150 kilotons unless the individual explosions in the group could be identified and measured by agreed verification procedures. The parties also reaffirmed their obligations to comply fully with the Limited Test Ban Treaty of 1963.

The PNET and the TTBT were both submitted to the Senate for its advice and consent on June 28, 1990. Following the Senate's approval of the treaties, the United States and the Soviet Union exchanged instruments of ratification and the treaties entered into force on December 11, 1990. Parties to the TTBT also undertook an obligation to continue negotiations toward a Comprehensive Test Ban Treaty (CTBT). Following the 1992 moratorium on nuclear testing, the TTBT and the PNET are both inactive. Additionally, the CTBT if ratified would supersede both the TTBT and PNET.

The Conference on Disarmament (CD) began its negotiations on a comprehensive nuclear-test-ban treaty in January 1994 within the framework of an Ad Hoc Committee. Although the CD had long been involved with the issue of a test-ban, only in 1982 did it establish a subsidiary body on the item. Disagreement over a mandate for that body blocked tangible progress for years.

After more than two years of intensive negotiations, the Chairman of the Ad Hoc Committee, Ambassador Jaap Ramaker of the Netherlands, presented a final draft treaty to the CD in June 1996. An overwhelming majority of Member States of the CD expressed their readiness to support the draft treaty. India, for its part, stated that it could not go along with a consensus on the draft text and its transmittal to the United Nations General Assembly. The main reasons for such a decision, as India pointed out, were related to its strong misgivings about the provision for the entry-into-force of the treaty, which it considered unprecedented in multilateral practice and running contrary to customary international law, and the failure of the treaty to include a commitment by the nuclear-weapon States to eliminate nuclear weapons within a time-bound framework.

As a result, Australia, on 22 August 1996, requested that the General Assembly resume the consideration of agenda item 65, entitled "Comprehensive Test-Ban Treaty" as provided for in resolution 50/65 of 12 December 1995. For that purpose it also submitted the draft CTBT, identical to that negotiated in the CD, for adoption by the General Assembly. On 10 September, the General Assembly by resolution (A/RES/50/245) adopted the Comprehensive Nuclear Test-Ban Treaty and requested the Secretary-General of the United Nations, in his capacity as Depositary of the Treaty, to open it for signature at the earliest possible date. The Treaty was opened for signature in September 1996.

U.S. Lead and Partner Agencies:

The United States Delegation to the United Nations Conference on Disarmament is the U.S. lead in the negotiation of the CTBT. Though a signatory, the United States has not yet ratified the CTBT.

International Partners:

There are currently 177 signatories to the CTBT.

Annex 2 lists the following 44 States which have signed but not yet ratified the CTBT: Algeria, Argentina, Australia, Austria, Bangladesh, Belgium, Brazil, Bulgaria, Canada, Chile, China, Colombia, Democratic People's Republic of Korea, Democratic Republic of the Congo, Egypt, Finland, France, Germany, Hungary, India, Indonesia, Islamic Republic of Iran, Israel, Italy, Japan, Mexico, Netherlands, Norway, Pakistan, Peru, Poland, Republic of Korea, Romania, Russian Federation, Slovakia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, United States, Vietnam.

Modalities:

The Comprehensive Nuclear Test Ban Treaty (CTBT) itself includes a Protocol in three parts: Part I detailing the International Monitoring System (IMS); Part II on On-Site Inspections (OSI); and Part III on Confidence-Building Measures (CBMs). There are also two Annexes to the Protocol: Annex 1 detailing the location of various Treaty monitoring assets associated with the IMS; and Annex 2 detailing the parameters for screening events.

The Preparatory Commission for the Comprehensive Nuclear Test-Ban Treaty Organization (CTBTO) is an international organization established by the States Signatories to the Treaty on 19 November 1996 and has its headquarters in Vienna, Austria. The objective of the organization is to achieve the object and purpose of the Treaty, to ensure the implementation of its provisions, including those for international verification of compliance with the Treaty, and to provide a forum for consultation and cooperation among States Parties. To this end, the Commission prepares for the entry-into-force of the Treaty and carries out the necessary preparations for the effective implementation of the Treaty, including the establishment of a global verification regime. The Preparatory Commission consists of a plenary body composed of all States signatories to the Treaty and a Provisional Technical Secretariat.

The Preparatory Commission has three subsidiary bodies: Working Group A on administrative and budgetary matters, Working Group B on verification issues, and the Advisory Group on financial, budgetary, and associated administrative issues. Both Working Groups make proposals and recommendations for consideration and adoption by the Preparatory Commission at its plenary sessions.

Assessment:

As a signatory to the CTBT, the United States has reaffirmed its policy to adhere to a moratorium on the testing of nuclear weapons. International and domestic criticisms over the United States Science Based Stockpile Stewardship program (SBSS)—especially Inertial Confinement Fusion research—have raised concerns over whether or not the U.S. is adhering to the “true intent” of the CTBT or if whether the U.S. is circumventing the CTBT through its SBSS research programs

IAEA Safeguards Agreement & Additional Protocol

Sources:

http://www.iaea.org/OurWork/SV/Safeguards/safeg_system.pdf

http://www.iaea.org/Publications/Reports/Anrep2006/anrep2006_full.pdf

The purpose of the safeguards system of the International Atomic Energy Agency (the Agency) is to provide credible assurance to the international community that nuclear material and other specified items are not diverted from peaceful nuclear uses. Towards this end, the safeguards system consists of several, interrelated elements: (i) the Agency's statutory authority to establish and administer safeguards; (ii) the rights and obligations assumed in safeguards agreements and additional protocols; and (iii) the technical measures implemented pursuant to those agreements.

Historical Perspective:

The IAEA is a specialized agency of the United Nations (UN) and is not under direct control of any UN body, but reports to both the General Assembly and the Security Council; unlike most other specialized agencies, it does not do most of its work with the United Nations Economic and Social Council (ECOSOC). The IAEA's structure and function is defined by its founding document: the IAEA's Statute. The IAEA has three main bodies: the Board of Governors, the General Conference, and the Secretariat.

The traditional measures of the Agency's safeguards system, which remain at its core, include verification activities performed at nuclear facilities and at other locations where nuclear material is customarily used. Under the authority conferred upon the Agency in comprehensive safeguards agreements, these activities were originally focused on whether information on facility design, and on the type(s) and quantity(ies) of nuclear material present, had been declared accurately by the State, the aim being to provide assurance that facilities were not misused, and that the declared nuclear material was not diverted to nuclear weapons or other nuclear explosive devices.

The discovery in 1991 of Iraq's clandestine nuclear weapons program highlighted the shortcomings of safeguards implementation focusing essentially on declared nuclear material and safeguards conclusions drawn at the facility level. This set the stage and provided the catalyst for far-reaching efforts to strengthen the safeguards system, in particular the Agency's ability to detect undeclared nuclear material and activities in States with comprehensive safeguards agreements.

U.S. Lead and Partner Agencies:

The Department of State and the U.S. Delegation to the IAEA.

International Partners:

There are currently 143 member states of the IAEA.

Modalities:

The Agency's authority to apply safeguards stems from Article III.A.5 of its Statute. Pursuant to this authority, the Agency concludes agreements with States, and with regional inspectorates, for the application of safeguards. These agreements are of three main types: (i) comprehensive safeguards agreements, (ii) item-specific safeguards agreements, and (iii) voluntary offer agreements. A State with any one of these agreements may also conclude a protocol additional to its safeguards agreement.

The Board of Governors oversees the ongoing operations of the Agency. It is comprised of 35 Member States and generally meets five times a year or more frequently if required for specific situations. Among its functions, the Board adopts the Agency's program for the incoming biennium and makes recommendations on the Agency's budget to the General Conference. The United States, Russia, and China are among the 35 nations represented on the Board of Governors.

At the end of each year, the Agency draws a safeguards conclusion for each State with a safeguards agreement in force, based upon the evaluation of all information available to it for that year. With regard to States with comprehensive safeguards agreements (CSAs), the Agency seeks to conclude that all nuclear material remained in peaceful activities. To draw such a conclusion, the Secretariat must conclude: (i) that there is no indication of diversion of declared nuclear material from peaceful activities (including no misuse of declared facilities or other locations to produce undeclared nuclear material); and (ii) that there is no indication of undeclared nuclear material and activities for the State as a whole.

Assessment:

Early strengthening measures 1991-1993

- State provision of design information on new facilities or on changes in existing facilities as soon as the State authorities decide to construct, to authorize construction or to modify a facility; and the Agency's continuing right to verify the design information over the life of a facility, including decommissioning.
- Board endorsement of the Voluntary Reporting Scheme (see under Voluntary Measures).

Measures implemented under the legal authority already existing in comprehensive safeguards agreements 1995 –

- Agency collection of environmental samples at any place where Agency inspectors have access; and sample analysis at the IAEA Clean Laboratory and/or at qualified laboratories in Member States.
- Agency use of unattended and remote monitoring of movements of nuclear material in facilities and the transmission of authenticated and encrypted safeguards-relevant data to the Agency.
- Agency use, to a greater extent than previously, of unannounced inspections within the routine inspection regime.
- Provision of enhanced training for Agency inspectors and safeguards staff and for Member State personnel responsible for safeguards implementation.
- Closer co-operation between the Agency and State and regional systems for accounting for and control of nuclear material in Member States.
- Enhanced evaluation by the Agency of information derived from States' declarations, Agency verification activities and a wide range of open sources.

Measures implemented under additional protocols 1997 -

- State provision of information about, and Agency inspector access to, all parts of a State's nuclear fuel cycle, from uranium mines to nuclear waste and any other location where nuclear material intended for non-nuclear uses is present.
- State provision of information on, and Agency short-notice access to, all buildings on a site.
- State provision of information about, and Agency inspector access to, a State's nuclear fuel cycle R&D activities not involving nuclear material.
- State provision of information on the manufacture and export of sensitive nuclear-related equipment and material, and Agency inspector access to manufacturing and import locations in the State.
- Agency collection of environmental samples at locations beyond those provided for under safeguards agreements.
- State acceptance of streamlined procedures for Agency inspector designation and of requirement for multiple entry visas (valid for at least one year) for inspectors.
- Agency right to use internationally established communications systems, including satellite systems and other forms of telecommunication.
- Wide area environmental sampling, after Board approval of such sampling and consultations with the State concerned.

Recent measures – 2005

- Revised standardized text and modified eligibility criteria for the Small Quantities Protocol. Voluntary measures 1993 & 1999
- Voluntary reporting on imports and exports of nuclear material and exports of specified equipment and non-nuclear material, i.e. the so-called 'Voluntary Reporting Scheme' (1993)
- Voluntary reporting on holdings and exports of separated neptunium and americium and flow sheet monitoring' of facilities capable of neptunium separation. (1999)

The latest status of the IAEA safeguard and additional protocols can be found at:

http://www.iaea.org/OurWork/SV/Safeguards/sir_table.pdf.

Currently, there are 237 safeguard agreements in 167 nations involving 2142 inspections in 2006 alone. In 2006, safeguards were applied for 162 States with safeguards agreements in force with the Agency. Seventy-five States had both CSAs and APs in force. For 32 of these States, the Agency concluded that all nuclear material remained in peaceful activities. For 43 of the States, the Agency had not yet completed all the necessary evaluations and could therefore only conclude that the declared nuclear material remained in peaceful activities. Similarly, for 78 States with CSAs in force but without APs, the Agency was only able to draw that conclusion.

As of 31 December 2006, 31 non-nuclear-weapon States party to the NPT had yet to bring CSAs into force pursuant to the Treaty. For these States, the Secretariat could not draw any safeguards conclusions.

Convention on Nuclear Safety

Sources:

<http://www-ns.iaea.org/conventions/nuclear-safety.htm>

<http://www.iaea.org/Publications/Documents/Infcircs/Others/inf449.shtml>

Historical Perspective:

State Parties adopted the Convention on Nuclear Safety in Vienna on 17 June 1994. The Convention was drawn up during a series of expert level meetings from 1992 to 1994 and was the result of considerable work by Governments, national nuclear safety authorities and the Agency's Secretariat. Its aim is to legally commit participating States operating land-based nuclear power plants (including research reactors) to maintain a high level of safety by setting international benchmarks to which States would subscribe.

U.S. Lead and Partner Agencies:

U.S. Nuclear Regulatory Commission and the Department of State

NRC prepares a U.S. National Report every three years and names experienced technical managers to participate in peer review discussions.

International Partners:

A full list of signatories can be found at:

http://www.iaea.org/Publications/Documents/Conventions/nukesafety_status.pdf

Modalities:

The obligations of the Parties are based to a large extent on the principles contained in the IAEA Safety Fundamentals document "The Safety of Nuclear Installations". These obligations cover for instance, siting, design, construction, operation, the availability of adequate financial and human resources, the assessment and verification of safety, quality assurance and emergency preparedness.

Review Process: The aim of the review process should be to achieve a thorough examination of National Reports submitted in accordance with Article 5 of the Convention, so that Contracting Parties can learn from each other's solutions to common and individual nuclear safety problems and, above all, contribute to improving nuclear safety worldwide through a constructive exchange of views.

(http://www-ns.iaea.org/downloads/ni/safety_convention/infcirc571r2.pdf)

National Reports: The basic concept of the Convention is the obligation of the Contracting Parties to apply widely recognized principles and tools for high-quality safety management and to submit the National Reports on the implementation of those principles and tools to peer reviews with international participation. In accordance with Article 1 of the Convention, the National Reports should illustrate how the objectives of the Convention, especially a high level of nuclear safety, have been achieved. National reports are reviewed every three years; starting in 1999. (http://www-ns.iaea.org/downloads/ni/safety_convention/infcirc572r2.pdf)

Assessment:

A full assessment of the 2005 review process can be found at:

http://www-ns.iaea.org/downloads/ni/safety_convention/conv-2005.pdf.

Joint Spent Fuel Management Convention

Sources:

<http://www-ns.iaea.org/conventions/waste-jointconvention.htm#4>

<http://www.em.doe.gov/Pages/jca.aspx>

The Joint Convention's objective is improved safety in the management of radioactive waste in Member States through an effective review process under the Joint Convention.

Historical Perspective:

The Joint Convention on the Safety of Spent Fuel management and on the Safety of Radioactive Waste Management, the first legal instrument to directly address these issues on a global scale, opened for signature on 29 September 1997, the first day of the 41st regular session of the IAEA's General Conference.

The Joint Convention applies to spent fuel and radioactive waste resulting from civilian nuclear reactors and applications and to spent fuel and radioactive waste from military or defense programs if and when such materials are transferred permanently to and managed within exclusively civilian programs, or when declared as spent fuel or radioactive waste for the purpose of the Convention by the Contracting Party. The Convention also applies to planned and controlled releases into the environment of liquid or gaseous radioactive materials from regulated nuclear facilities.

U.S. Lead and Partner Agencies:

U.S. Department of Energy/ Office of Environmental Management and,
Department of State/ Bureau of International Security and Nonproliferation

International Partners:

There are currently 45 parties to the Joint Convention (42 signatories).

Current status of the Joint Convention can be viewed at:

http://www.iaea.org/Publications/Documents/Conventions/jointconv_status.pdf.

Modalities:

The obligations of the Contracting Parties with respect to the safety of spent fuel and radioactive waste management are based to a large extent on the principles contained in the IAEA Safety Fundamentals document "The Principles of Radioactive Waste Management", published in 1995. They include, in particular, the obligation to establish and maintain a legislative and regulatory framework to govern the safety of spent fuel and radioactive waste management and the obligation to ensure that individuals, society and the environment are adequately protected against radiological and other hazards, inter alia, by appropriate siting, design and construction of facilities and by making provisions for ensuring the safety of facilities both during their operation and after their closure.

To deliver these objectives, the Joint Convention adopted a review process. The Joint Convention requires each Contracting Party to:

- Submit in advance to all other Contracting Parties a National Report describing how it implements the obligations of the Joint Convention;
- Seek clarification on the National Reports of other Contracting Parties through a system of written questions and answers;
- Present and discuss its National Report during a Review Meeting comprising Country Group sessions and Plenary sessions.

China informed the President that it had completed the internal ratification procedures on 29 April 2006 with a view to becoming a Contracting Party, but had not yet deposited its instrument of accession with the depositary. However, it had requested to participate in the Review Meeting. At the Plenary session on 15 May, the Contracting Parties agreed by consensus to China's request to participate as a full participant in the Second Review Meeting.

Assessment:

As required by Article 30 of the Joint Convention, the Second Review Meeting of the Contracting Parties to the Joint Convention was held at the Headquarters of the IAEA in Vienna, Austria from 15 to 24 May 2006. All of the Forty-one

Contracting Parties, including eight new Contracting Parties, i.e., Brazil, Estonia, Euratom, Iceland, Italy, Lithuania, Russian Federation and Uruguay, with nearly 500 delegates, were in attendance.

During the Second Review Meeting, Contracting Parties demonstrated their commitment to improving policies and practices particularly in the areas of:

- national strategies for spent fuel and radioactive waste management;
- engagement with stakeholders and the public; and
- the control of disused sealed sources.

The participation provides benefits to the United States, these include: with other Parties harmonizing international approaches to achieve strong and effective nuclear safety programs on a global scale, stimulating initiatives to improve safety systems within our own domestic programs, learning about technical innovations of other Contracting Parties that might apply here, and identifying future areas for bilateral and multilateral technical and regulatory cooperation and opportunities for U.S. vendors and suppliers to broaden their market.

Challenges continue in a number of areas including the implementation of national policies for the long-term management of spent fuel, disposal of high level wastes, management of historic wastes, recovery of orphan sources, knowledge management and human resources. The need to ensure that Contracting Parties' financial commitments are consistent with the extent of liabilities was also recognized.

Additional assessments can be found at:

<http://www-ns.iaea.org/downloads/rw/conventions/second-review-meeting/summary-report-of-the-second-review-meeting.pdf>.

Chemical Weapons Convention

Source:

<http://www.opcw.org/>

The CWC aims to achieve a global ban on the development, production, stockpiling, transfer and use of chemical weapons

Historical Perspective:

The Chemical Weapons Convention (CWC) entered into force on April 29, 1997.

The CWC is the first multilateral arms control and nonproliferation treaty to widely affect the private sector. Although the United States does not manufacture CW and is in the process of destroying its stockpile, it does produce, process, consume, export and import a number of dual-use toxic chemicals and precursors that can be used to produce chemical weapons. US companies engaged in activities involving these chemicals may be required to submit declarations and/or reports to the Bureau of Industry and Security (BIS) and may be subject to inspection by the Organization for the Prohibition of Chemical Weapons, which administers the CWC. In addition, trade in certain chemicals with States not Party to the CWC may be prohibited or subject to an export license and or end-use certificate.

The United States has strong outreach programs on universality and national implementation, and provides information and assistance to States on joining and implementing the Convention. In 2004 the United States approached ninety-eight States Parties to urge adoption of measures to implement fully the Convention. The United States also urged seventeen of the thirty States not Party to join the Convention and strongly encouraged Libya to join the CWC, which it has now done.

U.S. Lead and Partner Agencies:

The United States Department of State/ Bureau of International Security and Nonproliferation

The United States Department of Commerce/Bureau of Industry and Security

International Partners:

There are 183 Member States. Status of Participation in the Chemical Weapons Convention can be found at: http://www.opcw.org/html/db/members_ratifyer.html.

Modalities:

The CWC imposes declaration requirements upon industry in States Parties when production, processing, or consumption exceeds certain thresholds. These requirements include:

- Initial declarations.
- Annual declarations of the past year's activities.
- Annual declarations of next year's anticipated activities.
- Declaration amendments or updates for changes to previously submitted data or additionally planned activities.
- The CWC imposes reporting requirements upon industry in States Parties when imports or exports exceed certain thresholds. Reports are used for national aggregation purposes only and are not sent to the OPCW.

The CWC mandates on-site inspections when certain (generally higher) activity thresholds are exceeded.

Initial Inspections:

- Verify accuracy of declarations and ensure activities are consistent with the object and purpose of the CWC.
- Assess risk to determine frequency and intrusiveness of future inspections.
- Prepare facility agreements (mandatory for Schedule 1 and 2; optional for Schedule 3 and UDOCs).

Subsequent ("Routine") Inspections:

- Purpose is to verify declarations, the absence of Schedule 1 chemicals (if not declared), and the nondiversion of scheduled chemicals.
- Schedule 1 facilities: number, intensity, duration, timing and mode of inspection based on risk.
- Schedule 2 plant sites: maximum 2 inspections per year, per plant site; inspections may last 96 hours.
- Schedule 3 plant sites: maximum 2 inspections per year, per plant site (national annual maximum of 20 Schedule 3 and UDOC inspections); inspections may last 24 hours.

- UDOC plant sites: generally similar to Schedule 3.

Assessment:

The United States has received an extension for the completion of the destruction of its Category 1 stockpile to 29 April 2012. To date, the U.S. has destroyed more than 45% of its declared inventory of Category 1 chemical weapons and has destroyed 100% of its Category 3 chemical weapons. During the period under review, the United States of America destroyed 1,145.719 metric tons of Category 1 chemical weapons, and by the end of the year had destroyed approximately 39.6% of its Category 1 chemical weapons stockpile.

At the First Review Conference in 2003, the Review Document assessed the implementation of specific provisions of the Convention during its first six years. The document reviewed the CWC's role in enhancing international peace and security, universality of the treaty, declarations and verification, inspections of chemical weapons and industrial facilities, and the OPCW's ability to assist and protect States Parties from use or threat of use of chemical weapons attacks. It took into consideration economic and technological developments within the chemical industries. The document encouraged States Parties to provide assistance upon request to other CWC States Parties in the destruction of chemical weapons stockpiles, while also stressing the importance of enhanced cost effectiveness of the verification measures applied to stockpiles and destruction facilities.

Overall assessment/ evaluations:

- 183 nations, representing about 98% of the global population, have joined the Organization for the Prohibition of Chemical Weapons.
- 100% of the declared chemical weapons production facilities have been inactivated. All are subject to a verification regime of unprecedented stringency.
- 100% of the declared chemical weapons stockpiles have been inventoried and verified.
- 94%, or 61, of the 65 chemical weapons production facilities declared to the Organization by 12 States Parties have been either destroyed or converted for peaceful purposes.
- One-third of the 8.6 million chemical munitions and containers covered by the Convention have also been verifiably destroyed.
- Over one-third of the world's declared stockpile of approximately 71,000 metric tons of chemical agent have been verifiably destroyed.
- 3,144 inspections have taken place at 192 chemical weapon-related and 987 industrial sites on the territory of 80 States Parties since April 1997.
- Worldwide, 5,177 industrial facilities are liable to inspection.

The second Review Conference is scheduled for 2008.

International Code of Conduct against Ballistic Missiles

Sources:

http://www.nti.org/d_newswire/issues/newswires/2002_2_15.html#13

<http://cns.miis.edu/pubs/inven/pdfs/icoc.pdf>

The Hague Code of Conduct against Ballistic Missile Proliferation (HCOG), formerly known as “The International Code of Conduct” (ICOC), was adopted at an international conference held on 25-26 November 2002 in The Hague. The Code is meant to supplement the Missile Technology Control Regime (MTCR) but its membership is not restricted. Under the Code, States make politically binding commitments to curb the proliferation of WMD-capable ballistic missiles and to exercise maximum restraint in developing, testing, and deploying such missiles.

Historical Perspective:

On June 17-19, delegations from nearly 100 countries met in Madrid to continue negotiations on the drafting of an International Code of Conduct Against Ballistic Missile Proliferation, intended to discourage states from developing or acquiring ballistic missile technology. The Code, which would only be politically binding and not an article of international law, is intended to address some of the shortcomings of the Missile Technology Control Regime (MTCR) by introducing demand-side controls on the acquisition of ballistic missile technology.

U.S. Lead and Partner Agencies:

U.S. Department of State/ Bureau for International Security and Nonproliferation.

International Partners:

There are 111 Member States who have signed the ICOC

Modalities:

Verification and Compliance: There is not a formal Secretariat or implementing organization and the Code does not represent an effective and verifiable regime against ballistic missiles. Rather, it is a politically binding document, encouraging States to undertake limited measures such as annually reporting on their ballistic missile programs and alerting all other signatories before conducting ballistic missile tests. There is no attempt to commit signatories to legal obligations, with the focus remaining on broad principles rather than detailed action plans.

2003: The Second Annual Meeting was held 1-3 October in New York, and was chaired by Chile. Members agreed to continue working on universalization of the Code, as well as implementation issues. Annual declarations on space and ballistic missile policies were also discussed.

2002: At the February 2002 meeting in Paris, more than 80 States agreed on a slightly revised draft International Code of Conduct (as was agreed to at the 2001 MTCR Plenary meeting), with the hope of completing it by the end of 2002. Among the significant changes were fewer and less explicit references to existing disarmament and nonproliferation treaties, as well as the introduction of looser language with respect to the Code’s “obligations” (now referred to as “general measures”) and “incentives” (replaced by “cooperation” and “cooperative measures”).

2001: At the Ottawa Plenary in September, the draft HCOG was adopted and the partners of MTCR decided that France would host a meeting to be attended by member and non-member countries early in 2002 to further discuss and finalize the draft Code of Conduct.

Assessment:

While the confidence building measures in the Code are commendable, they are not without their critics. Provisions for annual declarations on ballistic missile and SLV activities and policies, and invitations to host international observers at space vehicle launches, are aimed at promoting transparency and enhancing stability. However, confidence building measures are perhaps better suited to a regional rather than global scope, as has been found in Russia’s Global Control System negotiations. Israel, for example, has repeatedly pointed out that “in tense regions like the Middle East, announcements of missile launches are perceived as threats, not the opposite”.

Moreover, the Code’s effectiveness could be compromised by the establishment of competing control regimes, allowing states to go “venue shopping” to find the best one that suits their ambitions, according to Richard Speier, a former

Pentagon official. Russia proposed a Global Control System (GCS) in 1999 with similar provisions to the ICOC but with defined incentives, while Iran has consistently called for such a regime to be conducted under the auspices of the UN. While Russian delegates said that they were “satisfied” with the recent talks, they continue to be interested in the GCS saying that “the text of the draft Code could be improved by including in it more detailed wordings on such issues as technological cooperation and the provision of guarantees for countries voluntarily abandoning their own missile programs”. The UN Study Group on Missiles, set up by Iran and backed by many Non-Aligned Movement (NAM) states, has been sidelined by the United States, France and other MTCR members in favor of the ICOC.

Suppression of Acts of Nuclear Terrorism

Sources:

<http://cns.miis.edu/pubs/inven/pdfs/nucterr.pdf>

http://untreaty.un.org/English/Terrorism/English_18_15.pdf

On April 13, 2005 the UN General Assembly adopted by consensus an International Convention for the Suppression of Acts of Nuclear Terrorism (“Nuclear Terrorism Convention”) addressing the unlawful possession or use of nuclear devices or materials by non-state actors. The Nuclear Terrorism Convention calls for states to develop appropriate legal frameworks criminalizing nuclear terrorism-related offenses, investigate alleged offenses, and, as appropriate, arrest, prosecute, or extradite offenders.

The Act also calls for international cooperation with nuclear terrorism investigations and prosecutions, through information-sharing, extradition and the transfer of detainees to assist with foreign investigations and prosecutions. With its focus on the investigation and prosecution of individuals, the Nuclear Terrorism Convention also addresses to a limited extent the treatment of detainees.

Historical Perspective:

In 1996, the UN Secretary-General (UNSG) prepared a report pursuant to UN General Assembly Resolution 50/53, in which he reviewed existing international legal instruments relating to international terrorism and concluded that there was a need to elaborate international treaties or other kinds of instruments in areas not covered by existing treaties. Among the measures the UNSG proposed was preventing the use of weapons of mass destruction (WMD) by terrorists.

The draft convention was proposed by the Russian Federation, and considered by the Legal Committee of the UN General Assembly. The Russian Federation, in its explanatory note on the draft convention, noted that the 1980 Convention on the Physical Protection of Nuclear Material (CPPNM) had a number of substantial gaps concerning countering acts of nuclear terrorism, particularly at the stage of stopping the terrorist act and eliminating its consequences.

Adopted: 13 April 2005

Opened for Signature: 14 September 2005

Entry into Force: 7 July 2007

U.S. Lead and Partner Agencies:

Department of State/ Bureau for International Security and Nonproliferation

International Partners:

Number of Signatories: 107

Number of State Parties: 22

Depository: UN Secretary-General.

Modalities:

Key provisions of the convention include:

- A wider definition (than the Convention on the Protection of Nuclear Materials) on materials and facilities covering both military and peaceful applications
- The criminalization of those planning, threatening, or carrying out acts of nuclear terrorism; it also requires states to criminalize these offenses via national legislation and to establish penalties in line with the gravity of such crimes
- Conditions under which states may establish jurisdiction for offenses
- Guidelines for extradition and other measures of punishment
- The requirement for states to take all practicable measures to prevent and counter preparations for offenses to take place inside or outside of their territories
- The distinction that the convention does not cover the activities of armed forces during an armed conflict or military exercise.

Assessment:

One question of significance will be how the experience with the Nuclear Terrorism Convention impacts the development of a Comprehensive Convention on International Terrorism. The United States, Russia and others, praising the adoption of the Nuclear Terrorism Convention, all have pointed to the need to continue forward towards bringing a Comprehensive Convention on International Terrorism into being.

Export and Technology Controls

This section includes:

1. Zangger Committee
2. Nuclear Suppliers Group (NSG)
3. Missile Technology Control Regime (MTCR)
4. Australia Group (AG) Wassenaar Arrangement (WA)
5. Nuclear Materials Management & Safeguards System (NMMSS)
6. DOE International Nonproliferation Export Control Program (INECP)
7. DOS Export Control and Related Border Security Assistance Program (EXBS)
8. Department Of Commerce Transshipment Country Export Control Initiative (TECI)

Zangger Committee

Source:

<http://www.zanggercommittee.org/Zangger/default.htm>

The Committee was set up in 1971 with the purpose of agreeing on the detailed implementation of Article III.2 of the NPT. This article reads as follows:

“Each State Party to the Treaty undertakes not to provide (a) source or special fissionable material, or (b) equipment or material especially designed or prepared for the processing use or production of special fissionable material, to any non-nuclear weapon state (NNWS) for peaceful purposes, unless the source or special fissionable material shall be subject to the safeguards required by this article.”

Historical Perspective:

Between 1971 and 1974, a group of 15 States - some already parties to the Nuclear Nonproliferation Treaty (NPT), others prospective parties - held a series of informal meetings in Vienna chaired by Professor Claude Zangger of Switzerland. As suppliers or potential suppliers of nuclear material and equipment, their objective was to reach a common understanding on:

- The definition of what constituted "equipment or material especially designed or prepared for the processing, use or production of special fissionable material" (as it was not defined anywhere in the Treaty);
- The conditions and procedures that would govern exports of such equipment or material in order to meet the obligations of article III, paragraph 2 of the NPT, on a basis of fair commercial competition.

U.S. Lead and Partner Agencies:

Department of State/ Bureau of Nonproliferation

International Partners:

Argentina, Australia, Austria, Belgium, Bulgaria, Canada, China, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Republic of Korea, Luxemburg, The Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom and United States of America.

The European Commission is a permanent observer.

Modalities:

The committee has agreed to exchange information about actual exports or issue of licenses for exports to any NNWS not party to the NPT through its system of “Annual Returns,” which are circulated on a confidential basis among its Member States each year in April.

The committee meets in Vienna twice a year, in May and in October. These meetings are informal and confidential. The members also exchange confidential annual reports in April detailing actual exports and the issuance of any export licenses to any NNWS not party to the NPT.

This regime is a voluntary association, not bound by a treaty, and therefore has no formal mechanism to enforce compliance. The committee adopted voluntary measures to strengthen confidence, such as the agreement to exchange information about actual exports or issue of licenses for exports to any NNWS not party to the NPT through its system of “Annual Returns,” which are circulated on a confidential basis among its Member States each year in April. The Czech Republic acts as the current Chair of the Committee and the UK as the Secretariat of the Committee.

Assessment:

Since 1974, the Zangger Committee has continuously reviewed, updated, and amended its Trigger List. Eight major revisions have taken place:

- In December 1978, the Committee updated the annex to add heavy water production plants and equipment, and a few specific items of isotope separation equipment for uranium enrichment;
- In February 1984, the Committee added further detail to the annex to take account of technological developments during the preceding decade in the area of uranium enrichment by the gas centrifuge process;

- In August 1985, a similar clarification was made to the annex section on irradiated fuel reprocessing;
- In February 1990, the uranium enrichment section was further elaborated by the identification of items of equipment used for isotope separation by the gaseous diffusion method;
- In May 1992, specific items of equipment were added to the section on heavy water production;
- In April 1994, the enrichment section of the annex was subject to its most significant expansion yet. Existing portions of the section were updated, and detailed lists of equipment were added for the enrichment processes of aerodynamic, chemical and ion exchange, laser-based plasma, and electromagnetic separation. A significant modification was also made to the entry for primary coolant pumps;
- In May 1996, the sections on reactors and reactor equipment, on non-nuclear materials, on the fabrication of fuel elements as well as on heavy water production were reviewed. Parts of these sections were updated and new, detailed equipment was added;
- In March 2000, a new section on uranium conversion was added. This section also contains elements transferred from section 3 (reprocessing).

Nuclear Suppliers Group (NSG)

Source:

<http://www.nuclearsuppliersgroup.org/>

The purpose of the NSG is to prevent the proliferation of nuclear weapons through export controls on materials, equipment, and technology which may be used for the development of nuclear weapons.

Historical Perspective:

The Nuclear Suppliers Group (NSG) was created following the explosion in 1974 of a nuclear device in India, which demonstrated that nuclear technology transferred for peaceful purposes could be misused. The NSG, which met for the first time in 1975, was set up to consider ways of adapting conditions of supply for nuclear material, including the application of IAEA safeguards, so that nuclear co-operation could be pursued without contributing to the risk of nuclear proliferation.

After a series of meetings of the group between 1975 and 1978, guidelines for the transfer of nuclear material, equipment, and technology were agreed. These were published by the International Atomic Energy Agency (IAEA); the latest version, known as the "Trigger List" is available to the right of this page in the Related Docs section to the right of this page. The group did not meet again until 1991. When, following the Gulf War, Iraq's clandestine nuclear weapons program was uncovered, it was concluded that the existing conditions of supply for nuclear-related items needed to be strengthened.

In March 1991, an informal meeting of states subscribing to the NSG Guidelines was held, which led to further meetings and the setting up of a working group to consider the controls on "Dual-Use" equipment – i.e. equipment which could be used in a nuclear explosive activity as well as in the nuclear fuel cycle. Agreement was reached on guidelines for transfers of nuclear-related dual-use equipment, material, and technology. These Guidelines are published by the IAEA as a document known as the "Dual-Use List."

U.S. Lead and Partner Agencies:

Department of State

U.S. Department of Commerce/ Office of Nonproliferation and Treaty Compliance

International Partners:

Argentina, Australia, Austria, Belarus, Belgium, Brazil, Bulgaria, Canada, China, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Kazakhstan, Republic of Korea, Latvia, Lithuania, Luxembourg, Malta, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, United States

Modalities:

The Nuclear Suppliers Group meets formally once a year at the NSG Plenary and its guidelines are implemented by each Participating Government in accordance with its national laws and practices. Decisions on export applications are taken at the national level in accordance with national export licensing requirements.

Factors taken into account for participation include the following:

- The ability to supply items (including items in transit) covered by the Annexes to Parts 1 and 2 of the NSG Guidelines;
- Adherence to the Guidelines and action in accordance with them;
- Enforcement of a legally based domestic export control system which gives effect to the commitment to act in accordance with the Guidelines;
- Adherence to one or more of the NPT, the Treaties of Pelindaba, Rarotonga, Tlatelolco, Bangkok or an equivalent international nuclear non-proliferation agreement, and full compliance with the obligations of such agreement(s);
- Support of international efforts towards non-proliferation of weapons of mass destruction and of their delivery vehicles.

Assessment:

In contrast to the Zangger Committee, NSG members are not required to be parties to the NPT, but they all must adhere to instruments that contain equally binding commitments.

This regime is a voluntary association, not bound by a treaty, and therefore has no formal mechanism to enforce compliance. The NSG guidelines are applied both to members and non-members of the NSG. As practiced by NSG members, export controls operate on the basic principle of cooperation with restrictions as the exception.

Missile Technology Control Regime (MTCR)

Source:

<http://www.mtcr.info/english/index.html>

The MTCR is an informal non-treaty association of governments sharing common interests in the non-proliferation of missiles, unmanned air vehicles, and related technologies. The regime consists of the Guidelines and an Equipment and Technology Annex.

The Regime's controls are applicable to certain complete rocket systems (to include ballistic missiles, space launch vehicles (SLVs), and sounding rockets) and unmanned air vehicle (UAV) systems (to include cruise missiles, drones, UAVs, and remotely piloted vehicles (RPVs)). Partners also recognize the importance of controlling the transfer of missile-related technology without disrupting legitimate trade and acknowledge the need to strengthen the objectives of the Regime through cooperation with countries outside the Regime.

Historical Perspective:

Formal discussions on controlling missile proliferation began in 1983 among France, Germany, Italy, the United Kingdom, and the United States. They were later joined by Canada and Japan, and in 1985, an interim agreement to control the proliferation of nuclear-capable ballistic missiles, including dual-use missile items, was reached. Parties defined a nuclear-capable missile as one capable of delivering at least 500 kilograms (kg) to a range of 300 kilometers (km) or more. The G-7 States formally announced the Missile Technology and Control Regime (MTCR) on 16 April 1987.

U.S. Lead and Partner Agencies:

Department of State/ Bureau of Nonproliferation

U.S. Department of Commerce/ Office of Nonproliferation and Treaty Compliance

International Partners:

Argentina (1993), Australia (1990), Austria (1991), Belgium (1990), Bulgaria (2004), Brazil (1995), Canada (1987), Czech Republic (1998), Denmark (1990), Finland (1991), France (1987), Germany (1987), Greece (1992), Hungary (1993), Iceland (1993), Ireland (1992), Italy (1987), Japan (1987), Luxembourg (1990), Netherlands (1990), New Zealand (1991), Norway (1990), Poland (1998), Portugal (1992), Republic of Korea (2001), Russian Federation (1995), South Africa (1995), Spain (1990), Sweden (1991), Switzerland (1992), Turkey (1997), Ukraine (1998), United Kingdom (1987), United States of America (1987).

Modalities:

MTCR partners hold an annual Plenary Meeting chaired on a rotational basis. The Plenary host becomes the Chair of the MTCR for the period extending to the next Plenary. Technical Experts Meetings, Information Exchanges and Enforcement Expert Meetings are held on an ad hoc basis. The MTCR has no secretariat. Distribution of the Regime's working papers is carried out through a point of contact, the functions of which are performed by the Ministry of Foreign Affairs of France. Intercessional consultations also take place monthly through POC meetings in Paris, occasionally reinforced with capitals-based officials.

Assessment:

The MTCR is an informal non-treaty association of governments sharing common interests, and therefore has no formal mechanism to enforce compliance. The implementation of the MTCR is dependent on the resolve of its Member States. The Member States usually deal with the implementation of the MTCR somewhat differently. The United States, being the most ardent MTCR participant, backs the implementation of the MTCR by a sanctions law, whereas other States have used a more low-profile approach. The only countries besides the nuclear-weapon states with long-range missiles or space-launch vehicles are India, Israel, Japan, and Saudi Arabia. China's sale of some tens of 3,000-km range DF-3 (CSS-2) missiles to Saudi Arabia in 1988--the only transfer of missiles having a range greater than 600 km (aside from the US sale of Polaris and Trident missiles to Britain)--caused an international uproar and helped strengthen measures such as the MTCR. No further sales have occurred.

Australia Group (AG)

Source:

<http://www.australiagroup.net/en/index.html>

The Australia Group (AG) is an informal forum of countries which, through the harmonization of export controls, seeks to ensure that exports do not contribute to the development of chemical or biological weapons. Coordination of national export control measures assists Australia Group participants to fulfill their obligations under the Chemical Weapons Convention and the Biological and Toxin Weapons Convention to the fullest extent possible.

Historical Perspective:

In early 1984, a United Nations investigation team found that Iraq used chemical weapons (CW) in the Iran-Iraq war in violation of the 1925 Geneva Protocol, and that at least some of the precursor chemicals and materials for its CW program had been sourced through legitimate trade channels. In response, several countries introduced export controls on certain chemicals that could be used to manufacture CW. The first meeting of what subsequently became known as the Australia Group took place in Brussels in June 1985. At that meeting, the 15 participating countries and the European Commission agreed that there was value in exploring how existing export controls might be made more effective to prevent the spread of CW.

The Group has met regularly since then, and annual meetings are now held in Paris. The scope of the export controls discussed by the Group has evolved to address emerging threats and challenges. Evidence of the diversion of dual-use materials to biological weapons programs in the early 1990s led to participants' adoption of export controls on specific biological agents. The control lists developed by the Group have also expanded to include technologies and equipment which can be used in the manufacturing or disposal of chemical and biological weapons.

U.S. Lead and Partner Agencies:

Department of State/ Bureau of Nonproliferation

U.S. Department of Commerce/ Office of Nonproliferation and Treaty Compliance

International Partners:

Argentina, Republic of Korea, Australia, Latvia, Austria, Lithuania, Belgium, Luxembourg, Bulgaria, Malta, Canada, Netherlands, Croatia, New Zealand, Republic of Cyprus, Norway, Czech Republic, Poland, Denmark, Portugal, Estonia, Romania, European Commission, Slovak Republic, Finland, Slovenia, France, Spain, Germany, Sweden, Greece, Switzerland, Hungary, Republic of Turkey, Iceland, Ukraine, Ireland, United Kingdom, Italy, United States, Japan.

Modalities:

The AG mechanisms include national control laws and procedures; Common Control Lists (precursors, equipment, agents, and organisms); guidelines for the industry to assist in identifying potential CW equipment transactions; and information-sharing among members when suspicious inquiries are received, cases are denied, or information suggests possible international procurement for untoward purposes.

Participants in the AG do not undertake any legally binding obligations. The effectiveness of the cooperation between participants depends solely on their commitment to CBW nonproliferation goals and the effectiveness of the measures they each implement on a national basis. Key considerations governing these national measures by AG participants are that: 1) the measures should be effective in impeding the production of chemical and biological weapons; 2) they should be reasonably easy to implement, and should be practical; and 3) they should not impede the normal trade of materials and equipment used for legitimate purposes.

Compliance with this regime is reinforced by membership of all AG States to the Chemical Weapons Convention (CWC) and the Biological and Toxin Weapons Convention (BTWC). The group has met privately since 1984 to exchange intelligence information and coordinate export controls for chemical and biological agents and related equipment to countries outside the group.

Assessment:

More recently, the AG:

- adopted formal guidelines governing the licensing of sensitive chemical and biological items;

- tightened control parameters to increase security against terrorists seeking items for CBW attacks;
- agreed to control the transfer of AG-controlled information and knowledge in "intangible" form (e.g., via fax, phone, e-mail, or speech);
- intensified its focus on engaging with and changing the behavior of countries that possess CBW or facilitate CBW programs;
- agreed to take into account in licensing decisions the adequacy of recipient-state and intermediary-state export controls;
- agreed to engage countries in the Asia-Pacific region on CBW nonproliferation issues;
- approved new procedures for improving transparency and enhancing information sharing among members, including via an electronic information-sharing system;
- approved a practical guide for compliance and enforcement officers.

Wassenaar Arrangement (WA)

Source:

<http://www.wassenaar.org/>

The WA, which has its secretariat in Vienna, Austria was established in 1996 to address post-Cold War security concerns. It is the first global multilateral regime that contributes to regional and international security and stability by promoting transparency and responsibility in transfers of conventional arms and sensitive dual-use goods and technologies. The goal is to prevent destabilizing accumulations of weapons and technologies in unsettled regions and to apply pressure to states whose behavior is a cause for serious concern.

Historical Perspective:

In light of the end of the Cold War, members of the former Coordinating Committee for Multilateral Export Controls COCOM export control regime recognized that COCOM's East-West focus was no longer the appropriate basis for export controls. There was a need to establish a new arrangement to deal with risks to regional and international security and stability related to the spread of conventional weapons and dual-use goods and technologies. Accordingly, on the 16th of November 1993, in The Hague, at a High Level Meeting (HLM), representatives of the 17 COCOM member states agreed to terminate COCOM, and establish a new multilateral arrangement, temporarily known as the "New Forum".

The Russian Federation, Czech Republic, Hungary, Poland, and the Slovak Republic were welcomed as participating states at the High Level Meeting held on 11-12 September 1995 in Wassenaar. Parties reached the agreement to establish the "Wassenaar Arrangement" at the HLM held on 19 December 1995, again in Wassenaar. State Parties announced this with a declaration issued at the Peace Palace in the Hague. At this time there was also agreement to locate the Secretariat in Vienna and establish a "Preparatory Committee of the Whole" to prepare for the first plenary meeting.

State Parties held the inaugural Plenary Meeting of the Wassenaar Arrangement 2-3 April 1996 in Vienna, Austria. Argentina, the Republic of Korea and Romania were welcomed as additional founding members.

U.S. Lead and Partner Agencies:

Directorate of Defense Trade Controls, US Department of State
Bureau of Industry and Security, US Department of Commerce
Export Administration Regulations Marketplace, US Department of Commerce
Defense Security Cooperation Agency, US Department of Defense
Delegation to Wassenaar Arrangement, US Mission to International Organizations in Vienna

International Partners:

Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, Netherlands, New Zealand, Norway, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom and United States.

Modalities:

Membership in the Wassenaar Arrangement (WA) is universal and nondiscriminatory for countries meeting the established criteria:

- produce/export arms or associated dual-use goods and technologies;
- implement national policies that do not permit the sale of arms or sensitive dual-use items to countries whose behavior is a cause for concern;
- adhere to international nonproliferation norms and guidelines;
- implement fully effective export controls.
- Members of the WA are obligated to maintain rigorous national export control systems analogous to those of the former Coordinating Committee for Multilateral Export Controls countries. In turn, participating States have to be members of or be acting in accordance with the Treaty on the Non- Proliferation of Nuclear

Weapons (NPT), Missile Technology Control Regime (MTCR), Chemical Weapons Convention (CWC), and the UN Register of Conventional Arms.

The Wassenaar States meet regularly in Vienna, Austria, and make their decisions based on consensus.

Assessment:

This regime is a voluntary association, not bound by a treaty, and therefore has no formal mechanism to enforce compliance. In a step towards developing confidence-building measures, the Member States agreed in December 2000 at the sixth Plenary Meeting in Bratislava, on “non-binding best practices” regarding the effective enforcement of national export controls; the disposal of surplus military equipment; and the control of exports of items designated as very sensitive.

The Wassenaar Arrangement follows "Guidelines and Procedures, including the Initial Elements". The "Initial Elements" were originally established in 1996 (amended in 2001), and set out the Purposes and Scope of the Arrangement. They also cover the Wassenaar Arrangement approach on:

- Control Lists
- Procedures for the General Information Exchange
- Procedures for the Exchange of Information on Dual-Use Goods and Technology
- Procedures for the Exchange of Information on Arms
- Meetings and Administration
- Participation
- Confidentiality

Wassenaar Arrangement Reporting Requirements:

- Arms ; Semiannual reporting on deliveries to non-members of conventional weapons in the following categories:
 - Battle Tanks
 - Armored Combat Vehicles
 - Large Calibre Artillery Systems
 - Military Aircraft/Unmanned Aerial Vehicles
 - Military and Attack Helicopters
 - Warships
 - Missiles or Missile Systems
 - Dual-Use Goods and Technology
- Tier One: Basic List of Dual-Use Goods and Technologies;
 - Notification of Aggregated License Denials, Semiannually
- Tier Two: Sensitive List
 - Notification of Individual License Denials, Within 30-60 Days
 - Also Semiannual Notification of Aggregated Licenses Issued or Transfers Made
 - Subset of Tier Two: Very Sensitive List
 - Transfer Decisions Subject To Extreme Vigilance by
 - Exporting Government Reporting Requirements Same as Tier Two

Nuclear Materials Management & Safeguards System (NMMSS)

Source:

<http://www.nmmss.com/history.html>

NMMSS is the U.S. government's information system containing current and historic data on the possession, use and shipment of nuclear materials. This centralized data base contains information collected from government and commercial nuclear facilities and provides output reports to those facilities and other interested parties, primarily U.S. government offices charged with the management and safeguarding of nuclear materials.

Historical Perspective:

States generally kept nuclear material accounting data in manual form between the early 1940s and the start of the Nuclear Materials Information System (NMIS), the system that preceded the NMMSS. Some of the larger U.S. facilities used computers before the NMIS, a fact that was persuasive in deciding to build a national system in the early 1960s.

In the early 1940s, there was no government accounting standards of any significance for nuclear materials. Records were kept in considerable detail but there was little standardization among facilities. In 1948, the first standard procedures were established and those procedures, although primitive, have served as a foundation for the procedures used today. When the Atomic Energy Act of 1954 was implemented, a comprehensive set of procedures was developed by the Atomic Energy Commission (AEC). For the first time, facilities had for their use a set of accounting requirements incorporating the generally accepted accounting principles of the accounting profession.

In the early 1960s, the AEC engaged the Stanford Research Institute (SRI) to perform a study into the feasibility of developing a headquarters management information system on nuclear materials. The SRI team, under the leadership of Dr. Edwin Kinderman, recommended such a system be developed. The SRI study, reported in 1966, was delayed as specifics of the system design were debated. The report was issued at last and made the point that such a central data base would allow application of statistical techniques to evaluate shipper-receiver differences and book physical inventory differences and unaccounted for materials. Statistical techniques such as these were not feasible with data available from systems that existed at that time. In 1963, the General Manager of the AEC appointed a task force to develop plans for a system meeting the SRI recommendations.

The new system was to serve eight headquarters divisions that were significant users of nuclear materials information. Interestingly, the needs of the operations offices were considered secondary, and some of the larger operations offices believed the system was unnecessary. The total system was to be developed and implemented in stages, progressively putting the components in place as they were developed.

U.S. Lead and Partner Agencies:

NMMSS is sponsored by the Office of Health, Safety, and Security within the U.S. Department of Energy and the U.S. Nuclear Regulatory Commission.

International Partners:

Not applicable.

Modalities:

Inventory Data: Today, the DOE still relies on COEI reports for materials management activities. The nature of NRC activities does not warrant such detailed reporting. Thus, licensees to this day are not required to report detailed inventory data, except for the facilities selected for application of IAEA safeguards. DOE contractors report inventory data at various cycles, some as frequently as monthly, but most report on a quarterly basis. The NMMSS generates quarterly inventory reports for licensee and foreign accounts.

Material Balance Data: Both NRC licensees and DOE contractors are required to report material balance data. The use of reported inventory data and transaction data enables the system to generate all other data comprising the material balance report. As an example, comparisons of the reported facility inventory and the NMMSS generated inventory result in any inventory difference shown on the report.

Transaction Data: In 1979, a two-year task of loading historical data pertaining to U.S. international transactions into the NMMSS was completed. The task consisted of coding international transaction data from shipment files, in the form of NMMSS transactions, dating back to January 1950, and adding it to the NMMSS. Exports, imports and retransfers of nuclear materials data were included.

Obligations Accounting: Effective October 1, 2003 the NMMSS began collecting information on transactions and material balances that reported foreign accounting obligations. This tracking mechanism replaced country control number (CCN) data that had been used from 1980 to September 20, 2003. The CCN method was replaced because it was too rigid to accommodate multiple country flags on a single item or to accommodate portions of material quantities with country flags.

Assessment:

No publicly available information found.

DOE International Nonproliferation Export Control Program (INECP)

Source:

http://www.nnsa.doe.gov/na-20/export_controls.shtml

The International Nonproliferation Export Control Program (INECP) strengthens foreign nonproliferation and export control practices and procedures in partner countries. INECP helps establish the infrastructure needed to control proliferation-sensitive commerce by improving licensing procedures and practices, promoting industry compliance, and strengthening enforcement capabilities in other countries.

Historical Perspective:

The program originally focused on the three post-Soviet supplier states —Russia, Ukraine, and Kazakhstan. In all three countries, the program helped establish dedicated teams of national technical experts responsible for export controls, trained hundreds of managers at scores of nuclear entities, and made foreign language technical guides available for export control practitioners.

U.S. Lead and Partner Agencies:

Department of Energy/ National Nuclear Security Administration/ NA-24

International Partners:

In response to the events of September 11, 2001, and in keeping with the U.S. Government's determination to disrupt weapons of mass destruction procurement activities by proliferants around the world, INECP expanded to include known or emerging supplier states, such as China, India, Pakistan, South Korea, Argentina, and Israel, as well as select transit states, including Uzbekistan, Lithuania, Estonia, Latvia, Georgia, Azerbaijan, Armenia, Jordan, the United Arab Emirates, Taiwan, and others. In many of these countries, a principal task is improving export control enforcement practices.

Modalities:

INECP advances its goal on a bilateral and regional basis by promoting proliferation and export control awareness, providing assistance in nuclear regulation development and enterprise outreach, and by pairing national technical experts with customs and other border security organizations, providing these groups with the training, technology, and other tools needed to enforce national export control requirements.

Assessment:

Over the last two years, INECP has experienced a significant expansion in the number of countries in which it operates due in part to requests from the Department of State through unsolicited award letters to hold events. The program is also becoming better known in the international export control arena; turnout at last year's events was higher than expected due, in part, to the target countries' realization that INECP workshops offer high-quality training for their front-line enforcement officers, licensing agents, and producers of dual-use commodities. Last year's expansion into the generally more mature export control programs of Western Europe, in comparison with its traditional target countries in the FSU, Eastern Europe, and Asia, has also dramatically increased the number of persons trained both in the overall increase in the number of workshops presented by INCEP and in the larger number of attendees at each of those workshops.

DOS Export Control and Related Border Security Assistance Program (EXBS)

Source:

<http://www.state.gov/t/isn/export/ecc/20779.htm>

The United States provides training, technical assistance and equipment through the Department of State's Export Control and Related Border Security Assistance (EXBS) program to assist countries to develop strong export and border control systems to prevent the proliferation of Weapons of Mass Destruction (WMD), their missile delivery systems, advanced conventional weapons, and related items.

Historical Perspective:

On September 23, 2003, President Bush called on all members of the UN General Assembly to criminalize WMD proliferation, and to:

“Enact strict export controls consistent with international standards, and to secure any and all sensitive materials within their own borders. The United States stands ready to help any nation draft these new laws, and to assist in their enforcement.”

U.S. Lead and Partner Agencies:

The Department of State implements the EXBS program in over 40 countries by drawing on expertise from the Departments of Commerce, Energy, and Homeland Security and from the private sector. The program also has placed over 20 Program Advisors at U.S. Embassies to help to coordinate and implement assistance.

International Partners:

The EXBS program's original focus was on the WMD “source countries” in the Former Soviet Union (Russia, Ukraine, Kazakhstan). To address the changes in the proliferation threat, the program has broadened to include states on potential smuggling routes in Eastern and Central Europe, the Balkans, Central Asia, and the Caucasus, as well as to potential “source countries” in South Asia and countries with major transshipment hubs in the Mediterranean, Middle East, and Southeast Asia.

Modalities:

The EXBS program works with governments in strengthening their export controls by improving their legal and regulatory frameworks, licensing processes, border control and investigative capabilities, outreach to industry, and interagency coordination.

EXBS operated with a budget of \$36 million in fiscal year 2003 (up from just \$3 million in fiscal year 1998) with funds for programs in over 40 countries

Assessment:

Examples of recent activities and successes exhibit the program's efforts in five core areas.

Laws and Regulations:

- Helped several countries in the Former Soviet Union draft and implement new comprehensive export control laws.
- Licensing:
 - Trained Baltic officials that went on to deny licenses for shipments to suspicious end-users in countries of concern.
 - Enforcement:
 - Provided training and equipment that have helped Central and Eastern European governments apprehend stolen radioactive material and sensitive goods.
 - Provided Malta with sophisticated x-ray equipment to screen cargo at its major transshipment port.

Government-Industry Cooperation:

- Launched an ambitious program to provide software and training to Russian industry to help it comply with Russia's export control process.

Interagency Cooperation Coordination:

- Conducted joint vehicle inspection training for Pakistani Customs and border guard personnel at a U.S.-Mexico border crossing.

The EXBS program also takes a regional and multilateral approach to help harmonize national export control systems with international standards and facilitate information-sharing agreements among nations. The program also organizes a number of regional fora to bring national policymakers and technical experts together, including the following:

- Central Asia and Caucasus Nonproliferation Export Control Forum, June 2003, Almaty, Kazakhstan;
- Global Transshipment Control Enforcement Seminar, July 2003, Sydney, Australia;
- Fifth International Conference on Export Controls, September 2003, Budapest, Hungary.

Department Of Commerce Transshipment Country Export Control Initiative (TECI)

Sources:

<http://www.bis.doc.gov/complianceandenforcement/executivesummary.html>

http://www.bis.doc.gov/news/2007/annreport06/bis07_all.pdf

Under the TECI initiative the Commerce Department provides assistance to countries to encourage adoption and further development of export control systems and undertakes data exchanges to facilitate more effective administration of transshipment controls. The Department of Commerce also encourages host government development of effective controls to facilitate enforcement. The Department of Commerce also works with industry to enlist support at transshipment hubs against illicit transshipments.

Historical Perspective:

In 2002, the Department of Commerce launched the Transshipment Country Export Control Initiative (TECI) to increase cooperation and dialogue on export controls and transshipment trade with government and industry in nine major transshipment hubs: Cyprus, Hong Kong, Malaysia, Malta, Panama, Singapore, Taiwan, Thailand, and the United Arab Emirates (UAE).

U.S. Lead and Partner Agencies:

U.S. Department of Commerce/ Bureau of Industry and Security

Other partner agencies/programs include Departments of State and Energy and the U.S. Customs Service), which, coordinate with, and support relevant existing and proposed programs and initiatives (including the Export Control and Border Security (EXBS) Program, the Container Security Initiative (CSI), the Customs-Trade Partnership Against Terrorism (C-TPAT), Operation Shield America, and the Dangerous Materials Initiative

International Partners:

Cyprus, Hong Kong, Malaysia, Malta, Panama, Singapore, Taiwan, Thailand, and the United Arab Emirates (UAE)

Modalities:

Two Roles:

- A government-to-government prong, whereby the DOC works with its counterpart trade and export control agencies in key transshipment countries to (a) assist them in the adoption of export and transshipment control regimes tailored to their economies, (b) exchange data to facilitate more effective administration of U.S. and transshipment country trade controls, and (c) encourage them to adopt certain other measures to facilitate better enforcement of U.S. trade and export control laws.
- A government-to-private sector prong, whereby the DOC works with industry - in particular, companies involved in the transportation of goods through transshipment country hubs, and major consignees and end-users of goods located in those hubs - to enlist their support in preventing illicit transshipments. The TECI seeks to avoid imposing unnecessary costs on industry by coordinating with other agencies to eliminate wasteful duplication of effort and by bringing real security benefits to industry that will enhance legitimate trade.

Outputs include:

- Workshops
- Outreach programs
- Technical/ Legal forums
- Industry- Government relations forums

Assessment:

No publicly available information found.

Legacy Threat Reduction Programs

This section includes:

1. U.S. Missile Defense Program
2. DOD Cooperative Threat Reduction Initiatives
3. Elimination of Weapons-Grade Plutonium Production (EWGPP)
4. DOE Nuclear Material Protection, Control, and Accounting Program (MPC&A)
5. Nonproliferation of WMD Expertise
6. Initiatives for Proliferation Prevention (IPP)

U.S. Missile Defense Program

Sources:

<http://www.mda.mil/mdalink/pdf/stratintent.pdf>

<http://www.mda.mil/mdalink/html/faq.html>

The Missile Defense Program mission is to develop, test and prepare for deployment a missile defense system. Using complementary interceptors, land-, sea- air- and space-based sensors and battle management command and control systems, the planned missile defense system will be able to engage all classes and ranges of ballistic missile threats. The program's programmatic strategy is to develop, rigorously test and continuously evaluate production, deployment and operational alternatives for the ballistic missile defense system to provide emerging warfighting capability.

Historical Perspective:

The history of missile defense can be divided into two eras. The first is the era of nuclear-tipped interceptors that stretches across the three decades that separate the beginning of the U.S. missile defense program in 1946 from the closing of America's first missile defense system, Safeguard, in 1976.

Part of the reason Safeguard closed was due to problems associated with the nuclear warheads. This explains why the Army focused its post-1976 efforts on developing technologies that would make possible a new type of interceptor, one that destroys its target by physically colliding with it. These technologies were successfully demonstrated in the Army's Homing Overlay Experiment of June 1984, which ushered in the hit-to-kill era of missile defenses.

The beginning of the second era coincided with the origins of the Strategic Defense Initiative (SDI) program, which had as its goal the development of non-nuclear missile defenses. SDI consolidated missile defense programs that were scattered among several government offices and molded them into a coherent program guided by a clear strategic vision—produce non-nuclear defenses.

U.S. Lead and Partner Agencies:

Department of Defense/ Missile Defense Agency

International Partners:

Negotiations are currently underway to locate up to ten silo-based long-range missile defense interceptors in Poland and a midcourse tracking and discrimination radar in the Czech Republic.

Modalities:

Current components of the Ballistic Missile Defense System (BMDS):

Command and Control, Battle Management and Communications

- Command, Control, Battle Management and Communications architecture is designed to accept enhanced capabilities as they are integrated into the BMDS, to achieve full interoperability of the system elements and interfaces with external systems and integrate the system with the national military command structure.

Aegis Ballistic Missile Defense

- The sea-based system is intended to intercept short to medium range hostile missiles in the ascent and descent phase of midcourse flight.

Airborne Laser

- Laser destroys the missile by heating its metal skin until it cracks, which causes the boosting missile to fail.

BMD Sensors

- Space Tracking and Surveillance System (STSS)
- Defense Support Program (DSP) Satellites
- Space Based Infrared System (SBIRS)
- Early Warning Radars (EWR)
- X-Band Radars
- THAAD Radars
- SPY-1 Radar
- Forward Deployable Radars (FDR)

Ground-based Mid-Course Defense

- The kill vehicle uses data from ground-based radars and its own on-board sensors to collide with the target, thus destroying both the target and the kill vehicle using only the force of the impact.

Theater High Altitude Area Defense

- Consists of four principal components: truck-mounted launchers; interceptors; radars; and command, control and battle management (C2BM). System has rapid mobility so that it can be air-lifted to almost anywhere in the world within hours.
- Patriot Advanced Capability- 3
- The most mature elements of the BMDS. Builds on the previous PATRIOT air and missile defense infrastructure.

Kinetic Energy Interception

- The program's primary objective over the next few years is developing an interceptor capable of destroying incoming missiles while their booster rockets are still burning.

The Missile Defense Agency utilizes capability-based acquisition processes. This flexible development program allows the Agency to employ the most advanced technologies in response to the rapidly evolving missile threat. Capability-based acquisition in the Agency is structured in two year "blocks" (i.e. Block 2006 represents calendar years 2006 and 2007). Developments in one block build upon those of previous blocks, while opportunities to field portions of the Ballistic Missile Defense System occur throughout.

Assessment:

Strategic Goals and Objectives

- Goal 1: Recruit, retain, and develop a high-performing and accountable missile defense workforce
- Goal 2: Complete fielding, verification, and transition of the initial BMDS capability
- Goal 3: Support the operations and sustainment of capabilities fielded to the warfighter
- Goal 4: Develop an integrated future capability based on a comprehensive and collaborative systems engineering process
- Goal 5: Execute an increasingly integrated and complex test program to build confidence in system performance
- Goal 6: Maintain a strong research and advanced development program focused on continual improvement of the BMDS
- Goal 7: Implement the international strategy for the BMDS to expand our allied collaboration

Main criticisms of the BMDS include excessive funding and unrealistic testing measures.

DOD Cooperative Threat Reduction Initiatives

Source:

<http://www.dtra.mil/oe/ctr/index.cfm>

When the Soviet Union collapsed in the early 1990s, its vast arsenal of weapons of mass destruction was left in an unprotected state. Concern that the tons of nuclear, chemical and biological weapons and materials might be accessible to rogue states or terrorists prompted the U.S. Congress to pass the Soviet Nuclear Threat Reduction Act of 1991, sponsored by Senators Sam Nunn and Richard Lugar. This legislation was renamed the Cooperative Threat Reduction Program in 1993. The dual aims of this program were to facilitate the safeguarding and elimination of nuclear and other weapons in the former Soviet Union, and to prevent the proliferation of weapons of mass destruction (WMD).

Historical Perspective:

In the mid 1990s, the U.S. Department of Defense (DoD) recognized the need for increased focus on the issues of nonproliferation and counterproliferation of WMD. DTRA, created in 1998, consolidated DoD organizations already addressing these issues. The Cooperative Threat Reduction (CTR) program office was transferred from the Office of the Assistant to the Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs into the new agency. DTRA's CTR directorate was given the responsibility of managing and implementing this major, multinational, congressionally mandated program. In the directorate's first year of existence, Congress appropriated \$440 million for the CTR program.

Since 1991, Congress has appropriated over \$4.4 billion for the CTR program. CTR has played a substantive role in affecting fundamental changes to the strategic landscape of the former Soviet Union, while assisting in the achievement of U.S. national security objectives and promoting global stability.

U.S. Lead and Partner Agencies:

The Department of Defense/ Defense Threat Reduction Agency is the lead agency.

International Partners:

CTR umbrella agreements with Russia, Ukraine, Kazakhstan, Moldova, Georgia, Uzbekistan, Azerbaijan, and Albania establish comprehensive rights, exemptions, and protections for U.S. assistance, personnel, and the Program's activities. They designate DoD as the U.S. CTR Executive Agent to negotiate implementing agreements and arrangements to execute activities of the Program with the designated Executive Agent of the recipient state.

Modalities:

Strategic Offensive Arms Elimination (SOAE) Program- Russia

- DoD continues to assist Russia by contracting for and overseeing destruction of strategic weapons delivery systems in accordance with the SOAE Implementing Agreement and applicable Strategic Arms Reduction Treaty (START) provisions, including the START Conversion or Elimination Protocol. CTR Program assistance remains an incentive for Russia to draw down its Soviet-legacy nuclear forces, thereby reducing opportunities for their proliferation or use. DoD provides equipment and services to destroy or dismantle ICBMs, ICBM silo launchers, road and rail mobile launchers, SLBMs, SLBM launchers, reactor cores of associated strategic nuclear-powered ballistic missile submarines (SSBNs), and WMD infrastructure. DoD also supports placement of spent fuel from naval nuclear reactors, referred to as Spent Naval Fuel (SNF), prior to its elimination, into casks designed for long-term storage as well as logistical and maintenance support for equipment.

Chemical Weapons Destruction (CWD) Program – Russia

- In accordance with the Chemical Weapons Destruction (CWD) Implementing Agreement, DoD is assisting Russia with the safe, secure, and environmentally sound destruction of the most proliferable portion of its chemical weapons nerve-agent stockpile. The Chemical Weapons Destruction Facility and the former Chemical Weapons Production Facility demilitarization projects support this effort.

Strategic Nuclear Arms Elimination (SNAE) Program - Ukraine

- CTR Program assistance, consistent with the Strategic Nuclear Arms Elimination (SNAE) Implementing Agreement, includes elimination of Tu 22M Backfire and Tu-142 Bear nuclear capable maritime patrol aircraft

that are modifications of START-accountable heavy bombers, Kh 22 nuclear air to surface missiles (ASMs), and strategic bomber trainers.

Weapons of Mass Destruction Infrastructure Elimination (WMDIE) Program – Ukraine

- In accordance with the WMDIE Implementing Agreement, the Nuclear Weapons Storage Area project will eliminate infrastructure at sites formerly associated with nuclear weapons and warhead storage, operations, and maintenance that supported the forward-deployed nuclear weapons arsenals of the Soviet armed forces and assist in preventing the proliferation of associated design data, materials, equipment, and technologies.

Biological Threat Reduction Prevention (BTRP) Program – FSU

- The BTRP program's objectives are to reduce the risk of bioterrorism and prevent the proliferation of biological weapons (BW) technology, expertise, and extremely dangerous pathogens (EDPs). The U.S. has CTR implementing agreements with Kazakhstan, Uzbekistan, Georgia, Azerbaijan, and Ukraine to assist them in preventing the proliferation of BW materials and expertise to rogue states and terrorist groups, increase transparency, encourage high standards of conduct by scientists, and preempt a "brain drain" of bio-related expertise. All BTRP projects in Russia fall under the International Science & Technology Center (ISTC) Agreement and the ISTC Funding Memorandum of Agreement. The U.S.–Kazakhstan WMDIE Implementing Agreement covers BTRP projects in Kazakhstan. Biological Threat Reduction Implementing Agreements have been signed with Uzbekistan, Georgia, Azerbaijan, and Ukraine.

Nuclear Weapons Storage Security (NWSS) Program – Russia

- In accordance with the Nuclear Weapons Storage Security (NWSS) Implementing Agreement, this program helps support proliferation prevention by providing enhancements to the security systems of nuclear weapons storage sites. The Personnel Reliability Program project was completed in August 2005 with delivery of the final 5,000 test cups. MOD's 12th Main Directorate assumed full responsibility for the project.

Nuclear Weapons Transportation Security (NWTs) Program – Russia

- In accordance with the Nuclear Weapons Transportation Security (NWTs) Implementing Agreement, this program supports proliferation prevention by enhancing the security and safety of nuclear weapons during shipment. Much of the DoD-provided equipment is located at sensitive MOD locations. It is shipped to less sensitive locations when DoD conducts Audits & Examinations.

Fissile Material Storage Facility (FMSF) Program – Russia

- In accordance with the Fissile Material Storage Facility (FMSF) Construction Implementing Agreement, the facility will provide centralized, safe, secure, and ecologically sound storage for weapons-grade fissile material. The facility was completed and commissioned on December 11, 2003.

Biological Threat Reduction Prevention (BTRP) Program - FSU

- DoD combined the Biosecurity and Biosafety (BS&S) and Threat Agent Detection and Response (TADR) programs into one project because of their close relationship and common objective. Their goals are: prevent the theft, sale, diversion, and accidental or intentional release of pathogens; consolidate pathogen collections and work at safe, secure centralized repositories; and strengthen the recipient states' detection and response networks for dangerous pathogens. Combining them enables a more integrated and streamlined approach to engaging institutes in the BTRP program. BS&S/TADR efforts target dangerous pathogens that pose particular risks for theft, diversion, accidental release, or use by terrorists. In Russia, work is focused on BS&S enhancements, with no plans to create a TADR system.

Weapons of Mass Destruction Proliferation Prevention Initiative (WMD-PPI) Program – FSU, Except Russia

- The WMD-PPI program addresses the potential vulnerability of the non-Russian FSU states' borders to smuggling of WMD and related components. WMD-PPI attempts to complement the CTR Program's traditional focus, WMD at its source, by addressing WMD on the move. Currently, DoD is helping Ukraine, Kazakhstan, Uzbekistan, and Azerbaijan to develop and sustain capabilities to prevent the proliferation of WMD-related materials, components, and technologies across their borders. Agreements are made with the recipient states to have them report any WMD detections made with USG-supplied equipment to the in-country U.S. Embassy, for forwarding to the USG.

Defense and Military Contacts

- The DMC program was created in 1993 as a part of the larger CTR Program and attempts to develop positive relationships between the defense, military, and security communities of the U.S. and FSU states. Bilateral activities are designed to engage the military and defense officials of FSU states in activities that promote demilitarization and defense reform, further proliferation prevention efforts, and endorse regional stability and cooperation. The program is developed by the Office of the Assistant Secretary of Defense for International Security Policy, through the Deputy Assistant Secretary of Defense for Eurasia Policy, in close coordination with the Joint Staff, the Combatant Commands, and the U.S. military services to ensure that scheduled events support the Secretary of Defense’s Security Cooperation Guidance and regional commands’ country and regional campaign plans.

Assessment:

Ukraine, Kazakhstan, and Belarus are Nuclear Weapons Free							
CATEGORY	BASE LINE	Goals	FY 2006 Reductions	Current Cumulative Reduction	Percent	CY 2007 Reduction Targets	CY 2012 Reduction Targets
Warheads Deactivated	13,300	8,684	125	6,954	81	7,280	8,684
ICBMs Destroyed	1,473	1,135	34	644	57	779	1,135
ICBM Silos Eliminated	831	612	0	485	79	496	612
ICBM Mobile Launchers Destroyed	442	251	35	82	33	119	251
Bombers Eliminated	233	155	4	155	100	155	155
Nuclear ASMs Destroyed	906	906	77	906	100	906	906
SLBM Launchers Eliminated	728	540	0	436	81	456	540
SLBMs Eliminated	936	700	36	606	87	613	700
SSBNs Destroyed	48	36	2	30	83	31	36
Nuclear Test Tunnels/Holes Sealed	194	194	0	194	100	194	194
CATEGORY	BASE LINE	Goals	FY 2006 Activities Completed	Current Activities Completed	Percent	CY 2007 Activities Targets	CY 2012 Activities Targets
Nuclear Weapons Transport Train Shipments	N/A	620	47	328	53	380	620
Nuclear Weapons Storage Site Security Upgrades	N/A	24	11	12	50	15	24
BTRP Epidemiological Monitoring Stations Built and Equipped	TBD	36	6	9	25	15	36
CWDF Design (Percent Completed)	100	100	7	96	96	100	100
CWDF Construction (Percent Completed)	100	100	21	50	50	65	100

Key components of accounting for program assistance include frequent on-site observation by DoD representatives and contractors; application of the Federal Acquisition Regulations, DoD regulations, and disciplined acquisition procedures in contracting; Defense Contract Audit Agency audits and Defense Contract Management Agency services; and use of national technical means. In accordance with the CTR umbrella and implementing agreements, the U.S. has the right to examine the use of any material, training, or service provided. Through FY 2006, a total of 170 audits and examinations (A&Es) have been conducted in Russia, Ukraine, Kazakhstan, Belarus, Uzbekistan, and Georgia. Results of the eight A&Es conducted in FY 2006 and the reason for cancellation of any scheduled audits are included with the corresponding project narratives.

Annual performance measures:

CTR PROGRAM PERFORMANCE MEASURES ANNUAL TARGETS									
Calendar Year	2004	2005	2006	2007	2008	2009	2010	2011	2012
WMD Means of Delivery Elimination	272	262	182	152	158	161	154	162	140
Cumulative Eliminations	2,928	3,190	3,372	3,524	3,682	3,843	3,997	4,159	4,299
Railcar Procurements to Transport Nuclear Weapons				10	18	18	18	18	18
Cumulative Procurements				10	28	46	64	82	100
Nuclear Weapons Site Security Upgrades		1	11	3	9				
Cumulative Upgrades		1	12	15	24				
Biological Disease Control Monitoring Stations Built and Equipped		6	3	6	2	7	3	5	4
Cumulative Built and Equipped		6	9	15	17	24	27	32	36

Elimination of Weapons-Grade Plutonium Production (EWGPP)

Source:

<http://www.nsa.doe.gov/na-20/ewgpp.shtml>

The Department of Energy, through its program on ending weapons-grade plutonium production (EWGPP) in Russia, provides assistance for the construction or refurbishment of fossil-fueled plants to replace the last three aging plutonium production reactors still operating in Russia. This program enables the complete shutdown of these reactors and the capping of new production of weapon-grade plutonium, while measures under the U.S.-Russian Plutonium Production Reactor Agreement (PPRA) continue to monitor all plutonium produced by these reactors since 1995, to ensure it is secure, accounted for, and never again used in weapons.

Historical Perspective:

Former U.S. Secretary of Energy Spencer Abraham and Russian Minister of Atomic Energy Alexander Rumyantsev signed the Implementing Agreement for the project in March 2003. DOE contracted with U.S. firms to oversee the work, all of which will be carried out by Russian contractors and subcontractors.

U.S. Lead and Partner Agencies:

Department of Energy/ National Nuclear Security Administration/ NA-23

International Partners:

The U.S. works directly with Russia.

International Contributions:

UK: \$20.0 million

Canada: \$7.4 million

Netherlands: \$1.2 million

Modalities:

The EWGPP program has three components:

- Seversk Plutonium Production Elimination Project: Refurbishment of the existing fossil fuel power plant and shutdown of the existing plutonium reactors.
- Zheleznogorsk Plutonium Production Elimination Project: Construction of a new fossil fuel power plant and shutdown of the existing plutonium reactor.
- Reactor Shutdown Project: Measures to ensure that the Russian Federation is pursuing shutdown of the three remaining reactors at a rate comparable to U.S. construction and refurbishment of the fossil fuel plants at Seversk and Zheleznogorsk.

Assessment:

Seversk Plutonium Production Elimination Project

- Plant refurbishment is proceeding concurrently with the planning, permitting and licensing required for reactor shutdown. A U.S. oversight contractor, Washington Group International, is working with the Russian construction company Rosatomstroi in carrying out the project at Seversk. The project cost, which includes both work done by Russian contractors and management costs for U.S. contractors, is approximately \$387 million.
- Site preparation began in December 2004 and construction began in April 2005. The first major components for the construction of the fossil fuel plant have arrived on site. Installation of the boilers, which produce steam to turn the turbines to produce electricity, is in progress. Contracts have been made for purchase of the seven boilers that are being replaced; in addition, two boilers are being refurbished and an additional new boiler will be installed. Contracts are also in place for the purchase of one of a total of three turbine-generator sets that will be installed at the plant.

Zheleznogorsk Plutonium Production Elimination Project

- The oversight work at Zheleznogorsk is being carried out through a contract with a U.S. firm, Raytheon Technical Services, and contracts with Russian contractors and subcontractors. The total estimated cost for the

Zheleznogorsk Project, including work done by the Russians and management costs to U.S. contractors, is \$570.5 million .

Reactor Shutdown Project

- Rosatom, the Russian Federation Federal Agency for Atomic Energy (formerly Minatom), issued decrees identifying activities critical to reactor shutdown in January 2005 for the reactors at Seversk, and in March 2005 for the reactor at Zheleznogorsk.

The OMB reassessed the EWGPP program in FY 2007, using PART. The results of the OMB review are reflected in the FY 2007 Budget Request. OMB gave the EWGPP program very high scores of 100 percent on the Strategic Planning and Program Management Sections; 80 percent on the Program Purpose and Design Section; and 84 percent on the Program Results and Accountability Section. Overall, OMB rated the EWGPP 88 percent, its highest category of “Effective”. OMB found the program has a clear and unique purpose, is well-managed, and has a demonstrated track record of achieving good progress towards its annual and long-term goals. In addition, OMB noted that the ultimate goal of the program is to shut down the three existing Russian plutonium production reactors and therefore, the program must ensure the reactors are shut down as the new coal plants are constructed.

DOE Nuclear Material Protection, Control, and Accounting Program (MPC&A)

Source:

<http://www.nti.org/db/nisprofs/russia/forasst/doe/mpca.htm>

The Department of Energy helps develop national and regional resources in Russia to support effective operation of upgraded nuclear material protection, control and accounting (MPC&A) systems. DOE is also developing strategies to transition technical and financial support for MPC&A systems to the Russian Federation. These projects include MPC&A regulations development, Atomic Energy (FAAE) inspections, tracking nuclear materials inventories, training for physical protection and material control and accounting operations, and for maintenance of the MPC&A Operations Monitoring (MOM) system, equipment certification and vendor support, transportation security, and protective force enhancement.

The Office of Material Consolidation and Civilian Sites (MCCS) is responsible for three key nuclear nonproliferation initiatives. The first focuses on cooperative efforts with the Russian Federation to enhance the security of proliferation-attractive nuclear material by supporting material protection, control, and accounting (MPC&A) upgrade projects at civilian nuclear facilities. The MCCS Office has supported MPC&A upgrades at 18 sites throughout Russia, including research institutes and fuel fabrications facilities. Second, MCCS manages the Material Consolidation and Conversion (MCC) project, which is designed to simplify the task of protecting Russia's weapons-usable nuclear materials by reducing the number buildings, and if possible, sites that contain such material. An equally important element of this activity involves the conversion of weapons-usable nuclear material into a form that is significantly less attractive for would-be proliferators (e.g., HEU converted to LEU). Finally, MCCS is responsible for developing MPC&A engagement with countries outside of Russia and the former Soviet Union, including cooperative efforts with China.

Historical Perspective:

After the dissolution of the Soviet Union, the US Department of Energy (DOE) estimates that Russia inherited approximately 603 metric tons of highly enriched uranium (HEU) and plutonium, not including material in nuclear warheads. This material, located at civilian research centers, naval fuel storage sites, and nuclear weapons laboratories, is considered attractive to thieves, because it is not very radioactive; it can easily be carried by one or two individuals; and physical protection measures at certain facilities are inadequate.

Since the early 1990s, the United States has been working with Russia to improve protection, control, and accounting of nuclear materials in Russia. US assistance in this effort began in 1992 as the Government-to-Government Program, part of the Department of Defense (DOD) Cooperative Threat Reduction (CTR) Program. In 1994, DOE launched a separate, parallel program, the Laboratory-to-Laboratory Program. In 1996, DOE assumed funding responsibilities for future activities in this area, and in February 1997, DOE consolidated its Government-to-Government and Lab-to-Lab Programs into the Material Protection, Control & Accounting (MPC&A) Program. The MPC&A Program is part of DOE's National Nuclear Security Agency.

U.S. Lead and Partner Agencies:

Department of Energy/ NNSA/ NA-25

International Partners:

Russian Federation and Former Soviet States

Modalities:

MPC&A upgrades at NIS sites consist of three components: 1) physical protection systems, such as fences, metal doors, and video surveillance systems; 2) material control systems, such as seals attached to nuclear material containers that indicate tampering or theft; and 3) material accounting systems, such as inventory systems and computerized databases that allow sites to keep track of the amount and type of nuclear material in specific buildings. Under the MPC&A program, rapid security upgrades are made at a site in conjunction with comprehensive upgrades over the long term.

The MPC&A Program has identified 252 buildings at 40 sites in Russia that require MPC&A upgrades. DOE provides funding for the upgrades through direct contracts between US national laboratories and the Russian sites. Teams from the laboratories work with their Russian counterparts to design and install the upgrades. As of February 2001, the

MPC&A Program had finished or was in the process of installing security systems in 115 buildings, thus protecting about 192t, or 32%, of the 603t of fissile material identified as being at risk of theft or diversion from Russia. MPC&A upgrades are underway at buildings housing an additional 130t of material. For the status of upgrades in general.

Assessment:

Accomplishments:

- Conversion of 1.2 metric tons of attractive HEU to LEU, increasing the total converted over the life of the program to 5.6 metric tons.
- Completion of MPC&A upgrades at 2 additional sites; initial MPC&A upgrades are now completed at 13 of the 18 civilian sites in Russia.
- Acceleration of MCC activity to convert approximately 2 metric tons of HEU to LEU.
- Completion of MPC&A upgrades at 4 additional sites; initial MPC&A upgrades will have then been completed at 17 of the 18 civilian sites in Russia.
- Continue sustainability cooperation to ensure the long-term viability of MPC&A systems at completed Russian sites.

Table I: Status of MPC&A Upgrades in Russia (as of February 2001)

(Table I does not include the status of nuclear security systems installed by DOE at Russian Navy nuclear weapons storage sites.) : <http://www.nti.org/db/nisprofs/russia/forasst/doe/mpca.htm>.

Status	Buildings at Russian Civilian Sites	Buildings at Russian Naval Nuclear Fuel Sites	Buildings at Russian Nuclear Weapons Labs	Total
Completed systems	51	21	9	81
Rapid upgrades	8	3	23	34
Work started	11	11	46	68
No work started	19	1	49	69
Total	89	36	127	252

Nonproliferation of WMD Expertise

Source:

<http://www.state.gov/t/isn/c12265.htm>

The need to impede access to sensitive weapons technology, materiel, and expertise by proliferant states and terrorist networks worldwide is an objective of the current U.S. National Security Strategy, National Strategy to Combat Weapons of Mass Destruction, and National Strategy for Combating Terrorism. The growing global threat to U.S. national security from available WMD-relevant expertise prompted Congress to broaden to countries beyond the Former Soviet Union the State Department's legislative authorities for WMD redirection efforts. The new program name, "Nonproliferation of Weapons of Mass Destruction (WMD) Expertise (NWMDE)," encompasses the programs formerly referred to as "Science Centers/Bio Redirection" and reflects this broader authority.

This program supports the engagement and permanent redirection of former weapon scientists worldwide. It has three distinct sub-programs, the Science Centers program, the Bio-Chem Redirection program, and the Bio Industry Initiative. These are the largest U.S. efforts to gain access to and redirect former WMD scientists. For biological weapons/chemical weapons (BW/CW) scientists at certain foreign institutes, these are the only U.S. government programs engaging and redirecting them to peaceful civilian work and the only programs that provide the United States access and transparency to activities underway in those institutes. While employing different mechanisms and approaches, these programs share a common strategy: to access and engage high-risk former weapon institutes while helping these institutes and their scientists move from dependency to self-sustainability. Moreover, these programs provide steady, effective, and cost-efficient platforms for other U.S. nonproliferation/threat reduction programs.

Historical Perspective:

With the collapse of the Soviet Union in the early 1990s, there was widespread concern among the governments of several nations about the fate of newly unemployed scientists and engineers who once had been engaged in Soviet programs to develop weapons of mass destruction (WMD) and their means of delivery and how these individuals might be persuaded under these new circumstances to share their knowledge and expertise with rogue nations. To address this problem, the Science Centers were established by international agreements beginning in 1992, as key elements of a nonproliferation effort providing peaceful research opportunities to weapons scientists and engineers of the former Soviet Union (FSU).

U.S. Lead and Partner Agencies:

Department of State works congruently with Department of Defense and Department of Energy.

International Partners:

The ISTC is an intergovernmental organization established in 1992 by agreement between the European Union, Japan, Russian Federation, and United States of America. Armenia, Belarus, Georgia, Kazakstan and the Kyrgyz Republic also have joined the International Science and Technology Center (ISTC). Norway acceded to the ISTC in 1997, the Republic of Korea - in May 1998 and Tajikistan - in March 2003. Canada became a full member of the ISTC on 1 March 2004.

Modalities:

U.S. Bio-Chem Redirect Program

- The Bio-Chem Redirect Program (BCR) is a targeted nonproliferation initiative funded by the Department of State's Nonproliferation, Antiterrorism, Demining and Related Initiatives (NADR) account. BCR engages former Soviet biological and chemical weapons scientists in transparent and sustainable civilian research projects with U.S. collaborators. While the BCR program is most active in Russia, it also funds projects in Kazakhstan, Georgia, Armenia, Uzbekistan, and Ukraine. New projects are being considered for funding in the region. The program has received from Congress a total of \$85 million from its inception through Fiscal Year 2004.
- BCR is overseen and coordinated by the State Department Nonproliferation Bureau's Office of Proliferation Threat Reduction (NP/PTR), which provides funds to three U.S. agencies to implement the program: the U.S. Department of Health and Human Services, the U.S. Department of Agriculture, and the U.S. Environmental Protection Agency. These agencies work through the International Science and Technology Center in Moscow and the Science and Technology Center in Ukraine (STCU), located in Kiev, to implement the program.

Science Centers

- The International Science and Technology Center (ISTC; Moscow, Russia) and the Science and Technology Center in Ukraine (STCU; Kiev) are intergovernmental bodies with the following nations as contributing member states: the United States, Canada, Russia, Ukraine, Japan, the European Union, Kazakhstan, Belarus, Georgia, Uzbekistan, Armenia, the Kyrgyz Republic, Norway, Finland and the Republic of Korea. To date, total member state funding has exceeded \$500 million for more than 2,000 projects involving over 50,000 scientists from the FSU.
- The Governing Board is the primary ISTC decision making body, and sets the policy for the ISTC in all areas. The Governing Board is made up of representatives from Canada, the European Union, Japan, the Russian Federation and the United States, with one rotating seat for representation of one of the other CIS countries which has acceded to the ISTC Agreement. The Governing Board meets three times a year to develop policies for the Center, approve new members, ratify the annual budget, set funding criteria and levels and decide which project proposals to fund.

BioIndustry Initiative

- The BioIndustry Initiative's mission is to counter the threat of bioterrorism through targeted transformation of former Soviet biological weapons research and production capacities.
- BII has two objectives:
 - The reconfiguration of former Soviet biological weapons (BW) production facilities, their technology and expertise for peaceful uses.
 - The engagement of Soviet Biological and Chemical Weapons scientists in collaborative R&D [research and development] projects to accelerate drug and vaccine development for highly infectious diseases.

Assessment:

The program has been deemed as “moderately effective” and considered an instrumental part of US Government efforts aimed at preventing the proliferation of WMD technology to other nations by former weapons scientists in the former Soviet Union. For example, by the end of 2005, 27 WMD institutes and scientists that had been provided assistance under this program were redirected to sustained commercial ventures.

The program focus is increasingly weighted toward projects and programs that seek to create viable business enterprises using former WMD institutes and scientists. This reduces the need for continued long-term US assistance.

An interagency policy review group works to ensure against duplication among various assistance programs to recipient countries. Each year, 15 percent of ongoing projects are audited and program officers are trained and certified Contract Officer Representatives.

Improvement Plan

- Reviewing mechanisms to monitor the impact of the program on scientist attitudes regarding potential proliferation of expertise.
- Reviewing the feasibility of long-term tracking of participating scientist activities to demonstrate long-term program success.
- Engaging Russia and other countries to ensure program continuity and success, and expanding the program to new countries of concern such as Iraq and Libya.

Initiatives for Proliferation Prevention (IPP)

Source:

<http://www.nsa.doe.gov/na-20/gipp.shtml>

The Russian Transition Initiative prevents the migration of WMD expertise from the former Soviet weapons complex. Since the break-up of the Soviet Union, thousands of weapons scientists, engineers and technicians have been subject to sharp government funding cutbacks at their research institutes. IPP engages these weapons personnel in R&D and commercial pursuits that may lead to stable, civilian employment opportunities, thus reducing the risk of proliferation of WMD technology and expertise.

Historical Perspective:

IPP was established in 1994 under Public Law 103-87, Section 574, and is funded each year by congressional appropriation. Funding for FY 2005 is \$23.7 million.

U.S. Lead and Partner Agencies:

Department of Energy/ National Nuclear Security Administration/ NA-24

International Partners:

At present, over 130 projects, virtually all involving U.S. industry partners, are under way at 100 institutes and production facilities in Russia, Ukraine, Kazakhstan, Armenia, and Georgia. IPP has active projects at nuclear facilities, both inside and outside Russia's closed nuclear cities, as well as at biological, chemical and strategic delivery systems institutes.

Modalities:

The majority of IPP funding supports project work by the former Soviet institute, with a smaller percentage of IPP funds going to the U.S. national laboratory for critical technical oversight and project management.

U.S. industry partners are required to match IPP funding at least dollar-for-dollar with cash or in-kind contributions. U.S. industry partners are involved in project planning from the start to ensure a commercial focus. All companies participating in IPP are members of the U.S. Industry Coalition (USIC), a non-profit association, which serves as the technology commercialization agent for IPP and which offers numerous project-related services to members.

Assessment:

Under this program, the Department of Energy conducts multi-year programs, which have to date engaged over 16,500 former weapons scientists, engineers, and technicians in enterprise development and technology commercialization; downsizing workforce and facilities at 6 Russian nuclear weapons sites; and leverage funding from private industry contributions or other non-USG sources equal to 100% of program funds. Notable program accomplishments include:

1. 7,400 FSU scientists and engineers currently engaged in IPP projects.
2. \$195 million in private sector matches from U.S. industry
3. 30 technologies commercialized and/or received venture capital since 1999 with \$40 million in commercial sales and other value-added to U.S. industry partners and FSU scientists.
4. \$119 million in private venture capital in support of IPP projects.
5. 2300+ new high tech jobs created in Russia, Kazakhstan, and Ukraine as a result of IPP projects.
6. In ideal conditions, an average of 5 - 8 years is needed to bring a new technology to market in the U.S. The early successes of IPP's commercialization projects illustrate the significance of the program's accomplishments in high technology development, working in an uncertain environment.

The program has a clear and unique purpose in redirecting displaced WMD experts into commercial activities to minimize the likelihood of scientists assisting terrorists and states of concern.

The program has demonstrated good progress in achieving its long-term and annual goals. Through fiscal year 2004, 11,700 displaced WMD experts were employed in Global Initiatives for Proliferation Prevention grants and long-term private sector jobs.

The exact population of displaced WMD experts worldwide is dynamic as experts find non-military jobs that fluctuate with economies, move, retire, and die. The program must continue to develop improved understanding of the scope of the threat in this evolving environment.

GIIP is taking the following actions to improve the performance of the program:

- Monitoring the target population of displaced WMD experts to ensure complete and effective coverage of the issue/threat is maintained as the population evolves over time.

Combating Weapons of Mass Destruction Initiatives

This section includes:

1. Border Controls
2. Container Security Initiative (CSI)
3. Early Warning Disease Surveillance Capabilities
4. DOE Second Line of Defense (SLD) and Megaports Program
5. International Counterproliferation Program (ICP)
6. Anti-Crime Training and Technical Assistance Program (ACTTA)

Border Controls

Source:

http://www.cbp.gov/xp/cgov/border_security/international_activities/counterproliferation/counterproliferation_programs.xml

Immigration and Customs Enforcement (ICE) and Customs and Border Protection (CBP) exercise significant domestic legal authorities to interdict and prevent the illegal import and export of WMDs, missiles, and related components. Officers have full legal authority to conduct inbound and outbound searches of merchandise, cargo, and conveyances as well as non-intrusive searches of persons at the border without a warrant. Employed technologies include:

- Radiation detection pagers;
- Mobile X-Ray vans with radiation detectors;
- Advanced radiation portal monitors

Historical Perspective:

USG Lead and Partner Agencies:

The Department of Homeland Security is the lead agency and works in partnership with the Department of Transportation, United States Coast Guard, and the Transportation Security Administration.

The Nuclear Regulatory Commission (NRC) also makes information on high risk radioactive sources available to CBP inspectors.

The Transportation Security Administration (TSA) has the broad statutory authority for security in all modes of transportation.

The U.S. Coast Guard is (USCG) the lead law enforcement agency responsible for maritime and port security and has plenary power to stop and inspect U.S. flagged vessels. With respect to foreign flagged vessels, the USCG can take law enforcement action pursuant to norms of international law and agreements or arrangements between the U.S. and the vessels country of origin.

International Partners:

Not applicable.

Modalities:

No publicly available information found.

Assessment:

Customs does not have a comprehensive strategic plan to guide its overall efforts. Such a plan, at a minimum, would assess vulnerabilities and risks; identify the complement of radiation detection equipment that should be used at each type of border entry point—air, rail, land, and sea—and whether the equipment could be immediately deployed; identify longer-term radiation detection equipment needs; and develop measures to ensure that the equipment is adequately maintained (GAO report, 2002).

Container Security Initiative (CSI)

Source:

http://www.cbp.gov/xp/cgov/border_security/international_activities/csi/

CSI is a four-part program designed to achieve a more secure maritime trade environment. The four core elements to CSI include: establishing security criteria for identifying high-risk containers, pre-screening high-risk containers prior to arrival in U.S. ports, utilization of advanced technology to screen containers, and developing and using “smart” containers.

In the event a container is targeted due to WMD concerns, it is not permitted to continue to a U.S. port or allowed in U.S. territorial waters. Under CSI, small groups of highly trained CBP and ICE personnel are deployed to work with host nation counter parts in identifying high-risk containers. These efforts utilize non-intrusive inspection devices to ensure container contents do not contain high-risk materials.

Historical Perspective:

CBP Commissioner Robert C. Bonner initiated the CSI in January 2002 to address concerns regarding the use of shipping containers to conceal WMDs.

U.S. Lead and Partner Agencies:

DHS/ Customs and Border Patrol Agency is the lead U.S. agency and works cooperatively with the Department of State.

International Partners:

Current ports where CSI teams are deployed include:

Americas and Caribbean:

- Montreal, Vancouver & Halifax, Canada,
- Santos, Brazil
- Buenos Aires, Argentina
- Puerto Cortes, Honduras
- Caucedo, Dominican Republic
- Kingston, Jamaica
- Freeport, The Bahamas
- Balboa, Colón and Manzanillo, Panama
- Cartagena, Columbia

Europe:

- Rotterdam, The Netherlands
- Bremerhaven & Hamburg, Germany
- Antwerp and Zeebrugge, Belgium
- Le Havre and Marseille, France
- Gothenburg, Sweden
- La Spezia, Genoa, Naples, Gioia Tauro, and Livorno, Italy
- Felixstowe, Liverpool, Thamesport, Tilbury, and Southampton, United Kingdom (U.K.)
- Piraeus, Greece
- Algeciras, Barcelona, and Valencia, Spain
- Lisbon, Portugal

Asia and the East

- Singapore
- Yokohama, Tokyo, Nagoya and Kobe, Japan
- Hong Kong
- Pusan, South Korea
- Port Klang and Tanjung Pelepas, Malaysia
- Laem Chabang, Thailand
- Dubai, United Arab Emirates (UAE)
- Shenzhen and Shanghai

- Kaohsiung and Chi-Lung
- Colombo, Sri Lanka
- Port Salalah, Oman
- Port Qasim, Pakistan
- Port of Ashdod, Israel
- Port in Haifa, Israel
- Alexandria, Egypt

Africa:

- Durban, South Africa

Modalities:

CSI performance measures include the following:

Outcome Measures:

- Number of foreign mitigated examinations by category;
- Number of investigative cases initiated due to CSI intelligence
- Output Measures:
 - Number of intelligence reports based on CSI foreign sources;
 - Number of operational CSI ports;
 - Number of positive findings by category;
 - Percent of worldwide U.S. destined containers processed through CSI
- Efficiency Measures
 - Average cost per CSI port to achieve operational status

CSI program evaluations include the following activities:

- GAO audits;
- Evaluation and assessment of foreign ports participating in CSI;
- The CBP office of policy and planning evaluates the program through operational assessment, organization structure and staffing, and external stakeholder relationships.

Assessment:

CBP finalized expansion of the CSI program to the target 58 foreign ports at the end of FY 2007. For FY 2008, The Secure Freight Initiative (SFI) is working, in conjunction with the Container Security Initiative (CSI), to implement nuclear and radiological screening of all U.S. bound cargo at three prototype foreign ports, as required by the Safe Port Act. CSI will also conduct evaluations at all CSI ports to refine automated data processes, infrastructure renewals, and maintain 100% screening of all targeted high-risk U.S.-bound containerized cargo at the 58 CSI locations. By the end of FY 2008, at least 86% of the worldwide U.S. destined containers will be processed through CSI ports. Also by the end of FY 2008, CSI personnel will collaborate with foreign customs officials to resolve at least 19,000 targeted cargo examinations.

Additionally, the Secure Freight Initiative is developing the International Container Security (ICS) program to deploy radiological and radio-graphical scanning capability using RPM and Non-Intrusive Imaging technologies in order to scan all cargo traffic destined for U.S. ports of entry. By the end of Q1 FY 2008, CBP will begin prototype operations at Qasim, PK; Puerto Cortes, HN; and Southampton, UK. CBP is also developing additional prototype ports at Salalah, Oman (operational by the end of January 2008); Hong Kong (end of Q1 FY 2008); Brani Terminal, Singapore (end of Q2 FY 2008); and Busan, Korea (end of Q2 FY 2008). SFI will be preparing a report to Congress in April 2008 providing an analysis of SFI test implementation at the prototype locations. Decisions regarding further expansion and the direction of the ICS program will be made subsequent to the issuance of this report.

Early Warning Disease Surveillance Capabilities

Sources:

<http://www.borderhealth.org/ewids.php?curr=programs>

<http://www.bt.cdc.gov/surveillance/ewids/>

U.S. Department of Human Health Services (HHS) is working with the U.S.-Mexico Border Health Commission and Ministry of Health through a cooperative agreement to strengthen early warning disease surveillance capabilities. The focus of this program is on early detection, identification, and reporting of infectious disease outbreaks associated with bioterrorism.

Historical Perspective:

The Department of Health and Human Services (DHHS), through the Centers for Disease Control and Prevention (CDC), are supporting a variety of activities to strengthen public health preparedness for and response to bioterrorism, outbreaks of infectious diseases and other public health emergencies. Now in the second year of this major initiative, DHHS has provided funding to all 50 states (and 12 other eligible jurisdictions) to upgrade public health infrastructure and capabilities, ranging from readiness assessment, surveillance, epidemiology and laboratory capacity to information technology, risk communication, and education and training.

The four U.S. states along the U.S.-Mexico border -- Arizona, California, New Mexico and Texas -- have been engaged in a variety of activities aimed at improving their capability and capacity to detect and report infectious diseases, to conduct epidemiological investigations into disease outbreaks, to use laboratories to identify and characterize biological agents, and to develop rapid and accurate communications systems for sharing health advisories, diagnostic findings and laboratory results among federal, state and local public health agencies.

U.S. Lead and Partner Agencies:

Department of Human Health Services is the lead U.S. agency and works in partnership with CBP, ICE and ten U.S.-Mexico Border States: California, Baja California, Arizona, Sonora, New Mexico, Chihuahua, Texas, Coahuila, Nuevo Leon, Tamaulipas.

The U.S. Mexico Border Health Commission (USMBHC) is responsible for administration of the HHS funds provided under this Scope of Work as determined jointly by DHHS, USMBHC and Secretariat of Health of Mexico. The USMBHC, through its Executive Directors for the United States and Mexico Sections will direct the allocation of funds to the six Mexican border states and the Secretariat of Health of Mexico and to oversee the funded activities.

International Partners:

Secretary of Health in Mexico

Modalities:

The USMBHC Early Warning Infectious Disease Surveillance (EWIDS) project consists of two companion but separate initiatives, the first of which involves the U.S. USMBHC and the second of which focuses on the enhancement of cross-border surveillance and epidemiological capacities within the 20 U.S. states sharing borders with Mexico and Canada.

Both sets of EWIDS activities (in the United States and in Mexico) are intended to strengthen critical capacities in surveillance and epidemiology, laboratory capacity for biological agents, surveillance related communication and information technology, and surveillance/epidemiology related education and training. The common feature to both of these initiatives is (1) the emphasis on cross-border infectious disease surveillance and epidemiology and (2) the involvement of all ten state health officers and bioterrorism coordinators (or their designated representatives) of the U.S. and Mexico border states in any planned activities. This is to ensure that planning and implementation efforts by the four U.S. southern border states for the EWIDS project are harmonized with comparable efforts by neighboring jurisdictions in Mexico's six northern border states. Thus, the overall goals of both EWIDS projects is to enhance coordination among neighboring states in the U.S. and Mexico; to improve surveillance capabilities at the state, local and tribal level; to launching an epidemiological investigation promptly; to share surveillance (including laboratory) data; and to provide for appropriately trained public health personnel for these activities.

Along the southern border, EWIDS funds have also been separately awarded to Texas, New Mexico, Arizona and California to improve and strengthen capabilities that will complement those being developed by their Mexican counterparts so that the systems on both sides of the border will be coordinated and interoperable (in this context, the ability of different types of computers, networks, operating systems, and applications to work together effectively). EWIDS related activities undertaken by the four U.S. border states are intended to be an intrinsic element of the overall public health emergency preparedness efforts supported by the Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services. In a similar vein, BHC EWIDS activities to be carried out by the six Mexican border states and the Secretariat of Health (SOH) of Mexico should reflect relevant priorities on prevention and health promotion as stated in Mexico's National Health Act through the policies established by the National Council for Health Security, and in accordance with the lines of action established in the Mexican National and State Bioterrorism Health Protection Plans as well as in the National Guidelines for Health Security.

- Secretariat of Health of Mexico. The Secretariat of Health of Mexico is responsible for coordinating activities in the six Mexico border states associated with the USMBHC-administered grants.
- Advisory Committee. The USMBHC will establish an Advisory Committee. The Committee will be comprised to the extent possible a representative group from United States and Mexico, Federal, State, local, Commission and tribal representatives having working knowledge of public health requirements in emergency response activities in border communities. The Advisory Committee will provide a forum for the USMBHC to seek consultation and advise regarding the course of the program and to promote coordinated activities between and among border communities.
- Technical Committee. The USMBHC will appoint a selected panel of experts to assist it in reviewing grant applications from the seven Mexican entities and assessing their progress in relationship to the goals and milestones for the Program.
- Department of Health and Human Services (HHS). HHS will appoint a Project Officer representing the Office of the Assistant Secretary for Public Health Emergency Preparedness to be its focal point for communication and administrative actions regarding this agreement.

Financing:

- 5.4 million dollars. Base amount + its share of the total border population
- USMBHC 10%. For a three year period.
- Remaining 90 %
- 25 % Secretary of Health in Mexico - Federal level
- 50 % six Mexican border states, first year of funding
- 25 % six Mexican states, second year of funding

Assessment:

The United States-Mexico Border Commission work plan is addressing cross-border Risk Assessment and Public Health Emergency Preparedness, activities that have not to date been aggressively pursued by other Federal or State entity. An implementation plan is underway to facilitate two levels of strategic planning.

Since the inception of EWIDS, many states have chosen to group into regions to work with their Canadian and Mexican counterparts in order to maximize the funding they are given to complete activities. On the northern border, the Pacific Northwest, Northeastern and Great Lake groups have made significant progress in accomplishing capacities outlined in the CDC Cooperative Agreement.

The Pacific Northwest alliance (Alaska, Idaho, Washington, Montana and North Dakota) hosted their fourth cross border meeting in May 2007 in Victoria, British Columbia to address surveillance, laboratory, communication, information technology and legal issues.

The Great Lakes Border Health Initiative Legal Subcommittee has completed a formal agreement on cross border sharing of resources during an emergency. They completed the Fourth Annual Conference in June 2007.

The southern border states have been working with laboratories in Mexico for several years, and the current focus is to ease transport of laboratory samples across the border. The first US-Mexico Border Health and Infectious Disease Conference occurred in El Paso, Texas in July 2005. The US-Mexico Bi-national Commission Core Group on Epidemiologic Surveillance has completed a draft of bi-national outbreak investigation protocols.

The Eastern Health Initiative (Maine, New Hampshire, New York, Vermont) hosted their spring meeting with Canadian partners from New Brunswick, Nova Scotia and Quebec in May 2007 in Burlington, Vermont.

The first Security and Prosperity Partnership of North America Trilateral Workshop on Early Warning Infectious Disease Surveillance was conducted in El Paso, Texas in March 2007.

DOE Second Line of Defense (SLD) and Megaports Program

Source:

<http://www.nsa.doe.gov/na-20/sld.shtml>

The Second-Line-of-Defense (SLD) program provides training and equipment to search, detect, and identify nuclear and other radioactive materials and deter future trafficking in illicit nuclear and nuclear-related materials.

The Megaports Initiative supplements the Department of Homeland Security's Container Security Initiative (CSI) in its effort to safeguard global maritime trade by enhancing security at seaports worldwide in order to identify and examine high-risk containers as early as possible before they reach U.S. shores. Under CSI, the U.S. Government partners with countries that have ports that meet certain minimum standards and ship a significant volume of containerized cargo to the United States. By adding radiation detection capabilities at key ports, we will be able to screen cargo for nuclear and radioactive materials that could be used against the United States and allies.

Historical Perspective:

Under this program, NNSA works collaboratively with foreign partners to equip border crossings, airports, and seaports with radiation detection equipment. SLD provides training in use of the systems for appropriate law enforcement officials and initial system sustainability support as the host government assumes operational responsibility for the equipment.

Two programs fall under the SLD Program – the SLD Core Program and Megaports Initiative. The Core Program installs radiation detection equipment at borders, airports, and strategic feeder ports in Russia, former Soviet Union states, and other key countries. Approximately 350 sites have been identified to receive detection equipment installations under the Core Program.

The Megaports Initiative provides radiation detection equipment to key international seaports to screen cargo containers for nuclear and other radioactive materials. Approximately 70 ports worldwide are targeted for implementation of the Megaports program.

U.S. Lead and Partner Agencies:

Department of Energy/ NNSA/ NA-25

The Megaports Initiative cooperates closely with the Department of Homeland Security's Bureau of Customs and Border Protection by making technical resources available to complement the Container Security Initiative at international ports.

International Partners:

Not applicable.

Modalities:

SLD Core: In order to improve border security, the Core program provides fixed and handheld equipment, related communications tools, and training for personnel to enhance sustainability in equipment use and interdiction procedures at borders and crossing points.

The SLD Program is enhancing the sustainability, through regular repair and preventative maintenance, of radiation detection equipment installed by the U.S. government in more than 20 countries in the Baltic, Central and Eastern Europe, Central Asia, and the Mediterranean regions after the collapse of the Soviet Union.

Megaports Initiative: The Megaports Initiative has installed monitoring systems in the Netherlands and Greece and representatives are actively engaged with countries in Europe, Asia, South America, the Middle East, and the Caribbean.

Assessment:

Program Accomplishments:

- The Core program has installed monitoring equipment throughout Russia and Greece and is currently engaged with countries in Eastern Europe, and the Caucasus, Baltic and Mediterranean regions.

- The SLD maintenance team successfully visited 21 of the 22 countries since assuming responsibility for the equipment in August 2002. Replacement systems or necessary repairs are provided to the countries based on a regular schedule.
- NNSA made steady progress on the Megaports Initiative since the program's beginning in fiscal year 2003. The Megaports Initiative is currently operational in six countries: Greece, the Bahamas, Sri Lanka, the Netherlands, Singapore, and Spain. NNSA is at various stages of implementing the Megaports program at ports within: Belgium, China, Dubai, Honduras, Israel, Oman, the Philippines, and Thailand, Egypt, Honduras, Jamaica, the Dominican Republic and Taiwan.
- To expand participation in this important effort to prevent nuclear and radioactive material smuggling, the Megaports team is engaged in negotiations with approximately 20 additional countries in Europe, Asia, the Middle East, and South America.

International Counterproliferation Program (ICP)

Source:

<http://www.dtra.mil/oe/osi/programs/icp/index.cfm>

The mission of the U.S. Department of Defense (DoD) International Counterproliferation (ICP) Program is to counter the threat of the proliferation of weapons of mass destruction (WMD) related materials and technologies across the borders and through the independent states of the former Soviet Union, the Baltic region, Eastern Europe and other countries designated by the secretary of defense.

Historical Perspective:

No publicly available information found.

U.S. Lead and Partner Agencies:

Department of Defense/ Defense Threat Reduction Agency/ On-Site Inspection

International Partners:

The former Soviet Union, the Baltic region, Eastern Europe

Modalities:

The International Counterproliferation Program (ICP) provides training, equipment, and technical assistance and is designed to enhance detection, investigation and interdiction capabilities of border, customs, and law enforcement officials in the newly independent countries of the former Soviet Union, Eastern Europe, and the Baltic states.

Assessment:

No publicly available information found.

Anti-Crime Training and Technical Assistance Program (ACTTA)

Source:

<http://www.usdoj.gov/criminal/icitap/TextAnticrime.html>

The Anti-Crime Training and Technical assistance (ACTTA) program helps other countries develop capacity to fight international criminal activity, drug trafficking, corruption, and trafficking in persons, which undermine public institutions, hinder development, and foster the spread of international criminal and terrorist networks.

Historical Perspective:

In 1994, the State Department's Bureau of International Narcotics and Law Enforcement (INL) established its Anticrime Training and Technical Assistance program to help circumvent various threats posed to U.S. national security interests by transnational organized criminal activities originating in Russia, the Newly Independent States (NIS) and the former Soviet Bloc. Anticrime-related programs are intended to build the host-country's capacity to address transnational organized criminal activities while simultaneously strengthening the rule of law and respect for human rights.

Since it was first established, INL's anticrime initiatives have expanded to support US-African law enforcement development efforts targeting a wide range of issues, including international organized crime, financial crimes, narcotics trafficking, trafficking in persons, border security, etc. The US-Africa portion of INL's anticrime efforts was initiated in FY01 to help mitigate the increasing number of organized criminal entities throughout Africa. U.S. assistance is directed toward countries with a demonstrated commitment to good governance, democratic policing and/or the political will to achieve U.S. anticrime goals. The program includes many countries that are in need of anticrime assistance but may not be receiving direct programmatic assistance from other anticrime programs. ICITAP provides training and/or technical assistance in support of INL's anticrime efforts.

U.S. Lead and Partner Agencies:

State Department's Bureau of International Narcotics and Law Enforcement (INL)

International Partners:

Armenia, Bangladesh, Benin, Bulgaria, India, Latvia, Lithuania, Poland, South Africa and Sri Lanka.

INTERPOL works in cooperation.

Modalities:

To assist embassies in preparing proposals to INL for assistance that can accomplish sustainable change, ICITAP developed eight program descriptions focused on differ aspects of police development. The descriptions serve as a general guide and can be tailored to meet specific host country needs while stressing sustainable, institutional development to provide long-lasting benefits to the recipient law enforcement agency. Current development program descriptions include: Community Policing, Office of Professional Standards, Comprehensive Strategic Planning, Domestic Violence, Forensic Laboratory Management, Law Enforcement Training Academy, Law Enforcement Management and Transition to Democratic Policing. ICITAP has developed more than 40 courses that can be provided on a stand-alone basis or incorporated into an institutional-development program. The courses are adapted to meet the legal and cultural norms of the host-country.

Assessment:

The program teaches effective ways to counter terrorist threats and meets its annual and long-term performance goals. The Department of State has developed a system to rate the anti-terrorism capabilities of foreign governments participating in the program to establish a baseline and monitor their progress.

Courses have been expanded to cover new threats. In addition to covering such areas as airport security, bomb-detection, hostage rescue, and crisis management, the program now covers emergent needs such as weapons of mass destruction (WMD) incident response.

This program is responsive to changing threats. Program plans are constantly reviewed in the context of new priorities as outlined by the Secretary of State's Coordinator for Counter-Terrorism.

The following recommendations have been made regarding performance improvement:

- Ensuring countries develop a Fiscal Year budget to finance proposed training plan to meet goals for program sustainment.
- Continuing to expand the ATA program, incl. additional proposals to complete and sustain in-country training capabilities in several key countries.
- Developing efficiency measures and incorporating them into PART for the FY 2007 budget.

Major Political Initiatives

This section includes:

1. Proliferation Security Initiative (PSI)
2. United Nations Security Resolution 1540
3. Global Nuclear Energy Partnership (GNEP)
4. G8 Global Partnership
5. Global Threat Reduction Initiative (GTRI)
6. Global Initiative to Combat Nuclear Terrorism

Proliferation Security Initiative (PSI)

Sources:

<http://usinfo.state.gov/products/pubs/proliferation/>

<http://www.armscontrol.org/factsheets/PSI.asp>

The Proliferation Security Initiative (PSI) is a global initiative aimed at stopping shipments of weapons of mass destruction (WMD), their delivery systems, and related materials worldwide, announced by President Bush May 31, 2003.

The goal of PSI is to create a more dynamic, creative, and proactive approach to preventing proliferation to or from nation states and non-state actors of proliferation concern. Actions will be taken in support of the PSI consistent with national legal authorities and relevant international law and frameworks. The PSI seeks to use existing authorities -- national and international -- to defeat proliferation.

Historical Perspective:

John R. Bolton, US Under-Secretary of State for Arms Control and International Security, developed the idea of the PSI, after 15 Scud missiles found on board a North Korean freighter had to be released when it turned out that international law did not allow them to be confiscated. The PSI was announced by US President George W. Bush on May 31, 2003 in Cracow, Poland.

U.S. Lead and Partner Agencies:

Department of State/ Bureau of Nonproliferation is the lead agency. The program is managed by the National Security Council Staff working out of the White House, with the Pentagon and intelligence agencies playing lead roles.

International Partners:

U.S. is the lead plus fifteen core members including Japan, German, UK, Russia and France. An additional 60 countries have agreed to participate on an ad hoc basis. In September 2005, the People's Republic of China announced that it would not be participating in PSI due to concerns over its legality. India has so far resisted signing on to PSI. For a full listing of participating countries see, <http://www.state.gov/t/isn/c19310.htm>.

Modalities:

The PSI is a set of activities, not a formal treaty-based organization. It is best understood as a set of partnerships that establishes the basis for cooperation on specific activities when the need arises. It does not create formal "obligations" for participating states, but does represent a political commitment to establish "best practices" to stop proliferation-related shipments. PSI interdiction training exercises and other operational efforts will help states work together in a more cooperative, coordinated, and effective manner to stop, search, and seize shipments.

Assessment:

The United States and 10 of the PSI partners have quietly cooperated on 11 successful efforts. As noted by Secretary Rice in her May 31 remarks on the second PSI anniversary, PSI cooperation stopped the transshipment of material and equipment bound for ballistic missile programs in countries of concern, including Iran. PSI partners, working at times with others, have prevented Iran from procuring goods to support its missile and WMD programs, including its nuclear program. Bilateral PSI cooperation prevented the ballistic missile program in another region from receiving equipment used to produce propellant.

United Nations Security Resolution 1540

Source:

<http://www.un.org/sc/1540/>

Resolution 1540 (2004) imposes binding obligations on all States to establish domestic controls to prevent the proliferation of nuclear, chemical and biological weapons, and their means of delivery, including by establishing appropriate controls over related materials. It also encourages enhanced international cooperation on such efforts, in accord with and promoting universal adherence to existing international non proliferation treaties.

Historical Perspective:

On 28 April 2004, the United Nations Security Council unanimously adopted Resolution 1540 (2004) under Chapter VII of the United Nations Charter, obliging States, inter alia, to refrain from supporting by any means non-State actors from developing, acquiring, manufacturing, possessing, transporting, transferring or using nuclear, chemical or biological weapons and their delivery systems.

On 27 April 2006, the Security Council extended the mandate of the 1540 Committee for a further two years with the adoption of Resolution 1673 (2006), which reiterated the objectives of Resolution 1540 (2004), expressed the interest of the Security Council in intensifying its efforts to promote full implementation of the resolution, and obliged the 1540 Committee to report again by April 2008.

U.S. Lead and Partner Agencies:

Department of State/ U.S. Delegation to the UN Conference on Disarmament
DOE and DOD assist in the implementation.

International Partners:

Committee Members: Belgium, China, Congo, France, Ghana, Indonesia, Italy, Panama, Peru, Qatar, Russian Federation, Slovakia, South Africa, United Kingdom of Great Britain and Northern Ireland

Chairman: H.E. Mr. Peter Burian (Slovakia)

Vice Chairmen: Ghana, Indonesia, and United Kingdom of Great Britain and Northern Ireland.

Modalities:

Requirements:

- All States are called to present to the Committee a first report, not later than six month from the adoption of the resolution 1540 (2004), i.e. 28 October 2004, on steps they have taken or intend to take to implement this resolution.
- All States are called upon to report to the Committee on steps they have taken or intend to take to implement the provisions of operative paragraphs 1, 2 and 3 of the resolution 1540 (2004).
- All States are also called upon to include in their national reports, as appropriate, information relating to the implementation of operative paragraphs 6,7,8, 9 and 10 of the resolution 1540 (2004).

As at 20 April 2006, 129 States Members of the United Nations and one organization have submitted first national reports to the Committee established pursuant to resolution 1540 (2004); 62 Member States have yet to submit their first report. In response to the examination of the first national reports by the Committee, 79 States provided additional information. The present report builds on the examination of data submitted in the national reports, the additional information provided by States and the information available in a legislative database developed by the Committee containing national laws and regulations. It provides detailed recommendations with a view to enabling the Security Council to further monitor the implementation of resolution 1540 (2004), as well as enabling States to continue fulfilling the requirements under the resolution.

Assessment:

A database has been developed by the Committee pursuant to UNSC Resolution 1540 (2004) for the purpose of providing additional information on the national implementation of regulations and measures related to the resolution. Member implementation reports (including U.S.) can be found at: <http://www.un.org/sc/1540/nationalreports.shtml#>

According to UN documents, the U.S. is in the process of identifying domestic and international gaps in 1540 implementation. The next logical step would be to begin a process of prioritization of both domestic and international gaps. Because states are required to enact national legislation, this could very well be a lengthy process. After the U.S. prioritizes gaps in domestic and foreign implementation measures of 1540, the U.S. should strategically plan to leverage other countries priorities and capabilities to begin “filling in the gaps.”

Global Nuclear Energy Partnership (GNEP)

Source:

<http://www.gnep.energy.gov/>

The Global Nuclear Energy Partnership (GNEP) is a comprehensive strategy to increase U.S. and global energy security, reduce the risk of nuclear proliferation, encourage clean development around the world, and improve the environment.

GNEP provides for the safe expansion of clean, affordable nuclear power to meet the growing worldwide demand for energy and encourages the growth of prosperity around the globe. GNEP is both a research and technology development initiative and a major international policy partnership initiative.

Historical Perspective:

As part of President Bush's Advanced Energy Initiative, the Global Nuclear Energy Partnership (GNEP) seeks to develop worldwide consensus on enabling expanded use of economical, carbon-free nuclear energy to meet growing electricity demand. This will use a nuclear fuel cycle that enhances energy security, while promoting non-proliferation. It would achieve its goal by having nations with secure, advanced nuclear capabilities provide fuel services — fresh fuel and recovery of used fuel — to other nations who agree to employ nuclear energy for power generation purposes only. The closed fuel cycle model envisioned by this partnership requires development and deployment of technologies that enable recycling and consumption of long-lived radioactive waste.

U.S. Lead and Partner Agencies:

Lead agency is the Department of Energy/ Office of Nuclear Energy and NNSA

International Partners:

GNEP Partners: Australia, Bulgaria, Canada, China, France, Ghana, Hungary, Japan, Jordan, Kazakhstan, Lithuania, Poland, Romania, Russia, Slovenia, Ukraine

GNEP Observers: IAEA, Generation IV International Forum (GIF), Euratom

GNEP Candidate and Observer Partners: Argentina, Belgium, Brazil, Canada, Czech, Egypt, Finland, Germany, Italy, Mexico, Morocco, Netherlands, Slovakia, Spain, South Korea, Sweden, Switzerland, Turkey, United Kingdom

Modalities:

The GNEP Partners decided to establish a three-tiered structure consisting of an Executive Committee comprised of ministerial-level officials from each Partner State, a Steering Group comprised of authorized representatives for each Partner, and Working Groups comprised of designated experts from each Partner. As a first step in implementing cooperation, the Executive Committee determined to establish two Working Groups, one to address nuclear infrastructure development and one to address reliable nuclear fuel services, and requested the Steering Group to develop Terms of Reference for each of these Working Groups. Other Working Groups may be established at the direction of the Executive Committee. The Executive Committee also approved the development of a Steering Group Action Plan.

The objectives, established by the GNEP Statement of Principles, are:

- Expand nuclear power to help meet growing energy demand in a sustainable manner and in a way that provides for safe operation of Nuclear Power Plants and management of wastes.
- In cooperation with the IAEA, continue to develop enhanced nuclear safeguards to effectively and efficiently monitor nuclear materials and facilities, to ensure nuclear energy systems are used only for peaceful purposes.
- Establish international supply frameworks to enhance reliable, cost-effective fuel services and supplies to the world market, providing options for generating nuclear energy and fostering development while reducing the risk of nuclear proliferation by creating a viable alternative to acquisition of sensitive fuel cycle technologies.
- Develop, demonstrate, and in due course deploy advanced fast reactors that consume transuranic elements from recycled spent fuel.
- Promote the development of advanced, more proliferation resistant nuclear power reactors appropriate for the power grids of developing countries and regions.

- Develop and demonstrate, inter alia, advanced technologies for recycling spent nuclear fuel for deployment in facilities that do not separate pure plutonium, with a long term goal of ceasing separation of plutonium and eventually eliminating stocks of separated civilian plutonium. Such advanced fuel cycle technologies, when available, would help substantially reduce nuclear waste, simplify its disposition and draw down inventories of civilian spent fuel in a safe, secure, and proliferation resistant manner.
- Take advantage of the best available fuel cycle approaches for the efficient and responsible use of energy and natural resources.

Assessment:

No publicly available information found.

G8 Global Partnership

Source:

<http://www.state.gov/e/rls/rm/2002/12190.htm>

With no headquarters, budget or permanent staff, the Group of Eight is an informal but exclusive body whose members set out to tackle global challenges through discussion and action.

The G8 comprises seven of the world's leading industrialized nations, and Russia.

The leaders of these countries meet face-to-face at an annual summit that has become a focus of media attention and protest action.

Historical Perspective:

The G8's roots lie in the oil crisis and global economic recession of the early 1970s. In 1973, these challenges prompted the US to form the Library Group - an informal gathering of senior financial officials from Europe, Japan and the US.

At the instigation of the French, the 1975 meeting drew in heads of government. The delegates agreed to meet annually. The six nations involved became known as the G6, and later the G7 and G8 after the respective entries of Canada (1976) and Russia (1998).

U.S. Lead and Partner Agencies:

The meetings are attended by the sitting President of the United States with support from the Department of State.

Three agencies fund the \$1 billion per year U.S. commitment to Global Partnership. The Department of Energy and Department of Defense carry the majority of this responsibility with the Department of State contributing a smaller portion. In FY 2006 through 2009, DOE will have contributed more than 50 percent of the required interagency funding for Global Partnership. Although the DOE projects a lower contribution in the outyears of the current FYNSP, DOE's contribution will still average approximately \$300 million per year.

International Partners:

Canada, Russia, France, Germany, Japan, Italy, and the United Kingdom. The European Commission is also represented at meetings.

Modalities:

The G8 is intended to be an informal forum, and it therefore lacks an administrative structure like those for international organizations, such as the United Nations or the World Bank. The group does not have a permanent secretariat, or offices for its members. The presidency of the group rotates annually among the member countries, with each new term beginning on January 1 of the year. The country holding the presidency is responsible for planning and hosting a series of ministerial-level meetings, leading up to a mid-year summit attended by the heads of government.

G8 members can agree on policies and can set objectives, but compliance with these is voluntary. The G8 has clout in other world bodies because of the economic and political muscle of its members.

The United States will hold the next G8 presidency in 2012. As the foremost economic and political power in the G8, the US is regarded as the dominant member of the group, although this position is not formally enshrined.

Assessment:

G8 Summit 2006, St. Petersburg, Russia:

- President Bush and President Vladimir Putin of Russia announced July 15 a new international initiative to prevent nuclear terrorism and stop the spread of nuclear and radioactive materials. The Global Initiative to Combat Nuclear Terrorism calls on countries to expand and accelerate efforts to better account for and control nuclear and radioactive materials, prevent theft and smuggling of those materials and nuclear weapons, and deny safe haven to terrorists seeking to acquire or use nuclear materials, according to a White House fact sheet.

- The initiative builds on the 2005 International Convention for the Suppression of Acts of Nuclear Terrorism, the Proliferation Security Initiative -- a U.S.-led program aimed at seizing illicit weapons as they are transported around the world -- and a number of other U.S., bilateral and multilateral efforts
- In a separate statement issued July 16, G8 leaders called on all countries not party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the Chemical Weapons Convention (CWC), the Biological and Toxin Weapons Convention (BTWC) and the 1925 Geneva Protocol to accede to them without delay and for those nations that have not yet done so to subscribe to the Hague Code of Conduct Against Ballistic Missile Proliferation. The statement also urges all countries concerned to observe strictly a moratorium on nuclear weapon test explosions or any other nuclear explosions.

G8 Summit 2002, Kananaskis, Canada

- President Bush and his G-8 colleagues agreed to launch a major new effort to prevent the proliferation of weapons of mass destruction to terrorists or those who support them. Under the "G-8 Global Partnership Against the Spread of Weapons and Material of Mass Destruction," the United States, the G-7 and the European Commission have agreed to raise up to \$20 billion for projects pertaining to disarmament, nonproliferation, counterterrorism and nuclear safety, over the next ten years. The United States agreed to provide half of the total funding.
- G-8 Nonproliferation Principles: The President and his G-8 colleagues also adopted a set of Principles to prevent terrorists or those who harbor them from acquiring or developing nuclear, chemical, radiological and biological weapons, missiles, and related materials, equipment and technology. The G-8 Leaders called on all states to commit to these Principles.
- U.S. Nonproliferation Assistance: The G-8 Global Partnership builds on, and expands, a decade of cooperation between the United States and former Soviet states to reduce and prevent the proliferation of weapons of mass destruction, starting with the Cooperative Threat Reduction (Nunn-Lugar) program in FY1992. From FY1992 to FY2002, the United States allocated approximately \$7 billion for this purpose. In the President's FY2003 budget request, he proposed about \$1 billion in nonproliferation and, threat reduction assistance to former Soviet states.

Global Threat Reduction Initiative (GTRI)

Source:

<http://www.doe.gov/media/ViennaGTRFactSheetFINAL1052604.pdf>

The mission of the GTRI is to remove and/or secure high-risk nuclear and radiological materials and equipment around the world that pose a threat to the United States and to the international community. This initiative comprehensively addresses all vulnerable nuclear and radiological materials throughout the world and secures and/or removes these materials and equipment of concern as expeditiously as possible.

Historical Perspective:

“On February 11, 2004, President Bush stated in a speech at the National Defense University that the greatest risk to the United States or anywhere else in the world is the possibility of a nuclear or radiological materials terrorist attack. The U.S. Department of Energy (DOE) has several ongoing efforts to combat this threat. In the latest step to increase effectiveness in preventing nuclear and radiological materials from falling into the hands of terrorists or other rogue actors, Secretary of Energy Spencer Abraham announced the Global Threat Reduction Initiative (GTRI).”

U.S. Lead and Partner Agencies:

Department of Energy/ National Nuclear Security Administration/ NA-21

International Partners:

GTRI cooperates with more than 90 countries.

Modalities:

To carry out the Initiative, the Secretary directed the National Nuclear Security Administration (NNSA) to consolidate and accelerate the Department’s nuclear materials removal efforts, and complete a comprehensive inventory of research reactors and vulnerable nuclear materials worldwide to rapidly identify and address any gaps in current security coverage and recovery or removal efforts. This includes the following programs:

- Russian Research Reactor Fuel Return (RRRFR) Program
- Eliminates stockpiles of Russian-origin HEU by assisting eligible countries to convert their research reactors from HEU to low-enriched uranium (LEU) fuel upon availability and qualification.
- Reduced Enrichment for Research and Test Reactors (RERTR) Program
- Targets research reactors and medical isotope production processes worldwide for conversion to suitable HEU fuels and targets.
- Foreign Research Reactor Spent Nuclear Fuel (FRRSNF) Acceptance Program\
- Eliminates stockpiles of U.S.-origin spent nuclear fuel from foreign research reactors through repatriation to the United States.
- Radiological Threat Reduction (RTR) Program
- Identifies, recovers, and stores, on an interim-basis, certain domestic radioactive sealed sources as well as other radiological materials that pose a security risk to the United States and/or world community.
- Reduces the international threat posed by radiological materials that could be used in a radiological dispersal device (RDD) or ‘dirty bomb.’

Performance Measures:

Convert

- By 2018, convert to LEU 129 of 207 HEU reactors.

Remove Nuclear and Radiological Materials

- By 2013, remove or dispose of 4,384 kg of nuclear material (HEU and plutonium) from civilian sites (enough for 180 crude nuclear weapons).
- By 2020, remove 31,700 excess U.S. radiological sources totaling about 450,000 curies (enough for 2,255 radiological dirty bombs).

Protect Nuclear and Radiological Materials

- By 2010, complete physical protection upgrades at 22 research reactor facilities outside of the former Soviet Union.
- By 2010, complete safe and secure long-term storage of 3,000 kg of plutonium and 10,000 kg of HEU (enough for 775 crude nuclear weapons) from the BN-350 reactor in Kazakhstan.

- By 2028, protect 3,300 high-priority radiological sites totaling about 50,000,000 curies (enough for 50,000 radiological dirty bombs).

Assessment:

The Global Threat Reduction Initiative (GTRI) is a vital part of the President's National Security Strategy and the Global Initiative. GTRI's unique mission to reduce and protect vulnerable nuclear and radiological material located at civilian sites worldwide directly addresses recommendations of the 9/11 Commission.

GTRI accelerated reactor conversions from the historical rate of 1.5/year to 6 in FY2006 and 5 in FY2007 to date, accelerated security upgrades on radiological material from 35/year to over 200/year, accelerated U.S. radiological recoveries from about 1,100/year to over 2,100/year, and accelerated the removal of Russian-origin and US-origin fuel in line with the Bratislava Joint Statement.

The GTRI is integrating several existing stand alone management systems into one project management information system to reduce data redundancy and increase data integrity and reporting efficiency.

Results as of December 2006:

Reactors converted (207):

- 48 converted; 53 planned for conversion with existing fuels; 28 planned for conversion with new fuels; 78 beyond GTRI scope.

Removed:

- HEU and Plutonium removed as of December 2006 (22,790 kg):
 - 1,636 kg removed; 2,753 kg planned; 18,345 kg not planned for removal because of alternate removal paths available or material considered secure; 56 kg in non-participating countries.
- Nuclear removed as of December 2006 (includes actual and planned)
 - 7,335 kg of U.S.-origin HEU; 2,154 kg of Russian-origin HEU; 13,301 kg of GAP nuclear materials.
- Radiological removed as of December 2006 (includes actual and planned)
 - 31,716 kg of U.S. radiological materials removed.

Protect

- 3,311 radiological sites protected as of December 2006 (includes actual and planned)

Global Initiative to Combat Nuclear Terrorism

Source:

<http://www.whitehouse.gov/news/releases/2006/07/20060715-3.html>

In order to reduce the risks of a catastrophic terrorist attack and to remedy the current gaps in the international nonproliferation regime, the US and Russia announced the Global Initiative to Combat Nuclear Terrorism during the 2006 G8 Summit in St. Petersburg. A major goal of the Global Initiative, which will complement the G8 Global Partnership against the Spread of Weapons and Materials of Mass Destruction, is to "prevent the acquisition, transport, or use by terrorists of nuclear materials and radioactive substances or improvised explosive devices using such materials, as well as hostile actions against nuclear facilities."

Historical Perspective:

Thirteen nations gathered on November 2006 in Rabat, Morocco to confront the grave international threat of nuclear terrorism by endorsing the Global Initiative to Combat Nuclear Terrorism, a joint initiative announced in July by President Bush and Russia's President Putin.

Partner nations pledged to take a number of actions to fight nuclear terrorism by committing to improve accounting and security of radioactive and nuclear materials, enhance security at civilian nuclear facilities, and to improve detection of nuclear and radioactive materials to prevent illicit trafficking.

U.S. Lead and Partner Agencies:

Office of the President, with support from the Department of State

International Partners:

Russia is the United States' primary partner. Other G8 partner nations were invited to join and the IAEA was asked to act as an observer.

Modalities:

Domestic Outputs Include:

- Creating the Domestic Nuclear Detection Office. In 2005, the Domestic Nuclear Detection Office was created to develop and coordinate a global nuclear detection architecture to detect and report attempts to import or transport a nuclear or radiological device intended for illicit use.
- Establishing Project Shield. In 2004, Project Shield was established to work in partnership with U.S. private sector companies that manufacture, sell, or export strategic technology and munitions to prevent attempts by terrorists, criminal organizations, and foreign adversaries from obtaining these items.
- Signing Executive Order 13382. In 2005, the President signed Executive Order 13382, which authorizes the government to designate and block the property of WMD proliferators and persons providing support or services to such proliferators. The U.S. has designated 25 entities linked to the WMD and missile programs of Iran, North Korea, and Syria. The U.S. is working with like-minded countries to take complementary actions to ensure their companies and financial institutions do not facilitate proliferation activities.
- Signing the National Strategy for Maritime Security. In 2005, The President signed the National Strategy for Maritime Security, the first-ever comprehensive National Strategy for Maritime Security. Three broad principles that provide overarching guidance to this strategy include: preserving the freedom of the seas; facilitating and defending commerce; and facilitating the movement of desirable goods and people across our borders, while screening out dangerous people and materials. The activities under this strategy aim to create necessary layers of security to stop terrorist and other threats while also assuring continuity of the Marine Transportation System.
- Creating the Director of National Intelligence Position and the National Counterproliferation Center. In 2004, the Director of National Intelligence position and the National Counterproliferation Center (NCPC) were created to exercise strategic oversight of the intelligence community's work related to the threats posed by weapons of mass destruction.
- Expanded Security for Nuclear Facilities. The U.S. Government has taken aggressive action to enhance security for nuclear materials and facilities, including nuclear power plants, to protect against domestic terrorism. Enhancements include such actions as increased access controls, vehicle barriers, more robust armed response force capabilities and training, and additional controls during the transportation, storage, and use of certain radioactive materials.

Multilateral Gains/Outputs Include:

- In April 2004, the U.N. Security Council adopted Resolution 1540. It requires states to enact and enforce national legal and regulatory measures to prevent proliferation of weapons of mass destruction, their delivery systems, and related materials, as well as establish financial controls to prevent the financing of such transactions.
- In 2005, the U.N. General Assembly adopted the International Convention for the Suppression of Acts of Nuclear Terrorism. It provides a legal basis for international cooperation in the investigation, prosecution, and extradition of those who commit terrorist acts involving radioactive materials or a nuclear device.
- In 2005, the U.N. Convention on the Physical Protection of Nuclear Material was amended to create a legal obligation to secure nuclear materials in storage and during transport, and to criminalize acts of sabotage against civilian nuclear facilities.
- In 2002, the IAEA's Nuclear Security Program was established to assist member states with improving the safety and security of nuclear and radiological materials.
- In 2005, the IAEA established its Committee on Safeguards and Verification to explore ways to strengthen the ability of the IAEA to monitor and enforce compliance with the nuclear nonproliferation treaty.
- At the G-8 2002 Kananaskis Summit, the Global Partnership against the Spread of Weapons of Mass Destruction was created to seek additional resources and partners for nonproliferation, disarmament, counterproliferation, and nuclear safety projects in Russia and other former Soviet states. Partnership donors have pledged \$17 billion toward the \$20 billion target.
- In 2003, the Proliferation Security Initiative (PSI) was launched to promote international cooperation to interdict WMD-related shipments and stop proliferation finance. More than 70 nations now engage in PSI activities. PSI partners have cooperated dozens of times to prevent transfers of WMD-related materials, including the interdiction of the BBC China in October 2003 that led to the unraveling of the A.Q. Khan nuclear proliferation network and Libya's decision to give up its WMD and longer-range missile programs.
- In 2004, the Global Threat Reduction Initiative was launched to accelerate efforts to identify, secure, remove, and facilitate the disposition of high risk vulnerable nuclear and radiological materials around the world.
- The U.S. Government has enhanced import and export controls of risk-significant radioactive sources, consistent with the International Atomic Energy Agency's Code of Conduct on the Safety and Security of Radioactive Sources, in coordination with the G-8 industrialized countries through the G-8 Nuclear Safety and Security Working Group, and in meetings of supplier countries.

Assessment:

The Global Initiative to Combat Nuclear Terrorism builds the capacity of willing partner nations by:

- Improve accounting, control, and physical protection of nuclear material and radioactive substances, as well as security of nuclear facilities;
- Detect and suppress illicit trafficking or other illicit activities involving such materials, especially measures to prevent their acquisition and use by terrorists;
- Respond to and mitigate the consequences of acts of nuclear terrorism;
- Ensure cooperation in the development of technical means to combat nuclear terrorism;
- Ensure that states takes all possible measures to deny safe haven to terrorists seeking to acquire or use nuclear materials; and
- Strengthen our respective national legal frameworks to ensure the effective prosecution of, and the certainty of punishment for, terrorists and those who facilitate such acts.

The Global Initiative will try to achieve these objectives primarily by building state capacity to deal with the challenges of proliferation. Ambassador Robert Joseph, the former Under Secretary of State for Arms Control and International Security, stated that one of the Global Initiative's main thrusts would be developing a comprehensive detection architecture which will monitor physical trafficking as well as the transfer of funds and technology through cyberspace.

Although the Global Initiative is a hopeful step forward, former Senator Sam Nunn observed on the day that it was launched, "As we have seen in the past, there can be a big gap between pledges and programs, and a big gap between goals and accomplishments." For this reason and because there are certain shortcomings in the Global initiative as proposed, there is a significant role for Congress in overseeing, strengthening, and broadening the Global Initiative. (<http://www.stimson.org/cnp/?SN=CT200705181262>)

Financial Initiatives

This section includes:

1. Financial Action Task Force (FATF)
2. Egmont Group (FinCEN)

Financial Action Task Force (FATF)

Source:

http://www.fatf-gafi.org/pages/0,2987,en_32250379_32235720_1_1_1_1_1,00.html

The FATF is an inter-governmental body whose purpose is to establish international standards, and develop and promote policies, both at national and international levels, to combat money laundering and terrorist financing. The FATF is a policy-making body which works to generate the necessary political will to bring about national legislative and regulatory reforms in these areas. The FATF also regularly examines methods, techniques and trends of money laundering and terrorist financing to ensure the continued relevance of its policies and standards. Since its inception, the FATF has operated under a finite life-span, requiring a specific decision of the Task Force to continue. The mandate of the FATF was most recently renewed in May 2004 at the FATF ministerial meeting for an 8-year period (2004-2012).

Historical Perspective:

The FATF was established in July 1989 by a Group of Seven (G-7) Summit in Paris, initially to examine and develop measures to combat money laundering. At that time the FATF comprised 15 jurisdictions. In addition to the G-7 summit participants (Canada, France, Germany, Italy, Japan, United Kingdom and the United States), the European Commission, Australia, Austria, Belgium, Luxembourg, the Kingdom of the Netherlands, Spain, Sweden and Switzerland were invited to join the Task Force in order to enlarge its expertise and to reflect the views of other countries particularly concerned by or having experience in the fight against money laundering.

The FATF issued its first set of international anti-money laundering standards in 1990 - the Forty Recommendations on Money Laundering. Members revised these Recommendations in 1996 so as to take into account changes in money laundering methods, techniques and trends. In October 2001, in response to the September 11 attacks in the United States, the FATF expanded its mandate and issued Eight Special Recommendations to deal with the issue of terrorist financing. The continued evolution of money laundering techniques led the FATF to undertake a thorough updating of the FATF standards in June 2003. In October 2004, the FATF published a ninth Special Recommendation, making its overall standard – the 40+9 Recommendations – a strong framework for governments to develop their domestic efforts against money laundering and terrorist financing.

U.S. Lead and Partner Agencies:

The Department of the Treasury is the lead agency for the U.S.

International Partners:

During 1991 and 1992, the FATF expanded its membership from the original 16 to 28 members. In 2000 the FATF expanded to 31 members, in 2003 to 33 members, and in 2007 it expanded to its current 34 members.

Member Nations:

- Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Denmark, European Commission, Finland, France, Germany, Greece, Gulf Co-operation Council, Hong Kong, Iceland, Ireland, Italy, Japan, Kingdom of the Netherlands*, Luxembourg, Mexico, New Zealand, Norway, Portugal, Russian Federation, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey, United Kingdom

Associate Members:

- The Asia/Pacific Group on Money Laundering (APG), The Council of Europe Select Committee of Experts on the Evaluation of Anti-Money Laundering Measures (MONEYVAL) - formerly PC-R-EV, The Financial Action Task Force on Money Laundering in South America (GAFISUD), Middle East and North Africa Financial Action Task Force (MENAFATF)

For a full list of other international organizations see,

http://www.fatf-gafi.org/document/5/0,3343,en_32250379_32236869_34310917_1_1_1_1,00.html

Modalities:

Current FATF working groups:

- The FATF's Working Group on Evaluations and Implementation (WGEI) assists the plenary through monitoring, coordinating and reviewing the mutual evaluation processes and procedures, and taking steps, as appropriate, to enhance the quality, consistency and transparency of the evaluation/assessment reports of the

FATF, associate members, FSRBs, the OGBS, the IMF and the WB. The WGEI serves as a point of contact between the FATF, the FSRBs, the OGBS and the International Financial Institutions (IFIs) on matters related to the WGEI mandate.

- The Working Group on Terrorist Financing and Money Laundering (WGTM) is also involved in the FATF's continuing refinement of the standards. The WGTM assists the plenary by considering work carried out by the Working Group on Typologies (WGTYP) and where appropriate developing and proposing interpretation or guidance to the FATF standards, or changes to the AML/CFT Methodology 2004, that address the ML or TF risks identified by the WGTYP.

Mutual evaluations:

Each FATF member jurisdiction is examined in turn by the FATF. The scope and purpose of these evaluations is to assess whether the necessary laws, regulations or other measures required under the new standards are in force and in effect, that there has been a full and proper implementation of all necessary measures and that the system in place is effective.

In support of increased transparency, the FATF mutual evaluation reports are shared with all members and observers, are discussed in open session in the FATF plenary, and are published once adopted. The 16 reports adopted so far, along with summaries of their key findings, are available on the FATF website

Assessment:

See Egmont Group (FinCEN), p.116

Egmont Group (FinCEN)

Source:

<http://www.egmontgroup.org/>

The Egmont Group is an organization devoted to the international fight against money laundering and the financing of terrorist activities. The group consists of “financial intelligence units” (FIU) provided by member nations which at a minimum, receive, analyze, and disclose information by financial institutions to competent authorities of suspicious or unusual financial transactions. Although every FIU operates under different guidelines, most FIUs, under certain provisions, can exchange information with foreign counterpart FIUs. In addition, many FIUs can also be of assistance in providing other government administrative data and public record information to their counterparts, which can also be very helpful to investigators. One of the main goals of the Egmont Group is to create a global network by promoting international co-operation between FIUs.

In the United States, the Financial Crimes Enforcement Network (FinCEN) is the FIU for the Egmont Group. FinCEN mission is to administer the Bank Secrecy Act, support law enforcement and intelligence activities, build global partnerships with counterpart financial intelligence institutions, and to network people, ideas, and information.

Historical Perspective:

Since 1995, a number of FIUs began working together in an informal organization known as the Egmont Group (named for the location of the first meeting at the Egmont-Arenberg Palace in Brussels on 9 June 1995). The Egmont Group has approved the following definition of a FIU as of June 2004:

“A central, national agency responsible for receiving (and, as permitted, requesting), analyzing and disseminating to the competent authorities, disclosures of financial information concerning suspected proceeds of crime and potential financing of terrorism, or required by national legislation or regulation, in order to counter money laundering and terrorism financing.”

U.S. Lead and Partner Agencies:

The U.S. lead agency is the Department of the Treasury. Partner agencies include Customs and Border Patrol.

International Partners:

There are 106 operational Egmont units. A listing of these FIUs can be found at: http://www.egmontgroup.org/list_of_fius.pdf.

Modalities:

The Group has developed five working groups and an Egmont Committee which meet twice per year. The working groups and their functions are listed below:

- The Legal Working Group (LWG) reviews the candidacy of potential members and handles all legal aspects and matters of principle within Egmont, including cooperation between FIUs.
- The Outreach Working Group (OWG) works to create a global network of FIUs by identifying candidates for membership and working with those countries to ensure that they meet international standards.
- The Training Working Group (TWG) identifies training needs and opportunities for FIU personnel, and conducts training seminars for Egmont members as well as for non-Egmont jurisdictions.
- The Operational Working Group (OpWG) seeks to bring FIUs together on typologies development and long-term strategic analytical projects.
- The IT Working Group (ITWG) provides advice and technical assistance to new and existing FIUs to develop, enhance, or redesign their IT systems, and examines new software applications that might facilitate analytical work.

The FinCEN is evaluated based on:

- Internal work process reviews that are used as a basis for improving programs and processes.
- Internal control reviews used to evaluate and, if needed, to strengthen management controls over resources.
- Internal reviews of technology, case management and other issues that are used as a basis for making strategic decisions.

- Customer satisfaction surveys, which are used to identify strengths and opportunities to improve services to external clients, including law enforcement agencies, regulators, and the financial industry.
- Employee satisfaction surveys, which are used as a basis for making decisions related to human resources activity, employee communications, and other management areas.
- External evaluations of major program activities, which are contracted for as needed and used in strategic planning.

Assessment:

The FinCEN program has been assessed as “adequate.” While the program has long-term performance measures in place, more time is needed to gauge the usefulness and impact of the program's analysis activities. FinCEN currently administers a survey to its customers to evaluate the impact and usefulness of its analytic reports, but more work is needed to develop a method for better assessing the law enforcement impact of FinCEN's analytic products.

Although the Treasury Office of Inspector General has recently conducted an evaluation of the program's internal processes in conducting analysis of BSA data, no evaluations to date have been conducted on the effectiveness of FinCEN's analysis of BSA data in combating terrorism, money laundering and financial crime.

Developing measures of the impact of FinCEN's efforts to strengthen anti-terrorist financing and anti-money laundering programs worldwide. In FY 2007, FinCEN determined that an annual customer survey would be the most appropriate mechanism for measuring the impact of FinCEN's efforts to strengthen anti-terrorist financing and anti-money laundering programs worldwide. In the remainder of FY 2007, FinCEN will: identify international liaison activities that could be utilized to measure impact, draft a survey to solicit customer input, and create a new or refine an existing database to capture requisite contact information for potential respondents. In FY 2008, FinCEN will administer the survey and review and analyze the response rate.

List of Acronyms

Anti-Crime Training and Technical Assistance Program	ACTTA
Atomic Energy Commission	AEC
Australia Group	AG
Bio-Chem Redirect Program	BCR
Biological and Toxin Weapons Convention	BTWC
Biological Threat Reduction Prevention	BTRP
Bureau of Industry and Security	BIS
Center for Disease Control	CDC
Chemical Weapons Convention	CWC
Chemical Weapons Destruction	CWD
Chemical, Biological, Radiological, Nuclear	CBRN
Comprehensive Safeguard Agreement	CSA
Comprehensive Test Ban Treaty	CTBT
Comprehensive Test Ban Treaty Organization	CTBTO
Conference on Security and Cooperation in Europe	CSCE
Confidence Building Measures	CBM
Container Security Initiative	CSI
Convention on the Physical Protection of Nuclear Material	CPPNM
Cooperative Biological Research Program	CBR
Cooperative Threat Reduction	CTR
Customs and Border Patrol	CBP
Customs Trade Partnership Against Terrorism	CTPAT
Defense and Military Contacts	DMC
Department of Commerce	DOC
Department of Defense	DOD
Department of Energy	DOE
Department of Health and Human Services	HHS
Early Warning and Infectious Disease Surveillance	EWIDS
Elimination of Weapons Grade Plutonium Program	EWGPP
Export Control and Related Border Security Assistance	EXBS
Financial Action Task Force	FATF
Financial Crimes Enforcement Network	FINCEN
Fissile Material Storage Facility	FMSF
Former Soviet Union	FSU
Global Control System	GCS
Global Nuclear Energy Program	GNEP
Global Threat Reduction Initiative	GTRI
Government Accountability Office	GAO
Hague Code of Conduct against Ballistic Missiles	HCOC
Immigration and Customs Enforcement	ICE
Initiative for Proliferation Prevention	IPP
Intermediate Range Nuclear Forces Treaty	INF
International Atomic Energy Agency	IAEA
International Code of Conduct against Ballistic Missiles	ICCBM
International Counterproliferation Program	ICP
International Monitoring System	IMS
International Nonproliferation Export Control Program	INECP
International Science and Technology Center	ISTC

Material Protection Control and Accounting	MPC&A
Middle East Nuclear Weapons Free Zone	MENWFZ
Missile Technology Control Regime	MTCR
Multinational Technical Means	MTM
Multiple Independently Targetable Reentry Vehicle	MIRV
Mutual Balanced Force Reductions	MBFR
National Technical Means	NTM
Non-Nuclear Weapons States	NNWS
Nuclear Materials Management and Safeguards System	NMMSS
Nuclear Nonproliferation Treaty	NPT
Nuclear Regulatory Commission	NRC
Nuclear Suppliers Group	NSG
Nuclear Weapons Free Zone	NWFZ
Nuclear Weapons States	NWS
Nuclear Weapons Storage Security	NWSS
Office of Material Consolidation and Civilian Sites	MCCS
Open Skies Consultive Commission	OSCC
Open Skies Treaty	OST
Partial Test Ban Treaty	PTBT
Peaceful Nuclear Exchange Treaty	PNET
Proliferation Security Initiative	PSI
Remotely Piloted Vehicle	RPV
Science Based Stockpile Stewardship	SBSS
Second-Line Defense	SLD
Secure Freight Initiative	SFI
Short Range Ballistic Missile	SRBM
South East Asia Nuclear Weapons Free Zone	SEANWFZ
Strategic Arms Reduction Treaty	START
Strategic Defense Initiative	SDI
Strategic Nuclear Arms Elimination	SNAE
Strategic Nuclear Delivery Vehicle	SNDV
Strategic Offensive Arms Elimination	SOAE
Strategic Offensive Arms Reduction Treaty	SORT
Threat Agent Detection and Response	TADR
Threshold Test Ban Treaty	TTBT
Transshipment Country Export Control Initiative	TECI
Treaty on the Conventional Forces in Europe	CFE
U.S.-Mexico Border Health Commission	USMBHC
United Nations	UN
United Nations Conference on Disarmament	UNCD
United Nations Economic and Social Council	UNESC
United Nations Secretary General	UNSG
Unmanned Aerial Vehicle	UAV
Wassenaar Arrangement	WA
Weapons of Mass Destruction	WMD
Weapons of Mass Destruction Infrastructure Elimination	WMDIE
Weapons of Mass Destruction Proliferation Prevention Initiative	WMD-PPI