Reaching Critical Will

2010 NPT Review Conference Action Plan
Nuclear Disarmament

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Table of Contents

Introduction 4
Summary of implementations of actions 6
Chapter 1 – Disarmament and Arms Reduction Efforts 10
  Action 1, 3, 4 and 5
Chapter 2 – Transparency and Irreversibility 38
  Action 2, 19, 20 and 21
Chapter 3 – Conference on Disarmament 45
  Action 6, 7 and 15
Chapter 4 – Nuclear Weapon Free Zones and Negative Security assurance 50
  Action 8 and 9
Chapter 5 – Comprehensive Nuclear-Test-Ban Treat 61
  Action 10, 11, 12, 13 and 14
Chapter 6 – Fissile Material 68
  Action 16, 17 and 18
Chapter 7 – Disarmament Education 75
  Action 22
Introduction

The multilateral field of arms control, disarmament, and the non-proliferation of nuclear weapons has been marked by important developments in the recent year; one of the most significant was the 2010 nuclear Non-Proliferation Treaty (NPT) Review Conference. After four weeks of negotiations in May 2010, states parties to the NPT adopted a final document for the first time since 2000. In that final document, states agreed on 64 actions in order to implement the obligations contained in the three “pillars” of the NPT: nuclear disarmament, nuclear non-proliferation, and the peaceful uses of nuclear energy. In addition, it contains a decision to convene a conference for the establishment of a zone free of weapons of mass destruction in the Middle East and to appoint a Special Coordinator on the issue.

The final document and its action plan have been called successes by many governments, but the negotiations and previous drafts of this action plan highlight a resistance by the nuclear weapon states to accept any concrete commitments on nuclear disarmament and, in response, reluctance by some non-nuclear weapon states to agree on further substantial measures to deal with non-proliferation challenges, while promoting the so-called “virtues” of nuclear energy. The document was carefully crafted and modified to stay within the “red lines” of every delegation and it was, as the Chair described it, the best that could be offered at that point in time.

However, a final document is just a document, and states must now make significant progress in implementing it in order to move forward. The international community—states and civil society—have expressed frustration with the pace and scope of nuclear disarmament. The degree of compliance of some states parties with the NPT’s provisions, and the lack of universality of that Treaty give rise to serious concerns or suspicions. The Comprehensive Test Ban Treaty (CTBT) has yet to enter into force 15 years after it was opened for signature and the Conference on Disarmament is still unable to make progress on the negotiation of a treaty to prohibit the production of fissile material for weapons purposes, or on any other nuclear disarmament issues.

In light of the context described above, Reaching Critical Will and the Geneva Centre for Security Policy are cooperating in a project aimed at providing a platform for examining the degree of implementation and operationalisation of the action plan in the three NPT “pillars”. The project is supported by the United Nations Institute for Disarmament Research (UNIDIR) and the Geneva Branch of the United Nations Office for Disarmament Affairs (UNODA). The research has been made possible with a generous contribution by the Swiss Federal Department of Foreign Affairs.

This research report is Reaching Critical Will’s contribution to this project, where we have reviewed the implementation of one part of the actions as set out in the 2010 NPT Review Conference action plan, the first pillar on the non-proliferation of nuclear weapons. Two similar research reports have been made on both the second and third pillars. The report on peaceful uses of nuclear energy was released in June 2011 and the report on non-proliferation of nuclear weapons in September 2011.

The project is formed to work to provide factual and clear information on the status of the implementation of the NPT Action Plan on non-proliferation of nuclear weapons.
The empirical data for this first part of the project was collected during the period of November 2011 to January 2012.

The research has been done through extensive review of publicly available information. The research is not a full technical investigation of all related facts, but is an attempt to provide an overview of states' compliance with the NPT action plan and to capture the most significant developments since May 2010 under actions 1 to 22. The research has been carried out within the limits of available resources, such as time, publicly available information, and limited participation of states in our survey.

We encourage states and organizations to submit any comments or feedback to us.

We would like to thank the other partners of this project, the GCSP and UNIDIR, and we are particularly grateful to Ambassador Benno Laggner, Head of the Task Force on Nuclear Disarmament and Non-Proliferation at the Swiss Federal Department of Foreign Affairs for his support of this project and for Reaching Critical Will.

Beatrice Fihn
Reaching Critical Will
Summary of implementation of actions

**Action 1:** All States parties commit to pursue policies that are fully compatible with the Treaty and the objective of achieving a world without nuclear weapons.

**Action 2:** All States parties commit to apply the principles of irreversibility, verifiability and transparency in relation to the implementation of their treaty obligations.

**Action 3:** In implementing the unequivocal undertaking by the nuclear-weapon States to accomplish the total elimination of their nuclear arsenal, the nuclear-weapon States commit to undertake further efforts to reduce and ultimately eliminate all types of nuclear weapons, deployed and non-deployed, including through unilateral, bilateral, regional and multilateral measures.

**Action 4:** The Russian Federation and the United States of America commit to seek the early entry into force and full implementation of the Treaty on Measures for the Further reduction and Limitation of Strategic Offensive Arms and are encouraged to continue discussions on follow-on measures in order to achieve deeper reductions in their nuclear arsenals.

**Action 5:** The nuclear-weapon States commit to accelerate concrete progress on the steps leading to nuclear disarmament, contained in the Final Document of the 2000 Review Conference, in a way that promotes international stability, peace and undiminished and increased security. To that end, they are called upon to promptly engage with a view to, inter alia:

(a) Rapidly moving towards an overall reduction in the global stockpile of all types of nuclear weapons, as identified in action 3;
(b) Address the question of all nuclear weapons regardless of their type or their location as an integral part of the general nuclear disarmament process;
(c) To further diminish the role and significance of nuclear weapons in all military and security concepts, doctrines and policies;
(d) Discuss policies that could prevent the use of nuclear weapons and eventually lead to their elimination, lessen the danger of nuclear war and contribute to the non-proliferation and disarmament of nuclear weapons;
(e) Consider the legitimate interest of non-nuclear-weapon States in further reducing the operational status of nuclear weapons systems in ways that promote international stability and security;
(f) Reduce the risk of accidental use of nuclear weapons; and
(g) Further enhance transparency and increase mutual confidence.

**Action 6:** All States agree that the Conference on Disarmament should immediately establish a subsidiary body to deal with nuclear disarmament,
within the context of an agreed, comprehensive and balanced programme of work.

**Action 7:** All States agree that the Conference on Disarmament should, within the context of an agreed, comprehensive and balanced programme of work, immediately begin discussion of effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons, to discuss substantively, without limitation, with a view to elaborating recommendations dealing with all aspects of this issue, not excluding an internationally legally binding instrument. The Review Conference invites the Secretary-General of the United Nations to convene a high-level meeting in September 2010 in support of the work of the Conference on Disarmament.

**Action 8:** All nuclear-weapon States commit to fully respect their existing commitment with regard to security assurances. Those nuclear-weapon States that have not yet done so are encouraged to extend security assurances to non-nuclear-weapons States parties to the Treaty.

**Action 9:** The establishment of further nuclear-weapon-free-zones, where appropriate, on the basis of arrangements freely arrived at among States of the region concerned, and in accordance with the 1999 Guidelines of the United Nations Disarmament Commission, is encouraged. All concerned States are encouraged to ratify the nuclear-weapon-free zone treaties and their relevant protocols, and to constructively consult and cooperate to bring about the entry into force of the relevant legally binding protocols of all such nuclear-weapon-free zones treaties, which include negative security assurances. The concerned States are encouraged to review any related reservation.

**Action 10:** All nuclear-weapon States undertake to ratify the Comprehensive Nuclear-Test-Ban Treaty with all expediency, noting that positive decisions by nuclear-weapon States would have the beneficial impact towards the ratification of that Treaty, and that nuclear-weapon States have the special responsibility to encourage Annex 2 countries, in particular those which have not acceded to the Treaty on the Non-Proliferation of Nuclear Weapons and continue to operate unsafeguarded nuclear facilities, to sign and ratify.

**Action 11:** Pending the entry into force of the Comprehensive Nuclear-test-Ban treaty, all States commit to refrain from nuclear-weapon test explosions or any other nuclear explosions, the use of new nuclear weapons technologies and from any action that would defeat the object and purpose of that Treaty, and all existing moratoriums on nuclear-weapon test explosions should be maintained.

**Action 12:** All States that have ratified the Comprehensive Nuclear-Test-Ban Treaty recognize the contribution of the conference on facilitating the entry
into force of that Treaty and of the measures adopted by consensus at the Sixty Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-test-Ban Treaty, held in September 2009, and commit to report at the 2011 Conference on progress made towards the urgent entry into force of that Treaty.

**Action 13** All States that have ratified the Comprehensive Nuclear-Test-Ban Treaty undertake to promote the entry into force and implementation of that Treaty at the national, regional and global levels.

**Action 14:** The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization is to be encouraged to fully develop the verification regime for the Comprehensive Nuclear-Test-Ban Treaty, including early completion and provisional operationalization of the international monitoring system in accordance with the mandate of the Preparatory Commission, which should, upon entry into force of that Treaty, serve as an effective, reliable, participatory and non-discriminatory verification system with global reach, and provide assurance of compliance with that Treaty.

**Action 15:** All States agree that the Conference on Disarmament should, within the context of an agreed, comprehensive and balanced programme of work, immediately begin negotiation of a treaty banning the production of fissile material for use in nuclear weapons or other nuclear explosive devices in accordance with the report of the Special Coordinator of 1995 (CD/1299) and the mandate contained therein. Also in this respect, the Review Conference invites the Secretary-General of the United Nations to convene a high-level meeting in September 2010 in support of the work of the Conference on Disarmament.

**Action 16:** The nuclear-weapon States are encouraged to commit to declare, as appropriate, to the International Atomic Energy Agency (IAEA) all fissile material designated by each of them as no longer required for military purposes and to place such material as soon as practicable under IAEA or other relevant international verification and arrangements for the disposition of such material for peaceful purposes, to ensure that such material remains permanently outside military programmes.

**Action 17:** In the context of action 16, all States are encouraged to support the development of appropriate legally binding verification arrangements, within the context of IAEA, to ensure the irreversible removal of fissile material designated by each nuclear-weapon State as no longer required for military purposes.

**Action 18:** All States that have not yet done so are encouraged to initiate a process towards the dismantling or conversion for peaceful uses of facilities for the production of fissile material for use in nuclear weapons or other nuclear explosive devices.
**Action 19**: All States agree on the importance of supporting cooperation among Governments, the United Nations, other international and regional organizations and civil society aimed at increasing confidence, improving transparency and developing efficient verification capabilities related to nuclear disarmament.

**Action 20**: States parties should submit regular reports, within the framework of the strengthened review process for the Treaty, on the implementation of the present action plan, as well as of article VI, paragraph 4 (c), of the 1995 decision entitled "Principles and objectives for nuclear non-proliferation and disarmament", and the practical steps agreed to in the Final Document of the 2000 Review Conference, and recalling the advisory opinion of the International Court of Justice of 8 July 1996.

**Action 21**: As a confidence-building measure, all the nuclear-weapon States are encouraged to agree as soon as possible on a standard reporting form and to determine appropriate reporting intervals for the purpose of voluntarily providing standard information without prejudice to national security. The Secretary-General of the United Nations is invited to establish a publicly accessible repository, which shall include the information provided by the nuclear-weapon States.

**Action 22**: All States are encouraged to implement the recommendations contained in the report of the Secretary-General of the United Nations (A/57/124) regarding the United Nations study on disarmament and non-proliferation education, in order to advance the goals of the Treaty in support of achieving a world without nuclear weapons.
CHAPTER 1
Disarmament and Arms Reduction Efforts

**Action 1:** All States parties commit to pursue policies that are fully compatible with the Treaty and the objective of achieving a world without nuclear weapons.

**Action 3:** In implementing the unequivocal undertaking by the nuclear-weapon States to accomplish the total elimination of their nuclear arsenal, the nuclear-weapon States commit to undertake further efforts to reduce and ultimately eliminate all types of nuclear weapons, deployed and non-deployed, including through unilateral, bilateral, regional and multilateral measures.

**Action 4:** The Russian Federation and the United States of America commit to seek the early entry into force and full implementation of the Treaty on Measures for the Further reduction and Limitation of Strategic Offensive Arms and are encouraged to continue discussions on follow-on measures in order to achieve deeper reductions in their nuclear arsenals.

**Action 5:** The nuclear-weapon States commit to accelerate concrete progress on the steps leading to nuclear disarmament, contained in the Final Document of the 2000 Review Conference, in a way that promotes international stability, peace and undiminished and increased security. To that end, they are called upon to promptly engage with a view to, inter alia:

(a) Rapidly moving towards an overall reduction in the global stockpile of all types of nuclear weapons, as identified in action 3;
(b) Address the question of all nuclear weapons regardless of their type or their location as an integral part of the general nuclear disarmament process;
(c) To further diminish the role and significance of nuclear weapons in all military and security concepts, doctrines and policies;
(d) Discuss policies that could prevent the use of nuclear weapons and eventually lead to their elimination, lessen the danger of nuclear war and contribute to the non-proliferation and disarmament of nuclear weapons;
(e) Consider the legitimate interest of non-nuclear-weapon States in further reducing the operational status of nuclear weapons systems in ways that promote international stability and security;
(f) Reduce the risk of accidental use of nuclear weapons; and
(g) Further enhance transparency and increase mutual confidence.
**Introduction**

In this group of actions we have focused on disarmament measures and policies concerning disarmament. We have concentrated on the five nuclear weapons states (NWS) but have also noted positions and policies for other relevant countries and multilateral organizations. Action 1 refers to the entire Treaty, but in this report we have chosen to focus solely on the disarmament aspect. All issues related to non-proliferation and nuclear energy has been discussed in our two previous reports. The issue of transparency, as referred to in action 5 (g), will be discussed in Chapter 2.

**Support for a nuclear weapons convention (NWC)**

In recent years, government support for a treaty eliminating nuclear weapons has grown significantly. The International Campaign to Abolish Nuclear Weapons (ICAN) published an overview of government positions on a Nuclear Weapons Convention (NWC) in August 2010, December 2010 and January 2012.¹ The research takes into account how a country has voted on the UN General Assembly resolution A/RES/66/46 on “Follow-up to the advisory opinion of the International Court of Justice on the Legality of the Threat or Use of Nuclear Weapons” calling for negotiations on an NWC, but recognizes that votes on these resolutions are sometimes determined more by group loyalties than by a country’s real position and level of support.

**August 2010**

Very supportive: 27 states
Supportive: 113 states
On the fence: 22 states
Don’t support: 30 states

**December 2010**

Very supportive: 54 states
Supportive: 88 states
On the fence: 21 states
Don’t support: 29 states

**January 2012**

Support: 146 states
On the fence: 21 states
Don’t support: 27 states

As of January 2012, the countries that do not support the UN General Assembly resolution on negotiating an NWC are: Albania, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, France, Germany, Greece, Israel, Italy, Latvia, Lithuania, Luxembourg, Monaco, Netherlands, Palau, Portugal, Russia, Slovakia, Slovenia, Spain, Turkey, the United Kingdom, and the United States. Out of the five nuclear weapon states, United Kingdom, France, Russia, and the United States do not currently support an NWC. China is the only NWS that publicly endorses such a convention and votes in favour of the relevant resolution at the General Assembly.²

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Between August 2010 and January 2012, Iceland, Georgia, and Macedonia have changed from “don’t support” to “on the fence”. Tajikistan and Kazakhstan have changed from “on the fence” to “support”. No other states have changed their position.

**Status of world nuclear forces**

The Federation of American Scientists (FAS) regularly publishes a global nuclear weapon inventory based on available information. According to these figures, the total number of nuclear weapons are slowly decreasing due to Russian and US reductions of Cold War arsenals. However, all nuclear weapon states, together with other non-NPT nuclear weapon states, continue to either produce new or modernize their current nuclear weapons. In addition, all nuclear weapon states insist that nuclear weapons are essential for their national security.

**Table showing an inventory of nuclear weapons between 2009-2011**

<table>
<thead>
<tr>
<th>Year</th>
<th>Russia</th>
<th>United States</th>
<th>United Kingdom</th>
<th>France</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>13,000</td>
<td>5,113</td>
<td>225</td>
<td>300</td>
<td>240</td>
</tr>
<tr>
<td>2010</td>
<td>12,000</td>
<td>5,000*</td>
<td>225</td>
<td>300</td>
<td>240</td>
</tr>
<tr>
<td>2011</td>
<td>11,000</td>
<td>5,000*</td>
<td>225</td>
<td>300</td>
<td>240</td>
</tr>
</tbody>
</table>

* Does not include several thousand additional retired but intact warheads that are awaiting dismantlement, probably 3,500–4,500 as of August 2010.

**China:**

China is the only nuclear weapons state (NWS) that has been reported to currently be increasing its nuclear arsenal. Under the guideline of China’s no-first use doctrine and the principle of a “lean and effective” (‘jinggan youxiao’) nuclear force, the main goal of China’s nuclear modernization, initiated in the 1980s, is reported to be aimed at securing a limited and reliable second-strike nuclear force to deter a nuclear attack. To have a small arsenal capable of counterattack, China’s nuclear modernization has been focusing on the quality over the quantity of its nuclear arsenal during the past three decades. Specifically, China’s nuclear modernization has been focusing on increasing the survivability of its nuclear force by replacing older, liquid-fueled missiles with solid-fueled, mobile ballistic missiles and constructing underground tunnels that can act as missile bases. On 30 March 2011, China published a new white paper that gives an overview of China’s military strategy and arms control policies. The white paper’s main purpose was reportedly to deepen trust and enhance transparency. It also states “Following the principle of building a lean and effective force, the PLA Second Artillery Force (PLASAF) strives to push forward its modernization and improves its capabilities in rapid reaction, penetration, precision strike,
damage infliction, protection, and survivability, while steadily enhancing its capabilities in strategic deterrence and defensive operations. China reiterates its nuclear policies of a “minimum deterrent” with a non-first use promise and states, “China has always stood for the complete prohibition and thorough destruction of nuclear weapons.” As in line with the prior defence papers and other official documents the white paper does not reveal any basic information on how big China’s current nuclear capability or nuclear arsenal is, neither does it provide information on the scope of its plans for modernization of its arsenal. Furthermore, the white paper states that China believes that larger NWS “bear a special and primary responsibility for nuclear disarmament. [...] When conditions are appropriate other NWS should also join in multilateral negotiations on nuclear disarmament.” In conclusion, the white paper states that “[t]o attend the ultimate goal of complete and thorough nuclear disarmament, the international community should develop, at an appropriate time, a viable, long-term plan with different phases including a convention on the complete prohibition of nuclear weapons.” China is the only NWS that talks about a nuclear weapons convention.

Based on information provided by the British American Security Information Council (BASIC), currently China is phasing out its old missiles, DF-3A and the DF-4, and is replacing them with new DF-21 medium range missile, approximately 55–60 of which are nuclear capable. In addition, China has deployed three other nuclear-capable ballistic missiles, the DF-31, DF-31A, and JL-2. These developments in missile capacity will both increase the range and sophistication of land-based systems and nuclear power ballistic missile submarines. In November 2011, the Bulletin of Atomic Scientist published an article estimating that China has about 140 land-based nuclear ballistic missiles that can carry one warhead each. The warheads are reported to be kept separated from the missiles. China also has additional warheads meant for their submarine launched ballistic missiles (SLBMs) as well as bombs for air delivery; the estimation is that China has around 240 nuclear warheads. These warheads are thought to be operational but in storage and many of the strategic nuclear warheads are for regional use. Furthermore there is no information on a potential Chinese non-

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13 Kearns, I, “Beyond the United Kingdom: Trends in the Other Nuclear Armed States”, British American Security Information Council (BASIC) November 2011
14 Kearns, I, “Beyond the United Kingdom: Trends in the Other Nuclear Armed States”, British American Security Information Council (BASIC) November 2011, p. 18
16 Kearns, I, “Beyond the United Kingdom: Trends in the Other Nuclear Armed States”, British American Security Information Council (BASIC) November 2011, p. 1
strategic nuclear arsenal.\textsuperscript{18}

China is also reported to have increased its nuclear weapons system by about 25\% in the last five years. According to the US Department of Defense’s annual report to Congress on China, China has the leading land-based ballistic and cruise missile programme in the world.\textsuperscript{19} The report also states that China is thought to be developing new intercontinental ballistic missiles (ICBM) with multiple independently targetable re-entry vehicles (MIRV) capability “as well as anti-satellite weapons, decoys, and jamming and thermal shielding technologies[,]”\textsuperscript{20}

China has also been reported to be replacing its first generation ballistic nuclear missile-carrying submarines. “Three to five Jin-class SSBNs, each with 12 launch tubes for SLBMs are now under construction, with some reports suggesting that the first of these has already entered service.”\textsuperscript{21} In March 2011 two SSBNs were seen at Xiaopingdao submarine base and satellite pictures taken by the Pentagon indicated that China has already launched 3 Jin-class SSBNs and have more under construction. In actual numbers the current 3 Jin-classed SSBNs could carry 36 missiles, which is an increase from the maximum of 12 SLBMs that the old Xia-class submarine could carry.\textsuperscript{22} Some analysts have argued that China will speed up the modernization of its sea-based strategic force to secure a second-strike force in the coming years. The 2011 Defense White Paper states that, “the PLA Navy (PLAN) endeavors to accelerate the modernization of its integrated combat forces, enhances its capabilities in strategic deterrence and counterattack, and develops its capabilities in conducting operations in distant waters and in countering non-traditional security threats”\textsuperscript{23}

\textbf{France}

In 2010 the second generation of the Le Triomphant-class SSBNs submarines was completed. As a result France has reduced its nuclear fleet from five to four boats. The new Le Triomphant submarines are a step toward modernization of France’s nuclear marine capability and will guarantee France’s “deterrent” ability until the 2030s.\textsuperscript{24} The submarines are reportedly superior to the ones being replaced. The new submarines are quieter and the M45 missiles are gradually being replaced with newer and longer range M-51 missiles. The M-51s will be modified, starting in 2015, to the Tete Nucleaire Oceaniq.\textsuperscript{25} In addition to modernization of the French ballistic missile submarines, France is also introducing new and more capable bombers to its nuclear air force while at the same time reducing actual aircrafts. France is also introducing new and more

\begin{thebibliography}{99}
\item \textsuperscript{18} Status of World Nuclear Forces, Federation of American Scientists (FAS), 7 June 2011; http://www.fas.org/programs/ssp/nukes/nuclearweapons/nukestatus.html
\item \textsuperscript{19} Military & security development's Involving the People's Republic of China 2010, Department of Defense United State of America, 2010, pp. 1–2
\item \textsuperscript{20} Ibid
\item \textsuperscript{21} Kearns, I, “Beyond the United Kingdom: Trends in the Other Nuclear Armed States”, British American Security Information Council (BASIC) November 2011
\item \textsuperscript{22} Kristensen. H & Norris. R, Chinese nuclear forces, 2011, Bulletin of the Atomic Scientists 2011 67 :81, SAGE, 1 November 2011, p. 84; http://boss.sagepub.com/content/67/6/81
\item \textsuperscript{24} Kearns, I, “Beyond the United Kingdom: Trends in the Other Nuclear Armed States”, British American Security Information Council (BASIC) November 2011
\item \textsuperscript{25} Kearns, I, “Beyond the United Kingdom: Trends in the Other Nuclear Armed States”, British American Security Information Council (BASIC) November 2011
\end{thebibliography}
advanced nuclear warheads to both its sea and air-lunched ballistic missiles.\textsuperscript{26} From the last estimates made on France nuclear capacity, 80\% of France's 300 nuclear warheads are for delivery on three ballistic missiles submarines and the remaining warheads are on cruise missiles for delivery by land- and sea based strike aircraft. The French stockpile is expected to decrease to around 290 warheads within the next few years.\textsuperscript{27} France has stated that it has no additional nuclear reserves, although the Federation of American Scientist (FAS) estimated that it does have a small inventory of spare warheads.\textsuperscript{28}

**Russia**

Russia has been retiring its delivery systems, including its old ICBMs, even before New Strategic Arms Reduction Treaty (START) with the United States entered into force. It has retired about 30 SS-25s in 2009 and plans to have retired all SS-25s by the year 2015. It also retired 10 SS-19s in 2009, and is planed to have destroyed all, except for 20 of the newest, by 2012. Similar destruction is taking place of Russia's SS-18s. The total amounts of Russia delivery system reported by the BASIC report are; 170 deployed SS-25s, 70 SS-19s and around 58 SS-18.\textsuperscript{29}

The retirement of the deployed ICBMs will lead to levels below New START limits.\textsuperscript{30} As can be seen in the numbers provided by the exchange of date required by the START, Russia has, as of September 2011, 1,566 warheads deployed on 516 strategic delivery vehicles and 871 deployed and non-deployed launchers of ICBMs, SLBMs, and heavy bombers. This means that in the period between 5 February 2011 and 1 September 2011, Russia has increased its nuclear deployed delivery vehicles by five, and its warhead stockpile with 20 warheads and finally its deployed and non-deployed launchers by six.\textsuperscript{31} Russia is still under the allowed 700 deployed missiles and bombers, which is the limit of New START.\textsuperscript{32}

Counting all of Russias warheads, including those not covered by New START, the Federation of American Scientists has estimated that Russia has about 11,000 nuclear warheads. Russia's ballistic missiles are estimated to carry a full warhead load. Bombers are normally not equipped with nuclear weapons and only a couple of hundred weapons are at the base and the rest in storage. The estimation of Russia having 5,500 warheads in reserve may be higher if the strategic bomber weapons are included. In addition to

\textsuperscript{26} Kearns, I, "Beyond the United Kingdom: Trends in the Other Nuclear Armed States", British American Security Information Council (BASIC) November 2011, p.1 ;
\texttt{http://www.basicint.org/sites/default/files/commission-briefing1.pdf}

\textsuperscript{27} Kristensen. H, French Nuclear Forces, FAS Strategic Security Blog, 5 September 2011

\textsuperscript{28} Status of World Nuclear Forces, Federation of American Scientists (FAS), 7 June 2011;
\texttt{http://www.fas.org/programs/ssp/nukes/nuclearweapons/nukestatus.html}

\textsuperscript{29} Kearns, I, "Beyond the United Kingdom: Trends in the Other Nuclear Armed States", British American Security Information Council (BASIC) November 2011, p. 15 ;
\texttt{http://www.basicint.org/sites/default/files/commission-briefing1.pdf}

\textsuperscript{30} Kearns, I, "Beyond the United Kingdom: Trends in the Other Nuclear Armed States", British American Security Information Council (BASIC) November 2011, p. 15
\texttt{http://www.basicint.org/sites/default/files/commission-briefing1.pdf}


the reported 8,000 military stockpiles, 3,000 retired warheads are estimated to be waiting to be dismantled. A vague estimation has been made that Russia is retiring 1,000 warheads per year.33

During the signing ceremony of New START on 8 April 2010, President Medvedev stated, “I am convinced that all that has been done so far is just the beginning of a long way ahead. I would not like to see the Russian Federation and the United States be narrowed down to just limiting strategic offensive arms.”34

However, Russia is also engaging in an extensive modernization of its strategic forces, as a part a broader rearmament programme on various military systems in 2011–2020. About 10 percent of the total funds allocated for rearmament, around 1.9 trillion rubles, will be spent on the modernization of the strategic forces.35

Rearmament of the ICBMs concentrates on deployment of multiple-warhead RS-24 Yars missiles. These ICBMs will replace the currently deployed Topol (SS-25) and UR-100NUTTH (SS-19) missiles. Being a multiple-warhead missile, RS-24 allows Russia to keep the number of deployed warheads at the relatively high level without the need to produce a large number of missiles.36 At the same time, Russia is also working on a other ICBM projects. For example, in 2011, the government made a decision to begin development of a new multiple-warhead liquid-fuel ICBM. This new missile is supposed to be ready for deployment in 2016.37

Russia is also upgrading its SSBN fleet with a planned construction of eight Project 955 submarines, and is working on an overhaul of its current strategic bomber fleet. Russia is also reported to have started preliminary work on a new-generation strategic bomber.38

Russia’s strategic modernization plans demonstrate that it is determined to maintain its strategic nuclear forces and to preserve the parity with the United States in the number of warheads and delivery systems. Arms control and disarmament efforts could change these plans and result in a smaller force, but it is likely that most of the reductions would be done by reducing the number of deployed warheads rather than by eliminating strategic launchers.

**United Kingdom**

In the 2010 Strategic Defence and Security Review, the United Kingdom declared that the UK “can meet the minimum requirement of an effective and credible level of deterrence with a smaller nuclear weapons capability”.39 However the UK government

35 Podvig, P. Chapter on Russia for forthcoming report by Reaching Critical Will on the modernization of nuclear weapons, 2012
36 Podvig, P. Chapter on Russia for forthcoming report by Reaching Critical Will on the modernization of nuclear weapons, 2012
38 Podvig, P. Chapter on Russia for forthcoming report by Reaching Critical Will on the modernization of nuclear weapons, 2012
also announced that it cannot dismiss the possibility that a major direct nuclear threat to the UK might re-emerge. Its plan to maintain a “minimum requirement nuclear deterrent” will be maintained until the 2060s. The defence review also shifted somewhat in language from the previous one, by stating that even if non-nuclear NPT states would attack the UK with chemical or biological weapons, nuclear weapons would not be used. However, the new policy still includes the right to revalue this assurance if the chemical and biological threat in the world changes.

At the General Assembly’s First Committee in October 2010, the UK delegation reaffirmed “the UK’s commitment to a submarine-launched minimum continuous nuclear deterrent based on the Trident missile delivery system, whilst taking tangible steps towards the long-term goals of a world without nuclear weapons.” The delegation argued, “These are significant disarmament measures and indicate our level of commitment to the NPT”.

In contrast with the nuclear weapon states, the United Kingdom currently only operates a single nuclear weapon delivery system, the Vanguard submarines armed with Trident missiles. Until 2010 each of the Vanguard class submarines carried between 12 and 14 operational D5 missiles and a maximum of 48 warheads. The UK Ministry of Defence is reducing this “over the next few years” to 8 missiles and a maximum of 40 per submarine. This was implemented on one submarine by June 2011.

The decision to deploy 40 warheads on eight missiles will require an increase in warheads per missiles, from three to five. In the 2010 Strategic Defence and Security Review, the UK reports that the new submarines will be “able to operate in secret across the world oceans, fire Tomahawk cruise missiles at targets on land, detect and attack other submarines and ships to keep the sea lanes open, protect the nuclear deterrent and feed strategic intelligence back to the UK and our military forces across the world.”

Currently the UK maintains some warheads in an operational state in addition to those on submarines. In 2010 there were “fewer than 160” operationally available warheads. This is 16 more than the maximum number that could be carried on three armed submarines. Over the next few years the total number of operationally-available warheads will be reduced to

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43 Wurst J., Nuclear disarmament, First Committee Monitoring, Middle Powers Initiative, 25 October 2010 http://www.reachingcriticalwill.org/political/1com/FCM10/week3.html#nd
45 Ainslie, J., Chapter on UK for forthcoming report by Reaching Critical Will on the modernization of nuclear weapons, 2012
47 Securing Britain in an Age of Uncertainty. The Strategic Defence and security Review, October 2010, p. 8
“no more than 120,” which is the same as the new maximum number for three armed submarines.48

In May 2011, the UK government decided to move forward with the preparatory work for renewal of its Trident submarine fleet. The “Initial Gate Parliamentary Report” stated that the UK would move forward into the “Assessment Phase”, wherein the design will be finalized and preparation for the main build will take place. In 2016, the government will sign the main construction contracts and also decide whether “continuous at sea deterrence can be delivered by three or four boats.”49

If approved, the delivery of the first submarines will take place in 2028. The British Foreign Minister, Dr. Fox, said that the new submarine “will incorporate the latest safety technologies and ensure our future nuclear-armed submarines have the performance required to deliver our minimum credible deterrent out until the 2060s.”50

Because of financial constrains, the UK’s decision on the final outcome of Britain’s Trident system has been put off until the next election in 2015.51 Despite the fact that no formal decision has been made on the outcome of the new submarines, the Ministry of Defence is already spending £2 billion on new nuclear weapons plants. These plants include a £734 million facility for dismantling and assembling of warheads, a 634m highly enriched uranium plant and a £231 million high explosive factory. Other similar facilities are being built as part of the Atomic Weapon Establishment development plan covering 2005 to 2015 and the cost of two more are being kept secret for commercial reasons. The new spending has stirred up debate in the UK on how crucial military spending decisions can be pushed through parliament without a proper parliamentary procedure.52

**United States**

On 8 April 2010, President Obama and President Medvedev signed New START. In President Obama’s opening speech he mentioned that in light of the new Treaty, the US and Russia “are keeping our commitments under the Nuclear Non-Proliferation Treaty, which must be the foundation for global non-proliferation.” He further indicated that “while the New START treaty is an important first step forward, it is just one step on a longer journey. [...] And going forward, we hope to pursue discussions with Russia on reducing both our strategic and tactical weapons, including non-deployed weapons.”53

Under New START the United States (US) has until February 2018 to reduce its nuclear capacity from 1950 to 1550 of operationally deployed nuclear stockpiles and limit its

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49 The United Kingdom’s Future Nuclear Deterrent: Submarine Initial Gate Parliamentary Report, p. 2
50 The United Kingdom’s Future Nuclear Deterrent: The Submarine Initial Gate Parliamentary Report, May 2011
deployed missiles strategic launchers and heavy bombers to 700.\textsuperscript{54}

In accordance with these obligations, the US is planning to maintain up to 420 ICBMs, each equipped with one warhead each, 240 SLBM with multiple warheads each, deployed on a fleet of 12-14 SSBNs, and finally 60 heavy bombers, long range B-2s and B-52s\textsuperscript{55}, with capability to deliver gravity bombs or cruise missiles.\textsuperscript{56} In accordance with the US' plans for its ICBM force, this means that many of the warheads attached to the ICBMs today will be removed from the ICBMs. The removed warheads will not necessarily be destroyed, but kept in storage.\textsuperscript{57}

The Arms Control Association estimated that the current US nuclear delivery systems will remain operational for another 20–30 years.\textsuperscript{58} As of September 2011, the United States deployed 1,790 warheads on 822 strategic delivery vehicles and 1,043 deployed and non-deployed launchers.\textsuperscript{59} This is a reduction of ten warheads, 60 delivery vehicles, and 81 deployed and non-deployed launchers since 5 February 2011.\textsuperscript{60} By adding the numbers of warheads not covered by New START, the United States possesses around 8,500 warheads.\textsuperscript{61}

The Obama administration is currently carrying out a Nuclear Posture Review (NPR) Implementation Study, expected to be finished by the end of 2011, which could open up space for further reductions of its arsenal.\textsuperscript{62} The administration has been reported to be "making preparations for the next round of nuclear reductions."\textsuperscript{63} However, in January 2012 the United States released its new defence policy, “Sustaining U.S. Global Leadership: Priorities for 21\textsuperscript{st} Century Defense”. The policy states that “as long as nuclear weapons remain in existence, the United States will maintain a safe, secure, and effective arsenal. We will field nuclear forces that can under any circumstances confront an adversary with the prospect of unacceptable damage, both to deter potential adversaries and to assure U.S. allies and other security partners that they can count on America’s security commitments. It is possible that our deterrence goals can be achieved

\textsuperscript{54} Kristensen. H, New START Aggregate Numbers Released: First Round Slim Pickings, Federation of American Scientists Strategic Blog, 1 June 2011
\textsuperscript{56} Kearns, I, “Beyond the United Kingdom: Trends in the Other Nuclear Armed States,” British American Security Information Council (BASIC), November 2011, p. 10
\textsuperscript{57} Ibid
\textsuperscript{60} Comparison between the 1 June New Start Treaty Aggregate Numbers of Strategic Offensive Arms to the one available on 25 October.
\textsuperscript{61} Status of World Nuclear Forces, Federation of American Scientists (FAS), 7 June 2011; http://www.fas.org/programs/ssp/nukes/nuclearweapons/nukestatus.html
with a smaller nuclear force, which would reduce the number of nuclear weapons in our inventory as well as their role in U.S. national security strategy.”\textsuperscript{64} Compared to the Nuclear Posture Review that was released before the 2010 NPT action plan was adopted, no significant policy change has been made.

While reductions under the New START treaty is taking place, in 2010 the Secretary of Defense Robert Gates and Admiral Mike Mullen stated, "Over the next decade, the United States will invest well over $100 billion in nuclear delivery systems to sustain existing capabilities and modernize some strategic systems. US nuclear weapons will also undergo extensive life extension programs in the coming years to ensure their safety, security, and effectiveness.”\textsuperscript{65}

The ratification of New START by the US Senate included a 10-year plan to maintain US nuclear warheads supporting infrastructure. The plan called for $80 billion over ten years to spend on activities for the National Nuclear Security Administration, and $100 billion in spending on maintaining and modernizing US nuclear delivery systems.\textsuperscript{66} Bob Corker, Republican Senator from Tennessee explained the trade-off clearly: "I saw this entire process as an opportunity to push for long overdue investments in modernization of our existing nuclear arsenal and made clear I could not support the treaty’s ratification without it.”\textsuperscript{67}

Bilateral initiatives

New START
The US senate ratified New START in December 2010 and the Russian Federal Assembly in January 2011.\textsuperscript{68}

By September 2011 the United States and the Russian Federation had conducted more then 1000 notifications under the Treaty since its entry in to force in February 2011. The notifications track the movement and changes in the status of treaty-covered systems, for example if a heavy bomber were to be out of its home territory for more then 24 hours. The US together with Russia has together conducted 8 on-site inspections since April 2011. This is the first time that the two countries exchange data on re-entry vehicles loadings on their missiles. The two countries have also, under obligation by the treaty, exchange a comprehensive database, every six months, of exactly where weapons systems are located if they are undergoing maintenance or have been retired.\textsuperscript{69}

The second session of the Bilateral Consultative Commission under New START took

\textsuperscript{64} Sustaining U.S. Global Leadership: Priorities for 21st Century Defense, p. 5
\textsuperscript{66} "New START and Nuclear Modernization, Center for Arms Control and Non-Proliferation, http://armscontrolcenter.org/policy/nuclearweapons/articles/new_start_and_nuclear_modernization/
\textsuperscript{68} Arbatov, A, Gambit or Endgame ?, The new State of Arms Control, Carnegie Moscow Center, March 2011, p. 3
\textsuperscript{69} Collina, T, New START Hits 1,000 Notifications, Arms Control Association, Seotember 2011
place in Geneva on 19 October–2 November 2011. During these consultations, the United States and Russia discussed a number of practical issues related to the implementation of the Treaty.\(^{70}\)

However, New START has some problematic parts. For example the aggregate numbers does not cover thousands of additional warheads that are not counted by the treaty.\(^{71}\) Furthermore dual-cable bombers are counted as both one delivery vehicle and one warhead.\(^{72}\) Each bomber is also counted as only carrying one warhead, which means that “[a] force of 60 bombers loaded at their maximum capacity of 1,136 bombs and cruise missiles would only count as 60 weapons.”\(^{73}\)

The New START verification regime is, in comparison to START I, less intrusive and burdensome. This is largely because the New START ceilings and limitations are relatively simple.\(^{74}\) Furthermore the Treaty does not include the Russian Federation’s estimated 2000 and the United States’ 200 tactical nuclear weapons.\(^{75}\)

![Table](http://www.fas.org/blog/ssp/2011/06/aggregatedata.php)

*New START Treaty Aggregate Number Changes 2011*

<table>
<thead>
<tr>
<th>Category of Data</th>
<th>United States</th>
<th>Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deployed ICBMs, deployed SLBMs, and deployed heavy bombers</td>
<td>Feb 2011</td>
<td>Sep 2011</td>
</tr>
<tr>
<td>882</td>
<td>822</td>
<td>-60</td>
</tr>
<tr>
<td>521</td>
<td>516</td>
<td>-5</td>
</tr>
<tr>
<td>Warheads on deployed ICBMs, on deployed SLBMs, and warheads counted for deployed heavy bombers</td>
<td>1,800</td>
<td>1,790</td>
</tr>
<tr>
<td>Deployed and non-deployed launchers of ICBMs, deployed and non-deployed launchers of SLBMs, and deployed and non-deployed heavy bombers</td>
<td>1,124</td>
<td>1,043</td>
</tr>
</tbody>
</table>

Table is taken from the FAS Strategic Security Blog; http://www.fas.org/blog/ssp/2011/06/aggregatedata.php

\(^{70}\) U.S.-Russia Bilateral Consultative Commission on the New START Treaty, Washington, DC, November 2, 2011

\(^{71}\) http://www.fas.org/blog/ssp/2011/10/newstartdata.php

\(^{72}\) Nuclear Posture Review, April 2010, Department of Defense United State of America, p. 21


\(^{74}\) Arbatov, A, Gambit or Endgame?, The new State of Arms Control, Carnegie Moscow Center, March 2011, p. 12

\(^{75}\) Arbatov, A, Gambit or Endgame?, The new State of Arms Control, Carnegie Moscow Center, March 2011, p. ?
France-UK

In November 2010 France and the United Kingdom joined in a collaboration of developing equipment and technologies for the next generation of nuclear submarines. They will therefore launch a study with agreed arrangement in 2011. The co-operation is aimed to “sustain their combined industrial base” and “generate savings”. This development is one element of the new France-UK intensified security and defence relationship. The cooperation also includes a new warhead simulation facility that will open in 2015 and a joint Technology Development Center in Britain to provide scientific and engineering expertise to support both countries stockpile.

United Kingdom-United States

Since 1958 the United States and the United Kingdom have been in collaboration on the US-UK Mutual Defence Agreement. The agreement was last renewed in 2004 and extends to 2014. The Agreement enables the US and the UK to exchange classified information with the objective of improving each party’s nuclear weapons design, development, and fabrication capability.

The nuclear warhead deployed on the UK submarines today are partly American made. In December 2009, the UK government identified three of the parts of the warhead which are procured from the US: the Neutron Generator (NG), Gas Transfer System (GTS), and the Arming, Fusing, and Firing System (AF&F). The NG produces neutrons to start the fission process. The GTS inserts tritium into the pit to boost yield. The AF&F is the brains of the warhead. It controls when the device will explode and fires the detonators. These three “made in America” parts are each fundamental to the design. Without them the warhead would be a dud. The UK government buys these vital components from the US to save money.

In December 2006, there was an exchange of letters between President Bush and Prime Minister Blair on the renewal/replacement of Trident. This resulted in a new wave of enhanced collaborations with the US into how to refurbish or replace the UK Trident warhead. The two countries are also working together to develop the new ballistic-missile submarines. If the renewal goes ahead as planned, the first British vessel is due to enter service in 2024 and the last could still be at sea in 2060. The first new US submarine is scheduled for 2027 and some of the vessels are due to remain in service until 2080.

The Guardian reports that the UK’s Trident system is very dependent on the US, which could complicate further disarmament negotiations.

United States-France

76 UK-France Summit 2010 Declaration on Defence and Security Co-operation, 2 November 2010
77 Securing Britain in an Age of Uncertainty. The Strategic Defence and security Review, Her Majesty Government, October 2010, p. 60
The United States and France have been cooperating on ballistic missiles for years. The United States has in particular helped France develop new modern re-entry vehicles (multiple warheads, hardening, etc.). France and the US have also been in collaboration on nuclear weapons safety throughout the years. In May 2011 new information was revealed stating that the United States and France nuclear collaboration may have been even bigger then was known previously.

**Multilateral initiatives**

**P5**

On 30 June–1 July 2011, the five nuclear weapon states met in Paris for a meeting to discuss nuclear non-proliferation and disarmament for the first time since the adoption of the 2010 NPT action plan. Ambassador Danon of France gave the Conference on Disarmament a brief report of the outcome of the meeting in August 2011. He highlighted that the meeting in particular had focused on transparency, nuclear doctrines, and verification. The French Ambassador further noted that the P5 had approved the establishment of a working group that would pursue work on definitions for key nuclear terms, in order to facilitate future consultations and discussions. The statement also said that the group would meet for a third time in the context of the next NPT Preparatory Committee meeting in 2012.

The meeting did not seem to include any specific proposal or discussions on nuclear doctrines. At the General Assembly's First Committee in 2011, several delegations voiced concerns over the lack of progress in these meetings. For example, the Egyptian delegation called on the P5 to “redouble their efforts far beyond the general follow up meeting held in Paris last July, which produced limited results as reflected in its final statement.”

**North Atlantic Treaty Organization (NATO)**

One of the most contentious issues within NATO’s new Strategic Concept is that of the organization’s nuclear policy. It’s policy concerns all 28 member states: Albania, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, France, Germany, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Montenegro, The Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Turkey, Ukraine, and Great Britain.

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83 Tertrais, B, "US-French Nuclear Cooperation: Stretching the Limits of National Strategic Paradigms", James Martin Center for Nonproliferation Studies, 26 July 2011
84 Tertrais, B, "US-French Nuclear Cooperation: Stretching the Limits of National Strategic Paradigms", James Martin Center for Nonproliferation Studies, 26 July 2011
89 Acheson, R., “Nuclear Disarmament”, First Committee Monitor, 10 October 2011
The alliance retains around 200 US nuclear bombs, deployed on aircraft in five non-nuclear weapon states of the NPT, Belgium, Germany, Italy, the Netherlands, and Turkey. These arrangements have been criticized repeatedly many member states of the NPT as being in non-compliance with Treaty obligations. NATO members claim that their nuclear sharing is in compliance with the NPT, arguing that the arrangements predated the NPT and that "general war" would end the validity of the NPT. Both interpretations are open to challenge and can be considered to violate articles I and II of the NPT. It has also been argued that NATO policies run counter to several of the 13 steps adopted by NPT states at the 2000 Review Conference (and endorsed by NATO itself in December 2000), in particular the commitments to transparency, further reductions in non-strategic weapons, reductions in the operational status of these weapons, and a diminishing role for nuclear weapons in security policies. No reductions of the deployed US nuclear bombs have been reported since the 2010 NPT action plan was adopted.

The need to change NATO nuclear policy was reaffirmed by a group of over 30 senior European leaders, including former Prime Ministers, Foreign Ministers and Defence Ministers from Belgium, Croatia, the Czech Republic, Denmark, France, Germany, Italy, the Netherlands, Norway, Slovakia, and the United Kingdom. They released a joint statement on 29 September declaring that "NATO should make disarmament a core element of its approach to providing security." 91

NATO members are currently undergoing a Defence and Deterrence Posture Review (DDPR) meant to define an “appropriate mix” between nuclear and conventional weapons and missile defence needed to uphold Alliance commitments to collective self-defence. The DDPR process began with a series of brainstorming sessions and seminars among members of the North Atlantic Council. The Terms of Reference for the process were agreed earlier in 2011 and the process is meant to be concluded by the time of NATO’s next summit in Chicago from 20 to 21 May 2012.

The International Red Cross and Red Crescent Movement
At the 2011 Council of Delegates adopted a resolution entitled “Working towards the elimination of nuclear weapons”. The resolution was proposed by the Australian, Japanese and Norwegian Red Cross National Societies and had 31 co-sponsors, including

90 Butcher, M., NATO Nuclear Sharing, Beyond Arms Control, 2010.
91 Snyder S., "NATO: Nuclear Weapons and the new Strategic Concept", First Committee Monitoring, IKV Pax Christi, 4 October 2010
the ICRC. The resolution appeals to all States to “ensure that nuclear weapons are never again used, regardless of their views on the legality of such weapons” and “to pursue in good faith and conclude with urgency and determination negotiations to prohibit the use of and completely eliminate nuclear weapons through a legally binding international agreement, based on existing commitments and international obligations.”

General Assembly resolutions
A/RES/66/46: Follow-up to the advisory opinion of the International Court of Justice on the Legality of the Threat or Use of Nuclear Weapons.

This resolution recalls the advisory opinion of the International Court of Justice on the Legality of the Threat or Use of Nuclear Weapons, issued on 8 July 1996. The resolution highlights that there exists an obligation to conclude negotiations leading to nuclear disarmament in all its aspects under strict and effective international control. It furthermore calls on states to negotiate a nuclear weapons convention prohibiting the development, production, testing, deployment, stockpiling, transfer, threat, or use of nuclear weapons and providing for their elimination.

Voting result 2011:
Yes: 130
No: 263
Abstain: 234

Voting result 2009:
Yes: 127
No: 25
Abstain: 22

The voting pattern was very similar to 2010, the few changes were that Azerbaijan, Belarus and Ukraine went from abstention to voting yes; Georgia and Montenegro went from voting no to abstain; Tajikistan went from voting yes to abstention; and finally Gabon went from not participating in the voting to yes. The voting pattern from 2009 differed more. Ukraine, Azerbaijan, Belarus, Kazakhstan, and Timor-Leste, which abstained in 2009, changed and voted yes in 2011. Benin, Central African Republic, Dominica, Equate Guinea, Gambia, Malawi, Rwanda, and Saint Vincent and the Grenadines went from voting yes in 2009 to not participating in 2011. Cape Verde, Comoros, Ethiopia, Solomon-Islands, Timor-Leste, and Tonga abstained in 2009 and voted yes in 2011. Denmark voted yes in 2009 and no in 2011. Georgia, Iceland, Montenegro, and the Former Yugoslav Republic of Macedonia voted no in 2009 and abstained in 2011. Palau voted no in 2009 but did not participate in 2011. Finally Rwanda voted yes in 2009 but did not participate in 2011.

A/RES/66/57: Convention on the Prohibition of the Use of Nuclear Weapons

93 Albania, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Israel, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Poland, Portugal, Russia, Slovakia, Slovenia, Spain, Turkey, United Kingdom, United States
94 Andorra, Armenia, Australia, Canada, Croatia, Cyprus, Finland, Georgia, Iceland, Japan, Kyrgyzstan, Liechtenstein, Marshall Island, Micronesia, Montenegro, Norway, Rep. of Korea, Rep of Moldova, Romania, Tajikistan, Macedonia, Uzbekistan
The resolution underlines that the use of nuclear weapons poses the most serious threat to humankind’s survival and highlights the advisory opinion of the International Court of Justice from 1996 on the *Legality of the Threat or Use of Nuclear Weapons*. The draft reiterates the need for an international convention on the prohibition of use of nuclear weapons and requests the Conference on Disarmament to commence negotiations in order to reach such an agreement.95

**Voting results 2011:**

- Yes: 117
- No: 4896
- Abstain: 1297

**Voting results 2009:**

- Yes: 116
- No: 50
- Abstain: 11


**A/RES/66/51: Nuclear disarmament**

The resolution lists the Non Alignment Movement’s disarmament priorities including a halt to qualitative improvements in warheads and delivery systems, diminishing the role of nuclear weapons in military doctrines, establishment of nuclear weapon free zones (with a new paragraph addressing the Southeast Asian zone), de-alerting, a legally-binding instrument against the first use of nuclear weapons, a fissile materials cut-off treaty, and the establishment by the Conference on Disarmament of an ad hoc committee on nuclear disarmament.98

**Voting results 2011:**

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96 Albania, Andorra, Australia, Austria, Belgium, Bosnia-Herzegovina, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Lichtenstein, Lithuania, Luxembourg, Malta, Micronesia, Monaco, Montenegro, Netherlands, New Zealand, Norway, Poland, Portugal, Rep of Moldova, Romania, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland, Macedonia, Turkey, Ukraine, United Kingdom, United States

97 Armenia, Belarus, Georgia, Japan, Marshall Island, Rep of Korea, Russia, Serbia, Tajikistan, Uzbekistan

Voting results 2009
Yes: 113
No: 44
Abstain: 18

Changes in the voting results from 2010 to 2011 only came from two countries: Azerbaijan went from abstention to voting yes and Guinea-Bissau went from voting yes to not participating in the vote. Note: separate votes were held on operational paragraph (OP0 14 on the implementation of the 2010 NPT action plan and OP16 calling for negotiations on FMCT on the basis of the Shannon mandate in the CD. Non-NPT states parties Pakistan and India explained their abstentions on OP14 because of their position on the NPT. Pakistan also voted no on OP16 because of its position on FMCT. Nevertheless, voting patterns from 2009 to 2011 have changed. Azerbaijan and Kazakhstan went from abstaining in 2009 to voting yes in 2011. Benin, Dominica, Malawi, Rwanda, Somalia, and Tuvalu voted yes in 2009 but did not participate in the vote in 2011. Cape Verde, Comoros, Gabon, Sierra Leone, and Uganda all abstained in 2009 and voted yes in 2011. New Zealand voted yes in 2009 abstained in 2011. Palau voted no in 2009 but did not participate in the voting of 2011. Finally the Republic of Moldova and Macedonia went from abstaining in 2009 to voting no in 2011.

A/RES/66/32: Promotion of multilateralism in the area of disarmament and non-proliferation

This annual resolution calls upon all states to “renew and fulfil their individual and collective commitments to multilateral cooperation as an important means of pursuing and achieving their common objectives in the area of disarmament and non-proliferation.” It highlights the belief that arms control and disarmament are “the concern of all countries in the world, which are affected in one way or another by these problems and, therefore, should have the possibility to participate in the negotiations that arise to tackle them.”

Voting results 2011:
Yes: 125
No: 5
Abstain: 48

99 Albania, Andorra, Australia, Belgium, Bosnia-Herzegovina, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Israel, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Micronesia, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Rep of Moldova, Romania, San Marino, Slovakia, Slovenia, Spain, Switzerland, Macedonia, Turkey, Ukraine, UK, US
100 Armenia, Austria, Belarus, India, Ireland, Japan, Kyrgyzstan, Malta, Marshall Island, Mauritius, New Zealand, Pakistan, Rep of Korea, Russia, Serbia, Sweden, Tajikistan, Uzbekistan
102 Israel, Micronesia, Palau, United Kingdom, United States
103 Albania, Andorra, Armenia, Australia, Austria, Belgium, Bosnia-Herzegovina, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, El Salvador, Estonia, Finland, France, Georgia, Germany, Greece,
Voting results 2009:
Yes: 126
No: 5
Abstain: 49


A/RES/66/45: United action towards the total elimination of nuclear weapons
The resolution calls for universality of the NPT, reaffirms the clear undertaking by the nuclear weapon states to disarm, and recognizes the importance of the 2010 Review Conference’s recognition of the devastating humanitarian consequences of the use of nuclear weapons and the need for compliance with international humanitarian law. This resolution had previously been introduced by the Japanese government as “Renewed determination towards the total elimination of nuclear weapons”. The Japanese government modified the title and content of this resolution in 2010, since “the international community has gone beyond this stage” and should focus “on taking concrete and collective actions to reach such a goal.”

Besides references to New START, the new version of this resolution referred to “the necessity of fully implementing the action plan adopted at the [NPT] Conference,” and calls for respect for international humanitarian law. In addition, some of the nuclear disarmament language has been sharpened. While the 2009 resolution encouraged “further steps leading to nuclear disarmament, in accordance with Article IV of the Treaty,” the new version invokes the more explicit language of the 2000 Review Conference: “reaffirms the unequivocal undertaking by the nuclear weapon states to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament.” The text also “calls upon nuclear weapon states to undertake further efforts to reduce and ultimately eliminate all types of nuclear weapons, deployed and non-deployed.”

Voting results 2011:
Yes: 169
No: 1
Abstain: 11

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Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, New Zealand, Norway, Poland, Portugal, Rep of Korea, Rep of Moldova, Romania, Samoa, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland, Macedonia, Turkey

104 Acheson, R, “Nuclear Disarmament”, First Committee Monitoring, Reaching Critical Will, 24 October 2011
105 Wurst, J., “Nuclear Disarmament”, First Committee Monitor, First Edition 9 October 2010
107 Democratic People’s Republic of Korea
108 Brazil, China, Cuba, Ecuador, India, Iran, Israel, Mauritius, Myanmar, Pakistan, Syria,
Voting results 2010:
Yes: 173
No: 1
Abstain: 11

Voting results 2009:
Yes: 171
No: 2109
Abstain: 8110

Since the changes from the 2009 version were made, India went from voting no, to abstaining. Bhutan and France changed from abstaining to voting yet, and Brazil, Ecuador, Mauritius and Syria changed from voting yes to abstaining.

The biennial resolution presented by Iran expresses determination to pursue practical steps for implementing article VI of the NPT and is almost identical to the last resolution in 2009.

Voting results 2011:
Yes: 118
No: 52
Abstain: 6

Voting results 2009:
Yes: 105
No: 56
Abstain: 12

Minor changes between 2009 and 2011, took place. Afghanistan, Cape Verde, Chad, Comoros, El Salvador, Saint Vincent and the Grenadines, and Sierra Leone went from not participating to a yes vote. Uganda, Marshall Islands, and Panama went from not participating to a no vote.


109 Democratic People's Republic of Korea and India
110 Bhutan, China, Cuba, France, Iran, Israel, Myanmar, Pakistan,
111 Albania, Andorra, Australia, Austria, Belgium, Bosnia-Herzegovina, Bulgaria, Canada, Croatia, Cyprus, Czech republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Marshall island, Micronesia, Monaco, Montenegro, Netherlands, New Zealand, Norway, Panama, Poland, Portugal, Rep of Korea, Moldova, Romania, Russia, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Macedonia, United Kingdom, United States
112 Armenia, China, India, Pakistan, Samoa, Tonga,
Georgia, Palau, and Turkey went from no to not participating in the vote in 2011. Rwanda went from abstention to not participating. Cameroon and DRC went from a yes vote to abstain. Finally Pakistan went from a no vote to abstaining.

The US delegation voted no with the explanation that it find its “cynical for the primary sponsor, a state in noncompliance with its NPT obligations, to try to dictate follow up with disarmament obligations.”

A/RES/66/40: Towards a nuclear-weapon-free world: accelerating the implementation of nuclear disarmament commitments.

The annual resolution presented by the New Agenda Coalition (Brazil, Egypt, Ireland, Mexico, New Zealand, South Africa and Sweden) had some significant changes in 2011. Not only did it reflect the outcome of the 2010 NPT Review Conference, but it also sharpens its approach to draw out and demand action on the key commitments and responsibilities related to nuclear disarmament. The resolution outlines concrete steps towards disarmament and calls for implementation “in a manner that enables States parties to monitor them regularly during each review cycle” and for the nuclear weapon states to report regularly on their progress. The resolution also calls on them to regularly report on their efforts “to diminish the role and significance of nuclear weapons in all military and security concepts.” Furthermore, the new version calls on the nuclear weapon states to constrain “the development and qualitative improvement of nuclear weapons and to end “the development of advanced new types of nuclear weapons;” referencing the related language in the NPT outcome document.

Voting results 2011
Yes: 169
No: 614
Abstain: 615

Voting results 2009
Yes: 169
No: 516
Abstain: 517

The most significant changes were that the United Kingdom went from abstaining to voting no. In addition to that, China and Russia went from voting yes to abstaining.

A/RES/66/33: 2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons and its Preparatory Committee

The resolution takes note of the decision of states parties to hold the first preparatory committee for 2015 in Vienna from 30 April to 11 May 2012 and requests the UN
Secretary-General provide the necessary assistance and services to the meeting.\textsuperscript{118} The resolution was adopted with a vote of 175-0-3, with the three non-NPT states parties, India, Israel, and Pakistan, abstaining.

Tactical nuclear weapons and missiles as a part of general nuclear disarmament

Tactical nuclear weapons (TNW)

In preparation for the NATO summit in Lisbon at the end of 2010, the United States announced that the roughly 200 American B-61 nuclear weapons on American bases in Belgium, Germany, Italy, the Netherlands, and Turkey would not be unilaterally withdrawn.\textsuperscript{119} Some NATO member states, including Belgium, Germany, the Netherlands, Luxembourg, and Norway, have shown an increased opposition to NATO’s nuclear umbrella and specifically the nuclear weapons currently located on US NATO bases in Europe. The approximately 200 nuclear weapons deployed in Europe are as of yet under no international arms control regime. The discussion around American TNW in Europe has not only been prominent in NATO fora, but was also brought up by numerous delegations during the 2010 NPT Review Conference. For example the European Union encouraged Russia and the United States to “work towards new agreements for further, comprehensive reductions of their nuclear arsenal, including non-strategic weapons.”\textsuperscript{120} US President Obama stated that his administration is interested in further discussions with Russia on reducing both strategic and tactical weapons during the signing ceremony of New START. According to a recent study by IKV Pax Christi 86% of NATO member states are open to suggestion of removal of the TNW from Europe and 50% are actively supporting the removal.\textsuperscript{121}

NATO nuclear sharing implies that even NATO members not hosting TNW would be involved in a potential nuclear strike. Such other NATO countries would, for example, participate in nuclear loading and strike exercises. The so-called SNOWCAT (Support of Nuclear Operations with Conventional Air Tactics) allow NATO countries without nuclear weapons to participate in a nuclear strike.\textsuperscript{122}

The US 2010 Nuclear Posture Review announced that the United States would be retiring all nuclear Tomahawk land attack sea-launched cruise missile, half of which were earmarked for NATO support. However, the NPR also announced that the F-35 Joint Strike Fighter (JSF) aircraft will be made nuclear capable so that starting in 2017–18, they can replace the F-15E and F-16. Three states with NATO nuclear strike missions, Italy, the Netherlands, and Turkey, are planning on acquiring JSF aircraft over the next 15 years. This modernization project is estimated to cost several hundred million dollars.\textsuperscript{123}

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{118} Acheson, R, “Nuclear disarmament”, First Committee Monitoring, Reaching Critical Will, 24 October 2011
\item \textsuperscript{119} Borgers, J, Nato experts group say US nukes should stay in Europe, The Guardian, 29 March 2010
\item \textsuperscript{120} European Union statement in the NPT Review Conference, 3 May 2010
\item \textsuperscript{121} Snyder, S & Van der Zeijden, W, Withdrawal issues, IKV Pax Christi, March 2011
\item \textsuperscript{122} Norris & Kristensen H, US tactical nuclear weapons in Europe, 2011, Bulletin of the Atomic Scientists, 6 January 2011, p. 70
\item \textsuperscript{123} Norris & Kristensen H, US tactical nuclear weapons in Europe, 2011, Bulletin of the Atomic Scientists, 6 January 2011, p. 71
\end{itemize}
\end{footnotesize}
In comparison with the 1999 NATO Concept Strategy document, the 2010 version places less importance on US TNW as an essential military and political link between Europe and North America. However, the new NATO concept makes further reductions in US nuclear weapons in Europe conditional on similar actions by Russia. The 2010 concept says that the potential reduction of US TNW is dependent on Russia’s willingness to reduce its current short-range 2,000 operational TNW that are situated on the border of Europe. This has not been the language used in the 1999 report, in which the US discussed removal without mentioning Russia.124 Previously, Russia has stated that the US would have to remove all of its TNW before it would even consider discussion on its own TNW. The argument for this has been that since the breakup of the Soviet Union, Russia took sole responsibility for collecting all USSR nuclear weapons spread out in the former Soviet Union states and Russia has been waiting for the US to do the same with its European TNW.125

In regard to other NWS that are NATO members, France and the UK, France has been reluctant to include any forward-looking language on nuclear disarmament in the NATO Strategic Concept. France also opposed a reference to negative security assurances in the new 2010 concept. According to France, many NATO countries are too focused on disarmament and therefore are losing sight of the security angle.126 France has also been the biggest opposition to the German-led demand for a greater nuclear disarmament effort from NATO. France is reported to be worried that if NATO starts playing an extensive role in nuclear disarmament, it will jeopardize NATO’s “independent nuclear deterrent”.127

On 2 February 2011, US President Obama gave a speech on New START declaring that 
“(a) The United States will seek to initiate, following consultation with NATO Allies but no later then 1 year after the entry in to force of the New Start Treaty, negotiations with the Russian Federation on an agreement to address the disparity between the non-strategic (tactical) nuclear weapons stockpiles of the Russian federation and of the United States and to secure and reduce tactical nuclear weapons in a verifiable manner, and (b) it is the policy of the United States that such negotiation shall not include defensive missile systems.”128

Russia outlined its views on further negotiations beyond New START in the Conference on Disarmament on 1 March 2011. The Russian representative stated, “First of all, we are to assess the efficiency and viability of the New Treaty as it is implemented in practice.” He argued that Russia believes that greater discussions on nuclear weapons delivery systems and to include “without exception” all NWS in further process would be essential for any further discussions.129

127 Traynor. I, Germany demands Nato show greater commitment to nuclear disarmament, The Guardian, 14 October 2010
128 Obama. B, Message from the President on the New Start Treaty, White House official website, 2 February 2011
**Missiles**

During the NATO summit in November 2010 in Lisbon, Portugal, NATO member states agreed to push ahead with the missile defence project and invited Russia to take part. Russia’s initial response was to decline the offer, arguing that it would not take part in developing a system that later could be used against Russia. Since then, little progress have been made on the NATO-Russian missile collaboration and during the 2011 General Assembly’s First Committee, the Russian delegation explained that Russia believes that the issue of missile defence is one of the most “acute” topics on today’s disarmament agenda, especially since there has been no real progress moving it forward. The Russian representative said that neither the United States nor NATO have indicated readiness “to allow equal participation of Russia in the development of” a European missile defence concept and architecture, “or to start to elaborate confidence and transparency building measures as regards missile defense.” The Russian representative expressed disappointment that no change has happened in “addressing the key issues of Russia-US/NATO interaction on missile defense” and warned that the progress made at the Lisbon Summit could be lost. Once again on 24 November 2011 Russia announced that it “reserves the right to discontinue further disarmament and arms control measures,” such as withdrawal from New START and deployment of new nuclear weapons if the US progress with its missiles plans in Europe without Russian cooperation.

**Security doctrines and policies**

China published in March 2011 a new white paper where it reaffirmed its no first use policy. The new white paper does not indicate any change of China’s security doctrine and the role of nuclear weapons has not been reduced.

The United Kingdom’s 2010 Strategic Defence and Security Review called for the need for a “minimum effective nuclear deterrent” as the ultimate means to “deter” the “most extreme threats”. The Security Review also stated that the United Kingdom would retain and renew its independent nuclear deterrent—“the United Kingdom’s ultimate insurance policy in this age of uncertainty.” While stating that the UK will strive for the “minimum amount of deterrence,” the government also restated that the UK makes clear that it will only use their weapons in extreme circumstances of self-defence, including the defence of its NATO allies.

The “minimum nuclear deterrent” policy made in the 2010 Security Review was also made in 1998 Defence Review that was updated in 2003. The 1998 Review stated: “We will retain our nuclear deterrent with fewer warheads to meet our twin challenges of minimum credible deterrence backed by a firm commitment to arms control.”

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131 Medvedev, D. Medvedev: Russia will deploy deterrent to Nato missile shiled-video, The Guardian, 24 November 2011
Furthermore the 1998 Review states that the UK will “not use nuclear weapons against a non-nuclear weapon state not in material breach of its nuclear non-proliferation obligations, unless it attacks us, our Allies or a state to which we have a security commitment, in association or alliance with a nuclear weapon state.”

The United States 2010 Nuclear Posture Review states that the US will keep relying on its nuclear weapons as an important part of its national security and will also do this for the forseeable future. In spite of this, the NPR states that US capacity in conventional weapons together with major improvements in missile defence has enabled the US to rely on less nuclear weapons without jeopardizing its “deterrence”. The NPR also states that with the changing security climate the US will “better align” its nuclear polices to deal with its priorities such as preventing nuclear terrorism and nuclear proliferation. It also acknowledges that nuclear weapons are not adequate to address today’s main security threats, such as terrorism and new regimes seeking nuclear weapons. Furthermore US Secretary of State Hillary Clinton stated in her statement to the Conference on Disarmament on the 28 February 2011 that the NPR “reduces the prominence of nuclear weapons in our national defense.”

The 2002 NPR was not public publish due to classification considerations. The released NPR foreword states that the NPR “puts in motion a major change in our approach to the role of nuclear offensive forces in our deterrent strategy and presents the blueprint for transforming our strategic posture.” Since no information is publicly available it is difficult to compare the two NPRs.

The US has not made any further reductions of the role of nuclear weapons in its nuclear posture review since the adoption of the 2010 NPT action plan.

The Russian Federation’s nuclear policy is designed to ensure that Russia’s nuclear capacity is “credibly and directly” linked to Russia’s weakness in conventional military capacity. Russia main argument for maintaining its nuclear weapons are: “first, to retaliate against a nuclear strike on Russia or its allies; second, to retaliate against a chemical, biological, or radiological attack against Russia or its allies; and, third, in case a conventional attack on Russia threatens the existence of the state.” Russia has not released a renewed defense policy since May 2010.

France relies on its nuclear capacity to protect the country’s “independent and strategic autonomy,” and its commitment to the idea of “nuclear deterrence” is very strong. It is clear that the French government counts on nuclear weapons to protect its territory from any potential attack. President Sarkozy has stressed that this is particularly true in

135 Ibid
137 Nuclear Posture Review report, April 2010, Department of Defense United State of America, p. 6
139 US Secretary of State Hillary Clinton’s statement in the Conference on Disarmament, 28 February 2011
141 Kearns, I, "Beyond the United Kingdom: Trends in the Other Nuclear Armed States", British American Security Information Council (BASIC) November 2011, p. 16
142 Arbatov, A, Gambit or Endgame ?, The new State of Arms Control, Carnegie Moscow Center, March 2011, p. 5
an attack from other states rather than terrorist groups.\textsuperscript{143}

France has not released any new nuclear policy since the adoption of the 2010 NPT action plan and therefore has not reduced the role of nuclear weapons in its security doctrine.

**NATO**

The NATO summit held in Lisbon on the 19–20 November 2010 reaffirmed NATO’s commitment to a goal of a world without nuclear weapons, while also reconfirming that as long as nuclear weapons exist NATO will remain a nuclear alliance. The commitment to the goal of a nuclear weapons free world is new, but when comparing the document to the previous strategic concept from 1999, there is no sign of a reduction of the role of nuclear weapons. However, there is increasing opposition from numerous NATO member states that are showing greater reluctance regarding NATO’s relationship to nuclear weapons, in particular to the current deployed tactical nuclear weapons (TNW). According to IKV Pax Christie’s report on NATO members views of TNW, 24 of the 28 members states said they would not oppose the removal of the TNW in Europe. Only France, Hungary, and Lithuania are supporting the current states quo and Albania expressed no opinion in this matter. France is also the only NATO member that is more pessimistic regarding the wisdom of even pursuing nuclear disarmament and will therefore only agree to create the “conditions” for this goal.\textsuperscript{144}

**Operational Status of Nuclear Weapons**

The fact that a significant number of nuclear weapons are still today on high-alert and capable of being launched in only a few minutes is worrying for many states. This concern is often reiterated in the General Assembly First Committee by in particular the so-called “de-alerting group” (Chile, Malaysia, New Zealand, Nigeria, and Switzerland).

On 13 October 2011, Switzerland spoke on behalf of the group to address the issue of decreasing the operational readiness of nuclear weapons systems. The group said that while the tensions from the Cold War have decreased, significant numbers of nuclear weapons are still at high-alert levels. The group has in recent years presented a draft resolution to First Committee on the topic, but did not table it during the 2011 session. Instead, it intends to address the issue during the forthcoming NPT review cycle, starting with the preparatory committee in May 2012.\textsuperscript{145}

The 2010 resolution “Decreasing the operational readiness of nuclear weapons systems” A/RES/65/71, was adopted by a vote of 157-3-22. The three votes against the resolution as a whole were made by France, the United Kingdom, and the United States, which issued a joint explanation of vote after the vote concluded. They explained that they continue to disagree with the basic premise that the current level of readiness of nuclear weapons increases the risk of accidental use, arguing that they have decreased the operational status of their forces since the 1990s, no longer target their weapon systems

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\textsuperscript{143} Kearns, I, “Beyond the United Kingdom: Trends in the Other Nuclear Armed States”, British American Security Information Council (BASIC) November 2011, p. 21

\textsuperscript{144} Snyder, S & van der Zeijden. W, Withdrawal Issue, What NATO countries say about the future of tactical nuclera weapons in Europe, IKV Pax Christi, March 2011, p. 12

\textsuperscript{145} Irsten, G, “Operational status of nuclear weapons”, First Committee Monitoring, Reaching Critical Will, 17 October 2011
against any state, and subject their systems to “rigorous command and control” to ensure against “misuse”. Russia abstained from the resolution but did not issue an explanation of vote. China’s delegation voted in favour of the resolution, though in an explanation of vote it argued that any step toward nuclear disarmament should abide by the principles of “maintaining global strategic stability” and not harming the security of any country, meaning that “intermediate steps should be implemented at the right time and under the right conditions”.146

SHOULD PROVIDE INFO ON INDIA’S RESOLUTION THAT INCLUDES DE-ALERTING

While the US, France, and the UK stated in 2010 that they have decreased the operational status of their forces since 1990, no indications of de-alerting have been given since the adoption of the 2010 NPT action plan.

Accidental Use of Nuclear Weapons

On 3 March 2011, one of the UK’s four Vanguard class nuclear-power submarines faced mechanical problems, which caused loss of power. The Ministry of Defence reported that the incident was not nuclear related, but the Vengeaua’s propulsion system was affected.147 In October 2010 the largest British nuclear-power submarine, HMS Astute, ran aground off the Isle of Skye, because of a “manoeuvre going wrong”. It was reported that the accident had “no likelihood of a nuclear reactor leak”. A similar accident occurred off the coast of the Islands on 6 November 2002.148

Furthermore in February 2009 the Vanguard submarine collided with the French Le Triomphant. Both submarines were reported to be carrying nuclear-armed SLBMs. After the collision the UK Ministry of Defence released data indicating that there have been 44 collisions and 236 fires involving British SSBNs since 1988, not including the 2009 collision.149

In February 2008 the Pentagon released an investigative report that determined that most US nuclear weapons nuclear sites currently used for deploying US tactical nuclear weapons in Europe do not meet Department of Defense security requirements. The Blue Ribbon Review stated that most European nuclear sites were in need of significant additional recourses to meet security demands and the inspectors found that “each site presented unique security challenges.”150

Many of the safety issues discovered were caused by the fact that the primary use of the squadrons and wings are for real-world conventional operations and not only for

147 BBC News, HMS Vengeance nuclear sub returns home after power loss, 3 April 2011; http://www.bbc.co.uk/news/uk-scotland-glasgow-west-12951401
nuclear weapons.\textsuperscript{151}

Another security issue that occurred concerning safety on nuclear weapons bases in Europe is the incident in January 2010. A group of activists was able to climb the fence of the US military base Kleine Brogel Air Base in Belgium.\textsuperscript{152} The organization Peace Action has since then reported that they have “repeatedly penetrated base security”.\textsuperscript{153}

**Conclusion**

As many other actions in the action plan, many of this chapter’s actions are vague and therefore not easy to measure. Furthermore the actions build on a collective effort by the NWS, and sometimes also NNWS. As we will see in the next chapter the NWS have engaged in different levels of transparency, which has made it more difficult to get accurate and comparable information.

The ratification and implementation of New START by both the United States and Russia means that action 4 is being implemented. However, the nuclear weapon modernization plans that accompanied both ratifications of New START are not compatible with the Treaty and its goals, or with the letter and spirit of the NPT. Furthermore, reluctance to progressive General Assembly resolutions, lack of progress on tactical nuclear weapons, the outspoken intention to continue to rely on nuclear weapons for security for decades to come, the reluctance to decrease operational readiness, and the opposition to begin preparatory discussions on a nuclear weapons convention mean that all other actions in this section cannot be considered to be implemented.

\textsuperscript{152} Peace Activists Trespass at Belgian Base Housing U.S. Nukes, National Journal, NTI web, 17 February 2010.
\textsuperscript{153} Grossman, E, More Activist Intrusions at Belgian Nuclear Base Stoke Worries, National Journal, NTI web, 22 October 2010.
CHAPTER 2
Transparency and irreversibility

**Action 2**: All States parties commit to apply the principles of irreversibility, verifiability and transparency in relation to the implementation of their treaty obligations.

**Action 19**: All States agree on the importance of supporting cooperation among Governments, the United Nations, other international and regional organizations and civil society aimed at increasing confidence, improving transparency and developing efficient verification capabilities related to nuclear disarmament.

**Action 20**: States parties should submit regular reports, within the framework of the strengthened review process for the Treaty, on the implementation of the present action plan, as well as of article VI, paragraph 4 (c), of the 1995 decision entitled "Principles and objectives for nuclear non-proliferation and disarmament", and the practical steps agreed to in the Final Document of the 2000 Review Conference, and recalling the advisory opinion of the International Court of Justice of 8 July 1996.

**Action 21**: As a confidence-building measure, all the nuclear-weapon States are encouraged to agree as soon as possible on a standard reporting form and to determine appropriate reporting intervals for the purpose of voluntarily providing standard information without prejudice to national security. The Secretary-General of the United Nations is invited to establish a publicly accessible repository, which shall include the information provided by the nuclear-weapon States.

Introduction
While all nuclear weapon states have committed to the goal of a nuclear weapon free world, there is significant lack of transparency, irreversibility, and verifiability of concrete efforts towards achieving this goal. These three elements would build increased confidence and trust and would contribute to sustainable disarmament. The actions in this section therefore are not only central for the credibility of any disarmament measures, but also for measuring compliance with the NPT by nuclear weapon states.

Irreversibility, verifiability, and transparency of recent reductions
Treaty obligations for non-proliferation are monitored under the International Atomic Energy Agency (IAEA) safeguards system, but no such international body exists to monitor disarmament efforts under the NPT. Our previous report on non-proliferation dealt with the IAEA safeguards systems and therefore only disarmament measures will be included in this report.
Since the adoption of the NPT action plan, only three of the five nuclear weapon states have announced reductions of nuclear arsenals.

**United Kingdom**

The UK government reported in October 2010 that the number of warheads on-board each nuclear submarine will be reduced from 48 to 40, which will reduce the number of operational and available warheads to “no more than 120”.154 The UK also announced that over the next few years, it would reduce the number of operational missiles on the Vanguard class submarines to no more than eight, and thereby reduce the British overall nuclear weapon stockpile to “not more than 180” by the mid 2020s.155 However, on 9 June 2010 the Foreign Office Minister Alister Burt stated, “We have no plans to establish procedures to allow the international community to verify the UK’s nuclear warhead stockpile.”156 Furthermore, the UK is currently contemplating modernization of its nuclear weapon system and has already invested money in such programmes (see Chapter 1 for details.)

That said, the United Kingdom together with Norway is currently conducting research into the verification of warhead dismantlement. This UK-Norway initiative started in 2007 and is monitored by the Verification, Research, Training and Information Centre (VERTIC). The project’s main goal is to investigate more information in regards to verified dismantlement of nuclear warheads and to formulate recommendations for further work. The UK-Norway process has also inspired new projects presently under construction by several countries.157 In December 2010, the United Kingdom hosted a workshop in London to share experiences with non-nuclear weapons states.158

**The United States and Russian Federation**

The New Strategic Arms Reduction Treaty (START) data exchange, which, under the terms of the Treaty, had to take place within 45 days of its entry into force, indicates that Russia had 1,537 deployed strategic warheads, 521 deployed strategic delivery vehicles, and 865 launchers. The United States had 1,800 deployed strategic warheads, 882 deployed strategic delivery vehicles, and 1,124 launchers. Both countries have seven years to meet the Treaty’s targets. The data are to be updated every six months.159

On-site inspections will offer access to additional data on missiles and bombers. When an intercontinental ballistic missile, submarine-launched ballistic missile, or air base is inspected (which may take place up to ten times each year, as noted above), in what the Treaty labels ‘Type One’ inspections, the inspectors will be told and shown where each missile is and told how many warheads are deployed on it.

154 Duncan, J, “Statement at the 65th Session of the first committee of the UNGA”, 19 October 2010.
155 Ibid
157 Arms Control and Disarmament: completed projects; www.vertic.org
158 Statement by United Kingdom in GA first committee, 7 October 2011
The verification system for New START has been called “the most intrusive verification system ever implemented for counting nuclear warheads” and for the first time includes verification of actual warhead numbers, rather than counting delivery vehicles as carrying a pre-determined number of warheads based on maximum loading. But, it has also been noted that while the treaty reduces the legal limit for deployed warheads, it does not actually reduce the number of warheads. This is due to a new counting regulation that attributes one weapon to each bomber, rather than the actual number of weapons assigned to them. It has been argued by nuclear experts that such “fake counting rules frees up a large pool of warhead spaces under the treaty limit that enable each country to deploy many more warheads than would otherwise be the case.”

However, despite these new improvements, New START lacks any requirements for warheads to actually be dismantled. It is of course possible that both the US and Russia will quickly dismantle all warheads removed from service as well as destroy the fissile material components. Since the treaty establishes no procedures for the dismantlement of warheads, as it and other treaties before it have done for delivery vehicles, and while it does mark a significant departure from the system of counting 'attributed' warheads, it is only through the actual destruction of warheads that disarmament can realistically be irreversible.

While true that it does mark a significant departure from the system of counting 'attributed' warheads, the treaty establishes no actual procedures for the dismantlement of warheads as it and other treaties before it have done for delivery vehicles. In light of this, it is only through the actual destruction of warheads that disarmament can realistically become irreversible.

France has not carried out any reductions of nuclear warheads since the adoption of the 2010 NPT Action Plan. But it has been reported that the French stockpile is expected to decrease to around 290 warheads within the next few years. No plan for verification of the irreversibility of this reduction has been reported.

**Further transparency and confidence-building**

Information available on nuclear weapons differs greatly between nuclear weapon states. A special concern regarding lack of transparency involve warheads that are not covered by any control regime. For example, information on the stockpile of tactical nuclear weapons is not available.

China reportedly published its 2010 white papers in an effort to deepen trust and transparency of its national defence policy. It has been argued that China’s defensive national defence policy might be changing, and therefore the publication of the white papers enabled each country to deploy many more warheads than would otherwise be the case.”

paper aimed to create a security environment featuring mutual trust and cooperation."\textsuperscript{164} Unfortunately, the white paper does not give any official data on China’s nuclear stockpile. China has never released any official data on its nuclear stockpiles\textsuperscript{165} and any discussion of the Chinese inventory will be based on estimates made by Western governments and non-governmental organizations. Such estimates give a total inventory of about 180 nuclear warheads, including 110 operationally deployed nuclear missiles and 70 warheads stored for its submarine-launched ballistic missiles and bombers.\textsuperscript{166}

Public information on Russia’s nuclear weapons is limited. Russia’s sub-strategic nuclear weapons are thought to be in storage on Russian soil, but there is no available information on the numbers or placement.\textsuperscript{167} Also, the availability of information on non-strategic nuclear weapons is unsure. However, the US and Russia have, through the entry into force of New START, exchanged information on strategic nuclear-warhead delivery systems. Moreover, agreements on strategic nuclear arms between the two countries have mostly focused on delivery vehicles and launchers. The counting rules for warheads under New START attribute a certain number of deployed warheads to a specific delivery vehicle.\textsuperscript{168}

The United States has released the most detailed information on its nuclear weapons, although it does not reveal deployment locations or numbers of total stockpile of warheads.\textsuperscript{169} In May 2010, the United States revealed the total size of its nuclear stockpile. In the 2010 Nuclear Posture Review, the US stated, "By promoting strategic stability with Russia and China and improving transparency and mutual confidence, we can help create the conditions for moving towards a world without nuclear weapons."\textsuperscript{170} On 1 December 2011, the United States released the full aggregate numbers of strategic offensive arms under New START. The data comes from the biannual exchange of data required under New START and will be updated during each six month period after entry into force of the Treaty.\textsuperscript{171} Such disclosure of information to the public increases transparency of US nuclear forces and encourages Russia to follow suit.

The United Kingdom has published some information on warhead numbers and their

\textsuperscript{165} Kearns, I, "Beyond the United Kingdom: Trends in the Other Nuclear Armed States", British American Security Information Council (BASIC) November 2011, p. 9; http://www.basicint.org/sites/default/files/commission-briefing1.pdf


\textsuperscript{167} Ibid.


\textsuperscript{169} Ibid, p.5

\textsuperscript{170} “Nuclear Posture Review Report” Department of Defense United State of America, April 2010, p. vi

operational status. France has released numbers through public speeches and legal documents attached to procurement laws and defence budgets.\textsuperscript{172}

None of the nuclear weapons states have published a full account of specific strategic weapons modernization programmes and their costs. The nuclear weapon states met in Paris between 30 June–1 July 2011 for their first follow-up meeting to the London Conference on Confidence Building Measures towards Nuclear Disarmament in September 2009. In the official statement released after the meeting, the P5 indicated that they “continued their previous discussions on the issues of transparency and mutual confidence, including nuclear doctrine and capabilities, and of verification, recognizing such measures are important for establishing a firm foundation for further disarmament efforts.”\textsuperscript{173} However, during the General Assembly’s First Committee, several delegations expressed disappointment with the limited results of this meeting. For example, the Egyptian delegation called on the P5 to “redouble their efforts far beyond the general follow up meeting held in Paris last July, which produced limited results as reflected in its final statement.\textsuperscript{174}

\textbf{Regular reports under the NPT}

Step 12 of the 13 Practical Steps for the implementation of Article VI adopted by the 2000 NPT Review Conference calls for regular report by all states parties on the implementation of Article VI and paragraph 4 (c) of the 1995 Decision.

In the lead up to the 2010 NPT Review Conference, only 23 out of 189 states parties submitted such national reports: Algeria, Australia, Austria, Brazil, Canada, Chile, China, Cuba, Finland, Iran, Ireland, Japan, Kazakhstan, Mexico, Morocco, New Zealand, Norway, Poland, Republic of Korea, Russian Federation, Sweden, Ukraine, and Uruguay. Only two of these are nuclear weapon states.

Reports submitted for the upcoming review cycle has not yet been released. It is therefore not possible to evaluate any possible change at this moment. However, if the rate of participation is similar to the previous review cycle, this action will not be considered to be implemented.

\textbf{Reporting for the nuclear weapons states}

Compliance with the NPT by non-nuclear weapon states is monitored and evaluated by the International Atomic Energy Agency (IAEA). However, no such institutional mechanism exists to monitor the disarmament obligations of the nuclear weapon states. While several of the nuclear weapon states disclose information about their reductions, each of them has different counting rules on their arsenals, which complicates comparison.\textsuperscript{175}

The issue of reporting was mentioned in the joint P5 statement from their Paris meeting in June 2011. The statement said “They [P5] met with the determination to work

\textsuperscript{172} Schaper, A, “Transparency and security in Nuclear Weapons no.34”, The Weapons of Mass Destruction commission, 2006, p. 6
\textsuperscript{173} Final Joint Press Statement, “First P5 follow-up meeting to the NPT Review Conference”, Paris, 2011
\textsuperscript{174} Acheson, R. “Nuclear Disarmament”, First Committee Monitor, 10 October 2011
\textsuperscript{175} Kearns, I, “Beyond the United Kingdom: Trends in the Other Nuclear Armed States”, British American Security Information Council (BASIC) November 2011, p. 9
together in pursuit of their shared goal of nuclear disarmament under article VI of the NPT, including engagement on the steps outlines in Action 5, as well as reporting and other efforts called for in the 2010 Review Conference Action Plan.”

On 22 September 2010, the foreign ministers of Australia, Canada, Chile, Germany, Japan, Mexico, the Netherlands, Poland, Turkey and the United Arab Emirates got together and formed the Non-Proliferation and Disarmament Initiative (NPDI). The group was established in order to build upon the renewed moment in disarmament and non-proliferation that came out of the 2010 NPT Review Conference and therefore they base their work in the NPT for the achievement of nuclear disarmament.

Since their first meeting in September 2010, the group has worked to promote transparency in nuclear disarmament reporting. At their second meeting in Berlin on 20 April 2011, the group developed a draft standard nuclear disarmament reporting form, as promoted by action 21 in the Action Plan. The reporting form has been shared with the five NPT nuclear weapons states during the P5 meeting in Paris on 30 June–1 July. The proposed reporting form is to be used on both strategic and tactical nuclear weapons. The report was developed in the view that reporting on nuclear disarmament by the nuclear-weapons states is not only relevant for the NWS, but also for all other states. The initiative has not received any official response from the five NPT NWS and the draft reporting document is not publicly available.

The third meeting of the NPDI was held in New York on 21 September 2011, where the group reaffirmed its commitment to further promote the implementation of the NPT action plan.

The United Nations Office for Disarmament Affairs has set up a website to function as a repository of information provided by nuclear weapon states in accordance with the 2010 NPT action plan. Once action is taken by the nuclear weapon states, the information will be available there.

**Conclusion**

For the reductions of nuclear arsenals that are taking place today, some nuclear weapon states are failing to adequately apply the principles of irreversibility, verifiability, and transparency in relation to their treaty obligations. For example, the recent lowering of figures by the United Kingdom’s stockpile of nuclear weapons does not come with any verification mechanism. The inspection scheme under New START between Russia and

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179 “Berlin statement by Foreign Ministers on nuclear disarmament and non-proliferation”, Conference on Disarmament CD/1908, 17 May 2011
the United States is making progress on transparency and verification but does not adequately address the principle of irreversibility. China and France have not reported any reductions at all.

The national reporting system under the NPT had a low level of participation in the lead up to the 2010 NPT Review Conference. Significant progress needs to be made if this action is to be adequately implemented.

The nuclear weapon states are reported to have discussed a standard reporting form, and the NPDI-initiative was an attempt to create a concrete proposal. However, there have been no official comments on the NPDI-proposal, and no similar proposals put forward by any of the nuclear weapon states either. Therefore, the nuclear weapon states must increase efforts to fulfil this action.
CHAPTER 3
Conference on Disarmament

Action 6: All States agree that the Conference on Disarmament should immediately establish a subsidiary body to deal with nuclear disarmament, within the context of an agreed, comprehensive and balanced programme of work.

Action 7: All States agree that the Conference on Disarmament should, within the context of an agreed, comprehensive and balanced programme of work, immediately begin discussion of effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons, to discuss substantively, without limitation, with a view to elaborating recommendations dealing with all aspects of this issue, not excluding an internationally legally binding instrument. The Review Conference invites the Secretary-General of the United Nations to convene a high-level meeting in September 2010 in support of the work of the Conference on Disarmament.

Action 15: All States agree that the Conference on Disarmament should, within the context of an agreed, comprehensive and balanced programme of work, immediately begin negotiation of a treaty banning the production of fissile material for use in nuclear weapons or other nuclear explosive devices in accordance with the report of the Special Coordinator of 1995 (CD/1299) and the mandate contained therein. Also in this respect, the Review Conference invites the Secretary-General of the United Nations to convene a high-level meeting in September 2010 in support of the work of the Conference on Disarmament.

Introduction

Since the conclusion of the negotiation of the Comprehensive Test Ban Treaty (CTBT) in August 1996, the Conference on Disarmament (CD) has remained deadlocked and unable to commence substantive work. With the exception of short-lived agreements in 1998 and 2009, it has struggled to reach consensus on a programme of work and therefore unable to start negotiations on any of its agenda items. The principal problem concerns disagreement on the prioritization of the main issues on the CD’s agenda and attempts by countries to link progress in one area to parallel progress in other areas. The key items under consideration include: a treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices (FMCT), nuclear disarmament, prevention of an arms race in outer space (PAROS), and negative security assurances (NSAs)\(^{182}\). Three of these items are covered in this group of actions.

It is difficult to examine compliance with the actions in this section, as they only require states to agree that the CD should commence work. They do not call upon any specific actions to increase the likelihood of commencing substantive work. The actions

\(^{182}\) “Conference on Disarmament”, Nuclear Threat Initiative; http://www.nti.org/treaties-and-regimes/conference-on-disarmament/
furthermore touches on the complicated issues on a programme of work, and if and how substantive work can be made if an agreed programme of work is not reached.

**High-level meetings**

Two of the actions in this section call on the UN Secretary-General to convene a high-level meeting. On Friday, 24 September 2010, he convened such a meeting on “revitalizing the work of the Conference on Disarmament and taking forward multilateral disarmament negotiations”. A total of 68 delegates spoke, including 37 Ministers for Foreign Affairs and representatives of three specialized organizations.

The Secretary-General issued a Chair’s summary of the meeting in which he made a few suggestions: that the CD should adopt a programme of work in line with the one from 2009, that the General Assembly would include a follow-up to the high-level meeting in its agenda for its 65th session, and that the Secretary-General’s Advisory Board on Disarmament Matters would undertake a review of the issues raised at the meeting.

On 27–28 July 2011 the General Assembly convened a follow-up to the high-level meeting held on 24 September 2010, at the request of 49 member states. The follow-up served as a general debate **on revitalizing the work of the CD and to discuss ways to break its longstanding deadlock.** The participants discussed issues such as whether or not negotiations should be pursued outside of the CD and if the CD itself should be reformed.

RCW published a summary of the positions of states in accordance with their statements made during the meeting:

States that are willing to work outside the CD: the European Union, Australia, Austria, Canada, Chile, Colombia, Ireland, Italy, Germany, Japan, Kazakhstan, Mexico, Morocco, the Netherlands, New Zealand, Philippines, Poland, South Africa, Switzerland, Turkey, United Arab Emirates and Uruguay.

States that don't want to “circumvent” the CD: the Non-Aligned Movement, Brazil, Cuba, China, France, India, Iran, Israel, Pakistan, Romania and the United Kingdom.

States supporting a review/reform of the CD's rules of procedure: the European Union, the Non-Proliferation and Disarmament Initiative (Australia, Canada, Chile, Germany, Japan, Mexico, the Netherlands, Poland, Turkey, and the United Arab Emirates), Bulgaria, Chile, Colombia, Finland, Ireland, Italy, Japan, Kazakhstan, Luxembourg, Mexico, New Zealand, Romania, Spain, and Switzerland.

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183 Acheson. R, ”High-level meeting on revitalizing the CD serves as catalyst for action”, CD reports, Reaching Critical Will, 24 September 2010
States that do not believe that the CD needs a reform of its rules of procedure: the Non-Aligned Movement, Algeria, Brazil, Cuba, China, Ecuador, India, Iran, Israel, Pakistan, Russian Federation and the United Kingdom.

States that could reform the rules of procedure but do not believe this is the real problem: Austria, Costa Rica, and the United States.

During its 56th session in New York in February 2011, the Secretary-General’s Advisory Board on Disarmament Matters addressed the issues raised at the high-level meeting in 2010. It continued its session in Geneva in June 2011, where it also interacted with members of the CD. On 11 July, the Advisory Board released its report, which contained three recommendations: that the Secretary-General (SG) continue to encourage the CD to achieve a breakthrough; that if a panel of eminent persons be established to consider the stalemate at the CD, the SG should ask the panel to make recommendations on ways to revitalize the United Nations disarmament machinery as a whole; and that the SG should continue to raise public awareness and encourage civil society and NGOs to offer input on ways to overcome the stalemate at the CD.186

No such panel of eminent persons has been established yet.

While drawing high-level attention to the issue of the CD, the high-level meeting, the GA debate, and the report of the Secretary-General’s Advisory Board on Disarmament Matters have not generated any binding outcomes and have not managed to create any momentum for substantive work in the Conference.

**Substantive work on the topics of the CD agenda**

Despite continuing stalemate over the adoption of a programme of work, substantive work has been undertaken somewhat in the margins.

In February 2011, along with CD plenary discussions on an FMCT, Australia and Japan co-hosted a first round of expert-level talks seeking to define key aspects of a treaty, including what would be considered fissile material and what constitutes production of that material. These events were arranged in order to “build confidence about FMCT and momentum towards FMCT negotiations in the CD on the basis of CD/1299 and the mandate contained therein.” Several delegations participated with experts from capitals.187 Several states supported the Australian-Japanese initiative. However, China said in remarks to the CD on 17 February that it did not attend the session.

At the UN General Assembly First Committee 2011, Canada presented a draft version of A/RES/66/40, “Treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices”. The draft suggested at first that the UN Secretary-General to establish a group of governmental experts (GGE) in March 2012 “to consider options, including the necessary legal and procedural requirements” for a fissile materials treaty on the basis of the Shannon mandate.188 However, the final resolution

186 A/66/125
187 Fihn, B. “CD breaks for recess without adopting a programme of work”, CD Report, Reaching Critical Will, 30 March 2011
188 Acheson, R. “Disarmament machinery” First Committee Monitoring, Reaching Critical Will, 24 October 2011
removed any reference to the establishment of a GGE and contained no new measure for kick-starting substantive discussions on the issue.

The 2011 resolution was adopted in the First Committee with a vote of 158-2-21. Pakistan and the Democratic People’s Republic of Korea voted against the text, while the Arab Group, Ecuador, Indonesia, Iran, and Israel abstained. Pakistan said it opposed the measure arguing that such a treaty “would allow the major nuclear powers to continue producing nuclear weapons even if such a treaty were to be negotiated successfully” because major nuclear states could continue to draw from large existing nuclear stocks even after an FMCT entered into force. Lichtenstein and Slovenia also expressed disappointment about the removal of the GGE from the original draft, in their explanations of vote. Furthermore, states that abstained from the resolution explained that their abstentions derive from the resolution’s unitary focus on a fissile materials treaty and because of its suggestion that options outside the CD could be considered next year.189

**Initiatives to get the CD back to work**

Since the adoption of the 2010 NPT Action Plan, the CD has still not been able to adopt a programme of work. The member states remain divided over a number of issues, including which topic is the priority for the Conference but also whether it is lack of political will or dysfunctional procedural rules that is causing the stalemate.

However, there have been some attempts by states to move the issue forward and start negotiations of the substantive issues in these actions elsewhere.

One of the most promising attempts since 2005 to unblock the stalemate at the CD was withdrawn at the end of the General Assembly’s First Committee in 2011. The draft resolution “Taking forward multilateral disarmament negotiations” was put forward by Austria, Mexico, and Norway but did not go for a vote once it became clear that it would not gain enough support from key states. It received criticism from the nuclear weapon possessors and some key non-nuclear weapon states, which argued that it would undermine the CD.190 The resolution resolved that, if the CD does not adopt a programme of work in its 2012 session, the General Assembly could establish open-ended working groups to begin substantive work on the core issues on the CD’s agenda. This would have expanded the participation outside the 65 CD members, representing only one-third of UN member states. It would have ensured the inclusion of any country that wished to participate, “regardless of size and power” and regardless of whether or not they possess weapons of mass destruction. It would also have ensures the highest priority for nuclear disarmament and non-proliferation, as well as transparency.191

While this was apparently a bridge too far for many states, a new resolution, “Revitalizing the work of the Conference on Disarmament and taking forward multilateral disarmament negotiations,”192 put forward by the Netherlands, South

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189 Acheson R. “Disarmament machinery” First Committee Monitoring, Reaching Critical Will, 2 November 2011
190 Ibid
191 Acheson R, “Editorial: Time to act on commitments to multilateralism”, First Committee Monitoring, Reaching Critical Will, 24 October 2011
192 A/C.1/66/L.39
Africa, and Switzerland, was adopted by consensus. This resolution offers space for continuing the dialogue on breaking the impasse at the CD, though it unfortunately does not contain any mechanisms itself for breaking that impasse.\footnote{193 Ibid}

Cuba’s resolution A/C.1/66/L.13/Rev.1, “Report of the Conference on Disarmament,” was adopted without a vote. The draft simply calls on the CD to “further intensify consultations and explore possibilities with a view to adopting a balanced and comprehensive programme of work at the earliest possible date during its 2012 session.”

The CD is no closer to commence substantive work today than at the time of the adoption of the 2010 NPT Action Plan. While some members of the CD are not a part of the NPT, all NPT member states have a responsibility to make additional efforts to break the impasse.

**Conclusion**

All three actions in this chapter are dependent on the Conference on Disarmament agreeing on a “comprehensive and balanced programme of work”. No such programme has been established and therefore none of the actions can be considered implemented.

Most states that took the floor during the 2011 session of both the CD and the GA expressed disappointment with the lack of progress. The high-level meeting, the General Assembly debate, and the GA resolution by Austria, Mexico, and Norway on “Revitalizing the work of the Conference on Disarmament” are three concrete initiatives that have attempted to move the CD closer to agreement and/or to begin substantive work on the CD’s agenda items. In addition, the first draft GA resolution on an FMCT, which called for a GGE, as well as the side events on FMCT in Geneva, have been attempts to commence work on the substantive issues. None of these attempts have been successful and it does not appear likely that the CD will agree on a programme of work early in its 2012 session.

The reasons for the inability of the CD to commence work are widely debated and disagreed upon. However, attempts to break the deadlock have been opposed by different groups of NPT member states, making it impossible to agree by consensus on how to move forward. Therefore, it is possible to conclude that member states are clearly not extending enough efforts to fulfill these actions.
CHAPTER 4
Nuclear Weapon Free Zones and Negative Security Assurances

**Action 8:** All nuclear-weapon States commit to fully respect their existing commitment with regard to security assurances. Those nuclear-weapon States that have not yet done so are encouraged to extend security assurances to non-nuclear-weapons States parties to the Treaty.

**Action 9:** The establishment of further nuclear-weapon-free-zones, where appropriate, on the basis of arrangements freely arrived at among States of the region concerned, and in accordance with the 1999 Guidelines of the United Nations Disarmament Commission, is encouraged. All concerned States are encouraged to ratify the nuclear-weapon-free zone treaties and their relevant protocols, and to constructively consult and cooperate to bring about the entry into force of the relevant legally binding protocols of all such nuclear-weapon-free zones treaties, which include negative security assurances. The concerned States are encouraged to review any related reservation.

**Introduction**
While negative security assurances (NSAs) and the establishment of internationally recognized nuclear weapon free zones (NWFZs), are not disarmament measures per se, they do reinforce the disarmament paradigm, serve to strengthen global and regional security, and prevent nuclear weapons proliferation and potential use of nuclear weapons. Through the establishment of such legally-binding regimes, the possession, manufacture, transit, use, or threat of use of nuclear weapons is substantially minimized. While action 9 is clear in its demand for states to sign and ratify the currently available NWFZ treaties and the promotion of new ones, action 8 is more vague and does not specify the development of a legally-binding treaty for NSAs.

**General negative security assurances**
No international legally-binding treaty or resolution containing negative security assurances currently exists, despite repeated calls by a number of non-nuclear weapon states (NNWS). Many NNWS have long called for a legally-binding instrument that would guarantee that the nuclear weapon states will not use or threaten to use nuclear weapons against NNWS. This call is often heard at the Conference on Disarmament, NPT meetings, and the UN General Assembly First Committee, where an overwhelming majority of speakers have called for legally-binding assurances arguing that existing ones are inadequate.

In 1995, the UN Security Council adopted Resolution 984, which moved towards protecting NNWS. The resolution states that NNWS of the NPT would receive assurances that “the Security Council, and above all its nuclear-weapon State permanent members will act immediately in accordance with the relevant provisions of the Charter of the United Nations” to protect NNWS against attacks or threats of aggression in which nuclear weapons are used. Again, these assurances are positive assurances rather than negative assurances; thus states in the Non-Aligned Movement were disappointed that
the Security Council did not take stronger action.\textsuperscript{194}

Since May 2010, a number of efforts have been made by some of the NWS on the topic of NSA. Although the international community is no closer to a legally binding regime then before the NPT Review Conference an increased acknowledgment from some NWS have been made since.

**Position of the P5**

**The United States**

In the 2010 Nuclear Posture Review (NPR), the US policy says: “The United States will not use or threaten to use nuclear weapons against non-nuclear weapon states that are party to the NPT and in compliance with their nuclear non-proliferation obligations.”\textsuperscript{195} The NPR gives no definition of what compliance in this regards means, leaving this statement open to interpretation.

The policy also states that conventional weapons would be used to retaliate against a biological or chemical weapons attack. This is a change from the last NPR, which stated that nuclear weapons could be used as a response to a biological and chemical weapons attack on the US, even if the attack came from a non-nuclear-weapon states.\textsuperscript{196} The 2010 NPR does however also state that if the evaluation and proliferation in biological weapons threat would change, the US reserves the right to adjust its NSA policy accordingly.\textsuperscript{197} Furthermore, the NPR states that the nuclear weapons may still play a role in deterring conventional, chemical, and biological weapons from the states listed as not being under the US security assurances. The NPT also indicates that the US will seek to ensure that nuclear weapons would only be used in “extreme circumstances”.\textsuperscript{198}

In addition, on 10 February 2011, the US Ambassador to the Conference on Disarmament stated that the US is not persuaded that a global convention on NSAs “is practical or achievable,” but noted that the US delegation is willing to engage in a substantive exchange of views regarding different national perspectives on NSAs. Furthermore, the US delegation stated that its government believes that the most appropriate way of dealing with NSAs is through adherence to the protocols establishing NWFZs.\textsuperscript{199}

**China**

China is the only NWS that has a no first use policy. This policy has two parts. Firstly, it ensures never to use nuclear weapons against any NWS and secondly, never to use or threaten to use nuclear weapons against any NNWS or NWFZ.

China holds that before the complete prohibition and thorough destruction of nuclear

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\textsuperscript{194} Nuclear Security Assurance Factsheets, Reaching Critical Will; http://www.reachingcriticalwill.org/resources/factsheets/nsa.html

\textsuperscript{195} Nuclear Posture Review report, Department of Defense United State of America, April 2010, p. 15.

\textsuperscript{196} Nurja. A, Obama Submits NWFZ Protocols to Senate, Arms Control Association, June 2011

\textsuperscript{197} Nuclear Posture Review report, Department of Defense United State of America April 2010, p. viii

\textsuperscript{198} Nuclear Posture Review report, Department of Defense United State of America, April 2010, p. viii - ix

\textsuperscript{199} Fihn. B, “Thematic discussion on negative security assurances”, Reaching Critical Will, 10 February 2011
weapons, all NWS should abandon any nuclear deterrence policy based on first use of nuclear weapons as well as make an unequivocal commitment that under no circumstances will they use or threaten to use nuclear weapons against NNWS or NWF and negotiate an international legal instrument in this regard. In the meantime, NWS should negotiate and conclude a treaty on no-first-use of nuclear weapons against each other.200

In China’s newly released defence and policy paper, it reaffirms that “China consistently supports the efforts of non-nuclear-weapon states in establishing nuclear-weapon-free zones, has already signed and ratified all the relevant protocols, which have been opened for signature of any nuclear-weapon-free zone treaties, and supports the establishment of a nuclear-weapon-free zone in the Middle East.”201

France

France reiterated its NSA policy in line with the Resolution 984 in a statement delivered during the 2010 NPT Review Conference: “France granted positive and negative security assurances to all Non-Nuclear Weapon States Parties to the NPT, in compliance with their non-proliferation obligations. The Security Council recalled these security assurances in its Resolution 1887, stressing that they strengthen the non-proliferation regime.”202

France has consistently been against the idea of a ‘no-first-use’ pledge when it comes to nuclear weapons and attaches less weight to NSAs than other NWS. It qualifies the NSAs it has previously given to NNWS that are party to the NPT by arguing that nuclear retaliation is consistent with the legal right to self-defence as recognised in Article 51 of the UN Charter and that the right to self-defence would, in the face of aggression by others, take precedence over any ‘no-first-use’ commitments given in peacetime. France also argues that any state not delivering on its own non-proliferation commitments, including in relation to chemical and biological weapons could not expect any NSA to apply to them.203

During the thematic debate on NSAs in the conference on Disarmament on 10 February 2011, France was the only NWS that did not make a national statement during the debate.

United Kingdom

The United Kingdom’s government stated in its 2010 Strategic Defence and Security Review that it is “now able to give an assurance that the UK will not use or threaten to use nuclear weapons against non-nuclear weapon states parties to the NPT.” It explained, “In giving this assurance, we emphasise the need for universal adherence to and compliance with the NPT, and note that this assurance would not apply to any state in material breach of those non-proliferation obligations. We also note that while there


201 Ibid

202 Danon, E, Statement delivered at the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, 7 May 2010

203 Kearns, I, Beyond the United Kingdom: Trends in the Other Nuclear Armed States, British American Security Information Council (BASIC) November 2011, p. 21
is currently no direct threat to the UK or its vital interests from states developing capabilities in other weapons of mass destruction, for example chemical and biological, we reserve the right to review this assurance if the future threat, development and proliferation of these weapons make it necessary.”

**Russian Federation**

The Russian Federation has shown readiness toward elaborating global NSAs, provided that they will take into consideration Russian military doctrine and its national security concepts. This statement was reiterated with modest changes during the 2011 CD session, when Russia stated that it unswervingly supports the desire of NNWS to obtain NSAs and declared it is ready to start developing global assurances, taking into account the provisions in the Russian security doctrine.

**NSAs in the General Assembly**

During the 2011 session of the UN General Assembly First Committee, resolution (A/RES/66/26), “Conclusion of effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons,” was adopted with a vote of 119-0-56.

Abstained in the 2011 voting: Albania, Andorra, Argentina, Armenia, Australia, Austria, Belgium, Bosnia-Herzegovina, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, **France**, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Marshall Island, Micronesia, Monaco, Montenegro, Netherlands, New Zealand, Norway, Poland, Portugal, Republic of Korea, Republic of Moldavia, Romania, **Russian Federation**, San Marino, Serbia, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, The Fyr Macedonia, Turkey, **United Kingdom**, United States.

The resolution reaffirms the need to agree on an international agreement to “assure non-nuclear weapon states against the use or threat of nuclear weapons.” It also appeals to nuclear weapon states to work towards a common approach to NSAs and include such a provision in a legally binding instrument, as well as stipulates that the Conference on Disarmament should actively continue negotiation to work on an international convention giving assurances to non-nuclear states.

**France, Russia, United Kingdom and the United States** all abstained in the voting while **China** voted yes. This result was the same as previous years and no change has taken place since the adoption of the 2010 NPT Action Plan. Some changes in voting were made; **Swaziland** and **Tajikistan** changed their vote from abstain to yes. **Benin, Cape Verde, Comros, Grenada, Guinea, Honduras, Liberia, Nepal, Niger, Saint Lucia, Saint Vincent, Salomon-Islands, Sudan and Timor-Leste** did not participate in the 2010 voting but voted yes in 2011. **Equat Guinea, Malawi** and **Seychelles** voted yes in 2010 but did

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205 Statement by the Russian Federation to the Conference on Disarmament, 3 August 2006.
207 Khokhar. T, Negative Security assurances, First Committee Monitor, Reaching Critical Will, 24 October 2011
not participate in the voting in 2011.

Nuclear Weapon Free Zones

The Pelindaba Treaty (African Nuclear-Weapon-Free-Zone)
The Pelindaba Treaty entered into force in 2009, having been open for signature since April 1996. The Pelindaba Treaty goes further than the NPT in prohibiting nuclear weapons: it prohibits the stationing and testing of any nuclear explosive device in the territories of its parties; commits its parties to apply the highest standards of security and physical protection of nuclear material, facilities and equipment to prevent theft and unauthorized use; prohibits armed attack against nuclear installations in the zone; and prohibits the dumping of any radioactive waste. These are all obligations not included in the NPT.  

In accordance with Article 14 of the Pelindaba Treaty, the African region held its First Conference of States Parties to the Treaty on 4 November 2010 at the African Union Headquarters in Addis Ababa, Ethiopia. Members were elected to the African Commission on Nuclear Energy and South Africa was appointed as the host of the headquarter of the Commission. Furthermore, on 4 May 2011, the First Ordinary Session (a meeting of the 12 Commissioners) of African Commission on Nuclear Energy (AFCONE) was held. The commission decided on the structure, the budget and the rules of procedure of the APCONE. In addition, the 2011 Ordinary Session of the AU Assembly welcomed the First Conference and called upon the AU member states that have not yet signed and ratified the Treaty to do so without further delay, including the relevant protocols.

As of 1 March 2011, all 53 members of the African Union (AU) are signatories to the Treaty, together with Morocco and the territory known as Sahrawi Arab Democratic Republic. 31 states have deposited their instruments of ratification with the AU Commission. Two countries, Zambia and Cameroon, have ratified the Treaty since the adoption of the NPT Action Plan. As of June 2011, 22 signatories have yet to ratify the Pelindaba Treaty.

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208 Disarmament Forum, Nuclear weapons free zone, Institute for Disarmament Research, June 2011, Geneva, p. 16
209 Nuclear Disarmament and Non-Proliferation, The United Nations Disarmament Yearbook, Volume 35 (Part II) 2010, United Nations 2011, p. 4
210 Disarmament Forum, Nuclear weapons free zone, Institute for Disarmament Research, June 2011, Geneva, p. 21
212 Disarmament Forum, Nuclear weapons free zone, Institute for Disarmament Research, June 2011, Geneva, p. 15
Both Protocol I (negative security assurance) and Protocol II (ban on nuclear testing in the NWFZ) have been signed by all nuclear weapons states, and ratified by all except the United States. The protocols were handed in to the US Senate in May 2011 for ratification.\(^{214}\) The United States signed the protocol for the Pelindaba Treaty in April 1996 while reserving the right to respond to an attack with all options, implying possible use of nuclear weapons, to a chemical or biological weapons attack by a member of the zone.\(^{215}\)

A White House press release reported that once the protocol is ratified it “will extend the policy of the United States not to use or threaten use of nuclear weapons against regional zone parties” that are members of the NPT and are “in good standing with their non-proliferation obligations.”

In March, 2011, the Russian Duma ratified the Pelindaba Treaty. The Russian ratification came with several reservations, such as the right to use nuclear weapons against African states that may hold allied commitments to other nuclear states, which may participate in military actions using nuclear weapons against Russia, or which are part of coalitions seeking to do so.\(^{216}\)

Previous parties to the protocol have also attached reservations to their ratifications. France stated that they do not consider its inherent right to self-defense to be restricted by the treaty, and that the assurances provided for in Protocol II are the same as those given by France to non-nuclear weapon states parties to the NPT. The United Kingdom reservation states that it is not bound by Protocol II in the case of an invasion or any other attack carried out by a party to the Treaty in association or alliance with a nuclear weapon state, or if a material breach of the non-proliferation obligations under the Treaty is committed.\(^{217}\)

China is the only nuclear weapon state that has no reservations attached to its ratification of nuclear weapon free zones.

**The Treaty of Tlatelolco (Nuclear-Weapon-Free-Zone in Latin America and the Caribines)**

The Tlatelolco Treaty was opened for signature on 14 February 1967 and entered into force in April 1969. All 33 states in the region of Latin America and the Caribbean have signed and ratified the treaty. The member states of the Treaty are: Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and

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\(^{214}\) Disarmament Forum, Nuclear weapons free zone, Institute for Disarmament Research, June 2011, Geneva, p. 1

\(^{215}\) Crail, P & Kimball, D, Nuclear-Weapon-Free Zones (NWFZ) at a glance, Arms Control Associations website, last updated 2011.


The Treaty of Tlatelolco has two additional protocols. Protocol I involves non-Latin American countries that have territories in the NWFZ. France, the United Kingdom, and the United States have signed and ratified Protocol I. Protocol II involves the NWS, which all are signatories and have ratified the protocol, albeit with reservations. The Treaty's two protocols (on negative security assurance and a ban on nuclear testing in the zone) have been ratified by all states except for the United States. President Obama handed in the request for ratification together with the Pelindaba Treaty protocols to the US senate in May 2011. The ratification of the Rarotonga Treaty guarantees the same obligations as under the Pelindaba Treaty- i.e. that the nuclear weapons states take on legal obligations not to use or threaten to use nuclear weapons against members of the zone, refraining from nuclear tests within the zone, or take any other action that violates the Treaty. Under a separate protocol, the US is also obliged to refrain from placing or testing nuclear weapons on its territories of American Samoa and Jarvis Island.

Out of the four nuclear weapon states that have ratified the Treaty, France and the United Kingdom have made reservations on protocol II (NSAs). These reservations are the same they have made for the Pelindaba Treaty.

There has been no change in members to the zone, nor have any of the reservations by the nuclear weapon states been modified since the adoption of the 2010 NPT Action Plan. The only progress is the submission of ratification to the United States senate, but the official decision is still pending.

The Treaty of Bangkok (Southeast Asia Nuclear-Weapon-Free-Zone)

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218 Official website of Treaty of Tlateloco: www.opanal.org/opanal/about/about-i.htm
219 "Latin America Nuclear Weapons Free Zone Treaty (Treaty of Tlatelolco)", Arms Control Associations, last updated 2011.
220 Official Website of Treaty of Tlateloco: www.opanal.org/opanal/about/about-i.htm
221 Crail. P & Kimball, D, Nuclear-Weapon-Free Zones (NWFZ) at a glance, Arms Control Associations website, last updated 2011.
222 Disarmament Forum, Nuclear weapon free zone, Institute for Disarmament Research, June 2011, Geneva, p. 20
223 Nurja. A, Obama Submits NWFZ Protocol to Senate, Arms Control Association, June 2011
The 10 member states are Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam. The Treaty has not been signed by any of the NWS.224

In August 2011, the P5 met with officials from the Association of Southeast Asian Nations (ASEAN) to discuss their ratification of the Treaty. One follow-up meeting was held in October 2011. However, during the 2011 session of the General Assembly First Committee, the minister counsellor of Thailand stated that the ASEAN countries are continuing to hold consultations with the nuclear weapons states on the subject of their ratification.

During the 2011 session of the General Assembly, Russia also indicated its support of signing the Treaty.225 China also supported the Bangkok treaty in its recent white paper on defence policy, which states that China has “reached agreement with the ASEAN countries on relevant issues under the Protocol of the Treaty on the Southeast Asia Nuclear-Weapon-Free Zone. China supports the Treaty on a Nuclear-Weapon-Free Zone in Central Asia and its protocols signed by Central Asian countries[].226 Although China and Russia have expressed their willingness to ratify the treaty, the rest of the NWS have stated in the past that the issue of geographical scope of the treaty is an obstacle.227

On 14 November, the ASEAN countries meet with the NWS where they discussed ratification of the treaty. On 16 November, Thailand’s foreign minister announced that they had reached an agreement on how to proceed on the regions NWFZ. On 19 November the white house states that “All sides have agreed to take the necessary steps to enable the signing of the protocol and its entry into force at the earliest opportunity.” This agreement involves further negotiations.228

The Treaty of Semipalatinsk (Central Asian Nuclear-Weapon-Free-Zone)
The Treaty opened for signature in 2006 and entered into force in March 2009. The states parties are forbidden from manufacturing, possessing, testing, and acquiring nuclear weapons. The Treaty has not yet been signed by any of the NWS. The United States, France, and the United Kingdom have expressed concern that the Treaty would prevent the transit of nuclear weapons through the region, although the Treaty does not explicitly rule out the transit of nuclear weapons by NWS through the zone. Under article 3d the treaty specifies was is not allow on the NWFZ territory:
“(i) The production, acquisition, stationing, storage or use, of any nuclear weapon or other nuclear explosive device;
(ii) The receipt, storage, stockpiling, installation or other form of possession of or control over any nuclear weapon or other nuclear explosive device;
(iii) Any actions, by anyone, to assist or encourage the development, production,

224 Crail, P & Kimball, D, Nuclear-Weapon-Free Zones (NWFZ) at a glance, Arms Control Associations website, last updated 2011.
225 Thomas Garofalo, First committee monitoring 2011
227 Liang, X, Talks on Southeast Asia NWFZ Resume, Arms Control Association, September 2011
stockpiling, acquisition, possession of or control over any nuclear weapon or other nuclear explosive device.”

During the 2011 session of the Conference on Disarmament the UK delegation stressed that “as a part of the P5,” the UK remains ready to discuss outstanding difficulties with certain NWFZ treaties not yet signed, i.e Bangkok and Central Asian. Russia stated in the same meeting that it supports the Treaty of Semipalatinsk and announced it was ready to work on the remaining issues in the NWFZ in South East Asia. The United States said that the US was prepared to consult with parties in these two zones “in an effort to each agreement that would allow us to sign the treaties’ protocol.”

This commitment was reiterated by all NWS in the First Committee. China and Russia stated support of further establishment of NWFZ. France, Russia, the United Kingdom and the United States all expressed support for the Semipalatinsk and the Bangkok Treaty and referred to the ongoing discussions with state parties.

**Developments regarding a potential Weapon of Mass Destruction Free Zone in the Middle East**

The issue of a WMD free zone in the Middle East is central to the NPT. During the NPT Review Conference in 2010, states parties agreed to hold a regional meeting in 2012 on the Middle East NWFZ. Israel has agreed to participate as long as it is not singled out. For a long time Israel stated that no such zone should be discussed as long as there are conflicts in the region.

The G8 summit on 26-27 June 2011 concluded in its final declaration: “We remain committed to holding a conference in 2012 on a zone free of weapons of mass destruction in the Middle East, as endorsed by the 2010 Nuclear Non-Proliferation Treaty Review Conference, with a view to creating a peaceful environment in the region.” However, the declaration did not mention Israel nor any other non-NPT state by name.

The European Union arranged a seminar in July 2011 on the issue of a conference on a zone free of WMDs in the Middle East. No conclusions were drawn from this conference. Among others government official from the Middle East, EU member states, Argentina, Brazil, the US, Russia, China, representative of the Arab League and the Gulf Cooperation Council was present at the seminar.

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230 Fihn, B, “Thematic discussion on negative security assurances”, Reaching Critical Will, 10 February 2011
231 Hamel-Green, M, Peeling the orange, regional paths to a nuclear weapon-free world, In Nuclear war-free zones, United Nations Institute for Disarmament Research, 2011, p. 11
234 “EU seminar to promote establishment of WMD Free Zone in the Middle East”, EU-UN official website; http://www.eu-un.europa.eu/articles/en/article_11191_en.htm
On 23 August 2011, the three depositary states of the NPT, the UK, the US, and Russia reported to the Conference on Disarmament (CD) that work on implementing the 2010 NPT decision on a zone free of WMDs in the Middle East was ongoing. All three states assured members of the CD that while no progress might have been reported on yet, they were “handling this issue delicately and quietly.”

Nearly 100 nations concluded a two-day meeting on 22 November 2011 at the International Atomic Energy Agency’s (IAEA) headquarters in Vienna, Austria. They discussed how the experiences of existing NWFZs might apply to the development of such a zone in the Middle East.

On 14 October 2011, UN Secretary General Ban Ki-moon announced that the 2012 conference on establishing a weapon of mass destruction free zone (WMDFZ) in the Middle East will be hosted by Finland and the facilitator of the conference will be Jaakko Laajava, Under Secretary of State in Finland’s Foreign Ministry.

**Nuclear Weapons Free Zones in the General Assembly**

During the General Assembly First Committee 2011 session, Egypt tabled A/C.1/66/L.1 on the establishment of the Middle East NWFZ, with only minor technical updates from last year’s version. Just as in previous years, the resolution was adopted without a vote.

Israel stated in its explanation of vote that it “remains committed to a vision of the Middle East developing eventually into a zone free of Chemical, Biological, and Nuclear weapons as well as ballistic missiles.” The Israeli representative suggested that the process should begin with “modest” confidence-building measures and be followed by “the establishment of peaceful relations, reconciliation, mutual recognition and good neighborliness, and complemented by conventional and non-conventional arms control measures.” A “mutually verifiable” NWFZ could follow “in due course.”

A second NWFZ-related resolution was introduced by Nigeria: A/C.1/66/L.51 on the African Nuclear Weapons Free Zone Treaty. The resolution emphasizes that the member states party to the Treaty of Pelindaba need to adhere to the provisions of that Treaty, especially regarding IAEA safeguards. The resolution also calls upon the member states that have not signed it to do so as soon as possible. Many of these countries have signed but not ratified the Treaty. There are no substantive changes to the draft resolution from last year’s version. As in the previous year, the resolution was adopted without a vote.

The third resolution, last tabled in 2009, was introduced by Indonesia. A/C.1/66/L.38 regarding the South East Asian Nuclear Weapons Free Zone (SEANWFZ), reiterates what was agreed upon in the Bangkok Treaty in 1995. This resolution upholds all of the same provisions as that Treaty, but most importantly the resolution “Welcomes the resumption of direct consultations between the States parties to the Treaty and the five

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237 Garofalo. T, Nuclear Weapon Free Zone, First Committee Monitor, Reaching Critical Will, 17 October 2011
238 Garofalo. T, Nuclear Weapon Free Zone, First Committee Monitor, Reaching Critical Will, 2 November 2011
nuclear Weapon States, and encourages the States parties to the Treaty to continue direct consultations with the five nuclear-weapon States.” 239 The resolution was adopted without a vote.

Conclusion
There has not been much progress on the issue of negative security assurances since the adoption of the 2010 NPT Action Plan. No nuclear weapon state has moved away from an existing commitment, and both the US and UK have made recent changes in the language in their defence policies concerning this issue. However, China is still the only nuclear weapon state that has made a pledge to not use nuclear weapons against a non-nuclear weapon state without any conditions or reservations. France, UK, US, and Russia still abstain from the annual GA resolution “Conclusion of effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons”. Action 8 does not include a concrete commitment by nuclear weapon states, but would still require additional effort to extend security assurances to non-nuclear-weapons states.

Although the nuclear weapon states have expressed their support for the NWFZ treaties in theory, the Tlateloco Treaty is the only one that has had its protocols signed and ratified by all five. Since the adoption of the 2010 NPT Action Plan, certain progress has taken place. Russia has ratified the Pelindaba Treaty. The US has made some minor progress in the ratification process for the Pelindaba and Rarotonga treaties by submitting the issue for approval to the Senate. The Pelindaba Treaty has also seen two new member states. The consultations between the members of the Bangkok Treaty and the nuclear weapon states is another encouraging development but has so far not been able to produce any concrete results. While the UK and US have indicated that they would be willing to discuss outstanding difficulties with the Central Asian zone, no consultations have yet taken place. There has also been progress on the discussions of establishing a WMD free zone in the Middle East, when Finland was appointed host state of a conference on this topic in 2012.

Unfortunately, no modifications of any reservations by nuclear weapon states to any of the protocols of nuclear weapon free zone treaties have taken place.

Despite encouraging signs of progress, the Russian ratification of the Pelindaba Treaty is the only concrete improvement of ratification of NWFZ by nuclear weapon states since the adoption of the 2010 NPT Action Plan. Therefore, additional efforts should be made to make further progress on action 9.

239 Garofalo. T, Nuclear Weapon Free Zone, First Committee Monitor, Reaching Critical Will, 24 October 2011
CHAPTER 5
Comprehensive Nuclear-Test-Ban Treaty

**Action 10:** All nuclear-weapon States undertake to ratify the Comprehensive Nuclear-Test-Ban Treaty with all expediency, noting that positive decisions by nuclear-weapon States would have the beneficial impact towards the ratification of the Treaty, and that nuclear-weapon States have the special responsibility to encourage Annex 2 countries, in particular those which have not acceded to the Treaty on the Non-Proliferation of Nuclear Weapons and continue to operate unsafeguarded nuclear facilities, to sign and ratify.

**Action 11:** Pending the entry into force of the Comprehensive Nuclear-Test-Ban Treaty, all States commit to refrain from nuclear-weapon test explosions or any other nuclear explosions, the use of new nuclear weapons technologies and from any action that would defeat the object and purpose of that Treaty, and all existing moratoriums on nuclear-weapon test explosions should be maintained.

**Action 12:** All States that have ratified the Comprehensive Nuclear-Test-Ban Treaty recognize the contribution of the conferences on facilitating the entry into force of that Treaty and of the measures adopted by consensus at the Sixth Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty, held in September 2009, and commit to report at the 2011 Conference on progress made towards the urgent entry into force of that Treaty.

**Action 13:** All States that have ratified the Comprehensive Nuclear-Test-Ban Treaty undertake to promote the entry into force and implementation of that Treaty at the national, regional and global levels.

**Action 14:** The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization is to be encouraged to fully develop the verification regime for the Comprehensive Nuclear-Test-Ban Treaty, including early completion and provisional operationalization of the international monitoring system in accordance with the mandate of the Preparatory Commission, which should, upon entry into force of that Treaty, serve as an effective, reliable, participatory and non-discriminatory verification system with global reach, and provide assurance of compliance with that Treaty.

**Introduction**

The Comprehensive Nuclear-Test-Ban Treaty (CTBT) was designed to prohibit nuclear test explosions in all environments. The entry in to force of the Treaty is currently dependent on eight states. While the implementation of actions 10, 11, and 14 are more measureable, actions 12 and 13 only require states parties to the CTBT to promote and facilitate entry in to force of the Treaty, something that is more a bit more difficult to quantify.
New developments for the CTBT
The Treaty has been signed by 183 states, and ratified by 155. Since the adoption of the 2010 NPT action plan, five additional states have become parties: the Central African Republic (May 2010), Trinidad and Tobago (May 2010), Ghana (May 2011), Guinea (June 2011), and Guatemala. (January 2012). In addition, on 5 December 2011, Indonesia’s parliament voted to ratify the treaty.

Countries that have not yet signed the CTBT include:
Bhutan, Cuba, the Democratic People’s Republic of Korea (DPRK), Dominica, India, Mauritius, Niue, Pakistan, Saudi Arabia, Somalia, South Sudan, Syrian Arab Republic, Tonga, Tuvalu.

Countries that have signed but not yet ratified the CTBT include:
Angola, Brunei Darussalam, Chad, China, Comoros, Congo, Egypt, Equatorial Guinea, Gambia, Guinea-Bissau, Iran, Iraq, Israel, Myanmar, Nepal, Papua New Guinea, Sao Tome and Principe, Solomon Islands, Sri Lanka, Swaziland, Thailand, Timor-Leste, United States, Yemen, Zimbabwe.

Formal entry into force of the CTBT requires that a specific group of 44 states named in Annex 2 of the Treaty ratify it. Once Indonesia’s ratification is formally approved, eight more ratifications are needed before it can enter into force: China, the Democratic People’s Republic of Korea (DPRK), Egypt, India, Iran, Israel, Pakistan, and the United States.

CTBT in the 2010 and 2011 General Assembly First Committee
In 2010, India and Egypt’s delegations expressed continued hesitation regarding CTBT ratification during First Committee. Egypt’s Ambassador Maged Abdelaziz versed vexation with the ambiguous nuclear programme of Israel, making it clear that Egypt would not ratify the Treaty without a change in Israeli policy with regard to nuclear weapons. Unlike Egypt, which indicated support for the “objectives and principles” behind the CTBT, India’s delegation only reiterated its voluntary moratorium on nuclear explosive testing.240

During the 2011 session of First Committee, the resolution “Comprehensive Nuclear-Test-Ban Treaty” (A/RES/66/64) was tabled with no substantive change from the 2010 version. Operative paragraph six, which urges all states that have not yet signed the Treaty, “in particular those whose ratification is needed for its entry into force,” to sign and ratify as soon as possible. A/RES/66/64 was adopted with a vote of 175-1-3. The Democratic People’s Republic of Korea (DPRK) voted no, while Syria, India, and Mauritius abstained. The Syrian delegation explained that it abstained because the CTBT does not require negative security assurances or nuclear disarmament, nor does it explicitly stress the illegitimacy of the use or threat of use of nuclear weapons. Meanwhile, Cuba and Iran explained that they voted in favour of the resolution but that operational paragraph (OP) 5 detracts from the resolution’s technical nature. The paragraph recalls UN Security Council resolutions 1718 (2006) and 1874 (2009), which condemn the DPRK’s nuclear tests, and reaffirms its support for the Six-Party Talks,

240 Wolkowicz J., “Nuclear Testing”, First Committee Monitoring. Reaching Critical Will, 11 October 2010
which involve China, DPRK, Japan, Republic of Korea, Russian Federation, and the United States.

Israel's delegation explained that it voted in favour but emphasized that it does not support some of the language in preamble paragraph (PP) 6 and OP1. PP6 notes that the 2010 NPT Review Conference reaffirmed the vital importance of the CTBT's entry into force. Israel's delegation argued that the CTBT and NPT are not linked and that an attempt to "force" such a linkage will damage security prospects in the Middle East. Meanwhile, OP1 stresses the urgency of ratification of the CTBT without conditions. However, Israel maintains that it wants to ensure that there is adequate coverage of the Middle East by the International Monitoring System before ratifying the Treaty. The delegation also reiterated that Israel's participation in the CTBTO's executive council must be addressed and sovereign equality ensured.241

Remaining states
Out of the eight remaining Annex II states, four are members of the NPT and agreed to the 2010 action plan.

United States
US President Bill Clinton signed the CTBT in 1996. However, in the fall of 1999 it failed Senate ratification with a vote of 51-48. In May 2011, Ms. Ellen Tauscher, Under Secretary of State for Arms Control and International Security, said that, "The Obama Administration is preparing to engage the Senate and the public on an education campaign that we expect will lead to ratification of the CTBT."242 In August 2011, the United States pledged a voluntary, in-kind contribution of $8.9m to the Preparatory Commission of the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO)243.

On 6 December 2011, US President Barack Obama welcomed Indonesia's ratification and stated "The United States remains fully committed to pursuing ratification of the Test Ban Treaty and will continue to engage members of the Senate on the importance of this Treaty to U.S. security. America must lead the global effort to prevent proliferation, and adoption and early entry into force of the CTBT is a vital part of that effort."244

Since May 2010, the US administration has begun informal briefings of Senators and staff on key technical and scientific issues related to the CTBT. Several members of the US Congress are also reported to have toured the Comprehensive Test-Ban Treaty Organization's headquarters in Vienna during the past year.245

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241 Medvedeva D., "Nuclear Testing", First Committee Monitoring, Reaching Critical Will, 2 November 2011
243 Recent changes in the IAEA safeguards regime, July-September 2011 http://www.vertic.org/media/assets/TV/TV134.pdf
245 Ibid
However, it does not appear likely that the US Senate will be able to conduct an in-depth review of the Treaty before US presidential elections in November 2012.

**China**
The 2010 white paper on China’s National Defense says, "China has strictly abided by its commitment to a moratorium on nuclear testing and has actively participated in the work of the Preparatory Commission of the Comprehensive Nuclear Test Ban Treaty Organization, and is steadily preparing for the national implementation of the Treaty. China is responsible for setting up 12 international monitoring stations and laboratories. At present, six primary seismological monitoring stations, three radionuclide stations, the Beijing Radionuclide Laboratory and the China National Data Centre have been set up, and one infrasound station is under construction." However, despite the support for the CTBT, the Chinese government has not yet initiated the ratification process.

On 19 January 2011 Chinese President Hu Jintao and US President Barack Obama in a joint statement said that "both sides support early entry into force of the CTBT."[247]

**Egypt**
In 2009, the Egyptian delegation to the General Assembly First Committee stated that it had not ratified the CTBT because doing so "would only result in widening the steep gap in commitments undertaken by States member to the NPT and States outside the Treaty which enjoy unlimited freedom in the nuclear area."[248] No change in the Egyptian position has been reported.

**Iran**
At the Fifth Conference on Facilitating the Entry into Force of the CTBT in 2007, Iran outlined a number of negative developments that “have jeopardized the prospects of entry into force of the Treaty”, lack of progress towards nuclear disarmament, upgrading and modernization of existing nuclear weapons, rejection of the CTBT by major nuclear weapon states, and acknowledgement of the possession of nuclear weapons by Israel.[249] No change in the Iranian position has been reported.

**Nuclear weapons testing and new technology**
Despite not having entered into force, the CTBT has created an international norm against nuclear weapons testing. However, subcritical nuclear tests are still taking place. A subcritical test results in no yield and is permissible under the CTBT. Subcritical tests are used to determine the physical properties of fissile materials. However, such tests can enable qualitative improvement of nuclear weapons.

On 15 September 2010, the United States Department of Energy conducted a subcritical nuclear test at the NNSS (Nevada National Security Site) facility in Nevada, formerly

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known as the Nevada Test Site\textsuperscript{250}. The experiment, which did not entail a chain reaction that would create a nuclear explosion, was the 24th subcritical test the country has conducted since 1997, and the first one since August 2006.\textsuperscript{251}

The United States and Russia are the only two countries that publicly admit to conducting these subcritical nuclear tests. However, China is believed to carry them out as well\textsuperscript{252}, and the US Department of Energy previously announced that two subcritical tests, in 2002 and 2006 at its Nevada Test Site was joint tests together with the United Kingdom.\textsuperscript{253}

**CTBT Conferences**

In September 2010, the fifth ministerial meeting of the CTBT took place in New York. Foreign ministers of 35 countries and a representative for the European Union took the opportunity to speak at this meeting. The meeting concluded with a joint ministerial statement, which reaffirmed the commitment of the parties to the CTBT and called upon the states that had not yet ratified the treaty to do so.\textsuperscript{254}

CTBT Article XIV conferences are designed to facilitate the entry into force of the CTBT. Such conferences take place every other year, with both signatory and non-signatory states as participants. Intergovernmental organizations, specialized agencies, and non-governmental organizations are invited to attend as observers. The states negotiate a joint statement, the goal of which is to urge those states that have not yet signed or ratified the treaty to do so as soon as possible.

Since the 2010 NPT action plan was adopted, one such conference has been held. In September 2011, the Conference on Facilitating the Entry in to force of the CTBT was held at the UN Headquarters in New York. There, over 70 countries participated, 24 of which were represented at the ministerial level. The conference was chaired by both the Secretary of Foreign Affairs of Mexico, Ms. Patricia Espinosa Cantellano, and the Foreign Minister of Sweden, Mr. Carl Bildt. In all, 58 states and the Secretary-General of the United Nations delivered statements on the importance of entry into force of the CTBT and reported on progress made to this end.\textsuperscript{255}

UN Secretary General Ban Ki-Moon urged each state whose ratification is needed for entry into force to act without waiting for the others. “We can no longer wait for the perfect international environment before taking advantage of existing—and potentially

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\textsuperscript{250}Kishner, A., “US conducts subcritical nuclear test”21 September 2010
\textsuperscript{251}http://www.opednews.com/articles/U-S-CONDUCTS-SUBCRITICAL-by-Andrew-Kishner-100920-795.html
\textsuperscript{252}1st subcritical nuclear test under Obama, 13 October 2010
\textsuperscript{253}http://www.istockanalyst.com/article/viewiStockNews/articleid/4577668
\textsuperscript{254}Lewis, J., “Subcritical Testing at Lop Nor, 3 April 2009,
\textsuperscript{255}http://lewis.armscontrolwonk.com/archive/2239/subcritical-testing-at-lop-nor
\textsuperscript{255}http://Ainslie, J. Beyond Arms Control, Chapter 3,
\textsuperscript{255}http://www.reachingcriticalwill.org/resources/books/BAC/chapter3.pdf
\textsuperscript{255}Joint Ministerial Statement on the CTBT, 23 September 2010,
short-lived—opportunities,” he said. States agreed to redouble their efforts to achieve the outstanding signatures and ratifications for the CTBT’s entry into force, including 10 practical measures to accelerate the ratification process and bring the Treaty into force.256

During the conference, states also unanimously commended the progress in establishing the CTBT verification regime that is designed to monitor the entire globe to ensure that no nuclear explosion goes undetected. More than 85% of all monitoring facilities are already operational. The Conference adopted a Final Declaration unanimously, in which over 160 countries appealed to hold-out states to join the CTBT. The declaration was also endorsed by 70 signatory states.257 The declaration also welcomed progress towards universalization of the Treaty and recognized the significance of the ratifications that had taken place since the 2009 conference.

In addition, Japan, Australia, and the Netherlands have organized the first “Friends of the CTBT” Foreign Ministers’ meeting on the margins of the UN General Assembly in New York in 2002.258 The aim of this meeting was to sustain and generate further political momentum as well as public attention for the entry into force of the Treaty.

Verification
Pending the entry into force of the Treaty, the Preparatory Commission of the CTBTO is establishing a verification regime to detect nuclear explosions anywhere on the globe. This regime includes a global network of 285 operational monitoring facilities, which send data for analysis in Vienna, and an on-site inspection system, where the data are processed and analysed and then transmitted to the member states. Requests for on-site inspections must be approved by at least 30 affirmative votes of members of the Treaty’s 51-member Executive Council. The Executive Council must act within 96 hours of receiving a request for an inspection.

Following the tsunami, earthquake, and the nuclear power plant catastrophe in Japan in March 2011, the CTBTO shared data with several international organizations and over 120 member states and 1200 institutions to help distribute information on the levels and dispersion of radioactivity after the accident.259 However, this information was not shared with the general public in Japan or elsewhere, due to internal restrictions on data sharing.

From 28 November to 9 December 2011, over 60 participants including International Monitoring System (IMS) station operators, National Data Centre staff, diplomats, academics, and members of civil society attended the Advanced Science Course on the

256 Urgent Calls by International leaders to bring test ban treaty in force, 23 September 2011
257 Final Declaration, Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty, New York, 23 September 2011
258 http://www.ctbto.org/the-treaty/ctbt-ministerial-meeting
259 Ryoji Sakai, Exercising the CTBTO’s on-site inspectors, 25 November, 2011
verification technologies of the CTBT. An average of 70 followed the course online. In total, participants from more than 100 different countries followed the event.260

The CTBTO Preparatory Commission lists several key challenges for the completion of the verification regime. For example, stations intended for India and Pakistan cannot be started until these two countries sign the CTBT.261

**Conclusion**

There are still four member states of the NPT that need to ratify the CTBT for the Treaty to entry into force: China, Egypt, Iran, and the United States. These four countries are not complying with action 10 of the NPT 2010 Action Plan. In addition, there are 31 other members of the NPT that also have not yet signed or ratified the CTBT. Therefore, action 10 cannot be considered implemented until NPT states parties have made more progress on this issue.

China and the United States have a special responsibility since they are the only nuclear weapons states under the NPT that have not yet ratified the treaty. Both states have made clear their intention to ratify the CTBT since the NPT Review conference in 2010, but have no concrete timetable for when this will happen. In addition, the United States continues to improve its nuclear stockpile through subcritical testing and other means. While according to the phrasing in action 11, no test have been conducted and therefore is being complied with, subcritical testing and modernization of nuclear weapon stockpiles (see Chapter 2) are able to undermine the CTBT’s stated objectives of disarmament and prevention of further nuclear weapon modernization.

Actions 12 and 13 deal with measures by member states that have already ratified the Treaty. Many member states participated in the Ministerial Meeting in September 2010 and the Article XIV Conference in September 2011 and repeatedly call for the entry into force of the CTBT. However, it is not clear to what extent these states promote entry into force in bilateral relations with the remaining annex II states. The verification scheme of the CTBT is continuing to be developed by the Preparatory Commission to the CTBTO and therefore action 14 is also considered to be complied with.

CHAPTER 6
Fissile Material

**Action 16:** The nuclear-weapon States are encouraged to commit to declare, as appropriate, to the International Atomic Energy Agency (IAEA) all fissile material designated by each of them as no longer required for military purposes and to place such material as soon as practicable under IAEA or other relevant international verification and arrangements for the disposition of such material for peaceful purposes, to ensure that such material remains permanently outside military programmes.

**Action 17:** In the context of action 16, all States are encouraged to support the development of appropriate legally binding verification arrangements, within the context of IAEA, to ensure the irreversible removal of fissile material designated by each nuclear-weapon State as no longer required for military purposes.

**Action 18:** All States that have not yet done so are encouraged to initiate a process towards the dismantling or conversion for peaceful uses of facilities for the production of fissile material for use in nuclear weapons or other nuclear explosive devices.

**Introduction**

The actions in this chapter are directed at the handling of converted weapons-grade fissile material into peaceful use. Like many of the other actions, states are “encouraged” to act but no concrete measures are proposed within the actions themselves.

For most of these actions we have relied on the annual reports produced by the International Panel of Fissile Material (IPFM). Unfortunately the nuclear weapon states (NWS) do not provide annual updated figures of their fissile material stockpiles and some have never released any information on these stocks. As we stated in the first monitoring report on *peaceful uses of nuclear energy*, separating civil and military use of fissile material is difficult and a lot of the information is confidential.

**Declaration of civilian fissile material**

The nuclear weapon states have made available some quantitative information about their inventories of civilian fissile materials. In 1997, as part of an initiative aimed at "increasing the transparency and public understanding of the management of plutonium," nine countries (Belgium, China, France, Germany, Japan, Russia, Switzerland, the United Kingdom, and United States) began to declare their stocks of civilian plutonium annually to the International Atomic Energy Agency (IAEA). These declarations (INFCIRC/549) are available to the public on the IAEA website. The United Kingdom and France added civilian highly enriched uranium (HEU) to their declarations, while the United States, Russia, and China only declared their civilian stocks of plutonium.
## France

**Annual figures for holdings of civil unirradiated plutonium**

<table>
<thead>
<tr>
<th>Description</th>
<th>As of 31 December 2009</th>
<th>As of 31 December 2010</th>
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<tbody>
<tr>
<td>Unirradiated separated plutonium in product stores at reprocessing plants</td>
<td>47.1 tons</td>
<td>47.0 tons</td>
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<tr>
<td>Unirradiated separated plutonium in the course of fabrication</td>
<td>6.8 tons</td>
<td>5.5 tons</td>
</tr>
<tr>
<td>Plutonium contained in unirradiated MOX fuel</td>
<td>27.2 tons</td>
<td>27.1 tons</td>
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<tr>
<td>Unirradiated separated plutonium at other facilities</td>
<td>0.7 tons</td>
<td>0.6 tons</td>
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**Estimated amounts of plutonium contained in spent civil reactor fuel**

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<th>Description</th>
<th>As of 31 December 2009</th>
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<tr>
<td>Plutonium contained in spent fuel at civil reactor sites</td>
<td>100.3 tons</td>
<td>104.6 tons</td>
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<tr>
<td>Plutonium contained in spent fuel at reprocessing plants</td>
<td>129.6 tons</td>
<td>133.2 tons</td>
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<tr>
<td>Plutonium contained in spent fuel held at facilities other than those stated in lines 1 and 2 above</td>
<td>6.6 tons</td>
<td>6.4 tons</td>
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**Annual figures for holdings of civil highly enriched uranium**

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<tr>
<td>Unirradiated HEU at fuel fabrication of processing plants</td>
<td>1017 tons</td>
<td>979 tons</td>
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<tr>
<td>Unirradiated HEU at civil reactor sites</td>
<td>1816 tons</td>
<td>1845 tons</td>
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<tr>
<td>Unirradiated HEU not located at enrichment plants, fuel fabrication or civil reactors</td>
<td>433 tons</td>
<td>423 tons</td>
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<tr>
<td>Irradiated HEU at civil reactor sites</td>
<td>143 tons</td>
<td>174 tons</td>
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<tr>
<td>Irradiated HEY held at locations other than civil reactor sites</td>
<td>1441 tons</td>
<td>1217 tons</td>
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## United States

**Annual figures for holdings of civil unirradiated plutonium**

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<th>Description</th>
<th>As of 31 December 2009</th>
<th>As of 31 December 2010</th>
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<tr>
<td>Unirradiated separated plutonium in product stores at reprocessing plants</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unirradiated separated plutonium in the course of fabrication</td>
<td>&lt;0.05 tons</td>
<td>&lt;0.05 tons</td>
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262 INFCIRC/549/Add.5/15  
263 INFCIRC/549/Add.5/15  
264 INFCIRC/549/Add.5/15  
265 INFCIRC/549/Add.6/14
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<th>course of manufacture or fabrication</th>
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<tr>
<td>Plutonium contained in unirradiated MOX fuel</td>
<td>4.6 tons</td>
<td>4.6 tons</td>
</tr>
<tr>
<td>Unirradiated separated plutonium at other facilities</td>
<td>49.3 tons</td>
<td>49.3 tons</td>
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Estimated amounts of plutonium contained in spent civil reactor fuel

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<th>As of 31 December 2009</th>
<th>As of 31 December 2010</th>
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<tr>
<td>Plutonium contained in spent fuel at civil reactor sites</td>
<td>520 tons</td>
<td>542 tons</td>
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<td>Plutonium contained in spent fuel at reprocessing plants</td>
<td>0 tons</td>
<td>0 tons</td>
</tr>
<tr>
<td>Plutonium contained in spent fuel held at facilities other than those stated in lines 1 and 2 above</td>
<td>12 tons</td>
<td>12 tons</td>
</tr>
</tbody>
</table>

**China**

Annual figures for holdings of civil unirradiated plutonium

<table>
<thead>
<tr>
<th></th>
<th>As of 31 December 2009</th>
<th>As of 31 December 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unirradiated separated plutonium in product stores at reprocessing plants</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unirradiated separated plutonium in the course of manufacture or fabrication</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Plutonium contained in unirradiated MOX fuel</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unirradiated separated plutonium at other facilities</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**United Kingdom**

Annual figures for holdings of civil unirradiated plutonium

<table>
<thead>
<tr>
<th></th>
<th>As of 31 December 2009</th>
<th>As of 31 December 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unirradiated separated plutonium in product stores at reprocessing plants</td>
<td>107.7 tons</td>
<td>110.3 tons</td>
</tr>
<tr>
<td>Unirradiated separated plutonium in the course of fabrication</td>
<td>1.3 tons</td>
<td>1.4 tons</td>
</tr>
<tr>
<td>Plutonium contained in unirradiated MOX fuel</td>
<td>2.1 tons</td>
<td>2.1 tons</td>
</tr>
<tr>
<td>Unirradiated separated plutonium at other facilities</td>
<td>0.9 tons</td>
<td>1.0 tons</td>
</tr>
</tbody>
</table>

Estimated amounts of plutonium contained in spent civil reactor fuel

<table>
<thead>
<tr>
<th></th>
<th>As of 31 December 2009</th>
<th>As of 31 December 2010</th>
</tr>
</thead>
</table>

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266 INFCIRC/549/Add.6/14
267 INFCIRC/549/Add.7/10
268 INFCIRC/549/Add.8/14
269 INFCIRC/549/Add.8/14
| Plutonium contained in spent fuel at civil reactor sites | 8 tons | 8 tons |
| Plutonium contained in spent fuel at reprocessing plants | 26 tons | 25 tons |
| Plutonium contained in spent fuel held at facilities other than those stated in lines 1 and 2 above | Less than 500 kg | Less than 500 kg |

**Annual figures for holdings of civil highly enriched uranium**

<table>
<thead>
<tr>
<th></th>
<th>As of 31 December 2009</th>
<th>As of 31 December 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEU stored at enrichment plants</td>
<td>0 kg</td>
<td>0 kg</td>
</tr>
<tr>
<td>HEU at fabricating plants or at other reprocessing facilities</td>
<td>346 kg</td>
<td>346 kg</td>
</tr>
<tr>
<td>HEU at civil reactor site</td>
<td>0 kg</td>
<td>0 kg</td>
</tr>
<tr>
<td>HEU at locations other than civil reactor sites, enrichment fabricating and reprocessing plants</td>
<td>916 kg</td>
<td>912 kg</td>
</tr>
<tr>
<td>Irradiated HEU held at civil reactor sites</td>
<td>10 kg</td>
<td>10 kg</td>
</tr>
<tr>
<td>Irradiated HEU held at other sites sites</td>
<td>131 kg</td>
<td>131 kg</td>
</tr>
</tbody>
</table>

**Russia**

**Annual figures for holdings of civil unirradiated plutonium**

<table>
<thead>
<tr>
<th></th>
<th>As of 31 December 2009</th>
<th>As of 31 December 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unirradiated separated plutonium in product stores at reprocessing plants</td>
<td>46.3 tons</td>
<td>47 tons</td>
</tr>
<tr>
<td>Unirradiated separated plutonium in the course of fabrication</td>
<td>0 kg</td>
<td>0 kg</td>
</tr>
<tr>
<td>Plutonium contained in unirradiated MOX fuel</td>
<td>0.3 tons</td>
<td>0.3 tons</td>
</tr>
<tr>
<td>Unirradiated separated plutonium at other facilities</td>
<td>1.1 tons</td>
<td>1.1 tons</td>
</tr>
</tbody>
</table>

**Estimated amounts of plutonium contained in spent civil reactor fuel**

<table>
<thead>
<tr>
<th></th>
<th>As of 31 December 2009</th>
<th>As of 31 December 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plutonium contained in spent fuel at civil reactor sites</td>
<td>71 tons</td>
<td>73 tons</td>
</tr>
<tr>
<td>Plutonium contained in spent fuel at reprocessing plants</td>
<td>4 tons</td>
<td>4 tons</td>
</tr>
<tr>
<td>Plutonium contained in spent fuel held at facilities other than those stated in lines 1 and 2 above</td>
<td>47 tons</td>
<td>49 tons</td>
</tr>
</tbody>
</table>

Since 1997, the stockpile of civilian plutonium has increased by almost 100 tons - from 156.1 tons in 1996 to 255.5 tons in 2010, without including the weapons plutonium.

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270 INFCIRC/549/Add.8/14
271 INFCIRC/549/Add.9/13
272 INFCIRC/549/Add.9/13
declared excess by the United States and Russia.

Verification of fissile material for nuclear weapon states
Since the five nuclear weapons states—China, France, Russia, United Kingdom, and United States—they are not required by the NPT to accept safeguards, special safeguards agreements have been established. The so-called Voluntary Offer Safeguard Agreements (VOAs) between the IAEA and a nuclear weapon state usually follow the format of INFCIRC/153 (Corr1) but vary in the scope of materials and facilities covered. They also include the possibility of withdrawing materials and facilities from safeguards for national security reasons.273 Nevertheless, since the IAEA’s safeguards budget is limited and the agency considers inspections in nuclear weapon states to be primarily of symbolic value, there have been relatively few inspections.

There have been no reported changes in the application of VOAs in the nuclear weapon states since May 2010.

Between 1996 and 2002, the Russian Federation, the United States, and the IAEA launched the Trilateral Initiative. This initiative was dedicated to investigating the technical, legal, and financial issues associated with IAEA verification of fissile material determined to be excess to military purposes. Included in the Trilateral Initiative were discussions on a possible legal instrument through the VOAs.274 Since the end of 2002, when the Bush administration made clear that the US would withdraw its participation,275 no significant steps have been taken to put the Trilateral Initiative, or any similar agreements, into action.

There has been no reported news concerning this Initiative since May 2010.

Development of a legally-binding treaty on fissile material
The most extensive debate concerning legally-binding verification of fissile material involve the potential negotiation of a fissile materials (cut-off) treaty (FM[C]T). Many states have long been calling for a ban on the production of fissile material for weapons purposes. The issue has been on the international agenda since 1957 as well as on the proposed programme of work of the Conference on Disarmament (CD) for many years. In December 1993, the UN General Assembly adopted by consensus resolution 48/75 recommending the negotiation of a non-discriminatory, multilateral, internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices. Since then, the immediate commencement and early conclusion of FM(C)T negotiations in the CD has been endorsed by all states party to the NPT at the 1995, 2000, 2005, and 2010 NPT Review Conferences. However, an FM(C)T would most likely only cover future production of fissile material for weapons purposes, and not the huge existing stockpiles. Any verification mechanism of such a treaty would therefore not be able to ensure the irreversible removal of fissile material designated by each nuclear-weapon state as no longer required for military

purposes.

The Non-Proliferation and Disarmament Initiative (NPDI), composed of Australia, Canada, Chile, Germany, Japan, Mexico, the Netherlands, Poland, Turkey, and the United Arab Emirates, developed a paper on the effective verification of an FMCT in April 2011. This paper lists questions addressed by scientific experts. The NPDI believe that the establishment of an expert group with the assignment to examine technical aspects of an FM(C)T could facilitate and contribute to the start of negotiations.276

### Dismantling of production facilities for fissile material for military use

Pending the negotiations of an FM(C)T, most nuclear weapon states adhere to a moratorium on production of fissile material for military use. Most facilities for producing fissile materials for weapons in the five NPT weapon states are therefore shut down and, in some cases, are in the process of being decommissioned. However, this is not verified. Only France has invited international experts to visit the dismantling of its former fissile material facilities at Pierrelatte and Marcoule.

The production of fissile materials for weapons in Russia ended in 1994. Ten out of Russia’s thirteen plutonium production reactors were shut down by 1992. The three remaining reactors operated exclusively to generate heat and electricity for nearby cities, but they produced as a by-product some 1.2 tons of weapons-grade plutonium per year. Since the fuel discharged from these reactors is not designed for extended storage, it has been repro-cessed, but the separated plutonium was stored. Newly separated plutonium has not been used for nuclear weapons since 1994.277

The United States has a number of shut-down reprocessing facilities, including Nuclear Fuel Services’ West Valley plant near Buffalo, New York, a plant near Morris, Illinois, a PUREX reprocessing plant in Hanford, Washington was shut down in 1989, the Idaho Chemical Processing Plant, and the Savannah River Plant.278

While China has not declared officially that it has ended HEU and plutonium production for weapons, based on new public information, it is believed that China stopped production of HEU in 1987 and of plutonium by about 1990. All its previous military production facilities have been closed, converted, or are being decommissioned.279

### Conclusion

No significant changes after the 2010 NPT action plan have been adopted. Declarations of stockpiles are continuing as before, with the United States, Russia, and China are not declaring their stockpiles of civilian fissile materials as the French and British government do. At the same time, there are no current discussions on developing a legally-binding verification arrangement within the context of IAEA, to ensure the

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276 “Berlin statement by Foreign Ministers on nuclear disarmament and non-proliferation, Conference on Disarmament CD/1908, 17 May 2011;  
277 International Panel on Fissile Material, Country Perspectives on FMCT, p 42  
278 International Panel on Fissile Material, Country Perspectives on FMCT, p 60  
irreversible removal of fissile material designated by each nuclear weapon state. Therefore, actions 16 and 17 are not fully implemented. However, since a moratorium on production of fissile material for weapons purposes has been announced by four of the five nuclear weapon states, most production facilities have been dismantled. While not publicly declaring such moratorium, China is also believed to have stopped production of fissile material for weapons purposes and have closed or converted such facilities. Therefore, action 18 is currently being implemented.
CHAPTER 7
Disarmament Education

**Action 22:** All States are encouraged to implement the recommendations contained in the report of the Secretary-General of the United Nations (A/57/124) regarding the United Nations study on disarmament and non-proliferation education, in order to advance the goals of the Treaty in support of achieving a world without nuclear weapons.

Disarmament education

In 2002, the UN General Assembly unanimously adopted 34 recommendations in the UN Study on Disarmament and Non-Proliferation Education (A/57/124), after a group of governmental experts concluded its work on the subject. The Secretary-General issues a report on the implementation of these recommendations biennially. Unfortunately, not many member states contribute to the report. In July 2010, the latest biennial report on this subject was released (A/65/160). Only five countries submitted information on their activities: Burkina Faso, Japan, Mexico, Ukraine, and Spain. The previous report was released in 2008 and included submitted information from six countries: Colombia, Italy, Mauritius, Netherlands, Qatar, and Spain (A/63/158). The number of states that submit this kind of information has therefore decreased, despite the increasing importance of disarmament education. It is beyond the scope of this report to examine each member state’s implementation of the 34 recommendations, so in this section we have focused on highlighting the countries that are engaging in concrete disarmament education initiatives. In July 2012, the next biannual report from the Secretary-General on the implementation of his recommendations will be released. Hopefully this will show an increase in the implementation of the 34 recommendations.

Japan

Historically, Japan has been very active in its disarmament education advocacy as well as a consistent promoter of the implementation of the UN Study on Disarmament and Non-Proliferation Education at the international level.

During the 2010 session of the UN General Assembly First Committee, the Japanese delegation highlighted the fact that the outcome document of the 2010 nuclear Non-Proliferation Treaty (NPT) Review Conference included for the first time a reference to the importance of disarmament and non-proliferation education as a useful and effective means to advance the goal of a world without nuclear weapons. Ambassador Suda of Japan also noted that the outcome document’s action plan encouraged all states to implement the recommendations contained in the UN study.

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280 Fihn, B. “Disarmament education”, First Committee Monitoring, Reaching Critical Will, 2 November 2010
http://www.reachingcriticalwill.org/political/1com/FCM10/final.html#education

Japan and the United Nations University (UNU) submitted a working paper to the 2010 NPT Review Conference that encouraged cooperation between governments and civil society on relevant education initiatives. Japan and UNU indicated they would “initiate dialogue” to this end, leading to a “global forum that brings together civil society and Governments, compiles best practices and ideally produces a declaration and a joint plan for capacity-building for enhanced disarmament and non-proliferation education.” Ambassador Suda of Japan announced to First Committee 2010 that Japan and the UNU intend to hold this forum in March 2011 in Japan.282

During the final week of First Committee in 2011, Japan hosted a side event where Special Communicators for a World without Nuclear Weapons spoke for the first time in their new role. The Special Communicators status has been thus far given to hibakusha (atomic bomb survivors) in recognition of their work for nuclear disarmament. Recognizing the importance of the atomic bomb survivors in educating the public about the realities of nuclear war, that same day the General Assembly adopted the resolution that Japan had tabled on Disarmament Education.283

**Mexico**

At the General Assembly in 2010, Pablo Arrocha of Mexico also highlighted the importance of the Secretary-General’s study, arguing that disarmament education is important in order to inform citizens and provide them with the skills to work with their governments on such topics. The Mexican delegation also called upon all states to implement the 34 recommendations from the UN study and highlighted the need for coordination among competent bodies within the UN system, the international community, and civil organizations.284

**General Assembly resolutions**

In October 2010, First Committee took action on two biannual resolutions on disarmament education: “United Nations study on disarmament and non-proliferation education” (A/C.1/65/L.53) and “United Nations Information Programme” (A/C.1/65/L.52). Neither of these resolutions contained any substantial changes from 2008 and both were adopted by consensus, as they were again by the General Assembly in December 2010. While education is not a controversial topic compared to others during the First Committee, implementation of these resolutions is still limited. The resolution on the UN study on disarmament and non-proliferation education had 35 co-sponsors but only five states—Burkina Faso, Japan, Mexico, Spain, and Ukraine—submitted reports on their implementation to the UN Secretary-General.

**Conclusion**

The reporting of implementation of the Secretary-General’s recommendations on disarmament education has proven to be poor, with only five states submitting information as of 2010. Despite this limited participation from member states, increased work on disarmament education is still taking place. According to the UN Secretary-

282 The Forum was cancelled due to the earthquake that hit Japan on 11 March 2011
General, there was an overwhelming response from international organizations and civil society on the implementation of the 34 recommendations contained in the UN study. Nine UN and other international and regional organizations, as well as 20 non-governmental organizations, submitted reports on their efforts to promote and carry out disarmament education.

In order for this action to be implemented, NPT states parties must undertake significant improvements of their disarmament education efforts.