

**TOWARDS NPT 2005:  
AN ACTION PLAN FOR THE 13 STEPS**

**A POSITION PAPER**

**Prepared for Middle Powers Initiative  
Strategy Consultation**

**United Nations, New York, April 29-May 1, 2001**

*Revised May 2001*

## **Strategy Consultation:**

### **“Towards NPT 2005: An Action Plan for the 13 Steps”**

**April 29 – May 1, 2001**

### **Sponsored by the Middle Powers Initiative**

This report was written in preparation for a Strategy Consultation, “Towards NPT 2005: An Action Plan for the 13 Steps,” which MPI will hold at the United Nations, New York April 29-May 1, marking the first anniversary of the 2000 NPT Review Conference. At this Consultation, representatives of the UN Department for Disarmament Affairs, key governments, and disarmament NGOs assessed progress made on each of the 13 steps; analyzed obstacles in the way of progress; and identified and prioritized directions for action to advance nuclear disarmament. Shortly after the Consultation the report was modified by its author in order to reflect additional valuable ideas that came out of the discussion.

A final Consultation Report will be published and distributed widely to governments, NGOs, and the public. Its purpose will be to affect nuclear weapon policy decisions made by the nuclear weapon states, in particular the forthcoming US Nuclear Posture Review and NATO nuclear policy; to contribute to the thinking of leading middle power countries in their disarmament efforts vis-a-vis the nuclear weapon states; and to recommend where advocacy and support from NGOs and the public can best be directed. It will be available at the MPI website, <http://www.middlepowers.org>.

*This Report has been prepared at the request of the Middle Powers Initiative by the Center for Nonproliferation Studies (CNS) at the Monterey Institute of International Studies (MIIS). The Report was prepared by Tariq Rauf and has benefitted from comments by Lawrence Scheinman, William C. Potter, Senator Douglas Roche, Robert Green and Nikolai Sokov. The views expressed in this Report do not necessarily represent those of the Directors, Staff or funders of either the CNS or MIIS; nor do they necessarily represent consensus views of the individuals associated with its preparation. The author of the Report remains responsible for its contents.*

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*In some countries, “thirteen” is an unlucky number. This does not, however, provide any grounds for one to assume a dismal future for the 13 “practical steps” toward global nuclear disarmament agreed at the 2000 NPT Review Conference. Let us be clear about the function of these steps: they exist for purposes of public accountability. If words alone were sufficient to guarantee the achievement of global nuclear disarmament, there would have been no need to have any such steps. The challenge ahead for the disarmament community is to see these steps through to their full implementation. This will not be easy, since there is a risk – if not a likelihood – that some countries may attempt to exploit ambiguities in the drafting of these steps to escape accountability.<sup>1</sup>*

**Jayantha Dhanapala (Under-Secretary General for Disarmament)**

## **Executive Summary**

This Report assesses the relevance and importance of the thirteen “practical steps for the systematic and progressive efforts to implement Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons...” agreed by consensus at the 2000 NPT Review Conference. This initial assessment comes nearly a year after the conclusion of that precedent setting NPT review conference and is directed at providing some guidance with respect to: (1) how each “step” contributes to overall progress in achieving nuclear disarmament; (2) the present state of play with respect to each “step” and the impediments, if any, preventing it’s implementation; and (3) recommendations for action on each “step”, in a manner that contributes to moving the nuclear disarmament agenda forward as agreed at the 2000 NPT review conference. The Report concludes that scant progress has been achieved in the implementation of the agreed “practical steps” and that the prospects for future progress appear bleak, at least in the short-term, and recommends ways and means for improving implementation.

## Summary of the 13 Steps and Recommendations for Implementation

**1. *The importance and urgency of signatures and ratifications, without delay and without conditions and in accordance with constitutional processes, to achieve the early entry into force of the Comprehensive Test Ban Treaty.***

- < **The US' allies and civil society must consider persistent and strong representation in Washington in favour of bipartisan support for the CTBT, its early ratification, and continuation of funding support for the establishment of the International Monitoring System (IMS).**
- < **Among the goals for the second conference on facilitating the entry-into-force of the CTBT, must be a consensus agreement reiterating unconditional ratification of the CTBT, continuation of testing moratoria, and unilateral entry-into-force for those countries that have already ratified the treaty.**
- < **The ratification situation should also be assessed at the 2002 session of the Preparatory Committee for the 2005 NPT Review Conference.**
- < **Financial and diplomatic support to the Preparatory Commission of the CTBT Organization (CTBTO) must continue unabated in order to enable the completion of the IMS and the International Data Centre (IDC), in order to enhance confidence in the verifiability of the CTBT.**
- < **Pending the entry-into-force of the Treaty, nuclear-weapon capable non-signatories and non-parties must be encouraged to maintain testing moratoria.**
- < **The five nuclear-weapon states could consider confidence-building and transparency measures at their national test sites to facilitate the verification of the Treaty.**
- < **And, questions regarding the verifiability of the CTBT must be countered – the Treaty is verifiable.**

**2. *A moratorium on nuclear weapon-test-explosions or any other nuclear explosions pending entry into force of that Treaty.***

- < **All NPT member states, including the nuclear-weapon states, are politically bound by the provisions of the Final Document of the 2000 NPT Review Conference. That document calls for a moratorium on all nuclear explosions pending the EIF of the CTBT. This commitment should be reiterated through a specific UNGA resolution this year, followed by similar resolutions in all years pending the CTBT's EIF**
- < **The next conference on facilitating the EIF of the CTBT, to be held on 25-27 September 2001 in accordance with the provisions of Article XIV of that Treaty, should also reiterate a similar restraint.**
- < **All states should commit to the implementation of UNSCR 1172 that *inter alia* calls for a testing moratorium by India and Pakistan and also by all other states.**

***3. The necessity of negotiations in the Conference on Disarmament on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices in accordance with the statement of the Special Coordinator in 1995 and the mandate contained therein, taking into consideration both nuclear disarmament and nuclear non-proliferation objectives. The Conference on Disarmament is urged to agree on a programme of work which includes the immediate commencement of negotiations on such a treaty with a view to their conclusion within five years.***

- < Pending the CD being able to agree on a work programme, alternative approaches to facilitating the eventual negotiation of a FMCT could be explored.
- < First, the nuclear-weapon states should be urged to maintain their production moratoria and to consider voluntary transparency measures.
- < Second, the nuclear-weapon states should be urged to consult with one another with a view to establishing a voluntary transparency and accountability regime.
- < Third, India, Israel and Pakistan need to be encouraged to announce production moratoria and to halt all further production of weapon-usable fissile material.
- < Fourth, technical and scientific seminars could be arranged on the margins of the CD to discuss in preliminary terms, issues relating to scope, definitions, transparency and accountability, and verification.
- < Efforts must continue at the CD to break the impasse and to reach agreement on a work programme, leading to the establishment of an ad hoc committee with a negotiating mandate to conclude a FMCT within five years, preferably before the end of 2005.

***4. The necessity of establishing in the Conference on Disarmament an appropriate subsidiary body with a mandate to deal with nuclear disarmament. The Conference on Disarmament is urged to agree on a programme of work which includes the immediate establishment of such a body.***

- < The mandate contained in CD/1624 would need to be revised or adjusted.
- < Technical and political seminars on the margins could address issues of scope, definitions, verification and negotiating approaches pending agreement on a work programme.
- < An international conference on nuclear dangers, as proposed by the UN Secretary-General, could be helpful in bringing nuclear disarmament matters to a deliberative forum and possibly contribute to raising the public profile for action and involvement by civil society.

***5. The principle of irreversibility to apply to nuclear disarmament, nuclear and other related arms control and reduction measures.***

- < The irreversibility principle should apply particularly to the 1991 US/Russia unilateral reductions and dismantlements of non-strategic nuclear weapons, as well as systems covered by the START agreements, systems removed from service by France and the UK, and all weapon-usable fissile material recovered from dismantled warheads.**
- < The next steps in nuclear disarmament could be based on some appropriate mix of unilateral and bilateral reduction and stability measures that need to be made irreversible. It must be made abundantly clear to the new Bush administration that a fundamental pre-requisite for promoting nuclear non-proliferation is continuing irreversible progress in strategic arms reductions.**
- < Irreversibility could also be taken to mean that existing bilateral treaties such as INF, ABM and START I and II, as well as unilateral measures undertaken to date, will not be repudiated or reversed.**
- < China should be encouraged to adopt this principle as well. And India, Israel and Pakistan too could be encouraged to consider this principle.**

***6. An unequivocal undertaking by the nuclear-weapon states to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States parties are committed under Article VI.***

- < It is important for the non-nuclear-weapon states to continue to advance their interpretation regarding the meaning of the “unequivocal undertaking” through UN resolutions, summit statements, statements at the CD and NPT fora. This matter should be revisited during the forthcoming PrepCom sessions with a view to placing more definitive interpretations on the record.**
- < Furthermore, the merits should be considered for submitting the nuclear disarmament portions of the 2000 and 1995 documents to the ICJ for an advisory opinion.**

***7. The early entry into force and full implementation of START II and the conclusion of START III as soon as possible while preserving and strengthening the ABM Treaty as a cornerstone of strategic stability and as a basis for further reductions of strategic offensive weapons, in accordance with its provisions.***

- < Calls must continue to be made to bring about the full ratification and implementation of START II by both the US and Russia.**
- < The allies and other states should continue to insist on the early conclusion of a START III agreement.**
- < There needs to be a discussion between the US and Russia to reach a common**

understanding on the meaning and requirement of the concept of “strategic stability” that builds upon the Cologne Summit statement and provides clarity with respect to the meaning of this concept as it is referred to in the 2000 NPTRC Final Document.

***8. The completion and implementation of the Trilateral Initiative between the United States of America, the Russian Federation and the International Atomic Energy Agency.***

- < Both the Bush Administration and the Putin government should be encouraged to continue with their activities to facilitate the conclusion and implementation of the Trilateral Initiative.
- < The US Administration should be encouraged to maintain the financial commitments under the CTR and other programmes to secure weapon-usable fissile materials in Russia and the other former Soviet states, as well as to the fulfillment of the Trilateral Initiative.
- < Pending the conclusion of the model verification agreement under the Trilateral Initiative, both the US and Russia should consider placing additional quantities of excess weapons fissile material under IAEA safeguards, and to allow for trial visits and inspections as confidence-building measures.

***9. Steps by all the nuclear-weapon States leading to nuclear disarmament in a way that promotes international stability, and based on the principle of undiminished security for all.***

- < It must be emphasized that by definition all nuclear disarmament measures, that lead to fewer weapons, lowered alert status, enhanced accountability, increased restraint, promote compliance with existing agreements, enhance confidence, and contribute to the overall goal of achieving nuclear disarmament, promote international stability and undiminished security for all.
- < The NWS must not utilize narrowly construed or self-serving formulations to delay the implementation of any of the thirteen steps.

***9A. Further efforts by the nuclear-weapon States to reduce their nuclear arsenals unilaterally.***

- < Other measures could include unilateral de-alerting and/or de-activation of weapons.
- < In the current context, both the US and Russia should be encouraged to unilaterally stand down those systems slated for elimination under START II.
- < The US and Russia should be encouraged to implement additional steps, such as unilaterally reducing operational strategic systems to the levels currently envisaged under a future START III. Russia and the US could consider further unilateral cuts in non-strategic nuclear weapons, including unilateral declarations of inventories (deployments, storages, dismantlements) of this class of weapons.
- < Despite the convenience and speed of unilateral measures, these should not

substitute for further continuing reductions and dismantlements as part of a negotiated START process; rather unilateral measures should complement and supplement an expanded and fast-track START process.

- < The UK and France could also contemplate further unilateral reductions.
- < China ought to be encouraged to unilaterally retire older designs of its nuclear weapons.
- < In addition, nuclear-weapon capable states—India, Israel and Pakistan—should be encouraged to implement unilateral limits on weaponization, ballistic missiles and transparency measures.

**9B. *Increased transparency by the nuclear-weapon States with regard to their nuclear weapons capabilities and the implementation of agreements pursuant to Article VI and as a voluntary confidence-building measure to support further progress on nuclear disarmament.***

- < Efforts should be re-dedicated to craft the modalities of additional transparency measures such as annual declarations of nuclear weapon and weapon-usable fissile material inventories of the nuclear-weapon states, as well as of delivery systems.
- < Such transparency measures should also be undertaken in the context of the NPT review process leading to declarations at PrepCom sessions and at review conferences.
- < The review process could help establish a standardized format for the nuclear-weapon states to report their progress in nuclear arms reductions, implemented as a result of unilateral and/or negotiated initiatives.
- < The model established by the US to have a senior official provide a briefing on nuclear weapon matters at NPT and other UN fora is a welcome and useful development. The other nuclear-weapon states should be encouraged to arrange for similar briefings.
- < The NWS should be encouraged to support a database on their respective nuclear weapon holdings, to be maintained by the UN Department for Disarmament Affairs.

**9C. *The further reduction of non-strategic nuclear weapons, based on unilateral initiatives and as an integral part of the nuclear arms reduction and disarmament process.***

- < Security would be enhanced if steps were taken to reaffirm and to codify the 1991 Bush-Gorbachev declarations and to agree on a framework on data exchanges covering numbers and locations of non-strategic nuclear warheads, monitored central storage, and warhead deactivation and dismantlement.
- < Both the United States and the Russian Federation should be encouraged take steps to withdraw all non-strategic nuclear weapons from Europe—i.e. the area from the Atlantic to the Urals—and further to consider the complete prohibition of this class of weapon, perhaps in the framework of START III or a separate regime.



- < **Both the US and Russia should agree on transparency and accountability measures for this category of nuclear weapons—these include data exchanges on holdings and status of the weapons; removal of all non-strategic nuclear weapons to secure storage with no movement outside of storage without advance notification; and a commitment for a no-increase in numbers deployed.**
- < **Russia should be encouraged to modify its policy regarding nuclear weapons in the context of CANWFZ and facilitate the establishment of that NWFZ.**
- < **Non-strategic weapons should be included in the framework of START III negotiations.**
- < **Should START III be delayed, the US and Russia should conclude an interim bilateral agreement on non-strategic nuclear weapons, codifying their 1991 initiatives and including a pledge for a no-increase in numbers, and no redeployments.**
- < **As recommended in the NATO report of last December, the Alliance should initiate a full dialogue with Russia on a data exchange covering base inventory, deployment, storage, and dismantlement of non-strategic nuclear weapons. The seven NATO countries where US non-strategic nuclear weapons are deployed—Belgium, Germany, Greece, Italy, Netherlands, Turkey and UK—should also engage in transparency and accountability and announce the locations of bases and the number of vaults on their respective territories.**
- < **NATO should be encouraged to make public its nuclear policy planning doctrine as contained in the MC/400/ series of documents.**
- < **Each of the NNWS members of NATO should produce arms control impact assessments showing how their involvement with NATO ‘s non-strategic nuclear weapons is in compliance with the NPT and its associated review conference documents.**
- < **France and the UK should be encouraged to consider and implement transparency measures.**
- < **A global treaty could be considered to ban non-strategic nuclear weapons entirely—though, in negotiating such an instrument, several difficult issues such as definitions and characteristics would need to be hammered out.**
- < **The merits of a novel warhead accounting formula could be considered, in which there might be a single aggregate limit on deployed warheads, leaving each side to determine its own mix of strategic and non-strategic nuclear weapons without leading to an increase in either category.**
- < **Interested states could co-sponsor a Resolution at this year’s First Committee calling for restraint, transparency and accountability with regard to non-strategic nuclear weapons, for the codification of the 1991 unilateral initiatives, and for increased dialogue.**

**9D. *Concrete agreed measures to further reduce the operational status of nuclear weapons systems.***

- < **As part of its nuclear posture review, the US should be encouraged to implement “strategic restraint measures” such as the removal from alert status of all systems slated for elimination under START II.**
- < **Russia might be enjoined to follow suit.**
- < **Both sides should re-examine their strategic plans to reduce the number of targets, thus driving down the requirements for high levels of warheads.**
- < **There no longer is a compelling argument for the US and Russia to continue deployment of a “triad” of nuclear forces – each side should be encourage to stand-down any one-leg of its respective triad – and in any case, to keep a bare minimum of weapons on a high alert status.**

**9E. *A diminishing role for nuclear weapons in security policies to minimize the risk that these weapons ever be used and to facilitate the process of their total elimination.***

- < **While continuing to press for NATO to re-examine and re-evaluate the role of nuclear weapons in its strategy, it should be enjoined to seek the implementation of CSBMs, particularly in the areas of enhancing transparency, accountability and training regarding sub-strategic nuclear weapons.**
- < **Both Russia and the US need to engage in strategic stability talks and begin the negotiation of a START III, thus creating the conditions to reduce the role of nuclear weapons in their strategies. In its defence review, the US should reaffirm its commitment to negotiated arms control and the full implementation of all negotiated nuclear treaties.**
- < **The US should provide a clear statement to adjust its policy to conform to international constraints and obligations affirmed by the International Court of Justice, including acceptance of the general illegality of the threat or use of nuclear weapons, and implementation of its unequivocal obligations to achieve complete nuclear disarmament; reaffirm its negative security assurances to NPT and NWFZ member states; decrease the target set in its SIOP; and stand down weapons slated for dismantlement under START I and II.**
- < **Russia should be encouraged to also conduct its own nuclear policy review, with a view to reducing the role of nuclear weapons in its posture, further reducing its non-strategic nuclear stockpile, and enacting transparency measures, as well as a clear statement on the items noted in the sub-paragraph above.**
- < **All of the NWS should consider strategic reassurance measures, such as a declaratory commitment to a no-first strike complemented by largely de-alerted strategic and non-strategic weapon systems.**

- < **Pakistan and India need to comply with UNSCR 1172 and refrain from further testing, development and deployment of nuclear forces, and implement the measures agreed at the Lahore Summit.**
- < **Israel should engage in discussions on its nuclear weapon capabilities.**

**9F. *The engagement as soon as appropriate of all the nuclear-weapon States in the process leading to the total elimination of their nuclear weapons.***

- < **This is a longer-term measure and needs to be pursued at some appropriate later stage. However, in the interim, each of the five nuclear-weapon states and the three nuclear capable states could consider a variety of bilateral, plurilateral and/or multilateral CSBMs, including dialogue, data exchanges and other reporting mechanisms with a view to enhancing accountability (and transparency).**
- < **The establishment of an AHC at the CD on nuclear disarmament to discuss ways and means would be useful.**

**10. *Arrangements by all nuclear-weapon States to place, as soon as practicable, fissile material designated by each of them as no longer required for military purposes 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 of military programmes.***

- < **It remains the responsibility of the international community to contribute financing and assistance for Russia to cope with its large surplus of excess weapons fissile material.**
- < **Countries such as Canada, Japan, and the EU should actively consider providing assistance to promote the safe and effective disposition of excess weapons plutonium in a manner as to render this material out of reach for future weapons use, thus serving both nuclear disarmament and non-proliferation purposes. Towards venture they should be provided with financial and technical assistance to implement a programme of immobilization and deep underground burial under appropriate measures consistent with safety, health and environmental protection.**
- < **Under their respective voluntary safeguards agreements with the IAEA, the nuclear-weapon states should devise appropriate modalities to safely place surplus fissile material irreversibly under safeguards, without providing proliferation-relevant information to inspectors.**

**11. *Reaffirmation that the ultimate objective of the efforts of States in the disarmament process is general and complete disarmament under effective international control.***

- < **In parallel with the commitments under the NPT and its associated politically binding documents, other WMD treaties and regimes need to be fully implemented**

with accountability– these include the BTWC and the CWC–as well as instruments covering conventional weapons.

- < The negotiation in Geneva to conclude a BTWC verification protocol needs to be accelerated and completed by the end of 2001, as recommended by the 1996 BTWC review conference.
- < It should be an important goal to seek universal membership of all three legally binding WMD treaties–the BTWC, the CWC and the NPT.
- < Restraint is required in conventional arms transfers.
- < The Anti-Personnel Landmines Convention and other instruments need universal membership as well.
- < New measures can be contemplated to supplement the missile technology control regime with an international legally binding instrument prohibiting the further proliferation of ballistic and cruise missiles, including measures on as flight-testing and deployment moratorium, leading to the elimination of such delivery systems.
- < Progress in nuclear disarmament needs to be separated from progress in general disarmament.

*12. Regular reports, within the framework of the NPT strengthened review process, by all States parties on the implementation of Article VI and paragraph 4 (c) of the 1995 Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament”, and recalling the Advisory Opinion of the International Court of Justice of 8 July 1996.*

- < Given the new guidance on the improved strengthened review process for the Treaty and that each session of the PrepCom “should consider specific matters of substance” relating to the implementation of the NPT, the 1995 and 2000 outcomes; it would be entirely appropriate for PrepCom sessions, beginning in 2002, to set aside specific time to receive and assess implementation reports by the nuclear-weapon states and all other parties.
- < The PrepCom could allocate time for the consideration of progress in the implementation of the “practical steps” towards nuclear disarmament, at each of its sessions starting in 2002.
- < The PrepCom could consider proposals on the format and content for the reporting by the NWS and all other NPT states on the implementation of the thirteen steps.
- < An article-by-article review of the NPT, and of the “practical steps”, would contribute to a structured and balanced assessment of progress achieved and recommendations for future action.

*13. The further development of the verification capabilities that will be required to provide assurance of compliance with nuclear disarmament agreements for the achievement and maintenance of a nuclear-weapon-free world.*

- < Verifying future nuclear disarmament will be challenging, but the methodologies

**and technologies already exist for establishing and implementing an effective verification system. It must be realized, however, that no system can provide 100 per cent certainty – the verification standard must be that of providing adequate warning of militarily significant violations. To this end, NPT states, the UN, and think tanks must jointly pool their resources to devise new verification technologies and methodologies.**

- < States need to be persuaded to realize that the value of a “safeguards dollar” greatly outweighs that of a “counter-proliferation dollar” when it comes to preventing proliferation.**
- < The CTBTO PrepCom must continue to receive financial and technical assistance to enable it to continue with its work.**
- < At the next CWC review conference, the treaty’s verification mandate should be re-affirmed, including the right of the Organization for the Prohibition of Chemical Weapons (OPCW) to conduct any time, any where inspections, including the gathering and removal of samples for analysis at the laboratories of the OPCW.**
- < Completion of the verification protocol remains vital to the BTWC’s continuing efficacy and it should be accomplished as soon as possible, preferably before the end of 2001 as recommended by the 1996 BTWCRC.**
- < It would be useful to consider the merits of coordination among existing international nonproliferation verification organizations, such as the IAEA, OPCW and the CTBTO. The UNGA could commission a group of experts to produce a technical study on the verification requirements for a nuclear-weapon-free world.**
- < A study assessing the performance of UNSCOM (and UNMOVIC), and the role (if any) of national intelligence agencies in this context would also provide useful lessons.**
- < The merits of cooperative international satellite monitoring for verification should also be evaluated.**

## **Background on the 2000 NPT Review Conference and the 13-Steps**

On 19 May 2000, 157 of the 187 present members of the nuclear Non-Proliferation Treaty (NPT) formally agreed by consensus on a wide-ranging Final Document reviewing the implementation of the NPT during the previous five years. It also agreed on a series of measures to promote the full implementation of all aspects of the Treaty, in particular achieving further progress in nuclear disarmament, over the next five years. Also subsumed within this consensus was a reaffirmation of, and a re-dedication to, the decisions and resolution adopted by the 1995 NPT Review and Extension Conference (NPTREC) which extended the Treaty for an indefinite period in the context of parallel binding commitments to a “strengthened review process for the treaty”, “principles and objectives for nuclear non-proliferation and disarmament”, and a resolution on non-proliferation in the Middle East.

The positive and precedent setting outcome of the 2000 NPT Review Conference (NPTRC) was unexpected as it was achieved despite a half-decade of setbacks to the nuclear non-proliferation/disarmament regime such as *inter alia*: resumed nuclear testing by China and France in 1995-1996 despite the call for “maximum restraint” by the NPTREC; the failure of three NPT Preparatory Committee (PrepCom) sessions—in 1997, 1998 and 1999—to reach agreement on “recommendations” to the 2000 NPTRC as called for by the 1995 NPTREC; the inability of the Conference on Disarmament to commence “immediate” negotiations on a fissile material cut-off treaty (FMCT) as called for the “programme of action” agreed at the NPTREC; the increasing role of nuclear weapons (including non-strategic nuclear weapons) in the defence strategies of both the US and the Russian Federation; the continuation of the deployment of thousands of nuclear weapons on prompt ready-to-launch or “hair-trigger” status; plans for a US national missile defence (NMD) of a scope prohibited by the 1972 Anti-Ballistic Missile Treaty (ABMT); lack of full ratification and implementation of the 1993 bilateral US-Russia START II agreement on strategic nuclear reductions, and a failure to initiate negotiation on a follow-on START III agreement; nuclear-weapon testing first by India followed by Pakistan in May 1998; the unresolved matters of compliance with NPT safeguards and UN Security Council Resolutions by DPRK and Iraq; and the rejection of the Comprehensive Nuclear Test Ban Treaty (CTBT) by the United States Senate in October 1999.

These and other negative developments had clearly overshadowed several important achievements that had occurred since May 1995. These areas of progress included: the conclusion and signing of a CTBT in late September 1996; unilateral reductions in both strategic and non-strategic nuclear weapons, as well as reduced *op tempo* of nuclear forces and limited transparency of weapon-usable fissile material inventories, implemented by France and the United Kingdom; the dismantlement of its sole national nuclear-weapon test site and weapon-usable fissile material production facilities by France; continuing strategic nuclear weapon reductions (and dismantlements) under START I by the US and Russia, with assistance provided under the US’ Cooperative Threat Reduction (CTR) programme for dismantlements in Russia; the entry-into-force of the Chemical Weapons Convention (CWC) and some progress in negotiating a verification protocol to the Biological and Toxin Weapons Convention (BTWC); and the conclusion and the beginning of implementation of a strengthened safeguards system (INFCIRC/540) by the International Atomic Energy Agency (IAEA).

Concerned by the START “standstill”, resumed nuclear-weapon testing and the continuation of outmoded Cold War nuclear-weapon employment policies and doctrines, among other challenges, six noteworthy initiatives endeavoured to inject new thinking with a view to influencing debates on the future of nuclear weapons. Interestingly, all of these initiatives took place outside the formal framework of the NPT regime. These six initiatives are described briefly below.

(A) Advisory Opinion of the International Court of Justice: On 8 July 1996, the International Court of Justice (ICJ) rendered an advisory opinion on the request made by the UN General Assembly resolution 49/75K (15 December 1994) on the legality of the threat or use of nuclear

weapons.<sup>2</sup> In addition to its other findings, the Court decided by consensus that the nuclear-weapon states had a legal “obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control”.

(B) Non-Aligned Movement Programme of Action: The Group of 21 (in reality 28 non-aligned states participating in the work of the Conference on Disarmament) proposed a “programme of action for the elimination of nuclear weapons” at the CD on August 7, 1996.<sup>3</sup> This programme included an indicative list of measures to be adopted in three phases: 1996-2000; 2000-2010; and 2010-2020.<sup>4</sup>

(C) Canberra Commission on the Elimination of Nuclear Weapons: Also in August 1996, the Canberra Commission on the Elimination of Nuclear Weapons (CCENW) released its report outlining a series of immediate and enabling measures toward achieving nuclear disarmament.<sup>5</sup> In fact, the Canberra Commission was the first to call upon the nuclear-weapon states for an “unequivocal commitment” to the elimination of all nuclear weapons.

(D) New Agenda Coalition: Frustrated by the glacial progress in nuclear disarmament and re-rationalization of nuclear weapons in some of the nuclear-weapon states, on June 9, 1998, the New Agenda Coalition (NAC) was formed with an ambitious agenda for the elimination of nuclear weapons. Initially comprised of eight states that cut across traditional political groupings—Brazil, Egypt, Ireland, Mexico, New Zealand, Slovenia, South Africa and Sweden—the NAC endeavoured to push the parameters of the debate by seeking from the nuclear-weapon states “a clear commitment to the speedy, final and total elimination of their nuclear weapons”.<sup>6</sup>

(E) Canadian Parliamentary Report and Government Response: On December 10, 1998, the Parliament of Canada released a report, *Canada and the Nuclear Challenge: Reducing the Political Value of Nuclear Weapons for the Twenty-First Century*, that called upon Canada—a member of NATO and of its Nuclear Planning Group—to seek a reduced role for nuclear weapons in the Alliance’s defence policy and to make nuclear disarmament a key plank of foreign policy.<sup>7</sup> In April 1999, the Government of Canada issued its response and accepted the recommendations of the report and outlined an achievable nuclear disarmament/non-proliferation agenda, while endorsing the complete elimination of nuclear weapons.<sup>8</sup>

(F) The Tokyo Forum: Later that year, on July 25, the Tokyo Forum released its report, *Facing Nuclear Dangers: An Action Plan for the 21<sup>st</sup> Century*, which carried forward the work of the CCENW and outlined an ambitious agenda for nuclear disarmament.<sup>9</sup>

In light of new threats to the global nuclear non-proliferation and disarmament regime such as the nuclear tests in South Asia and increased frustration expressed in NPT PrepCom sessions about the lack of progress in nuclear disarmament, and in particular due to the momentum established by the New Agenda Coalition in advancing practical new proposals, the five nuclear-weapon states compromised temporarily on a variety of strategic issues and united to agree on a

joint statement issued during the 2000 NPTRC that papered over their differences.<sup>10</sup> This provided a crucial impetus for the eventual negotiation involving the now seven NAC countries.<sup>11</sup> and the five nuclear-weapon states that led to the adoption of a “finely balanced” series of “practical steps for the systematic and progressive efforts to implement Article VI of the...[NPT] and paragraphs 3 and 4(c) of the 1995 Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament”.”<sup>12</sup> The new programme of action, or agenda for multilateral attention, for nuclear disarmament and arms control as agreed at the 2000 NPTRC was as follows:

Excerpt from the 2000 NPT Final Document: Article VI and preambular paragraphs 8 to 12<sup>13</sup>

15. The Conference agrees on the following practical steps for the systematic and progressive efforts to implement Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons and paragraphs 3 and 4 (c) of the 1995 Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament”:

1. The importance and urgency of signatures and ratifications, without delay and without conditions and in accordance with constitutional processes, to achieve the early entry into force of the Comprehensive Test Ban Treaty.
2. A moratorium on nuclear weapon-test-explosions or any other nuclear explosions pending entry into force of that Treaty.
3. The necessity of negotiations in the Conference on Disarmament on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices in accordance with the statement of the Special Coordinator in 1995 and the mandate contained therein, taking into consideration both nuclear disarmament and nuclear non-proliferation objectives. The Conference on Disarmament is urged to agree on a programme of work, which includes the immediate commencement of negotiations on such a treaty with a view to their conclusion within five years.
4. The necessity of establishing in the Conference on Disarmament an appropriate subsidiary body with a mandate to deal with nuclear disarmament. The Conference on Disarmament is urged to agree on a programme of work, which includes the immediate establishment of such a body.
5. The principle of irreversibility to apply to nuclear disarmament, nuclear and other related arms control and reduction measures.
6. An unequivocal undertaking by the nuclear-weapon states to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States parties are committed under Article VI.
7. The early entry into force and full implementation of START II and the conclusion of START III as soon as possible while preserving and strengthening



the ABM Treaty as a cornerstone of strategic stability and as a basis for further reductions of strategic offensive weapons, in accordance with its provisions.

8. The completion and implementation of the Trilateral Initiative between the United States of America, the Russian Federation and the International Atomic Energy Agency.

9. Steps by all the nuclear-weapon States leading to nuclear disarmament in a way that promotes international stability, and based on the principle of undiminished security for all:

- A. Further efforts by the nuclear-weapon States to reduce their nuclear arsenals unilaterally.
- B. Increased transparency by the nuclear-weapon States with regard to their nuclear weapons capabilities and the implementation of agreements pursuant to Article VI and as a voluntary confidence-building measure to support further progress on nuclear disarmament.
- C. The further reduction of non-strategic nuclear weapons, based on unilateral initiatives and as an integral part of the nuclear arms reduction and disarmament process.
- D. Concrete agreed measures to further reduce the operational status of nuclear weapons systems.
- E. A diminishing role for nuclear weapons in security policies to minimize the risk that these weapons ever be used and to facilitate the process of their total elimination.
- F. The engagement as soon as appropriate of all the nuclear-weapon States in the process leading to the total elimination of their nuclear weapons.

10. Arrangements by all nuclear-weapon States to place, as soon as practicable, fissile material designated by each of them as no longer required for military purposes 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 of military programmes.

11. Reaffirmation that the ultimate objective of the efforts of States in the disarmament process is general and complete disarmament under effective international control.

12. Regular reports, within the framework of the NPT strengthened review process, by all States parties on the implementation of Article VI and paragraph 4 (c) of the 1995 Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament”, and recalling the Advisory Opinion of the International Court of Justice of 8 July 1996.

13. The further development of the verification capabilities that will be required to provide assurance of compliance with nuclear disarmament agreements for the achievement and maintenance of a nuclear-weapon-free world.

The 15 paragraphs under the review and recommendations with respect to Article VI in the Final Document can be taken to represent a high watermark in the history of the NPT review process, as it is for the first time that the NWS have accepted references to a series of specific “practical steps” for nuclear disarmament leading to the elimination of nuclear weapons. Even with its weaknesses and compromises, this text played a crucial role in ensuring the success of the Review Conference. And as Ambassador Baali noted in his concluding statement: “...our results may not appear commensurate with the magnitude of the tasks and challenges facing us and the expectations of the international community. However, these results must be seen against the background of the prevailing political circumstances”.<sup>14</sup>

### **Reaching Agreement on the “Practical Steps” and the Role of the New Agenda Coalition**

On June 9, 1998, the Ministers for Foreign Affairs of Brazil, Egypt, Ireland, Mexico, New Zealand, Slovenia, South Africa and Sweden launched a new initiative, motivated by their shared perception of a continued threat to humanity represented by the perspective of the indefinite possession of nuclear weapons by the nuclear-weapon states as well as by three nuclear-weapon-capable states that have not acceded to the Non-Proliferation Treaty, and the attendant possibility

of use or threat of use of nuclear weapons. The seriousness of their predicament had been further underscored by the nuclear tests conducted by India and Pakistan. The foreign ministers noted that the nuclear weapon states had found new justifications where none existed for the indefinite retention of their nuclear weapons. They asserted that the NPT is not only the foundation on which the prevention of the spread of nuclear weapons rests, but more particularly, a charter for the elimination of nuclear weapons.

The foreign ministers maintained that nuclear-weapon states (NWS) are required to eliminate their nuclear arsenals under the NPT. The failure to fulfill their legally binding obligations under the Treaty is not the result of any inadequacy in the Treaty itself. It is the result of the lack of political will. The initiative of this New Agenda Coalition (NAC) was about securing that political will and putting in motion the actions that would necessarily follow, so that in a few short years nuclear weapons would have been consigned to history both to protect humanity’s future and that of its children in a nuclear weapon-free world. The foreign ministers charged that the nuclear weapon states had let slip the opportunities for the elimination of their own nuclear arsenals, and thus the world faced further proliferation. The only valid response to this situation or any situation involving the retention of nuclear weapons was to eliminate them for all time. The only logical step was to see to the abolition of these weapons once and for all. In the first instance the NAC required a renewed political commitment on the part of the nuclear weapon states, and nuclear weapon-capable states, to proceed with the rapid elimination of nuclear weapons.

The NAC Declaration entitled: “Towards A Nuclear Free World: The Need For A New Agenda,” called upon the international community not enter the third millennium with the

prospect that the maintenance of these weapons will be considered legitimate for the indefinite future, when the present juncture provides a unique opportunity to eradicate and prohibit them for all time. It called on the governments of each of the nuclear-weapon states, and the three nuclear-weapon-capable states, to commit themselves unequivocally to the elimination of their respective nuclear weapons and nuclear weapon capability and to agree to start work immediately on the “practical steps” and negotiations required for its achievement. The Declaration was followed up with a resolution, at the First Committee in the fall of 1998, submitted by the eight states under the banner of a “New Agenda Coalition” (NAC). The nuclear weapon states were seriously concerned and out-manoeuvred by the NAC resolution and fought it strenuously, as it outlined moderate, pragmatic and achievable steps that were difficult to undermine. Incredibly, the UK, France and the US, together with their NATO allies claimed that the NAC resolution undermined the NPT and that it caused violence to NATO’s Strategic Concept—that accords nuclear weapons a key role. These states prevailed upon Slovenia to break ranks and withdraw from the NAC. The NAC resolution (53/77Y) endorsed the full implementation of the NPT outcomes agreed at the 1995 NPTREC, and proposed a multi-track approach to nuclear disarmament comprising unilateral, bilateral, plurilateral and multilateral actions, including *inter alia*: further reductions and progress on START; de-alerting; a moratorium on the production of fissile materials for weapons pending conclusion of a FMCT negotiation; entry-into-force (EIF) of the CTBT; and an international legal instrument on security

assurances. The resolution was passed on a vote of 114:18:38, and spurred Canada and Germany to redouble their existing efforts within NATO calling for a review of the alliance’s nuclear policy.

The NAC then revised and reiterated the principal elements of their position at the 1999 session of the NPT PrepCom, that was unable to agree on substantive recommendations on nuclear disarmament due to the differences between the NAC and the nuclear-weapon states. The NAC had captured a new agenda and the nuclear-weapon states were put on the defensive. Later that year, the NAC resolution (54/54G) was co-sponsored by more than 60 states and provoked heated debate. The resolution was carried 111:13:39—with many NATO states abstaining. The resolution called for, *inter alia*, the elimination of non-strategic nuclear weapons, de-alerting, increased transparency for warheads and fissile material, and an unequivocal commitment by the nuclear-weapon states to nuclear disarmament.

At the 2000 NPTRC, the NAC seized the initiative in tabling its proposals which went much further than any of the others that were submitted but were contained in a moderate and pragmatic package that was hard to counter. In the lead-up to the Review Conference there was active but inconclusive behind the scenes debate among several CD delegations about the merits of a 2000 version or update of “principles and objectives for nuclear non-proliferation and disarmament”. At the Review Conference itself, specific proposals on nuclear disarmament were presented by individual states, groups of states such as the NAC, European Union (EU), NATO-5 (N5), the non-aligned movement (NAM), and the NWS. Some common themes emerged in the views expressed by the NNWS, which included *inter alia*: concern over the slow pace of nuclear

disarmament, delay in the entry-into-force of the CTBT, the standoff at the CD, transparency with regard to nuclear arsenals, limits on non-strategic nuclear weapons, negative security assurances, and a mechanism within the CD for a substantive discussion on nuclear disarmament.

Among the NNWS, the most far-reaching proposal was presented in the NAC working paper that proposed “the identification of areas in which, and the means through which, further progress should be sought in the future regarding the obligation under article VI” of the NPT “to achieve nuclear disarmament”.<sup>15</sup> This proposal drew from the NAC’s UN General Assembly Resolutions from 1998 and 1999,<sup>16</sup> that had garnered the support of well over 100 countries at the UN. A key demand of the NAC was for the five NWS to “make an unequivocal undertaking to accomplish the total elimination of their nuclear arsenals and, in the course of the forthcoming review period 2000-2005, to engage in an accelerated process of negotiations...”. In addition, the NAC called for early and interim steps *inter alia*: to adapt nuclear policies and postures to preclude the use of nuclear weapons; de-alerting and removal of warheads from delivery vehicles; reductions in tactical nuclear weapons leading to their elimination; greater transparency with regard to nuclear arsenals and fissile material inventories; irreversibility in removing excess fissile material from weapons programmes; and irreversibility in all nuclear disarmament, nuclear arms reduction, and nuclear arms control measures. They also wanted an appropriate subsidiary body in the CD with a mandate to deal with nuclear disarmament, and the early negotiation and conclusion of

international legally binding security assurances for NNWS party to the Treaty.

The NAC proposal went far beyond what the traditional advocates of nuclear disarmament in the Western group were demanding, such as Australia, Canada, Germany, Japan and Norway, but was somewhat less than the oft repeated demand of the NAM for a time-bound framework for nuclear disarmament. This placed the NAC squarely in the role of the most credible and most effective grouping among the NNWS on nuclear disarmament, and for all practical purposes marginalized the others during the course of the 2000 NPT review conference.

Discussion and negotiation on “practical steps” for the systematic and progressive efforts on nuclear disarmament took place in Subsidiary Body 1 (SB.1) of Main Committee I. Chaired by Ambassador Clive Pearson (New Zealand), a NAC member state, SB.1 divided its work into two parts, one dealing with completion of unfinished business, such as the entry-into-force of the CTBT, negotiation of a FMCT, and completion of the START process; and the second part addressing further measures and steps in nuclear disarmament. Following several early drafts, on 11 May, a 17-paragraph draft SB.1 report, referred to as “finely balanced”, was submitted to MC.I for further consideration, and it included references to *inter alia*: the early entry-into-force (EIF) of the CTBT and a moratorium on nuclear explosions pending EIF; negotiation in the CD of a FMCT and agreement in the CD on a programme of work; a subsidiary body in the CD with a mandate to deal with nuclear disarmament; EIF and full implementation of START II and early conclusion of START III, “while preserving and strengthening the ABM Treaty as a cornerstone of strategic stability and as a basis for further reductions of strategic offensive weapons”;

unilateral reductions; irreversibility measures; increased transparency with regard to nuclear arsenals and fissile material inventories; annual reports within the NPT review process on the implementation of Article VI and paragraph 4 (c) of the 1995 “principles and objectives”; further reduction of non-strategic nuclear weapons with transparency leading to their elimination; de-alerting and de-activating of systems; diminishing role for nuclear weapons in security policies; and an unequivocal undertaking to accomplish the total elimination of nuclear weapons, and in the 2000-2005 review period to engage in accelerated negotiations. At Russia’s insistence, there were no less than four references to strategic stability, each conditioning an action item.

The draft report of SB.1 became the operational document for further negotiation on a ‘forward-look’, while the report of MC.I on the ‘backward look’ remained mired in disagreement. As the pace and intensity of negotiations picked up to resolve differences, Russia and China continued to insist on maintaining references to strategic stability to protect their position on opposition to national missile defence, while China expressed reservations about greater transparency and promoted no-first use. The US and France resisted further operational measures on nuclear disarmament. And the UK opposed the reference to the 2000-2005 time frame. Reportedly the NWS, excluding China, rejected accepting any reference to the effect that a purpose of the CTBT is to prevent the development and modernization of nuclear weapons. Apparently, this resistance continued even after direct references were made to quotations from their respective statements at the CD in 1996, during the negotiation of the CTBT, attesting to the treaty’s nuclear disarmament and non-proliferation benefits.

A further draft of the SB.1 paper appeared on 15 May but was immediately set upon by various parties. Some of the NATO members complained that it was watered down too much with regard to transparency, EIF of the CTBT, FMCT and non-strategic nuclear weapons. While some of the NWS objected to sections dealing with tactical nuclear weapons, transparency and an unequivocal undertaking to the total elimination of nuclear weapons; and the NAC and NAM continued to object to the conditionality injected by repeated references to strategic stability.

In effect the major contention became the NWS’ rejection of accepting operational measures to reduce nuclear weapons and increase transparency and accountability in the absence of escape clauses referring to strategic stability and undiminished security–buzz words for the perceived right of the NWS to retain nuclear weapons indefinitely and to undertake nuclear arms reductions at a level, pace and context determined solely by them irrespective of their obligations under the NPT, commitments made to secure indefinite extension of the Treaty, and the 1996 opinion rendered by the ICJ. On the other side were the NNWS, led by the NAC, with supporting roles played by the NAM, N5, and several individual countries, all of whom demanded further and rapid progress in nuclear arms reductions as well as increased transparency involving all five NWS, early implementation of agreed treaties and preserving the integrity of treaties already in force.

After prolonged negotiations between the NWS and the NAC, as well as two sessions of a consultation organized by the Conference President, deep differences still separated the two sides

despite much progress being achieved. The final hard compromises on the report of SB.1 were negotiated between the NWS and the NAC, and the reformulated product of SB.1 agreed on 17 May ended up as paragraph 15 under Article VI in the Final Document of the Conference, once it was accepted by all other states. The overall chapeau remained unchanged from the 11 May draft but the 17 paragraphs were reformulated and consolidated into 13 paragraphs with several items placed under one particular paragraph with its own specific chapeau. This paragraph (number 9 within paragraph 15) outlined specific steps for the NWS in the context of international stability and based on the principle of undiminished security for all. The formulation contained in the chapeau represented a hard fought compromise between the NAC and the NWS. The NWS protected their positions on undertaking further nuclear disarmament through the references to international stability and the principle of undiminished security for all. And the NAC was able, through this construct, to secure the acceptance by the NWS to the six operational steps toward nuclear disarmament.

This agreement between the NWS and the NAC on the “practical steps” toward nuclear disarmament was hailed as a watershed in the history of the NPT review process, as it brought within the realm of possibility agreement on a final outcome. Several states expressed their discomfort at the process whereby twelve countries had negotiated the “practical steps”, without adequate transparency and appropriate consultation. The NAC hailed this agreement as a major accomplishment in that they had prevailed in getting the NWS to accept an “unequivocal undertaking” to the elimination of nuclear weapons along with several interim operational measures. Other states were not as jubilant as they correctly observed that the NAC had greatly

weakened their own demands, including for example a major compromise on FMCT (in the context of an agreed work programme) and had dropped a reference to the 2000-2005 period for its conclusion as well as a call for a production moratorium. They also noted that the “unequivocal undertaking” was conditioned by Article VI and thus to general and complete disarmament as well; and that all of the agreed action steps were further conditioned by an escape clause: “Steps by all the nuclear-weapon States leading to nuclear disarmament in a way that promotes international stability, and based on the principle of undiminished security for all”. The following sections provide an assessment of the thirteen “practical steps” – each particular “step” is discussed in the context of its “background”, followed by an up-date on its “present situation”, and then by “recommendations” for further action.

## **Assessment of the “Practical Steps” and Recommendations for Further Action**

***1. The importance and urgency of signatures and ratifications, without delay and without conditions and in accordance with constitutional processes, to achieve the early entry into force of the Comprehensive Test Ban Treaty.***

**Background:** After nearly fifty years of debate and years of complex negotiations, a Comprehensive Nuclear-Test Ban Treaty was signed at the United Nations in New York on 24

September 1996. US President Bill Clinton characterized this achievement as “the longest sought, hardest fought” prize in multilateral arms control. By the time of the 2000 NPTRC, 155 states had signed the Treaty including the five nuclear weapon states, and 52 states had ratified. Of the 44 states whose ratification was necessary for entry into force, 41 had signed (excluding DPRK, India, and Pakistan) and 30 had ratified,<sup>17</sup> including France, the United Kingdom and the Russian Federation.

Limiting and banning nuclear weapon testing has long been regarded as both key for preventing (or slowing) nuclear proliferation and for nuclear disarmament. The NPT affirmed the linkage between prohibiting nuclear weapon tests and preventing the further spread of nuclear weapons. All six NPT review conferences reaffirmed the importance of a CTBT to the NPT regime. The commitment by the nuclear-weapon states at the 1995 NPTREC to conclude negotiation of a CTBT by the end of 1996, played an important role in securing the indefinite extension of the NPT. At the 2000 NPTRC, however, some of the nuclear-weapon states—the US, France and Russia—refused to accept any specific reference stating the CTBT contributed to nuclear disarmament.

The CTBT provides that its global verification regime shall be capable of meeting its verification requirements at entry into force. Therefore one of the main tasks of the Preparatory Commission is to build up the worldwide network of stations that comprise the International Monitoring System (IMS). This cost-effective network of 170 seismological, 60 infrasound, 11 hydroacoustic and 80 radionuclide stations – supported by 16 radionuclide laboratories – when operational will be capable of registering vibrations underground, in the sea and in the air as well

as detecting traces of radionuclides released into the atmosphere by a nuclear explosion. The stations will transmit a steady stream of data generated by these four complementary technologies, in near real time, via a global satellite communications system to the International Data Centre, at the seat of the Preparatory Commission in Vienna, where all the data will be processed. All data, raw or processed, from the monitoring facilities will be made available to the States Signatories. There are provisions on consultation and clarification for dealing with ambiguous events. As a final verification measure, an on-site inspection may be requested.

The US Senate remains the world’s only legislative assembly to have rejected the ratification of the CTBT. On 13 October 1999, it voted against that Treaty despite the advice in support expressed by the US Joint Chiefs of Staff (JCS), former Chairs of the JCS, the leaders of France, Germany and the UK, many of the world’s leading arms control experts and in defiance of the will of most US citizens. While many senators, both Republican and Democrat, were skeptical of the CTBT’s benefits and would have preferred to defer the ratification process, the Treaty became caught up in the whirlwind of US domestic politics and was defeated as much for inflicting embarrassment on the Clinton Administration as for security considerations. Despite this development, the Clinton Administration pledged to maintain its testing moratorium, to continue its support for the establishment of a verification system for the CTBT, and committed to secure ratification at a later date. In late January 2000, General John Shalikashvili (USA, ret.)

was appointed as Special Advisor to the President and Secretary of State for the CTBT to lead the administration's effort to secure bipartisan support for the treaty.

**Present Status:** As of late March 2001, 160 countries had signed the CTBT and 75 had ratified, including 31 of the 44 – but the DPRK, India and Pakistan had still not even signed the Treaty. Russia had ratified but with conditions making continuing compliance contingent with the US' compliance with the ABMT. China too had not ratified, though the necessary supporting material for ratification had been submitted to the People's Congress. However, China's ratification is not expected in advance of that of the US, and may well be dependent on how the Bush Administration proceeds with its missile defence plans and arms sales to Taiwan. No new credible initiatives seem to be under consideration in any of the nuclear-weapon states to convince the DPRK, India and Pakistan to join the CTBT. On the contrary, President Bush's uncompromising stance regarding DPRK's compliance with agreements taken during the recent visit of South Korean President Kim Dae-Jung, and his administration's reluctance not to follow up with the Clinton Administration's engagement with DPRK on missile issues, could well indefinitely delay Pyongyang's signature to the CTBT.

During the recent presidential election in the US, Candidate George W. Bush stated his views on the CTBT as follows: "Our nation should continue its moratorium on testing. But in the hard work of halting proliferation, the Comprehensive Test Ban Treaty is not the answer. The CTBT does not stop proliferation, especially to renegade regimes. It is not verifiable. It is not enforceable. And it would stop us from ensuring the safety and reliability of our nation's deterrent, should the need arise. On these crucial matters, it offers only words and false hopes and high intentions—with no guarantees whatever. We can fight the spread of nuclear weapons, but we cannot wish them away with unwise treaties".<sup>18</sup> The prevalent wisdom is that the Bush Administration will not re-submit the CTBT to the US Senate for reconsideration or approval, at least until 2002, but will nonetheless maintain the moratorium on nuclear explosive testing. Secretary of State Colin Powell noted during his confirmation hearing: "As you know, we will not be asking for the Congress to ratify the Comprehensive Test Ban Treaty in its next session. We are mindful of the work that was done by President Clinton's Special Advisor and my colleague General Shalikashvili. We will examine that work, but we believe that there are still flaws with the Treaty as it was voted down in 1999. Nevertheless, we will continue to examine the elements of that Treaty as part of our overall strategic review. General Shalikashvili gave us some good ideas with respect to the stockpile stewardship programme, which we will be pursuing, and at the same time President-elect Bush indicated he has no intention of resuming testing as part of our efforts. We do not see any need for such testing in the foreseeable future".<sup>19</sup>

On 4 January 2001, General Shalikashvili released his *Letter to the President and Report on the Findings and Recommendations Concerning the CTBT*.<sup>20</sup> He stated that the "nation's arsenal is safe, reliable, and able to meet all stated military requirements. Far into the future as we can see, the U.S. nuclear deterrent can remain effective under the Test Ban Treaty, assuming prudent stockpile stewardship—including the ability to remanufacture aging components. ... I believe that there is no good reason to delay ratification of the Treaty pending further advances in the



Stockpile Stewardship Program (SSP) as long as we have a credible mechanism to leave the Treaty should a serious problem with the deterrent make that necessary. I fear that the longer entry into force is delayed, the more likely it is that other countries will move irrevocably to acquire nuclear weapons or significantly improve their current nuclear arsenal, and the less likely it is that we could mobilize a strong international coalition against such activities". Shalikhshvili recommended 16 steps that, in his opinion, would help answer "legitimate questions" about the Treaty's non-proliferation value, its verifiability, its impact on the US nuclear deterrent and its indefinite duration. None of the recommendations would require renegotiation of the CTBT.<sup>21</sup> Shalikhshvili's report included the following recommendations, among others: Increase bipartisan and allied support for a carefully coordinated comprehensive non-proliferation programme; Enhance US capabilities to detect and deter nuclear testing and other aspects of nuclear proliferation; Improve the management of potential risks associated with the long-term reliability and safety of the US nuclear deterrent; Continue the testing moratorium and take other concrete actions to demonstrate commitment to a world without nuclear explosions, such as continuing leadership in building up the International Monitoring System (IMS) being established for the Treaty; Continue working with other CTBT signatories to prepare for inspections and develop confidence-building measures; and Additional steps should be taken unilaterally or bilaterally to increase transparency regarding the nature and purpose of activities at known nuclear test sites.

Shalikhshvili's report and findings have been widely welcomed in the US NGO arms control community but its resonance with Congress remains to be determined. On the basis of this report, three former US defence secretaries have recommended that the CTBT "is too important for the vote of the last Congress to be the final word".<sup>22</sup> Both Shalikhshvili and the retired defence secretaries have called for bipartisan cooperation in the US Congress on non-proliferation and national security matters.

A paradox is that the Shalikhshvili report, while it may serve to placate elements in the US Congress and Administration hostile to the CTBT and other negotiated arms control arrangements by offering the panacea of a robust nuclear weapons maintenance programme, will do little to promote the remaining among the 44 states to sign and ratify the CTBT. Other states could also condition their ratification to periodic reviews. The recommendation for remanufacture of plutonium pits for nuclear warheads could create verification problems for a future FMCT. And the Stockpile Stewardship Program, relying on sub-critical tests, could open up a Pandora's Box of concerns with respect to verification. While confidence-building and transparency measures, supplemented by direct verification, at national test sites could mitigate some of the verification concerns; activities under the stockpile stewardship programme could be perceived by many of the non-nuclear-weapon states as being contrary to the principles of the NPT and the CTBT. Furthermore, the Shalikhshvili report's recommendations on maintaining a robust nuclear-weapon arsenal, could be regarded as defeating one of the core purposes of a CTBT—that of contributing to nuclear disarmament through a withering of nuclear arsenals.

Furthermore, some in the Bush Administration or closely associated with it have begun to advance arguments in favour of developing new, smaller yield, nuclear weapons for war-fighting and deterrence uses. Should such a requirement carry the day, the US will need to renounce the CTBT and resume active nuclear testing. Similarly, there are strong pressures for testing within the Russian nuclear establishment from those making the case for new non-strategic nuclear weapons. And China may generate new requirements to respond to US missile defence systems, provoking a response from India and Pakistan following suit to respond to India.<sup>23</sup>

Recently, the opponents of the CTBT in the United States with ties to the Bush Administration have unleashed a new attack against the Treaty. These opponents argue that the CTBT “would not achieve its principal goal...of being an effective nuclear-non-proliferation tool. At the same time, it could have a very negative effect on the U.S. nuclear deterrent.”<sup>24</sup>

**Recommendations:** Given the current slow pace of ratifications and the defeat in the US Senate, it is certain that the CTBT’s EIF conditions will not be met for quite a long time. Absent substantial progress toward the entry-into-force of the CTBT and maintaining testing moratoria, support for the NPT could well risk defections. Unless serious measures are undertaken to promote the early entry-into-force of the CTBT and a legally binding norm against further testing is established, existing pressures in some of the NWS to resume nuclear testing will grow even stronger. In the first instance, the US’ allies and civil society must consider persistent and strong representation in Washington in favour of bipartisan support for the CTBT, its early ratification, and continuation of funding support for the establishment of the IMS. Preparations for a second conference on facilitating the entry-into-force of the CTBT should be redoubled, which will be held at the UN in New York on 25-27 September 2001, on the fifth anniversary of the Treaty’s signature. Among the goals for such a conference must be a consensus agreement reiterating unconditional ratification of the CTBT, continuation of testing moratoria, and unilateral entry-into-force for those countries that have already ratified the treaty. Attendance at this conference should preferably be at the level of foreign minister, in order to further raise the saliency of the issue and to build momentum behind a strong call for the early ratification of the CTBT. The ratification situation should also be assessed at the 2002 session of the Preparatory Committee for the 2005 NPT Review Conference. Financial and diplomatic support to the Preparatory Commission of the CTBT Organization (CTBTO) must continue unabated in order to enable the completion of the IMS and IDC, in order to enhance confidence in the verifiability of the CTBT. Pending the entry-into-force of the Treaty, nuclear-weapon capable non-signatories and non-parties must be encouraged to maintain testing moratoria. The five nuclear-weapon states could consider confidence-building and transparency measures at their national test sites to facilitate the verification of the Treaty. And, questions regarding the verifiability of the CTBT must be countered – the Treaty is verifiable.<sup>25</sup> As noted in the Shalikhshvili Report: seismic stations in the partially completed IMS picked up signals from several recent 100-ton chemical explosions at the former Soviet test site in Semipalatinsk (Kazakhstan); they could detect non-evasive explosions with yields of 10 tons or lower at the Russian Arctic test site at Novaya Zemlya and will soon provide comparable capabilities for the Chinese test site at Lop Nur; the IMS’ primary seismic stations will provide three-station 90% detection thresholds below 500 tons on all

continents and below 200 tons for all historic test sites in the northern hemisphere -- with one and two station detection thresholds going even lower; the IMS' hydroacoustic stations will be able to detect explosions with yields equivalent to a few pounds of dynamite in most of the Southern oceans; and the IMS' infrasound and radionuclide networks will offer additional evidence to detect, identify, and attribute Treaty violations. Indeed, the 5-tonne explosion that sank the Russian Navy's submarine, the *Kursk*, was recorded on seismometers as far away as 4,500 km.<sup>26</sup>

## ***2. A moratorium on nuclear weapon-test-explosions or any other nuclear explosions pending entry into force of that Treaty.***

**Background:** Since the mid-1980s, international pressure to conclude a CTBT kept on increasing and the 1990 NPT review conference failed to nail down a final document due to the US' rejection of compromise text calling for the early conclusion of a test ban treaty. Pending the negotiation of a CTBT, Soviet President Mikhail Gorbachev took the lead in October 1990 by announcing a unilateral moratorium on nuclear testing. This moratorium was renewed by President Boris Yeltsin of the Russian Federation, following the dissolution of the USSR, and was maintained in subsequent years. In September 1992, the US Congress passed legislation, despite the then-President George H. Bush's opposition to halt nuclear testing. The legislation also required the administration to seek the completion of test ban negotiations before 30 September 1996, and prohibited the US from testing after that date pending the completion of a treaty unless another state had tested. President Bill Clinton endorsed the moratorium in January 1993, and following an interagency review and preparations for the 1995 NPTREC, the US used its influence in Geneva to secure agreement on an ad hoc committee with a negotiating mandate. Formal negotiations commenced in January 1994, with the Russian Federation, the US and the UK maintaining testing moratoria. The 1995 NPTREC, in its "Decision on Principles and Objectives for Nuclear Non-Proliferation and Disarmament", called upon the nuclear-weapon states to "exercise utmost restraint".<sup>27</sup> Despite this, China resumed testing within 72 hours of the conclusion of the NPTREC, and France followed suit in September. Given the intensity of international furor, both France and China called a halt to their tests in January and July 1996, respectively. The next series of nuclear tests to be carried out were by India followed by Pakistan in May 1998, but since then both countries have announced and maintained testing moratoria, and pledged at the UN in the fall of 1996 to sign the CTBT—but this pledge has yet to be fulfilled.

### **LAST NUCLEAR TESTS**

Russian Federation: 24 Oct. 1990  
United Kingdom: 26 Nov. 1991  
United States: 23 Sept. 1992  
France: 27 Jan. 1996  
China: 29 Jul. 1996  
India: 13 May 1998  
Pakistan: 30 May 1998

With its moratorium on testing in place, in 1997 as part of its SSP the US initiated a programme of “sub-critical experiments” to study the characteristic of plutonium under compression pressures generated by conventional explosives. Sub-critical experiments at the Nevada Test Site in the US are described as involving “chemical high explosives and fissile materials in configurations and quantities such that no self-sustaining nuclear fission chain reaction can result. In these experiments, the chemical high explosives are used to generate high pressures that are applied to the fissile materials. The only fissile material under current consideration for use in near-term sub-critical experiments in plutonium-239.<sup>28</sup> Since 1997, the US has conducted 13 sub-critical experiments.<sup>29</sup> Russia too has conducted sub-critical experiments, and seven such experiments were carried out at the Novaya Zemlya test site between 23 September 1999 to 8 January 2000, and a further five experiments were conducted in 2000.<sup>30</sup> France and China reportedly also are interested in sub-critical experiments, as is India. Furthermore, both the US and France are constructing new facilities for computer simulation of the effects of nuclear explosions: the National Ignition Facility (NIF) at Livermore in the case of the US, and the Préparation à Limitation des Essais Nucleaires (PALEN) in Bordeaux in France.<sup>31</sup> The justification is to provide scientific tools and data to assess the reliability and safety of nuclear explosives. Critics, however, assert that such experiments can help design new types of nuclear warheads without full explosive testing, and that they pose verification challenges in terms of discriminating between actual nuclear tests and sub-critical experiments. Furthermore, the critics note that such activities violate the spirit of the CTBT and its objectives, one of which is to halt the qualitative development of new nuclear weapons.

**Present Situation:** Thus far, both India and Pakistan are continuing with testing moratoria. While China has yet to ratify and the US has rejected ratification of the CTBT, both states as signatories are bound under the Vienna Convention on the Law of Treaties not to undertake any action to defeat the purposes of the Treaty. While this interpretation was disputed in certain quarters in the legal division of the US State Department, where one version was that the US would be within its rights to resume nuclear testing pending the EIF of the CTBT, the previous administration continued to voice strong support for the CTBT and pledged not to test again. As discussed in the previous section, new forces are emerging in the US and Russia arguing for new, low yield, nuclear weapons – development of which might well require full explosive testing. Furthermore, many in the NGO arms control community have expressed concern about China’s responses to US missile defences, that might include resumed testing to develop new weapon designs. Testing by China could provoke further testing by India, followed by Pakistan to respond to India. Thus, the present moratoria and restraints on resumed nuclear testing remain tenuous and could be broken given certain negative developments. And the controversy over sub-critical testing remains, even though the CTBT does not prohibit this activity at the insistence of the nuclear-weapon states.

**Recommendations:** All NPT member states, including the nuclear-weapon states, are politically bound by the provisions of the Final Document of the 2000 NPT Review Conference. That document calls for a moratorium on all nuclear explosions pending the EIF of the CTBT. This

commitment should be reiterated through a specific UNGA resolution this year, followed by similar resolutions in all years pending the CTBT's EIF. The next conference on facilitating the EIF of the CTBT, to be held on 25-27 September 2001 in accordance with the provisions of Article XIV of that Treaty, should also reiterate a similar restraint. All states should commit to the implementation of UNSCR 1172 that *inter alia* calls for a testing moratorium by India and Pakistan and also by all other states.

***3. The necessity of negotiations in the Conference on Disarmament on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices in accordance with the statement of the Special Coordinator in 1995 and the mandate contained therein, taking into consideration both nuclear disarmament and nuclear non-proliferation objectives. The Conference on Disarmament is urged to agree on a programme of work which includes the immediate commencement of negotiations on such a treaty with a view to their conclusion within five years.***

**Background:** As long ago as 1946, under the Baruch Plan tabled at the United Nations, the US proposed placing under international control all dangerous aspects of the nuclear fuel cycle, including uranium enrichment and fuel reprocessing. Other proposals to this effect were made, in 1956 by President Eisenhower, in 1964 by President Johnson, in 1969 by President Nixon, and in 1993 by President Clinton. The Soviet Union in 1982, for the first time proposed a cut-off, as a first step toward a freeze on nuclear weapons, at the UN Second Special Session on Disarmament. In 1988, US plutonium production was stopped due to safety reasons and a lack of demand. In 1989, President Gorbachev stated that the USSR would halt the production of HEU, and closed two plutonium-producing reactors, with the remaining two to be closed by the year 2000. President Clinton in his UN speeches since 1993 reiterated the call for such a ban on the production of weapon-grade material, and former Russian President Yeltsin was also in favour. Clinton in his 1993 speech noted that the US, Russia, France, and the United Kingdom had already halted production of fissile material for weapons.<sup>32</sup>

More than seven years have elapsed since United Nations General Assembly resolution 48/75L, of December 16, 1993, called for the negotiation of a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices, in the most appropriate forum<sup>33</sup>. The Conference on Disarmament (CD) then decided on January 25, 1994, to appoint a Special Coordinator to solicit the views of the CD membership on such a treaty, and that it was the appropriate forum. After much confused and muddled discussion between CD members, a weak and incomplete negotiating mandate was finally agreed on 23 March 1995, just a few weeks prior to the opening of the 1995 NPTREC. The 24 March 1995, report of the Special Coordinator (CD/1299), Ambassador Gerald Shannon of Canada, contained an agreed mandate which basically repeated the operative language from UNGA 48/75L together with the understanding that all issues pertaining to the scope could be addressed in the context of the treaty negotiation—hence, the key differences were fudged, and the Shannon report and mandate reflected the

maximum agreement possible at the time, given the sharp differences in the negotiating positions of states as well as in their objectives for a fissile material cut-off treaty (FMCT). The “programme of action” on nuclear disarmament adopted by the 1995 NPTREC, included the immediate commencement and early conclusion of a FMCT in accordance with the mandate contained in CD/1299.<sup>34</sup>

Differences over the scope and other important issues prevented the adoption of any other UNGA resolutions from 1994 through 1997, and stymied any progress at the CD until 11 August 1998, when preliminary negotiation started on the basis of CD/1299. On 4 December 1998, UNGA resolution 53/77I was adopted by consensus and it encouraged the CD to resume negotiation on a FMT during its 1999 session on the basis of the Shannon report and the mandate contained therein (CD/1299). In 1999, the UNGA again was unable to agree on a resolution on the FMCT. The 2000 NPTRC reiterated the necessity of negotiations on a FMCT at the CD, but placed the FMCT in the context of a work programme that would include immediate negotiation on such a treaty with a view to its conclusion within five years. Attempts by the NAC and Japan to secure commitment to the conclusion of a FMCT negotiation by 2005 were opposed by the nuclear-weapon states. On 20 November 2000, UNGA adopted resolution 55/33Y, which called for the CD to agree on a programme of work for the year 2001 that includes the immediate commencement of FMCT negotiations—a reference to complete such negotiations within five years was deleted due to Pakistan’s opposition.

**Present Situation:** At its 2000 sessions, as well as at its 2001 session to date, the CD has not been able to agree on a work programme, and thus to re-establish an ad hoc committee on a FMCT. The stalemate continued due to several reasons, including refusal of production moratoria by India, Israel and Pakistan, linkage between FMCT and nuclear disarmament, and linkage with missile defences. Three linkages bedevil reaching an agreement on a work programme at the CD, and without agreement on a work programme the CD cannot commence any negotiations. The Russian Federation on 29 January 2001, advocated “the earliest possible achievement of progress in Conference activity, including – on parallel tracks – the start of the work within its framework of the Ad Hoc Committees on weapons grade fissile materials and on talks to prevent an arms race in outer space”.<sup>35</sup> Concerned over US plans for missile defences, China has stated that while it regards the negotiation of a FMCT as a priority, it considers dealing with the prevention of an arms race in outer space as its first priority – in effect, China has made an explicit linkage between FMCT negotiations and negotiations on a new outer space treaty prohibiting the weaponization of space. The non-aligned countries, including India and Pakistan, have linked the start of FMCT negotiations to parallel negotiations at the CD on nuclear disarmament within a specified time-frame and on negative security assurances to non-nuclear-weapon states. Many Western states remain wedded to negotiating a FMCT as the next logical step toward nuclear disarmament, following the completion of the negotiation on a CTBT. The US in its eagerness to deflect criticism from its controversial missile defence plans conceded the linkages made by Russia and China in the negotiation on a joint NWS statement at the 2000 NPTRC—i.e. the reference to the negotiation of a FMCT as part of a work programme—and this linkage then was repeated in the Final Document and thus sanctified. These linkages

have not been disaggregated and the stalemate continues. In late August 2000, the then-President of the CD, distributed a proposal (CD/1624) outlining a possible programme of work that included the establishment of three ad hoc committees (AHC): one on a FMCT; one on an exchange of views on "practical steps" for nuclear disarmament; and one on PAROS.<sup>36</sup> The Bush Administration's stated commitment to deploy missile defences is not likely to help generate movement at the CD, as this will allow both China and Russia to continue with their respective linkages. This has been confirmed as to date the CD remains deadlocked despite intensive efforts by the CD President during its first month's session in 2001: "Given that words evidently cannot now describe an agreement between parties on the PAROS mandate in CD/1624, work programme consensus is not achievable. ... given current circumstances in major power relations...CD work programme agreement is currently not possible".<sup>37</sup> UNGA Resolution 55/33C sponsored by the NAC reiterated the 2000 NPTRC wording in its operative paragraph 3, while UNGA Resolution 55/33R sponsored by Japan went further and called for the immediate start of FMCT negotiations and their conclusion as early as possible before 2005, and UNGA Res. 55/33Y sponsored by Canada called for the establishment of an AHC to negotiate a FMCT and for agreement on a programme of work that includes the immediate commencement of negotiations on such a treaty.

**Recommendations:** Pending the CD being able to agree on a work programme, alternative approaches to facilitating the eventual negotiation of a FMCT could be explored. First, the nuclear-weapon states should be urged to maintain their production moratoria and to consider voluntary transparency measures. Between 1994-1996, the US unilaterally declassified the locations and quantities of excess weapon-usable plutonium and highly-enriched uranium, and made public a current balance statement of its plutonium production from 1944-1994. France and the UK also voluntarily declassified limited information on the gross quantities of their weapon-usable fissile material holdings. But Russia and China have not undertaken any transparency measures. Hence, second, the nuclear-weapon states should be urged to consult with one another with a view to establishing a voluntary transparency and accountability regime. Third, India, Israel and Pakistan need to be encouraged to announce production moratoria and to halt all further production of weapon-usable fissile material. Fourth, technical and scientific seminars could be arranged on the margins of the CD to discuss in preliminary terms, issues relating to scope, definitions, transparency and accountability, and verification -- seminars such as the ones sponsored by Germany (March 2001), Japan (May 2001), and by the Monterey Institute and UNIDIR (with the assistance of Canada, in May 2001) provide useful venues for substantive discussions and consideration of practical ideas. These activities could eventually prove useful to a FMCT negotiation. Similarly technical and political seminars on the margins of the CD could be held to address issues relating both to PAROS and nuclear disarmament -- such as the event co-sponsored by the Monterey Institute and UNIDIR (with the assistance of Canada, in May 2001). And lastly, efforts must continue at the CD to break the impasse and to reach agreement on a work programme, leading to the establishment of an ad hoc committee with a negotiating mandate to conclude a FMCT within five years, preferably before the end of 2005. Of course, the option remains of following the precedent of the Ottawa Process on landmines, which is for a group of states to lay the groundwork for negotiations removed from the CD. Such a course

might well fatally damage the institution of the CD, but it may well suffer a similar fate through continuing inactivity on formal negotiations.

**4. *The necessity of establishing in the Conference on Disarmament an appropriate subsidiary body with a mandate to deal with nuclear disarmament. The Conference on Disarmament is urged to agree on a programme of work which includes the immediate establishment of such a body.***

**Background:** The CD was established as the world's sole multilateral arms control negotiating forum by the First Special Session on Disarmament (UNSSOD) in 1978, and it became the successor to the then-Conference on the Committee on Disarmament. And it was that body's predecessor—the Eighteen Nation Disarmament Committee—that negotiated the NPT. The CD was given an agenda—the “decatalogue”—that identified ten priorities covering a broad range of disarmament matters. Nuclear weapon disarmament has always been the number one item on the agenda of the CD and it was under the chapeau of “cessation of the nuclear arms race and nuclear disarmament” that the CTBT was negotiated. Both the FMCT and "practical steps" for progressive and systematic efforts toward nuclear disarmament fall under this item. The overwhelming majority of non-nuclear-weapon states consider the CD to be an appropriate forum to at least discuss and deliberate on nuclear disarmament, while there are differences in views with respect to whether the CD is the appropriate forum to negotiate operational measures in the area of nuclear disarmament. The NWS, except for China, are unified in their belief that the CD is not an appropriate forum, nor can nuclear disarmament be negotiated in a multilateral forum such as the CD – this position runs counter to their support for negotiating the Chemical Weapons Convention, a chemical weapons disarmament treaty in the CD. The NWS would prefer unilateral, bilateral and plurilateral mechanisms to move forward on nuclear disarmament measures, and on the basis of a process determined solely by them.

Since the conclusion of negotiation on a CTBT at the CD in August 1996, the CD has been unable to agree on a work programme and specifically on further work on nuclear disarmament. One of the consequences of the protracted and complex CTBT negotiations and machinations by some of the nuclear-weapon states to rope in India, was that India has stated that it would not in the future agree to a work programme that did not include a specific item on nuclear disarmament. The non-aligned movement has also adopted a similar stance that calls for negotiations on nuclear disarmament in a time-bound framework. The rationale being to thwart a perceived attempt by some of the nuclear-weapon states and their allies to focus on nuclear “non-proliferation” as opposed to nuclear “disarmament” measures. Indeed, some senior officials from some of the nuclear-weapon states have characterized a FMCT as a non-proliferation rather than a disarmament measure and noted for the record that the CD is not the appropriate forum for the negotiation of specific nuclear disarmament measures as that remains within the sole purview of the nuclear-weapon states themselves. This battle over the issue of whether the CD is or is not the appropriate forum to address, consider, deal with, or negotiate nuclear disarmament measures continues to this day. However, since 1997 in particular, the nuclear-weapon states have been experiencing increased pressure at the CD, not only from the NAM but also from the New



Agenda Coalition, the NATO-5 states (Belgium, Germany, Italy, Netherlands and Norway), Australia, Canada and Japan, and others to agree to some mechanism under which nuclear disarmament could be dealt with at the CD. Over the past four years, 1997-2000, a number of proposals have been submitted and the rotational presidency of the CD has crafted various permutations of a work programme suggesting modalities for dealing with nuclear disarmament. The most recent presidential proposal dates to August 2000 and in building upon three earlier proposals, the so-called “Amorim”<sup>38</sup> compromise (CD/1624) is generally regarded as the closest approximation capturing the differing interests of states as reflected in the draft work programme. Under this compromise proposal, the CD would establish an Ad Hoc Committee (AHC) under agenda item 1 on the “cessation of the nuclear arms race and nuclear disarmament” to deal with nuclear disarmament, and it shall exchange information and views on “practical steps” for progressive and systematic efforts to attain this objective. This wording reflects an arduously constructed compromise balancing the views of the N-5, the nuclear-weapon states and the NAM. According to CD/1624, other AHCs would be established on a FMCT, PAROS, and security assurances, thus reflecting an attempt to treat the four key agenda items on an equal basis as a compromise solution – but only the AHC on a FMCT would have a negotiating mandate, while the AHC on nuclear disarmament would not and could only “deal with” that subject.

**Present Situation:** The Amorim proposal formed the basis for further consultations in late 2000 and early 2001 at the CD, but it has not yet attracted consensus, since it calls for negotiations only on a FMCT, and an exchange of views on nuclear disarmament and an examination of proposals for a regime on PAROS. The CD adopted its Agenda for the 2001 session on 23 January that included as item 1 “Cessation of the nuclear arms race and nuclear disarmament”. Under the presidency of Canada in January 2001, an attempt was made to “prepare a recommendation for immediate programmed work on the basis of CD/1624” with “calibrated” mandates, however, the “tight” linkages established by states held and no agreement on a work programme has been reached or is envisaged in the near future. The deadlock continues. Earlier, in March 2000, the US reconsidered its previous position regarding the role of the CD that emphasized an incremental bilateral approach to nuclear disarmament, which heretofore had been successful and its possibilities not exhausted. In an attempt to help bring about agreement on a work programme that included a FMCT, the US dropped its objections to the establishment of an AHC to discuss (deal with) nuclear disarmament. In this context, the US agreed to the establishment of an AHC to discuss issues related to nuclear disarmament. Its present position, subject to revision by the Bush Administration, is that the “single most important step” that the CD can take is to negotiate a FMCT, as that “is the only multilateral undertaking related to nuclear disarmament that can actually be negotiated now”.<sup>39</sup> Following the 2000 NPTRC, the US reluctantly adjusted its policy again to accept the establishment of an AHC to discuss outer space as a move to facilitate agreement on a work programme. Russia, which originally had supported the NAM proposal to establish an AHC on nuclear disarmament, changed its policy to one of opposition starting in 1999 as its strategic policy began to give greater prominence to nuclear weapons, and it found common cause (though for different reasons) with the US in opposing consideration of this item at the CD. While Russia expressed its willingness to cooperate with

other states on the issue of nuclear disarmament it did not consider it timely for the CD to start working on the programme of nuclear disarmament within specified time-frame. In arguing against the role of CD in nuclear disarmament, Russia underscored that the bilateral approach had not yet been exhausted, and that the transition from a bilateral to a plurilateral and then to a multilateral approach to nuclear disarmament should be smooth and operated step-by-step taking into account emerging international realities. It noted that nuclear disarmament could not be considered other than in close connection with the preservation of the ABM Treaty. Foreign Minister Ivanov stated at the CD on February 1 this year that any steps toward dealing with nuclear disarmament be realistic, balanced and specific; and that Russia supported the idea of establishing within the CD a subsidiary body entrusted with an exploratory mandate for broad discussions on the problem area of nuclear disarmament.<sup>40</sup> The precise meaning and implications of this new Russian formulation have not been explained as yet.

China has traditionally supported the NAM approach at the CD on nuclear disarmament and it remains in favour of the G-21 proposals (CD/1570 of 4 February 1999) and (CD/1571 of 18 February 1999) calling for an AHC to start negotiations on a phased programme for the complete elimination of nuclear weapons in a specified time framework, including a nuclear weapons convention (on the elimination of such weapons). China favours a “comprehensive and balanced programme of work” on PAROS, FMCT, nuclear disarmament and security assurances at the CD in a comprehensive and balanced manner. This means symmetrical progress in negotiations along three parallel tracks (FMCT, PAROS and nuclear disarmament). It has argued that “every agenda item addressed by the CD is closely related to security and that all aspects of security are inseparable...therefore each agenda item cannot but inherently link to other items”.<sup>41</sup> It continues to support CD/1624 as a basis for further consultation on continuing efforts to agree on a work programme.

**Recommendations:** As noted in the discussion on a FMCT, the CD has yet to agree on its work programme and without such an agreement there can be no progress in establishing a body at the CD to deal with nuclear disarmament. The US, Russia and France remain opposed to the establishment of an AHC on nuclear disarmament with a mandate that goes beyond an exchange of views, and many Western non-nuclear-weapon states have ceded the argument that the CD is not the appropriate forum to negotiate practical operational steps on nuclear disarmament. Thus, the mandate contained in CD/1624 would need to be revised or adjusted. In the meantime, technical and political seminars on the margins could address issues of scope, definitions, verification and negotiating approaches pending agreement on a work programme. Given recent pronouncements out of Washington and Moscow on nuclear weapons issues, it is not likely that their positions will change in the near future. Similarly, the NAM and China also remain wedded to their positions. Thus, an international conference on nuclear dangers, as proposed by the UN Secretary-General, could be helpful in bringing nuclear disarmament matters to a deliberative forum and possibly contribute to raising the public profile for action and involvement by civil society.

## ***5. The principle of irreversibility to apply to nuclear disarmament, nuclear and other related arms control and reduction measures.***

**Background:** Because the nuclear-weapon states have not agreed to any specific multilateral nuclear disarmament measures and have undertaken only bilateral or unilateral measures, the NAC and other states have sought codification and accountability regarding such reductions through the principle of irreversibility. That is that actual nuclear disarmament and other reduction measures should be supplemented by an additional commitment on irreversibility—i.e. that unilateral measures will not be renounced, that bilateral arrangements will not be repudiated, that deactivated and dismantled warheads and delivery systems, as well as surplus weapon-usable fissile materials, will never be returned to active inventories but will forever remain demilitarized.

**Present Situation:** Thus far the principle of irreversibility is being applied selectively to limited quantities of weapon-usable fissile material surplus to military requirements by Russia and the US. The material declared surplus is determined by each of the two parties on a voluntary basis, with no current legal requirements for such irreversibility. The status of France and the UK regarding irreversibility remains unclear, and China has not committed itself. Russia's ratification of the CTBT and START II has been linked to continuing US compliance with the ABMT, and includes provisions for the possible renunciation of the INF and START I and II, if the US violates or renounces the ABMT to deploy missile defences.

More worrisome is the new thinking in Washington seemingly underlying the reviews of defence and nuclear policy. The expressed views of US Defense Secretary Rumsfeld and his deputy, Paul Wolfowitz, indicate antipathy towards multilateral arms control processes and existing negotiated nuclear arms restraint, and an attraction for unilateralist tendencies embracing missile defences and leaving open options for regenerating robust nuclear forces. A report released in Washington in January this year involved the participation of a number of defence analysts and former US officials who are reportedly close to the new Bush administration<sup>42</sup>. A key conclusion of this study was that the United States must preserve its capability to adapt its offensive and defensive forces to rapid changes in the strategic environment. It added that the preservation of an adaptive capability need not stand in the way of potential nuclear force reductions, but that strategic adaptability would militate against the continuation of the traditional bipolar Cold War approach to strategic arms control. The report recommended that “further adjustment to the U.S. strategic forces must not be rendered practically or legally ‘irreversible’ via codification in the traditional arms control process”.<sup>43</sup> The report also poses a challenge of moving away from the traditional Cold War approach based on mutual assured destruction (MAD) enshrined in the ABMT and START agreements to an approach based on mutual reassurance that would be focused on full disclosure of both offensive and defensive force programmes. Should this line of reasoning prevail in the Bush administration's thinking and policy on nuclear weapons, the result would be to undermine the existing structure of strategic arms reductions and in particular most, if not all, of the 13 "practical steps" agreed at the 2000 NPTRC.

**Recommendations:** The irreversibility principle should apply particularly to the 1991 US/Russia unilateral reductions and dismantlements of non-strategic nuclear weapons, as well as systems covered by the START agreements, systems removed from service by France and the UK, and all weapon-usable fissile material recovered from dismantled warheads. China should be encouraged to adopt this principle as well. And India, Israel and Pakistan too could be encouraged to consider this principle. At the Helsinki Summit in 1997, and subsequently, the US and Russia have discussed incorporating irreversibility measures in a future START III, however, formal negotiation of such a treaty is not expected any time soon. Furthermore, irreversibility could also be taken to mean that existing bilateral treaties such as INF, ABM and START I and II, as well as unilateral measures undertaken to date, will not be repudiated or reversed. The US and Russia might well productively engage in mutual reassurance talks but the basis of such an engagement must necessarily be based on the foundation of the existing structure of negotiated strategic arms reductions. The next steps in nuclear disarmament could be based on some appropriate mix of unilateral and bilateral reduction and stability measures that need to be made irreversible. It must be made abundantly clear to the new Bush administration that a fundamental pre-requisite for promoting nuclear non-proliferation is continuing irreversible progress in strategic arms reductions.

**6. *An unequivocal undertaking by the nuclear-weapon states to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States parties are committed under Article VI.***

**Background:** After years of resistance, the nuclear-weapon states in their joint statement at the 2000 NPTRC included a specific reference to an “unequivocal commitment” to the ultimate goals of a complete elimination of nuclear weapons and a treaty on general and complete disarmament under strict and effective international control. In effect, this statement referred to the distant possibility of the elimination of nuclear weapons, without offering even the hint of any blueprint for achieving such a goal. Furthermore, the statement preserved a linkage claimed by the nuclear-weapon states between the elimination of nuclear weapons and a treaty on general and complete disarmament. Such linkage is contrary to the provisions of NPT Article VI, which separates the two undertakings—and such an interpretation was endorsed in the advisory opinion of the ICJ. But in a constructive move, the nuclear-weapon states agreed to a revised formulation proposed by the NAC at the 2000NPTRC and consented to an “unequivocal undertaking...to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States parties are committed under Article VI”— however, the nuclear-weapon states refused to agree to a sub-clause referring to “...in the course of the forthcoming review period 2000-2005, to engage in an accelerated process of negotiations...”. The US stated that it had always accepted its Article VI obligation to work toward nuclear disarmament, and that it believed that effective nuclear arms control enhanced its own as well as global security. The nuclear-weapon states’ affirmation of their “unequivocal undertaking” is regarded by some as an important victory for the non-nuclear-weapon states. For example, Mexico stated after the adoption of the final document that “what has always been implicit has now become explicit”.<sup>44</sup>

However, the nuclear-weapon states' insistence on the reference to Article VI maintains in their view their stated linkage to general and complete disarmament. Following the conclusion of the 2000 NPTRC, all five nuclear-weapon states provided their own interpretation of this subparagraph and cautioned that the wording remains ambiguous and subject to interpretation in accordance with national security interests. Furthermore, the nuclear-weapon states cautioned that expectations should not be raised regarding the possibility of rapid progress on nuclear disarmament in the near term.

**Present Situation:** It remains difficult to ascertain how the nuclear-weapon states will or can implement their “unequivocal commitment” and “unequivocal undertaking”? As already noted, the nuclear-weapon states interpret the 2000 Final Document in ways that suit their respective purposes and the ambiguity in the text leaves room for subjective interpretation. Indeed, the nuclear-weapon states go so far as to assert that were it not for the ambiguity inherent in the language on nuclear disarmament in the section reviewing Article VI in the Final Document, there would have been no final document.

**Recommendations:** Despite the backing off by the nuclear-weapon states, it is important for the non-nuclear-weapon states to continue to advance their interpretation regarding the meaning of the “unequivocal undertaking” through UN resolutions, summit statements, statements at the CD and NPT fora. This matter should be revisited during the forthcoming PrepCom sessions with a view to placing more definitive interpretations on the record. Furthermore, the merits should be considered for submitting the nuclear disarmament portions of the 2000 and 1995 documents to the ICJ for an advisory opinion.

***7. The early entry into force and full implementation of START II and the conclusion of START III as soon as possible while preserving and strengthening the ABM Treaty as a cornerstone of strategic stability and as a basis for further reductions of strategic offensive weapons, in accordance with its provisions.***

**Background:** US President George H. Bush and Russian President Boris Yeltsin signed START II on January 3, 1993. The US Senate ratified the original START II agreement on 26 January 1996, but has not ratified the 1997 extension protocol or the concurrently negotiated ABMT succession, demarcation, and confidence-building agreements. The Russian Dumas ratified START II, its extension protocol, and the 1997 ABM-related agreements on 14 April 2000. By 31 December 2007, the US and Russia are not to deploy more than 3,000-3,500 strategic nuclear warheads each on land-based intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs), and heavy bombers. By 31 December 2003, the US and Russia must “deactivate” all strategic nuclear delivery vehicles to be eliminated under the treaty by removing their nuclear warheads or taking other jointly agreed steps.

During the March 1997 summit meeting in Helsinki, US President Bill Clinton and Russian President Boris Yeltsin agreed on the basic elements of START III. At the Moscow Summit in September 1998, Clinton and Yeltsin reiterated their commitment to begin formal negotiations

on START III as soon as Russia had ratified START II. By December 31, 2007, according to the projected START II limit, the US and Russia will each deploy not more than 2,000-2,500 strategic nuclear warheads. Russia has stated subsequently that it is willing to consider negotiated levels as low as 1,500 strategic nuclear warheads within the context of a START III agreement. In addition, the US and Russia agreed in Helsinki to negotiate measures relating to the transparency of strategic nuclear warhead inventories and the destruction of strategic nuclear warheads as well as other jointly agreed technical and organizational measures to promote the irreversibility of deep cuts. The US and Russia also agreed that in the context of START III negotiations, their experts will explore, as separate issues, possible measures related to nuclear long-range sea-launched cruise missiles and tactical (non-strategic) nuclear systems, including appropriate confidence-building and transparency measures, including transparency in nuclear materials.

At the G-8 Summit in Cologne in June 1999, the US and Russia agreed that strategic stability can be strengthened only if there is compliance with existing agreements between the two parties on limitation and reduction of arms. They reaffirmed their readiness, expressed in Helsinki in March 1997, to conduct new negotiations on strategic offensive arms aimed at further reducing for each side the level of strategic nuclear warheads, elaborating measures of transparency concerning existing strategic nuclear warheads and their elimination, as well as other agreed technical and organizational measures in order to contribute to the irreversibility of deep reductions including prevention of a rapid build-up in the numbers of warheads and to contribute through all this to the strengthening of strategic stability in the world. They also agreed that proceeding from the fundamental significance of the ABM Treaty for further reductions in strategic offensive arms, and from the need to maintain the strategic balance between the two countries, they reaffirmed their commitment to the ABMT, “which is a cornerstone of strategic stability”, and to continuing efforts to strengthen the Treaty, to enhance its viability and effectiveness in the future.<sup>45</sup>

The US and Russia conducted regular consultations on a future START III from the fall of 1997 through to the fall of 2000, with the exception of the spring and early summer of 1999. Formal talks did not commence because the US was not prepared to enter into a negotiation until Russia had ratified START II.

Given their differences over missile defences, at the 2000 NPTRC, the US and Russia agreed to rely upon their statement issued at the G-8 Summit in Cologne on 20 June 1999, as a starting point for addressing the issues of the ABMT and missile defences.<sup>46</sup> This understanding eventually enabled agreement on the statement of the nuclear-weapon states at the 2000 NPTRC, that referred to the preservation and strengthening of the ABMT as a cornerstone of strategic stability and as a basis for further strategic offensive reductions. And this reference was included largely unchanged in the Final Document.

**Present Situation:** While the Clinton administration decided in the fall of 2000 to postpone a decision on NMD, the Bush administration has consistently maintained its commitment to the deployment of a missile defence system. And senior officials continue to question the continuing

validity of the ABMT, for example, Defense Secretary Donald Rumsfeld dismissed the ABMT as “ancient history” and a “straitjacket” during his confirmation hearings. And Secretary of State Colin Powell has stated that the ABMT is “probably no longer relevant”.<sup>47</sup> The US Administration has commissioned a quadrennial policy review, including a complete review of its nuclear policy, and it is expected that by the end of 2001, the Bush Administration could announce a unilateral reduction of its strategic offensive forces (that could go as low as 1,000-1,500 deployed strategic warheads) together with a commitment to proceed with missile defences.<sup>48</sup> Reports abound that the new administration might not be interested in pursuing negotiated arms control arrangements and might prefer unilateral actions consonant with its own assessments of national security requirements. Other reports refer to the need to build new nuclear weapons and to maintain a hedge against future uncertainty.<sup>49</sup>

Russia has continued to insist that it will withdraw from START I and II, CFE and probably also the INF treaties if the US pushes ahead with its controversial deployment of a national missile defence system and withdraws from the ABMT. To counter US concerns about ballistic missile proliferation, Russia has offered alternatives to NMD and also proposed a mobile land-based missile defence system in partnership with NATO,<sup>50</sup> and proposed a global control system for the non-proliferation of missiles and missile technology.

At their Summit in Moscow in June 2000, Presidents Putin and Clinton signed an agreement on the establishment of a joint early warning centre for the exchange of information on missile launches and early warning. The two sides characterized this agreement as a significant milestone in ensuring strategic stability between them.<sup>51</sup> The Joint Data Exchange Centre (JDEC) will perform three main functions: (1) ensure the continuous exchange of information on ballistic missile and space satellite launches via the Russian and US early warning (EW) systems; (2) clarify ambiguities utilizing information gathered from national EW systems; and (3) establish the conditions for the creation of a united database on notification of ballistic missile and space satellite launches.<sup>52</sup>

A joint statement on the “principles of strategic stability” was also issued at the Moscow Summit. The two presidents agreed to strengthen strategic stability and international security, that deterrence has been and remains a key aspect of stability and predictability in the international security environment, to the essential contribution of the ABM Treaty to reductions in offensive forces, and reaffirmed their commitment to that Treaty as a cornerstone of strategic stability.<sup>53</sup>

A US-Russia “strategic stability cooperation initiative” was agreed between Presidents Clinton and Putin at the UN Millennium Summit in New York, on September 6, 2000. This initiative builds upon the two previous agreements reached in Moscow, noted above. Under this initiative the two sides would expand their cooperation to cover new forms of cooperation in the non-proliferation of missiles and missile technologies, including cooperation in the area of theatre missile defence.<sup>54</sup> The “implementation plan” included six specific initiatives: bilateral discussions on emerging ballistic missile threats; conducting joint theatre missile defence

exercises; continuing work on the JDEC, to host US-Russia EW information centre; completion of a bilateral agreement on pre-launch notification of ballistic missile launches; a “global” approach to missile non-proliferation; and expert meetings to consider expanded cooperation on CTBT verification and warhead safety.

Given that the Bush administration has just begun a Nuclear Posture Review and will commence a Quadrennial Defence Review, whose results are not expected until the end of the year, it is difficult at this stage to predict their outcomes. However, as noted previously, the US could decide to move in the direction of unilateral reductions and measures rather than to negotiate a START III – furthermore, it is not yet clear whether the Bush administration will move to implement START II. Given recent hard line statements issued by the US defense secretary charging Russia with aiding WMD-proliferating countries, thus necessitating a US response, and strong responses from Moscow, some arms control experts warn against the risk of a Cold War-II that would possibly result in negating existing arms control achievements and the onset of a new arms race. Others caution against the unilateralist tendencies of the Bush administration and the advice of some that since Russia is no longer a peer, the US can afford to implement a defence policy of its own choosing. Similarly, relations between the US and China have also frayed over the issues of US NMD and potential sales of advanced weapons to Taiwan. Thus, in the near term, the dynamics for progress in nuclear disarmament remain problematic.

**Recommendations:** Calls must continue to be made to bring about the full ratification and implementation of START II by both the US and Russia—however, realistically, START II will continue to be held hostage to the US’ missile defence plans. Furthermore, the Allies and other states should continue to insist on the early conclusion of a START III agreement—unilateral reductions, while welcome, can easily be reversed and do not have the same legally binding characteristics as negotiated treaties, and also lack appropriate verification and accountability. And there needs to be a discussion between the US and Russia to reach a common understanding on the meaning and requirement of the concept of “strategic stability” that builds upon the Cologne Summit statement and provides clarity with respect to the meaning of this concept as it is referred to in the 2000 NPTRC Final Document.

#### ***8. The completion and implementation of the Trilateral Initiative between the United States of America, the Russian Federation and the International Atomic Energy Agency.***

**Background:** Placing fissile materials identified by nuclear-weapon states as excess to their military requirements under an appropriate international verification regime would ensure that such materials remain irreversibly removed from nuclear weapons or other nuclear explosive devices, or from military applications. Under the Trilateral Initiative launched in 1996, the Russian Federation, the United States and the IAEA are creating an Agency verification regime appropriate for weapon-origin and other excess fissile material. The expectation is that this regime could provide a framework for verifying excess fissile material in all states possessing nuclear weapons. Work under the Trilateral Initiative has been proceeding for some time. A model verification agreement will, in the not too distant future, be completed for presentation to



the IAEA Board of Governors, together with an estimate of the costs associated with the verification of the storage and disposition of excess plutonium and highly enriched uranium in the Russian Federation and the United States, out to 2010, together with proposals for funding the verification regime. The Trilateral Initiative will result in the first IAEA verification regime designed for disarmament purposes. As it is presently being worked out, such a regime would include provisions for verifying classified forms of fissile materials including nuclear weapon components, and to allow the verification activities to commence much earlier than would otherwise be the case. Twenty meetings have been held on various legal, technical and financial aspects of the Initiative since December 1999, and a further twenty meetings were scheduled before the end of 2000.<sup>55</sup>

At the Moscow Summit meeting on 4 June 2000, Presidents Putin and Clinton signed a “United States-Russian Federation Plutonium Disposition Agreement”, and on 1 September 2000, US Vice President Al Gore and Russian Prime Minister Mikhail Kasyanov signed an agreement on the management and disposition of plutonium designated as no longer required for defence purposes.<sup>56</sup> These agreements commit each Party to dispose of at least 34 metric tons of weapon-grade plutonium by irradiating it as fuel in reactors or by immobilizing it with high-level radioactive waste, rendering it suitable for geologic disposal. The United States intends to use 25.5 tons as fuel and to immobilize 8.5 tons; the Russian Federation intends to use 34 tons as fuel. Both Russia and the US will accelerate their work leading toward construction of new industrial-scale facilities for conversion of the plutonium and its fabrication into fuel. The Agreement requires each side to seek to begin operation of such industrial-scale facilities by 2007, to achieve a disposition rate of at least 2 metric tons of weapon-grade plutonium per year and, working with other countries, to identify additional capacities at least to double that disposition rate.<sup>57</sup> The agreement establishes certain rights, obligations and principles for monitoring and inspecting the disposition and the end products to ensure the plutonium can never again be used for nuclear weapons or any other military purposes. The agreement bans reprocessing of this plutonium until the entire 34 metric tons have been disposed. After that, any reprocessing of this plutonium must be done under effective, mutually agreed monitoring measures. The agreement also anticipates that any additional plutonium designated in the future as excess to defence needs can be disposed under these same terms and conditions. The Russian programme is estimated to cost over US\$1.7 billion over twenty years. The US programme, which includes immobilization facilities as well as conversion and fuel fabrication facilities, is estimated to cost US\$4 billion.

Russian Minister of Atomic Energy Evgueny Adamov, the Administrator of the National Nuclear Security Administration of the US General John Gordon, and IAEA Director-General Mohamed ElBaradei, met in Vienna on 18 September 2000, to review progress on the Trilateral Initiative. The removal of weapon-origin fissile material from the defence programmes of the Russian Federation and the US is in furtherance of the obligations of the two states under Article VI of the NPT. IAEA verification under this Initiative is intended to promote international confidence that fissile material made subject by either of the two states to IAEA verification will remain irreversibly removed from nuclear weapon programmes. An essential requirement of the

verification system and the methods to be applied is that they must allow the IAEA to draw credible and independent conclusions to assure that the objectives of verification are met. At the same time, each state must, in keeping with its obligations under Article I of the NPT, assure that the IAEA does not gain access to information relating to the design or manufacture of such weapons. Substantial progress has been made towards completing a Model Verification Agreement and the three parties are collaborating in developing and testing special verification equipment for use with classified forms of plutonium. It will incorporate neutron and gamma ray measurement systems, operating within a system of “information barriers” designed to allow the inspectors to derive sufficient information for the verification to be credible and independent, while preventing access to classified information.

**Present Situation:** Work is proceeding towards reaching agreement on the verification arrangements to be applied in specific facilities identified by the Russian Federation and the US where the new agreements would apply. In the Russian Federation, four rounds of discussions were held on the verification methods to be applied at the Mayak Fissile Material Storage Facility, located at Ozersk. In the US, discussions between US and IAEA experts are well advanced on inspection arrangements applicable to the K-Area Material Storage Facility, located at the Savannah River Site. The three parties will meet again in September 2001 to plan the implementation of the Trilateral Initiative.<sup>58</sup>

**Recommendations:** Both the Bush Administration and the Putin government should be encouraged to continue with their activities to facilitate the conclusion and implementation of the Trilateral Initiative. And the US Administration should be encouraged to maintain the financial commitments under the CTR and other programmes to secure weapon-usable fissile materials in Russia and the other former Soviet states, as well as to the fulfillment of the Trilateral Initiative. Pending the conclusion of the model verification agreement under the Trilateral Initiative, both the US and Russia should consider placing additional quantities of excess weapons fissile material under IAEA safeguards, and to allow for trial visits and inspections as confidence-building measures.

***9. Steps by all the nuclear-weapon States leading to nuclear disarmament in a way that promotes international stability, and based on the principle of undiminished security for all.***

**Background:** Six concrete measures have been identified to promote further steps leading to nuclear disarmament, under a common chapeau highlighting “international stability” and the “principle of undiminished security for all”. These six measures derive from the communiqués and UN resolutions presented by the NAC between 1998-2000, and from the recommendations of the Canberra Commission and Tokyo Forum reports.

The NAC called for early and interim steps *inter alia*: to adapt nuclear policies and postures to preclude the use of nuclear weapons; de-alerting and removal of warheads from delivery vehicles; reductions in tactical nuclear weapons leading to their elimination; greater transparency with regard to nuclear arsenals and fissile material inventories; irreversibility in removing excess

fissile material from weapons programmes; and irreversibility in all nuclear disarmament, nuclear arms reduction, and nuclear arms control measures.

Discussion and negotiation on "practical steps" for the systematic and progressive efforts on nuclear disarmament took place in Subsidiary Body 1 (SB.1), within the framework of Main Committee I at the 2000 NPTRC. SB.1 divided its work into two parts, one dealing with completion of unfinished business, such as the entry-into-force of the CTBT, negotiation of a FMCT, and completion of the START process; and the second part addressing further measures and steps in nuclear disarmament. Following several early drafts, on 11 May, a 17-paragraph draft SB.1 report, referred to as "finely balanced", was submitted to MC.I for further consideration, and it included references to *inter alia*: increased transparency with regard to nuclear arsenals and fissile material inventories; annual reports within the NPT review process on the implementation of Article VI and paragraph 4 (c) of the 1995 "principles and objectives"; further reduction of non-strategic nuclear weapons with transparency leading to their elimination; de-alerting and de-activating of systems; and a diminishing role for nuclear weapons in security policies. At Russia's insistence, there were no less than four references to strategic stability, each conditioning an action item.

A further draft of the SB.1 paper appeared on 15 May but met with criticism by various parties. Some of the NATO members complained that it was watered down too much with regard to transparency, EIF of the CTBT; FMCT and non-strategic nuclear weapons; while Russia objected to the section dealing with tactical nuclear weapons. The final hard compromises on the report of SB.1 were finally negotiated between the NWS and the NAC, and the reformulated product of SB.1 agreed on 17 May ended up as paragraph 15 under Article VI in the Final Document of the Conference, once it was accepted by all other states. The overall chapeau remained unchanged from the 11 May draft but the 17 paragraphs were reformulated and consolidated into 13 paragraphs with several items placed under one particular paragraph with its own specific chapeau. This paragraph (number 9 within paragraph 15) outlined six specific steps for the NWS in the context of international stability and based on the principle of undiminished security for all. This reflected the compromises made by both the NAC and the NWS that made it possible for the NWS to agree to the operational measures in the context of international stability and undiminished security for all states.

The NAC proposals were only accepted by the nuclear-weapon states when these were "conditioned" by the chapeau at the insistence of Russia and China who were prepared to accept the measures only in the context of "strategic stability". Once again ambiguity and lack of clarity facilitated agreement. As with other concepts, each of the nuclear-weapon states defines these concepts differently. For example, Russia remains opposed to consider measures to limit or control non-strategic nuclear weapons and interprets other measures through its lens of strategic stability. China remains opposed to unilateral nuclear reductions, enhanced transparency and the negotiation of a FMCT without parallel negotiation on PAROS. While the US and France are prepared to accept an AHC at the CD to "deal with" nuclear disarmament, they oppose

multilateral negotiation on nuclear disarmament. Despite these drawbacks, it is important that the nuclear-weapon states are enjoined to take appropriate steps to implement the steps discussed below, which can be considered as a new programme for action in the realm of nuclear disarmament.

**Recommendations:** It must be emphasized that by definition all nuclear disarmament measures, that lead to fewer weapons, lowered alert status, enhanced accountability, increased restraint, promote compliance with existing agreements, enhance confidence, and contribute to the overall goal of achieving nuclear disarmament, promote international stability and undiminished security for all. The NWS must not utilize narrowly construed or self-serving formulations to delay the implementation of any of the thirteen steps.

***9A. Further efforts by the nuclear-weapon States to reduce their nuclear arsenals unilaterally.***

**Background:** Following the unsuccessful putsch in the Soviet Union in August 1991, then US President George H. Bush initiated unilateral reductions in numbers and deployments of non-strategic nuclear weapons. The USSR followed suit shortly thereafter and announced greater quantitative reductions in this category of nuclear weapons. Later in 1996-1998, France and the UK also unilaterally reduced non-strategic nuclear weapons, eliminated certain weapon programmes and cut back on the op tempo of strategic forces. Unilateral disarmament measures while welcome can be timely, implemented swiftly by executive fiat rather than going through normal legislative oversight processes, apply to both current and future weapon systems, enhance confidence, and can jump start an arms reduction process. On the other hand, unilateral measures since these are not formally negotiated and are not legally binding, can be easily halted or reversed, and are usually not subject to accountability, monitoring or verification. For example, no definitive or official figures have been released by the US or Russia on the actual numbers of their non-strategic nuclear weapons covered by their respective August 1991 unilateral measures.

**Recommendations:** As discussed above, the Bush Administration might undertake unilateral measures including reduction in strategic offensive forces down to some 1,000-1,500 deployed strategic nuclear warheads but in the context of moving forward on missile defences. Other measures could include unilateral de-alerting and/or de-activation of weapons. The US apparently would invite Russia to join it in announcing and implementing its own unilateral reductions. In the current context, both the US and Russia should be encouraged to unilaterally stand down those systems slated for elimination under START II. Furthermore, the US and Russia should be encouraged to implement additional steps, such as unilaterally reducing operational strategic systems to the levels currently envisaged under a future START III. Furthermore, Russia and the US could consider further unilateral cuts in non-strategic nuclear weapons, including unilateral declarations of inventories (deployments, storages, dismantlements) of this class of weapons. However, despite the convenience and speed of unilateral measures, these should not substitute for further continuing reductions and dismantlements as part of a negotiated START process; rather unilateral measures should complement and supplement an expanded and fast-track START process. The UK and France

could also contemplate further unilateral reductions. And China ought to be encouraged to unilaterally retire older designs of its nuclear weapons. In addition, nuclear-weapon capable states--India, Israel and Pakistan--should consider unilateral limits on weaponization, ballistic missiles and transparency measures.

***9B. Increased transparency by the nuclear-weapon States with regard to their nuclear weapons capabilities and the implementation of agreements pursuant to Article VI and as a voluntary confidence-building measure to support further progress on nuclear disarmament.***

**Background:** Except for China, the other four nuclear-weapon states have implemented unilateral and/or negotiated transparency measures of varying degrees. With the advent of sophisticated national technical means of intelligence gathering, including space-based sensors, the veil of secrecy and opacity of weapon programmes has been pulled back. Unclassified estimates of weapon capabilities and inventories abound in the non-governmental sector, and dedicated satellite imagery can now be purchased at a cost of a few hundred dollars. For nearly fifty years, weapon development programmes in the nuclear-weapon states have been cloaked in varying degrees of opacity and disinformation. Worst-case threat assessments, along with other contributing factors, led to the development and deployment of multiple generations of nuclear warheads in their tens of thousands, a glut of highly-enriched uranium and weapon-grade plutonium was produced, and more than two thousand nuclear test explosions were carried out in four environments. The culture of secrecy and deception in nuclear weapon matters was gradually stripped down to some extent starting in the 1970s, and with the democratization of nuclear arms control through the involvement of civil society, nuclear bureaucracies faced greater challenges for accountability. Transparency measures, whether unilateral or negotiated, now form an integral part of modern arms control and their legitimacy, scope and application needs to be greatly expanded in support of the quest for achieving the elimination of nuclear weapons. The absence of transparency measures can lead to misperception, dire threat assessments and decreased confidence resulting in the possibility of a renewed arms race, heightened danger of accidental war and impediments to reductions in weapon inventories. Starting in 1995, the five nuclear-weapon states have provided varying levels of data regarding their national implementation of Article VI in the review process of the NPT. However, such reporting is not standardized, may be incomplete, and is not subject to verification of accuracy.

**Recommendations:** Concepts of a nuclear-weapon register, and a weapon-usable fissile material register, have been unsuccessfully proposed in the past. Recently a “code of conduct” for ballistic missiles has been proposed that includes certain transparency elements. Efforts should be re-dedicated to craft the modalities of additional transparency measures such as annual declarations of nuclear weapon and weapon-usable fissile material inventories of the nuclear-weapon states, as well as of delivery systems. Such transparency measures should also be undertaken in the context of the NPT review process leading to declarations at PrepCom sessions and at review conferences. The review process could help establish a standardized format for the nuclear-weapon states to report their progress in nuclear arms reductions, implemented as a result of unilateral and/or negotiated initiatives. The model established by the US to have a

senior official provide a briefing on nuclear weapon matters at NPT and other UN fora is a welcome and useful development. The other nuclear-weapon states should be encouraged to arrange for similar briefings. And the NWS should be encouraged to support a database on their respective nuclear weapon holdings, to be maintained by the UN Department for Disarmament Affairs.

***9C. The further reduction of non-strategic nuclear weapons, based on unilateral initiatives and as an integral part of the nuclear arms reduction and disarmament process.***

**Background:** Over the past decade attention has focused on reductions in, and safety and security of, strategic nuclear weapons in the context of START I/II and the denuclearization of the Soviet successor states—Belarus, Kazakhstan, and Ukraine. Non-strategic, or tactical, nuclear weapons have been largely ignored following the successful conclusion and implementation of the 1987 INF Treaty and the fall 1991 Bush/Gorbachev unilateral initiatives on reductions in non-strategic nuclear weapons. These weapons comprise those with ranges under 500 kilometres.

Under its unilateral initiative of fall 1991, the US has removed and destroyed all ground-launched tactical nuclear weapons that were stationed in Europe, as well as nuclear mines. In addition, all naval tactical nuclear weapons, including sea-launched cruise missiles, have been removed and stored on land. Nuclear weapons stationed in South Korea have also been withdrawn. In all, the US will reduce its inventory of non-strategic nuclear weapons by more than one-third. The United States active tactical stockpile reportedly numbers approximately 1,500 warheads (with several thousands in storage) though one recent report puts the active inventory in the US at 820,<sup>59</sup> including some 181 B61 (Mod. -3, -4, -10) air-delivered warheads still deployed in six NATO countries in Europe. United States military planners, however, remain interested in the perceived deterrent value of non-strategic nuclear systems to thwart chemical and biological weapons use by so-called “rogue” or “states of concern” and some have advanced the requirement for a new generation of lower-yield non-strategic nuclear weapons.

Following the US initiative in fall 1991, the Soviets responded by announcing the removal and elimination of tactical nuclear warheads from ground-launched missiles, artillery and mines, in addition to the removal of nuclear warheads from tactical aviation and naval units, and to place them in central storage. These reductions were subsequently confirmed by President Boris Yeltsin in 1992. The Soviet reductions and eliminations would amount to more than two-thirds. In 1991, reportedly Russia held the entire stockpile of some 21,700 non-strategic nuclear warheads produced by the former Soviet Union, of which some 12,000 were slated for elimination under the Gorbachev initiative thus leaving approximately 8,400 in storage, with around 3,000 of that number in the active inventory.<sup>60</sup>

Non-strategic nuclear weapons traditionally have been deemed the most dangerous and the most destabilizing due to their portability, proximity to zones of conflict, lack of strong permissive action links, dangers of pre-delegation, and the risk of early, pre-emptive or, accidental use. Given the deterioration in the Russian armed forces and the nuclear complex, the safety and security of non-strategic nuclear weapons remains an important concern. These concerns are

further exacerbated following Russian threats to either re-deploy non-strategic nuclear weapons in Belarus or along Russia's western and southern borders and on ships in the Baltic Sea, or to make additional ones.

The 2000 NPTRC Final Document for the first time addressed the issue of non-strategic nuclear weapons. Both at the review conference and at the 1997-1999 sessions of the PrepCom, several states from all political groupings called for further reductions in, and the elimination of, non-strategic nuclear weapons. Even the NATO-5 called for reductions in this class of weapons in a transparent and irreversible manner, including the reduction and elimination of non-strategic nuclear weapons in the overall nuclear arms reduction process. Russia, which voiced strong objections on this item, eventually compromised and accepted a call for further reductions only as a unilateral measure, but the 2000 NPTRC failed to include a call for the elimination of non-strategic nuclear weapons.

**Present Situation:** In January this year, leaked intelligence reports in the US media charged that Russia had deployed non-strategic nuclear weapons in its Kaliningrad Oblast. These reports were immediately dismissed by Russia.<sup>61</sup> Interest in non-strategic nuclear weapons is increasing both in Russia and in the US and the Kaliningrad episode demonstrated that this class of weapons is not subject to transparency, accountability or verification.<sup>62</sup> The 1991 unilateral reductions and withdrawals could easily be reversed and in any case there are no verification or monitoring mechanisms to ensure that the promised cuts have indeed been implemented. Nor are movements or redeployments of these weapons subject to notification or verification of any sort.

The 14-15 December 2000, NATO "Report on CSBMs, Verification, Non-Proliferation, Arms Control and Disarmament,"<sup>63</sup> in its section on initiatives with Russia within the Permanent Joint Commission (PJC) context included a call for a reciprocal data exchange on sub-strategic nuclear forces. The objective would be to enhance transparency and knowledge of the size of the US and Russian stockpiles. This is an important breakthrough and reflects NATO members' concerns about the safety and future of Russia's non-strategic nuclear forces. On the other hand, the limited nature of NATO's proposed initiative also reflects a lack of consensus and transparency within the Alliance on the issue of non-strategic nuclear weapons.

In the context of the negotiations on a Central Asian Nuclear-Weapon-Free Zone (CANWFZ), where the five Central Asian states have made considerable progress in a draft treaty text, the question of non-strategic nuclear weapons and their "transit" has brought the negotiation to a halt. Russia had endorsed earlier calls for a CANWFZ beginning at the 1995 NPTREC and at 1997 Tashkent conference. Following NATO's bombing campaign in Kosovo, Russia increased the role of nuclear weapons in its national security concept. Furthermore, it interpreted the 1992 Tashkent Collective Security Treaty, involving the participation Kazakhstan, Kyrgyzstan and Tajikistan, as giving it the right to deploy Russian nuclear forces on their territories for defensive purposes.<sup>64</sup>

**Recommendations:** With the advent of ‘smart’ advanced conventional munitions, non-strategic nuclear weapons are no longer as crucial for military planners, as they once were during the height of the Cold War. Reportedly, even the United States Air Force would prefer to remove its remaining B61 nuclear bombs from Europe. Security would be enhanced if steps were taken to reaffirm and to codify the 1991 Bush-Gorbachev declarations and to agree on a framework on data exchanges covering numbers and locations of non-strategic nuclear warheads, monitored central storage, and warhead deactivation and dismantlement. Both the United States and the Russian Federation should be encouraged take steps to withdraw all non-strategic nuclear weapons from Europe–i.e. the area from the Atlantic to the Urals–and further to consider the complete prohibition of this class of weapon, perhaps in the framework of START III or a separate regime. In addition, as already noted, both the US and Russia should agree on transparency and accountability measures for this category of nuclear weapons–these include data exchanges on holdings and status of the weapons; removal of all non-strategic nuclear weapons to secure storage with no movement outside of storage without advance notification; and a commitment for a no-increase in numbers deployed.<sup>65</sup> As recommended in the NATO report of last December, the Alliance should initiate a full dialogue with Russia on a data exchange covering base inventory, deployment, storage, and dismantlement of non-strategic nuclear weapons. The seven NATO countries where US non-strategic nuclear weapons are deployed–Belgium, Germany, Greece, Italy, Netherlands, Turkey and UK–should also engage in transparency and accountability and announce the locations of bases and the number of vaults on their respective territories.<sup>66</sup> Furthermore, NATO should be encouraged to make public its nuclear policy planning doctrine as contained in the MC/400/ series of documents; and each of the non-nuclear-weapon state members of NATO should produce arms control impact assessments showing how their involvement with NATO ‘s non-strategic nuclear weapons is in compliance with the NPT and its associated review conference documents.

The non-strategic nuclear weapons retired from service by France and the UK also are not subject to any form of transparency or verification. These two countries too should be encouraged to consider and implement transparency measures. And a global treaty could be considered to ban non-strategic nuclear weapons entirely–though, in negotiating such an instrument, several thorny issues such as definitions and characteristics would need to be hammered out. Russia should be encouraged to modify its policy regarding nuclear weapons in the context of CANWFZ and facilitate the establishment of that NWFZ.

As discussed at the Helsinki Summit, non-strategic weapons should be included in the framework of START III negotiations. Should START III be delayed, the US and Russia should conclude an interim bilateral agreement on non-strategic nuclear weapons, codifying their 1991 initiatives and including a pledge for a no-increase in numbers, and no redeployments. The merits of a novel warhead accounting formula could be considered, in which there might be a single aggregate limit on deployed warheads, leaving each side to determine its own mix of strategic and non-strategic nuclear weapons.



Furthermore, interested states should co-sponsor a Resolution at this year's First Committee calling for restraint, transparency and accountability with regard to non-strategic nuclear weapons, for the codification of the 1991 unilateral initiatives, and for increased dialogue.

**9D. Concrete agreed measures to further reduce the operational status of nuclear weapons systems.**

**Background:** The joint statement of the nuclear-weapon states at the 2000 NPTRC was noteworthy in stating that “none of our nuclear weapons are targeted at any state”. Even with the end of the Cold War, the US and Russia continue to maintain nuclear weapons on the same high-alert status as during the Cold War, each side can launch more than 2,000 nuclear warheads within seconds of a launch order and a further 2,000+ warheads within the following 10-15 minutes—through de-alerting this reaction time could be lengthened, the risk of accidental launches (particularly by Russia’s decaying forces) could be lessened, thus enhancing global security. The US continues to feel vulnerable and still suffers from a Pearl Harbour syndrome or the over-riding fear of “a bolt from the blue”, thus creating a defining need for an external threat to maintain a national security state. Both the US and Russia remain fixated against a deliberate surprise nuclear attack from the other side, thus necessitating “launch on warning” capabilities and the requirement for multiple warheads arriving at the same aim points. Reportedly, some 69 US nuclear warheads are targeted at Moscow alone. Given the deterioration of early warning capabilities and greater reliance on ICBMs, Russian planners feel pressured to remain on an extremely prompt launch on warning posture. Such postures increase the probability of accidental release, equipment failures, and rapid responses. As part of its strategic defence review, the UK reduced the op tempo of its fleet ballistic missile submarines (SSBNs), to a status where it would take days, rather than hours or minutes, to launch missiles. Russian SSBN op tempo has been reduced as well due to cost considerations and many of the boats remain moored in port (hence vulnerable to a counter-force attack). US defence planners, on the other hand, argue that de-alerting will create dangerous instabilities.

**Present Status:** Respected authorities in the US have come around to supporting “de-alerting” measures—these include former US Senator Sam Nunn and the former US CINCSTRATCOM General Lee Butler—and others are also beginning to give serious consideration to such measures. In 1991, then President Bush de-alerted non-strategic nuclear weapons as well as strategic bombers and ICBMs slated for elimination under START I. President Gorbachev followed suit shortly thereafter by deactivating ICBMs and SSBNs, and lowering the alert status of strategic bombers and removing rail-mobile ICBMs to garrisons. And the UK has also lowered the alert status of its SSBNs.

**Recommendations:** As part of its nuclear posture review, the US should be encouraged to implement “strategic restraint measures” such as the removal from alert status of all systems slated for elimination under START II, and Russia might be enjoined to follow suit. Furthermore, both sides should re-examine their strategic plans to reduce the number of targets, thus driving down the requirements for high levels of warheads. Furthermore, with the end of the

Cold War, there no longer is a compelling argument for the US and Russia to continue deployment of a “triad” of nuclear forces – each side should be encourage to stand-down any one-leg of its respective triad – and in any case, to keep a bare minimum of weapons on a high alert status.

**9E. *A diminishing role for nuclear weapons in security policies to minimize the risk that these weapons ever be used and to facilitate the process of their total elimination.***

**Background:** In today’s post-Cold War world, defining national security merely, or primarily, in military terms conveys a false sense of reality. Nearly a half-century of Cold War fashioned the issue of security into powerful conventional simplifications that are no longer valid. Unfortunately, many of these traditional and out-moded concepts retain great currency amongst certain security analysts and defence planners, and the dominance of military and strategic considerations in the conduct of international relations endures as a legacy of the Cold War. While stability was and continues correctly to be of prime strategic importance, but in a transforming world its pursuit by some influential countries places exaggerated emphasis upon nuclear weapons and military concepts that are presumed still to lie at its core.

In a post-Cold War world, the political value of nuclear weapons has declined markedly rendering them more a liability than an asset. Despite the changed political climate and the window of opportunity to restructure international relations away from reliance on nuclear weapons, many influential thinkers and military planners in the United States, NATO, Russia and in some other countries still believe in the integrity of nuclear deterrence–i.e. that stability and security would necessarily be jeopardized in the absence of nuclear deterrence. Such deeply embedded beliefs are extraordinarily resistant to new thinking or to change. They also reflect the reluctance of national security planners in the NWS to conceive of a security architecture that does not rely on nuclear arms.

Under pressure from a few member states–such as Canada, Germany, Norway and the Netherlands–in April 1999, NATO launched a review of its arms control policy, as outlined in paragraph 32 of the Washington Summit Communiqué. These countries were concerned by the continuing integral role of nuclear weapons in alliance strategy and the demonstration effect of such a strategy for new proliferators, such as India and Pakistan. The review was marked by slow progress and opposition from Washington. However, the NATO Foreign Ministers meeting in Florence in May 2000 instructed the completion of the review by December of that year. Areas for review included the role of nuclear weapons, limits on non-strategic nuclear weapons deployed in Western Europe, no-first use and endorsement of the 2000 NPT Final Document, especially its "practical steps".

Both the US and Russia have increased the role of nuclear weapons in their defence postures. In its Nuclear Posture Review in 1994, and its Quadrennial Defense Review in 1996, the United States maintained the option to use nuclear weapons in response to a chemical or biological weapons attack, and implied a similar policy for NATO. This policy was clarified in April 1996

by Robert Bell, senior director for defence policy and arms control at the National Security Council at the time of the US signature of a protocol to the African Nuclear-Weapon-Free-Zone (ANWFZ) Treaty. Protocol I of the Treaty of Pelindaba on negative security assurances from the nuclear-weapon states, required the US to commit to not to use or threaten to use nuclear weapons against any treaty party. In this context, Bell stated that the US signature “will not limit options available to the United States in response to an attack by an ANWFZ party using weapons of mass destruction”. On 5 February 1998, State Department spokesman James P. Rubin said: “If any country were foolish enough to attack the U.S., our allies or our forces with chemical or biological weapons, our response would be swift, devastating and overwhelming. We have worked hard to fashion non-nuclear responses to the threat or use of weapons of mass destruction in order to give military commanders and the president a range of options from which to choose”. Former Secretary of Defense William Perry reaffirmed the approach during a March 1998 Senate Foreign Relations Committee hearing on the Chemical Weapons Convention: “[W]e are able to mount a devastating response without using nuclear weapons. Nevertheless, we do not rule out in advance any capability available to us. I stress that these policies have to do with a situation in which the US, our allies and our forces have been attacked with chemical or biological weapons”. And in December 1998, Walter Slocombe, under secretary of defence for policy, stated: “It is simply an issue of making sure that we continue to maintain a high level of uncertainty or high level of concern, if you will, at what the potential aggressor would face if he used [CBW] or indeed took other aggressive acts against the alliance”.<sup>67</sup> Presidential Decision Directive 60 (PDD 60) issued by President Clinton in November 1997 provided new guidelines on nuclear targeting and allowed for the use of nuclear weapons against so-called “rogue” states suspected of developing weapons of mass destruction.

The role of nuclear weapons has increased in Russia as well. A Presidential Decree adopted in January 2000, increased the role of nuclear weapons, abandoned the old Soviet policy of no-first use, and stressed the importance of non-strategic nuclear weapons.

NATO’s Strategic Concept of 1999 reiterated that the US nuclear forces fulfilled an essential role and provided a supreme security guarantee to NATO. In a move back from the 1991 version, the 1999 Concept for the first time included a reference to the deterrent role of the “independent nuclear forces” of the UK and France, and did not state (as in 1991) that NATO nuclear forces were weapons of “last resort”.<sup>68</sup> NATO defence ministers stated in December 2000 that: “Nuclear forces based in Europe and committed to NATO continue to provide an essential political and military link between the European and North American members of the Alliance”.<sup>69</sup>

In August 1998, India released a draft nuclear doctrine that called for effective and survivable nuclear forces based on a triad. It recommended a nuclear force requirement of up to 400 warheads. In response, Pakistan outlined its own doctrine based on a “minimum deterrent”, but did not provide any numbers.

**Present Situation:** At the NATO ministerial in Brussels on 14-15 December 2000, a report was adopted on “NATO’s Role in the Future: Options for CSBMs, Verification, Non-Proliferation, Arms Control and Disarmament”.<sup>70</sup> It noted that there “is a clear rationale for a continued, though much reduced, presence of sub-strategic forces in Europe”, and that “NATO’s residual sub-strategic arsenal...has been dramatically reduced and its land-based forces de-alerted and demated”. The report confirmed the Allies’ commitments made at the 2000 NPTRC and expressed support for the “practical steps”. On nuclear policy, the Report was self-serving and obstinate in defending NATO’s continuing reliance on air-delivered sub-strategic nuclear forces. The most interesting part of the report related to NATO-Russia initiatives that comprised four proposals on joint confidence- and security-building measures: (1) enhanced dialogue on nuclear forces; (2) data exchange on the readiness status of nuclear forces; (3) data exchange on nuclear weapon safety matters; and data exchange on U.S. and Russian sub-strategic nuclear forces.<sup>71</sup>

This would involve:

- seminars, workshops and other expert-level meetings, a more frequent in-depth exchange of views, assessments and information on nuclear forces with Russia;
- exchange of information on the readiness status of nuclear forces will demonstrate to Russia the unilateral measures taken by the Alliance to reduce the alert status and readiness of its forces, while increasing the Alliance's understanding of the readiness status of Russia forces:
  - a discussion of the unilateral measures already taken by NATO countries and Russia to reduce the alert status and readiness of their nuclear forces, such as those taken by the U.S. as part of the Presidential Nuclear Initiatives (PNIs) (removed all tactical/non-strategic nuclear weapons from ships in peacetime, removed strategic bombers from alert, earlier removal from alert of 450 Minuteman II missiles scheduled for elimination under START I), those taken by the UK as a result of its Strategic Defence Review (including significant reductions of warhead numbers and maintenance of only a single Trident submarine on deterrent patrol at reduced readiness), and earlier steps taken by NATO to de-alert dual-capable aircraft. Russia would be expected to present its measures taken as part of the PNIs;
  - a generic description of the present state of alert for nuclear weapons of NATO countries and Russia.
- exchange on a reciprocal basis information on safety provisions for nuclear weapons storage and transport, as well as safety features and procedures to prevent theft and unauthorized use or to minimize the risk of accidents:
  - Safety & Security Features of Nuclear Weapons

- Share Personnel Reliability Programme Oversight Practices
  - Mutual Observation of nuclear accident response Exercises
  - "joint" nuclear accident response exercise.
- a reciprocal data exchange on sub-strategic nuclear forces with Russia within the PJC context, the objective would be to enhance transparency and knowledge of the size of the U.S. and Russian stockpiles.

**Recommendations:** While continuing to press for NATO to re-examine and re-evaluate the role of nuclear weapons in its strategy, it should be enjoined to seek the implementation of the CSBMs outlined above, particularly in the areas of enhancing transparency, accountability and training regarding sub-strategic nuclear weapons. Both Russia and the US need to engage in strategic stability talks and begin the negotiation of a START III, thus creating the conditions to reduce the role of nuclear weapons in their strategies. A defence review is underway in the US and representations must be made to ensure that the US: reaffirms its commitment to negotiated arms control and the full implementation of all negotiated nuclear treaties; provides a clear statement to adjust its policy to conform to international constraints and obligations affirmed by the International Court of Justice, including acceptance of the general illegality of the threat or use of nuclear weapons, and implementation of its unequivocal obligations to achieve complete nuclear disarmament; reaffirm its negative security assurances to NPT and NWFZ member states; decrease the target set in its SIOP; and stand down weapons slated for dismantlement under START I and II. Similarly, Russia should be encouraged to also conduct its own nuclear policy review, with a view to reducing the role of nuclear weapons in its posture, further reducing its non-strategic nuclear stockpile, and enacting transparency measures, as well as making a clear statement along the lines suggested above. Furthermore, all of the NWS should consider strategic reassurance measures, such as a declaratory commitment to a no-first strike complemented by largely de-alerted strategic and non-strategic weapon systems. Pakistan and India need to comply with UNSCR 1172 and refrain from further testing, development and deployment of nuclear forces, and implement the measures agreed at the Lahore Summit. And Israel needs to begin a discussion on its nuclear weapon capabilities.

***9F. The engagement as soon as appropriate of all the nuclear-weapon States in the process leading to the total elimination of their nuclear weapons.***

**Background:** While the US and Russia have been engaged in their START process and other reduction measures, China, France and the UK have stated that they would only join a plurilateral process once the two largest arsenals had come down in the vicinity of their levels. India and Pakistan, in common with the NAM position, have called for multilateral negotiations at the CD on the elimination of nuclear weapons. Israel's position remains opaque.

**Recommendations:** This is a longer-term measure and needs to be pursued at some appropriate later stage. However, in the interim, each of the five nuclear-weapon states and the three nuclear capable states could consider a variety of bilateral, plurilateral and/or multilateral CSBMs,

including dialogue, data exchanges and other reporting mechanisms with a view to enhancing accountability (and transparency). In this context, the establishment of an AHC at the CD on nuclear disarmament to discuss ways and means would be useful.

**10. *Arrangements by all nuclear-weapon States to place, as soon as practicable, fissile material designated by each of them as no longer required for military purposes 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 of military programmes.***

**Background:** Such arrangements involving the irreversible safeguarding of weapon-usable fissile material surplus to defence requirements serves important non-proliferation and disarmament goals. Efforts are underway to conclude a Trilateral Initiative between the IAEA, the US and Russia to devise the modalities for safeguarding excess weapons fissile material in perpetuity and irreversibly. While 500 tonnes of Russian HEU has been purchased by the US and will be blended down to LEU and consumed in US power reactors, another 500-600 tonnes of HEU will remain in Russia. The two sides have agreed to dispose at least 34 metric tonnes of weapon-grade plutonium each by irradiating it as fuel in power reactors or by immobilizing it with high-level radioactive waste, rendering it suitable for geologic disposal.<sup>72</sup> Furthermore, under the CTR programme, the US is helping Russia with safe and secure storage of excess weapons fissile material. China, France and the UK have not announced any measures for the disposition of their stocks of excess material and also have not involved the IAEA in safeguarding excess quantities. In fact, China may be adding to its inventory rather than declaring surplus quantities.

**Recommendations:** Despite opposition in many states arguing that the nuclear-weapon states themselves should bear the full cost of irreversibly placing surplus weapons material outside military use, it remains the responsibility of the international community to contribute financing and assistance for Russia to cope with its large surplus. Furthermore, countries such as Canada, Japan, and the EU should actively consider providing assistance to promote the safe and effective disposition of excess weapons plutonium in a manner as to render this material out of reach for future weapons use, thus serving both nuclear disarmament and non-proliferation purposes. Towards venture they should be provided with financial and technical assistance to implement a programme of immobilization and deep underground burial under appropriate measures consistent with safety, health and environmental protection. Under their respective voluntary safeguards agreements with the IAEA, the nuclear-weapon states should devise appropriate modalities to safely place surplus fissile material irreversibly under safeguards, without providing proliferation-relevant information to inspectors.

**11. *Reaffirmation that the ultimate objective of the efforts of States in the disarmament process is general and complete disarmament under effective international control.***

**Background:** At the 2000 NPTRC, the NAC were successful in disaggregating to a certain

extent the related but separate obligations contained in Article VI of the NPT. That article of the Treaty contains two separate undertakings: one to cease the nuclear arms race and to engage in good faith in negotiations leading to nuclear disarmament; and one on general and complete disarmament (GCD). The concept of GCD can be traced as far back as 11 June 1954, when the UK and France presented a blueprint for GCD based on an earlier US proposal of “six principles” – this plan called for nuclear arms reductions leading to a total prohibition on nuclear and other weapons of mass destruction.<sup>73</sup> UNGA Resolution 1378 adopted in 1959 endorsed the concept of GCD. On 20 September 1961, the UNGA adopted the (John) McCloy-(Valerian) Zorin agreement that outlined in general terms a framework for a US-USSR treaty on GCD, including the creation of an international disarmament organization within the UN with unrestricted access to all places for its verification inspectors. The US State Department prepared a “Program for General and Complete Disarmament in a Peaceful World” that specified principles and three stages for progressive disarmament measures.<sup>74</sup> Later, the US Department of Defense provided its own definition as: “reductions of armed forces and armaments by all states to levels required for internal security and for an international peace force ... connotation is ‘total disarmament’ by all states”.<sup>75</sup> The Ten-Nation and the Eighteen-Nation Disarmament Committees considered proposals for GCD, but following the Cuban missile crisis in October 1963, the focus shifted to specific short-term objectives with GCD relegated to the indefinite longer-term. Hence, the predecessors to the CD ended up negotiating the Partial Test-Ban Treaty (1963), the NPT (1968), and most recently the CTBT (1996), in addition to other multilateral global arms control instruments. At the same time, the NWS embarked on a course leading to the greatest proliferation of all types of weapons of mass destruction. While global treaties outlawing biological and toxin weapons and chemical weapons were concluded, respectively, in 1972 and 1993; the quest for a global treaty outlawing nuclear weapons remains as elusive as ever. The focus on nuclear disarmament shifted to one of an incremental, step-by-step, process pushing the elimination of this type of weapon into the indeterminate future and in the context of GCD. And at several previous NPT conferences there were intense inconclusive debates on whether nuclear disarmament was linked to GCD or could be undertaken separately or in parallel.

**Recommendations:** In parallel with the commitments under the NPT and its associated politically binding documents, other WMD treaties and regimes need to be fully implemented with accountability– these include the BTWC and the CWC–as well as instruments covering conventional weapons. The negotiation in Geneva to conclude a BTWC verification protocol needs to be accelerated and completed by the end of 2001, as recommended by the 1996 BTWC review conference. It should be an important goal to seek universal membership of all three legally binding WMD treaties–the BTWC, the CWC and the NPT. Furthermore, restraint is required in conventional arms transfers. The Anti-Personnel Landmines Convention and other instruments need universal membership as well. In addition, new measures can be contemplated to supplement the missile technology control regime with an international legally binding instrument prohibiting the further proliferation of ballistic and cruise missiles, including measures on as flight-testing and deployment moratorium, leading to the elimination of such delivery systems. However, progress in nuclear disarmament needs to be separated from progress in general disarmament.

**12. Regular reports, within the framework of the NPT strengthened review process, by all States parties on the implementation of Article VI and paragraph 4 (c) of the 1995 Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament”, and recalling the Advisory Opinion of the International Court of Justice of 8 July 1996.**

**Background and Recommendations:** For the first time specific provision has been made in the context of the NPT review process for “regular” reporting by the nuclear-weapon states and all other parties on the implementation of Article VI and Decision 2 of the 1995 NPTREC. However, this mechanism does not include any specific commitment on the part of the nuclear-weapon states to report on the implementation of the “practical steps”. There also is no timetable specified for the implementation of the "practical steps", except for the conclusion of a FMCT within five years of the start of negotiations. Though an interpretation could be rendered that implementation of Article VI subsumes the "practical steps". It is unlikely that the nuclear-weapon states would agree to such an understanding. On the other hand, all five nuclear-weapon states have unilaterally provided reports on their compliance with Article VI to NPT review fora since 1995—but such reporting being voluntary is not uniform in format and could be renounced. Given the new guidance on the improved strengthened review process for the Treaty and that each session of the PrepCom “should consider specific matters of substance” relating to the implementation of the NPT, the 1995 and 2000 outcomes; it would be entirely appropriate for PrepCom sessions, beginning in 2002, to set aside specific time to receive and assess implementation reports by the nuclear-weapon states and all other parties. In this regard, the PrepCom could allocate time for the consideration of progress in the implementation of the "practical steps" towards nuclear disarmament, at each of its sessions starting in 2002. Furthermore, the PrepCom could consider proposals on the format and content for the reporting by the NWS and all other NPT states on the implementation of the thirteen steps. In addition, an article-by-article review of the NPT, and of the "practical steps", would contribute to a structured and balanced assessment of progress achieved and recommendations for future action.

**13. The further development of the verification capabilities that will be required to provide assurance of compliance with nuclear disarmament agreements for the achievement and maintenance of a nuclear-weapon-free world.**

**Background and Recommendations:** Verification of compliance with arms control treaties is crucial to maintain confidence in the process and to establish the conditions for ensuring non-proliferation and achieving disarmament.

**Nuclear (NPT):** Following the discovery of Iraq’s clandestine nuclear weapons program, and questions about North Korea’s nuclear activities, safeguards have been strengthened through a greatly enhanced flow of information, the reaffirmation of the Agency’s right to conduct “any time, any place” special inspections, together with new verification techniques (such as environmental monitoring and use of intelligence data). The focus of the IAEA has increased beyond the detection and deterrence of illicit transfers of nuclear material from peaceful to weapons purposes, to also include the detection of undeclared activities. The IAEA now has in



place an enhanced safeguards regime under its Additional Protocol (INFCIRC/540) and 46 Protocols have been approved, 45 have been signed, and seven are in force. However, 52 NPT NNWS still have to conclude NPT safeguards agreements (INFCIRC/153)<sup>76</sup>—but these are countries without any significant nuclear activities.

According to the IAEA Annual Report for 1999, 224 safeguards agreements were in force with 140 States (and with Taiwan, China). NPT related safeguards agreements were in force with 126 states. The Agency was safeguarding 106,598 significant quantities (SQ) of nuclear material, and 900 facilities with 1,093 locations containing nuclear material were under IAEA safeguards. This safeguards effort was financed by approximately US\$80 million annually from the regular safeguards budget and some US\$10 million a year in additional contributions by member states.

Thus, for a paltry US\$90 million per year, the IAEA is safeguarding over 100,000 significant quantities of nuclear material in 140 states. With the IAEA's budget effectively frozen, what conclusions can be drawn regarding states' commitment to preventing nuclear proliferation? One obvious conclusion is that the Agency is doing a remarkable job with very limited resources. Another is that those states which maintain a high profile in warning against further proliferation must seek to match nonproliferation rhetoric with multilateral commitments both at the political and financial levels. It is difficult to believe that states are serious about preventing further proliferation, when they provide only \$90 million a year for Agency safeguards but at the same time have no hesitation in spending hundreds of billions of dollars on military programs. States need to be persuaded to realize that the value of a "safeguards dollar" greatly outweighs that of a "counter-proliferation dollar" when it comes to preventing proliferation.

**Nuclear (CTBT):** The International Monitoring System (IMS), a network of 170 seismological, 60 infrasound, 11 hydroacoustic and 80 radionuclide stations – supported by 16 radionuclide laboratories – will be capable of registering vibrations underground, in the sea and in the air as well as detecting traces of radionuclides, released into the atmosphere by a nuclear explosion. The stations will transmit a stream of data generated by these four complementary technologies, in near real time, via a global satellite communications system to the International Data Centre in Vienna, where all the data will be processed. All data, raw or processed, from the monitoring facilities will be made available to the states signatories for their final analysis. Ambiguous events will be subject to consultation and clarification. As a final verification measure, an on-site inspection (OSI) may be requested. The International Monitoring System Division has completed about 60% of the IMS site surveys and approximately 20% of the stations are installed and sending data to the International Data Center (IDC). The CTBTO is giving special attention to the certification of IMS stations. Since February 2000, the International Data Center (IDC) has been sending IMS data and IDC products on a test basis to states signatories that have submitted the information required to establish a secure signatory account for the State. Currently more than 40 States are able to access the data and products. A Global Communications Infrastructure was put in place in 1999 when global satellite coverage was established with the installation of four GCI hubs and a frame-relay infrastructure to link these hubs to the IDC in Vienna. Global Communications Infrastructure (GCI) Very Small Aperture Terminals (VSAT) have been

installed at 37 IMS stations, National Data Centres and development sites.<sup>77</sup> The Commission is also preparing the groundwork for on-site inspections, provided for by the Treaty. The OSI Operational Manual is being developed as a priority task and the PTS has been supporting the Group of Friends of the OSI Programme Coordinator. Initial specifications for equipment related to the four IMS technologies have been adopted and a passive seismic system for aftershock detection will be received shortly for testing and training, plans for which are being developed. Upon the invitation of the Kazakhstan Government, a field experiment simulating aspects of an on-site inspection was conducted in Kazakhstan in October 1999, on the basis of a 100-tonne chemical explosion for calibration purposes. The CTBT is effectively verifiable and the CTBTO PrepCom must continue to receive financial and technical assistance to enable it to continue with its work.

***Nuclear (Disarmament):*** The 1987 INF Treaty led to a 13-year long on-site verification system that included seven different types of inspections. The START I agreement also includes intrusive on-site inspections that will be enhanced in scope under START II and III. Concepts for monitoring and verifying nuclear warhead destruction have been discussed between the US and Russia. This experience will undoubtedly contribute to the challenge of devising a complex verification regime for a FMCT. Verifying future nuclear disarmament will be challenging, but the methodologies and technologies already exist for establishing and implementing an effective verification system. It must be realized, however, that no system can provide 100 per cent certainty – the verification standard must be that of providing adequate warning of militarily significant violations. To this end, NPT states, the UN, and think tanks must jointly pool their resources to devise new verification technologies and methodologies.

***Chemical (CWC):*** The Chemical Weapons Convention (CWC) prohibits the development, production, stockpiling, acquisition and use of chemical weapons and requires States Parties to destroy, within specific time frames, any chemical weapons and related production facilities they may possess. In order to ensure steps are taken towards meeting these ambitious objectives, the Convention provides for a complex verification regime. Featuring on-site inspections and data monitoring, the regime functions to verify that activities within States Parties are consistent with the objectives of the Convention and the contents of declarations submitted to the OPCW. Not to be confused with the whole verification regime, of which they constitute but one part, inspections are nonetheless critical to the implementation of the CWC. OPCW inspectors are responsible for conducting three distinct types of inspections: routine inspections of chemical weapons-related facilities and chemical industry facilities using certain “dual-use” chemicals; short-notice challenge inspections, which can be conducted at any location in any State Party about which another State Party has concerns regarding possible non-compliance; and investigations of alleged use of chemical weapons.<sup>78</sup> To conduct these inspections on a global basis the OPCW has an Inspectorate made up of over 200 inspectors recruited from approximately 60 States Parties. The OPCW has conducted more than 800 inspections at over 242 sites in 40 countries. It verified the destruction of 23 out of 61 chemical weapon production facilities, and some 70,000 metric tonnes of chemical agents and 8.4 munitions/containers—this includes 4,800 metric tonnes of chemical warfare agent. The OPCW has yet to conduct a

challenge inspection. In sum, universal membership and compliance with the CWC is necessary. At the next CWC review conference, the treaty's verification mandate should be re-affirmed, including the right of the Organization for the Prohibition of Chemical Weapons (OPCW) to conduct any time, any where inspections, including the gathering and removal of samples for analysis at the laboratories of the OPCW.

**Biological (BTWC):** The 1972 Biological and Toxin Weapons Convention (BTWC) bans biological and toxin weapons, but it does not have a verification protocol. The future effectiveness of the BTWC will be dependent largely on the introduction of an effective verification system. If such a system is to be effective, it will need to be underpinned by the expertise and reagents that have already been used to produce battlefield detectors for biological warfare agents.<sup>79</sup> To ensure compliance with the BTWC, the draft protocol is based on a three-pillared architecture. This consists of mandatory declarations; declaration follow-up procedures; and investigation of non-compliance. As with other arms control instruments, the protocol includes measures to promote scientific and technological exchange and international collaboration for peaceful purposes. The first pillar requires states parties to submit declarations on activities or facilities of relevance to the BTWC. These declarations are built largely upon the same requirements that were agreed in earlier CBMs by VEREX, although much effort has expended to making the requirements unambiguous and to determining which items the declarations should include. Declaration follow-up procedures are based on a package of measures that include infrequent randomly selected/transparency visits to declared facilities, declaration clarification procedures, and voluntary assistance visits. Randomly selected/transparency visits will be infrequent and are intended to ensure that declarations are consistent with requirements. The protocol enables these visits to provide advice and technical assistance to states-parties, furnishing a useful bonus. The second set of measures, would include procedures to clear up "ambiguities, uncertainties, anomalies or omissions" in declarations, can range from written correspondence through a consultative meeting to, if necessary, a clarification visit. Finally, voluntary assistance visits will help requesting states implement the protocol or participate in technical cooperation for peaceful purposes.<sup>80</sup> The pharmaceutical industry has been interested throughout the negotiations in the compliance measures under consideration. In the US, the Pharmaceutical Research and Manufacturers of America (PhRMA) has heavily lobbied the US government and has been successful in influencing US positions. Among the measures—such as declarations of activities and/or facilities, and visits and investigations—the question of randomly-selected/transparency visits is of great interest due to industry concerns over the security of intellectual property and the confidentiality of business information. Thus, the US delegation has opposed the concept of random visits, and in this it has received little support for its position, even in the Western Group where the EU considers visits as essential for an effective Protocol, and the US is increasingly isolated. Russia, formerly only supportive of voluntary visits, might accept visits but only to high containment (level 4) facilities.<sup>81</sup> Currently, the AHG is continuing with negotiations but progress is slow and industry remains opposed to certain transparency and inspection measures. Completion of the verification protocol remains vital to the BTWC's continuing efficacy and it should be accomplished as soon as possible, preferably before the end of 2001 as recommended by the 1996 BTWCRC, in order to enable its

adoption at the Fifth BTWC Review Conference (scheduled for November 19-December 7, 2001).

**Synergy:** The CCENW in its Report devoted considerable attention to the verification challenges of achieving the elimination of nuclear weapons. As a beginning, it would be useful to consider the merits of coordination among existing international nonproliferation verification organizations, such as the IAEA, OPCW and the CTBTO. Furthermore, the UNGA could commission a group of experts to produce a technical study on the verification requirements for a nuclear-weapon-free world. In addition, a study assessing the performance of UNSCOM (and UNMOVIC), and the role (if any) of national intelligence agencies in this context would also provide useful lessons. Furthermore, the merits of cooperative international satellite monitoring for verification could also be evaluated.

## **Conclusions**

The 2000 Conference successfully reaffirmed the primacy of the NPT in the global effort to curtail nuclear proliferation and to achieve nuclear disarmament. It also demonstrated the power of the concept of “permanence with accountability” and of the strengthened review process. The Treaty remains one of the most important mechanisms of multilateral non-proliferation, arms control and disarmament diplomacy. The members of the Treaty remained united in opposing challenges to the regime posed by India, Israel and Pakistan as non-adherents, and by DPRK and Iraq in terms of their compliance deficits.

Most important of all, the “practical steps” for the systematic and progressive efforts on nuclear disarmament agreed at the Conference could serve as a new agenda for action by all NPT states and at the Conference on Disarmament and the UN General Assembly. However, recent developments at the CD and elsewhere suggest that the NWS already seem to be backing away from the implementation of the “practical steps”, thus leading to growing suspicions among both NPT parties and non-parties, that the NWS only agreed to the “practical steps” out of political convenience rather than out of a commitment to the NPT’s disarmament obligations.

For many, if not most of the NNWS, the “practical steps” provide benchmarks by which to measure the progress of the NWS towards living up to their NPT nuclear disarmament obligations. However, these steps also papered over deep differences on missile defences, the ABM Treaty, and nuclear disarmament measures among other important issues.<sup>82</sup> While muddling through the Review Conference, States parties have agreed to a new “construction for the future”<sup>83</sup> to promote the full implementation of the Treaty. Confidence in the continuing integrity of the NPT will be judged in the context of the NWS fulfilling the steps agreed at this Conference, any backtracking could only serve to weaken the world’s most successful and most widely adhered to arms control treaty. Time and the actions of both the NWS and the NNWS will demonstrate whether the Conference was an unequivocal success.

It is fitting to end this report by citing, again, from the Keynote Address delivered by Under-Secretary General Jayantha Dhanapala at the MPI Consultation on 29 April 2001:

"So what are we to conclude from the present state of affairs? Is this a time for despair? Is it time for frustrated nation-states to yield to the vortex pulling them toward global nuclear anarchy? Must the security of our children and future generations rest upon the willingness or -- given command and control problems -- even the basic capability of states not to launch a nuclear war against which there is no assured defence? Are declaratory statements and a consensus on paper to be discounted in favour of more radical measures, including moves to amend the NPT, threats to leave the treaty, or efforts to seek a fresh advisory opinion from the ICJ? ...

There is therefore a vital need for all countries to re-dedicate themselves to the pursuit of global nuclear disarmament, for therein lies the path of security for all. Let us recall perhaps the most important sentence of all in the Final Document of the 2000 NPT Review Conference, where the participants reaffirmed that "*the total elimination of nuclear weapons is the only absolute guarantee against the use and threat of use of nuclear weapons.*" This is a guarantee that neither of the two alternative security concepts -- nuclear deterrence or missile defence -- can match. So let us re-affirm today our collective determination to ensure that global nuclear disarmament commitments will be honoured, a task that will require both enlightened leadership and an informed citizenry."<sup>84</sup>

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## NOTES

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<sup>1</sup> Jayantha Dhanapala, *Keynote Address, Towards NPT 2005: An Action Plan for the 13 Steps*, Middle Powers Consultation, United Nations, 29 April 2001, p. 4.

<sup>2</sup> International Court of Justice, “Legality of the Threat or Use by a State of Nuclear Weapons in Armed Conflict (Request for Advisory Opinion by the General Assembly of the United Nations),” *Communiqué* No 96/23 (8 July 1996).

<sup>3</sup> CD/1419 (7 August 1996).

<sup>4</sup> G-21 Programme of Action:  
Phase I: 1996-2000

A. *Measures aimed at reducing the nuclear threat.*

- Immediate and concurrent commencement of negotiations and early conclusion of:
  - a multilaterally negotiated legally binding instrument to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons;
  - a convention prohibiting the use or threat of use of nuclear weapons;
  - a treaty to eliminate nuclear weapons; and
  - a treaty banning the production of fissile material for nuclear weapons.
- End the qualitative improvement of nuclear weapons, by agreements on:
  - Cessation of all nuclear weapon tests and closure of all nuclear weapon test sites; and
  - Measures to prevent the use of new technologies for the upgrading of existing nuclear weapons systems, including the prohibition of nuclear weapon research and development.
- Full implementation of the Treaties of Tlatelolco, Rarotonga, Pelindaba, and South East Asia and establishment of additional nuclear-weapon-free zones, on the basis of arrangements freely arrived at among the States of the region concerned.
- Declarations of the stocks of nuclear weapons and of nuclear weapons usable material.

B. *Measures of nuclear disarmament.*

- Stand down nuclear-weapon systems from a state of operational readiness.
- Preservation of the ABM (Anti-Ballistic Missiles) Treaty.
- Moratorium and prohibition on testing of outer space weapons systems.
- Ratification and implementation of the START II Treaty.
- Commencement and conclusion of negotiations of further reductions of nuclear arsenals (START III).
- Placement under IAEA safeguards of nuclear fissile material transferred from military to peaceful uses by the nuclear-weapon States.
- Further negotiations for nuclear disarmament by all nuclear-weapon States, including the cessation of production of nuclear warheads.
- Recommendation to the General Assembly to declare the decade 2000-2010 as the “decade for nuclear disarmament”.

*Phase II: 2000 - 2010 – Measures to reduce the nuclear arsenals and to promote confidence between States.*

- Entry into force of the treaty to eliminate nuclear weapons and establishment of a single integrated multilateral comprehensive verification system to ensure compliance, including measures such as:
  - separation of nuclear warheads from their delivery vehicles;

- 
- placement of nuclear warheads in secure storage under international supervision leading to the removal of special nuclear materials from warheads;
  - transfer of nuclear materials including fissile materials and delivery vehicles to peaceful purposes.
- Preparation under international auspices of an inventory of nuclear arsenals, including fissile materials, nuclear warheads and their delivery vehicles.
  - Progressive and balanced reduction of missiles intended for carrying nuclear warheads.
  - Recommendation to the General Assembly to declare the decade 2010\_2020 as the “decade for the total elimination of nuclear weapons”.

*Phase III: 2010-2020 – Consolidation of a Nuclear-Weapon-Free World.*

- Adoption of principles and mechanisms for a global cooperative security system.
- Full implementation of the treaty to eliminate all nuclear weapons and of its verification regime through the completion of further measures such as:
  - conversion of all facilities devoted to the production of nuclear weapons to peaceful purposes;
  - application of safeguards on nuclear facilities on a universal basis; and
  - elimination of all nuclear weapons.

<sup>5</sup> The Canberra Commission called upon the “members of the Canberra Commission call upon the United States, Russia, the United Kingdom, France and China to give the lead by committing themselves, unequivocally, to the elimination of all nuclear weapons. Such a commitment would propel the process in the most direct and imaginative way. All other governments must join this commitment and contribute to its fulfilment”. It noted that “nuclear weapons are held by a handful of States which insist that these weapons provide unique security benefits, and yet reserve uniquely to themselves the right to own them. This situation is highly discriminatory and thus unstable; it cannot be sustained. The possession of nuclear weapons by any State is a constant stimulus to other States to acquire them”. It recommended the following “immediate steps”:

- Taking nuclear forces off alert.
- Removal of warheads from delivery vehicles.
- Ending deployment of non-strategic nuclear weapons.
- Ending nuclear testing.
- Initiating negotiations to further reduce United States and Russian nuclear arsenals.
- Agreement amongst the nuclear-weapon States of reciprocal no- first use undertakings, and of a non-use undertaking by them in relation to the non-nuclear-weapon States.

“Reinforcing Steps” recommended for immediate action included:

- Action to prevent further horizontal proliferation.
- Developing verification arrangements for a nuclear-weapon-free world.
- Cessation of the production of fissile material for nuclear explosive purposes.

The full text of the Canberra Commission Report is available at: <http://www.dfat.gov.au/cc/cchome.html>.

<sup>6</sup> The full text of the “Joint Declaration” by the Foreign Ministers of the New Agenda Coalition is available in *Disarmament Diplomacy* (No. 27): <http://www.acronym.org.uk/27state.htm>.

<sup>7</sup> *Canada and the Nuclear Challenge: Reducing the Political Value of Nuclear Weapons for the Twenty-First Century* is available at: <http://www.parl.gc.ca/InfoComDoc/36/1/FAIT/Studies/Reports/faitrp07-e.htm>.

<sup>8</sup> *Government Response to the Recommendations of the Standing Committee on Foreign Affairs and International Trade on Canada’s Nuclear Disarmament and Non-Proliferation Policy* is available at: <http://www.dfait-maeci.gc.ca/nucchallenge/ANNEXB-e.htm>. And the *Government Statement: Nuclear Disarmament and NonProliferation–Advancing Canadian Objectives* is available at: <http://www.dfait-maeci.gc.ca/nucchallenge/POLICY-e.htm>.

<sup>9</sup> The Report of the Tokyo Forum for Nuclear Non-Proliferation and Disarmament (July 25, 1999): *Facing Nuclear Dangers: An Action Plan for the 21st Century* is available at: <http://www.mofa.go.jp/policy/un/disarmament/forum/tokyo9907/index.html>.

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Its key recommendations comprised:

- Stop and reverse the unraveling of the Nuclear Non-Proliferation Treaty regime by reaffirming the treaty's central bargain.
- Eliminate nuclear weapons through phased reductions.
- Bring the nuclear test ban into force.
- Revitalize START and expand the scope of nuclear reductions.
- Adopt nuclear transparency measures.
- Zero nuclear weapons on hair-trigger alert.
- Control fissile material, especially in Russia.
- Terrorism and weapons of mass destruction.
- Strengthen measures against missile proliferation.
- Exercise caution on missile defence deployments.
- Stop and reverse proliferation in South Asia.
- Eliminate weapons of mass destruction in the Middle East.
- Eliminate nuclear and missile dangers on the Korean Peninsula.
- No vetoes in support of proliferation.
- Revitalize the Conference on Disarmament.
- Strengthen verification for disarmament.
- Create effective non-compliance mechanisms for nuclear non-proliferation and disarmament.

<sup>10</sup> The texts of the *Statement by H.E. Hubert de La Fortelle on behalf of the UN Permanent Five nuclear-weapon states, introducing their collective statement*, and the *Statement by the delegations of France, the People's Republic of China, the Russian Federation, the United Kingdom of Great Britain and Northern Ireland and the United States of America* are available at: <http://www.basicint.org/>.

<sup>11</sup> Under pressure from the US, the UK and France, Slovenia withdrew its co-sponsorship of the New Agenda in November 1998 when the NAC submitted its draft resolution (L48), "Towards a Nuclear-Weapon-Free World: The Need for a New Agenda," at the First Committee. Reported in "First Committee Report," *Disarmament Diplomacy No. 32*.

<sup>12</sup> For detailed accounts of the negotiation between the NAC and the nuclear-weapon states at the 2000 NPTRC, see: Tariq Rauf, "An Unequivocal Success? Implications of the NPT Review Conference, Arms Control Today (July/August 2000) <http://www.armscontrol.org/ACT/julaug00/raufjulaug.html>; Mitsuru Kurosawa, "The 2000 NPT Review Conference And Nuclear Disarmament," *Osaka University Law Review* (No. 48, February 2001); Ambassador Norman A. Wulf, "Observations From the 2000 NPT Review Conference," Arms Control Today (November 2000) <http://www.armscontrol.org/ACT/nov00/wulf.html>; and Rebecca Johnson, "The 2000 NPT Review Conference: A Delicate, Hard Won Compromise," *Disarmament Diplomacy* (No. 46, May 2000) <http://www.acronym.org.uk/46npt.htm>.

<sup>13</sup> NPT/CONF.2000/28 (Vol. I, Part I and II), 25 May 2000.

<sup>14</sup> Interview conducted by Tariq Rauf, "Ambassador Abdallah Baali on the 2000 NPT Review Conference," *The Nonproliferation Review* (Fall-Winter 2000), p. 8, available at: <http://cns.miis.edu/pubs/npr/vol07/73/baal73.htm>.

<sup>15</sup> NPT/CONF.2000/WP.3 dated 24 April 2000.

<sup>16</sup> UNGA Res. 53/77Y (1998) and UNGA Res. 54/54G (1999).

<sup>17</sup> *Statement to 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons* by Wolfgang Hoffmann, Executive Secretary CTBTO Preparatory Commission (New York, 25 April 2000) [http://www.ctbto.org/ctbto/speeches/npt\\_speech.shtml](http://www.ctbto.org/ctbto/speeches/npt_speech.shtml).

<sup>18</sup> "Presidential Election Forum: The Candidates on Arms Control," Arms Control Today (September 2000), <http://www.armscontrol.org/ACT/sept00/pressept00.html>.

<sup>19</sup> Remarks by Secretary of State designate Colin Powell, US Senate Foreign Relations Committee Confirmation Hearing, January 17, 2001: <http://www.state.gov/secretary/index.cfm?docid-443>.

<sup>20</sup> Available at: <http://www.state.gov/www/global/arms/ctbtpage/ctbt-report.html>.



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<sup>21</sup> John M. Shalikashvili, "The Test Ban Solution," *The Washington Post* (Saturday, January 6, 2001): <http://www.clw.org/coalition/opedshali010601.htm>; General John M. Shalikashvili (USA, ret.), Special Advisor to the President and the Secretary of State for the Comprehensive Test Ban Treaty, *Letter to the President and Report on the Findings and Recommendations Concerning the Comprehensive Nuclear Test Ban Treaty* (Washington, DC, January 4, 2001): <http://www.state.gov/www/global/arms/ctbtpage/ctbt-report.html>; and "Findings and Recommendations Concerning the Comprehensive Nuclear Test Ban Treaty," *Arms Control Today* (January/February 2001): <http://www.armscontrol.org/ACT/janfeb01/ctbtreport.htm>. Shalikashvili's report included the following recommendations:

- Increase bipartisan and allied support for a carefully coordinated comprehensive non-proliferation programme;
- Enhance US capabilities to detect and deter nuclear testing and other aspects of nuclear proliferation;
- Improve the management of potential risks associated with the long-term reliability and safety of the US nuclear deterrent;
- Address concerns about the CTBT's indefinite duration through a joint Executive\_ Legislative review of the Treaty's net value for national security to be held ten years after ratification and at regular intervals thereafter;
- Implement on an urgent basis an integrated non-proliferation policy targeted on, but not limited to, countries and groups believed to have an active interest in acquiring nuclear weapons;
- Increase high level attention and policy coherence, and appoint a Deputy National Security Advisor for Non-Proliferation, with the authority and resources needed to coordinate and oversee implementation of US non-proliferation policy;
- Review at the highest level issues related to the CTBT – there should be a sustained interagency effort to address senators' questions and concerns on these issues of great importance to national security;
- Continue the testing moratorium and take other concrete actions to demonstrate commitment to a world without nuclear explosions, such as continuing leadership in building up the International Monitoring System (IMS) being established for the Treaty;
- Higher funding and intelligence collection priorities should be assigned to monitoring nuclear test activities and other aspects of nuclear weapon acquisition or development by other states;
- Collaboration should be increased among US government officials and other experts to ensure that national intelligence, the Treaty's international verification regime, and other scientific stations are used as complementary components of an all-source approach to verification;
- Transition from research to operational use should be accelerated for new verification technologies and analytical techniques;
- Continue working with other CTBT signatories to prepare for inspections and develop confidence-building measures;
- Additional steps should be taken unilaterally or bilaterally to increase transparency regarding the nature and purpose of activities at known nuclear test sites;
- Enhance surveillance of weapons in the enduring stockpile to monitor for age-related changes and to identify any other defects due to design problems or manufacturing errors;
- Deepen scientific understanding of how nuclear weapons work and how they age in order to determine whether defects could affect performance or safety and to ensure that any remedial measures are adequate and appropriate;
- Remanufacture components and refurbish warheads using a smaller and updated nuclear weapon complex;
- Highest priority should be given to aspects of stockpile stewardship that are most urgently needed to assure the near-term reliability of the US nuclear deterrent, i.e. surveillance, refurbishment, and infrastructure revitalization;
- Enhanced surveillance and monitoring activities should receive full support and not be squeezed by higher profile aspects of the SSP;

- National Nuclear Security Administration (NNSA) should make a decision about the need for a large-scale plutonium pit remanufacturing facility as soon as possible after the next Administration has determined the appropriate size and composition of the enduring stockpile, including reserves;
- Dedicated infrastructure revitalization fund should be established after the NNSA has completed a revitalization plan for its production facilities and laboratories;
- Improve interagency management of stockpile stewardship matters, such as the revitalization of the Nuclear Weapons Council, are essential and should be continued;
- Appropriate steps should be taken to ensure that the performance margins of various weapon types are adequate when conservatively evaluated;
- Strict discipline should be exercised over changes to existing nuclear weapon designs to ensure that neither an individual change nor the cumulative effect of small modifications would make it difficult to certify weapon reliability or safety without a nuclear explosion; and
- NNSA should establish an on-going high-level external advisory mechanism, such as a panel of outstanding and independent scientists.

<sup>22</sup> Harold Brown, Melvin R. Laird, and William J. Perry, “Ratify, but Review,” *The New York Times* (January 7, 2001): <http://www.clw.org/coalition/opedlaird010701.htm>.

<sup>23</sup> See, for example, Andrew Koch, “Extending the nuclear family?,” *Jane’s Defence Review* (5 January 2000), p. 23.

24. Kathleen Bailey, *The Comprehensive Test Ban Treaty: An Update on the Debate*, National Institute of Public Policy (March 2001), <http://www.nipp.org>.

<sup>25</sup> General John M. Shalikashvili (USA, ret.), Special Advisor to the President and the Secretary of State for the Comprehensive Test Ban Treaty, *Letter to the President and Report on the Findings and Recommendations Concerning the Comprehensive Nuclear Test Ban Treaty* (Washington, DC, January 4, 2001):

<http://www.state.gov/www/global/arms/ctbtpage/ctbt-report.html>; Gregory van der Vink, Jeffrey Park, Richard Allen, Terry Wallace and Christel Hennet, “False Accusations, Undetected Tests And Implications for the CTB Treaty,” *Arms Control Today* (May 1998): <http://www.armscontrol.org/ACT/may98/vimy98.htm>; and Verification Research, Training and Information Centre (VERTIC), *The Independent Commission on the Verifiability of the Comprehensive Nuclear Test Ban Treaty (CTBT)*, (October 2000): <http://www.ctbtcommission.org/>.

<sup>26</sup> See Jack Mendelsohn, “The Bush Presidency: Reconsidering the CTBT,” *Disarmament Diplomacy No. 53*: <http://www.acronym.org.uk/53ctbt.htm>.

<sup>27</sup> 1995 NPTREC, Decision on Principles and Objectives for Nuclear Non-Proliferation and Disarmament, paragraph 4(a), NPT/CONF.1995/32/DEC.2: <http://www.un.org/Depts/dda/WMD/1995dec2.htm>.

<sup>28</sup> Cited in Jonathan Medalia, *Nuclear Weapons: Comprehensive Test Ban Treaty*, CRS Issue Brief IB92099, The Library of Congress (January 11, 2001), p. 11.

<sup>29</sup> The 13 sub-critical experiments carried out at the Nevada Test site are: 1997–Rebound, July 2, Holog, September 18; 1998–Stagecoach, March 25, Bagpipe, September 26, Cimarron, December 11; 1999–Clarinet, February 9, Oboe, September 30, Oboe-2, November 9; 2000– Oboe-3, February 3, Thoroughbred, March 22, Oboe-4, April 6, Oboe-5, August 18, Oboe-6, December 14. *Ibid.*, p. 11.

<sup>30</sup> *Ibid.*, p. 11.

<sup>31</sup> See, National Ignition Facility DOE Claims of Troubled Facility’s Utility to Stockpile Mission Overstated, ISSUE BRIEF (Volume 4, Number 16, September 7, 2000), <http://www.clw.org/coalition/briefv4n16NIF.htm>; National Ignition Facility Programs, [http://www.llnl.gov/nif/dir\\_about.html](http://www.llnl.gov/nif/dir_about.html); and Tariq Rauf, “French Nuclear Testing: A Fool’s Errand,” and Thérèse Delpech, “France’s Last Tests: A Catalyst for New Policies.” *The Nonproliferation Review* (Fall 1995).

<sup>32</sup> *Remarks by the President in Address to the 51st General Assembly of the United Nations*, p. 3.

<sup>33</sup> For the purposes of this paper, the term “weapon-usable” fissile material will apply to “fissile material for nuclear weapons and other nuclear explosive devices”—i.e. highly-enriched uranium and plutonium.

<sup>34</sup> 1995 NPTREC, Decision on Principles and Objectives for Nuclear Non-Proliferation and Disarmament, paragraph 4(b), NPT/CONF.1995/32/DEC.2: <http://www.un.org/Depts/dda/WMD/1995dec2.htm>.

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- <sup>35</sup> Cited in *Statement by Ambassador Robert T. Grey, Jr.*, US Representative to the CD, (Geneva: February 15, 2001): <http://www.reachingcriticalwill.org/cd/thisweek/usa150201.html>.
- <sup>36</sup> Proposal by the President on the Programme of Work for the 2000 session of the Conference on Disarmament (CD/1624 of 24 August 2000): <http://www.unog.ch/disarm/curdoc/1624.htm>.
- <sup>37</sup> Remarks by CD President, Ambassador Westdal at the 866<sup>th</sup> Plenary Session, Conference on Disarmament (15 February 2001).
- <sup>38</sup> Drafted by the then rotational president, Ambassador Celso Amorim of Brazil, the Draft Decision is entitled: Proposal by the President on the Programme of Work for the 2000 session of the Conference on Disarmament, <http://www.unog.ch/disarm/curdoc/1624.htm>.
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- <sup>40</sup> Statement by Foreign Minister Igor Ivanov, February 1, 2001: <http://www.reachingcriticalwill.org>.
- <sup>41</sup> Statement by Ambassador Hu Xiaodi, February 15, 2001.
- <sup>42</sup> National Institute for Public Policy: *Rationale and Requirements for U.S. Nuclear Forces and Arms Control*, January 2001.
- <sup>43</sup> *Ibid.*, p. viii.
- <sup>44</sup> Cited by Norman A. Wulf, "Observations From the 2000 NPT Review Conference," *Arms Control Today* (November 2000).
- <sup>45</sup> *Joint Statement between the United States and the Russian Federation Concerning Strategic Offensive and Defensive Arms and Further Strengthening of Stability*, White House Text; Statement at the G\_8 summit in Cologne, Germany, 20 June 1999.
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- <sup>50</sup> Ivo H. Daalder and James M. Lindsay, "Russia Can Be Our Ally on Missile Defense," *The New York Times* (February 27, 2001), p. A27; Gopal Ratnam and Amy Svitak, "Pentagon Cool to Weldon's Russian Missile Defense Plan," *Defense News* (2001); and Patrick E. Tyler, "Putin Invites West to Work On a Defense for Missiles," *The New York Times* (February 21, 2001), p. A5.
- <sup>51</sup> The White House, Office of the Press Secretary (Moscow, Russia), *Fact Sheet: Agreement on the Establishment of a Joint Warning Center for the Exchange of Information on Missile Launches and Early Warning* (June 4, 2000).
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- <sup>54</sup> *U.S.-Russian Strategic Stability Cooperation Initiative* (September 6, 2000), *Arms Control Today* (October 2000): <http://www.armscontrol.org/ACT/oct00/dococt00.html>.
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- <sup>57</sup> *White House Fact Sheet on United States – Russia Plutonium Disposition Agreement*, U.S.-Russia Summit (June 4, 2000): <http://www.clw.org/coalition/summit050400pu.htm>.
- <sup>58</sup> *IAEA Verification of Weapon-Origin Fissile Material in the Russian Federation and the United States*, IAEA, General Conference \_ PR 2000/22 (19 September 2000) [http://www.iaea.org/worldatom/Press/P\\_release/2000/prn2200.shtml](http://www.iaea.org/worldatom/Press/P_release/2000/prn2200.shtml).

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- <sup>71</sup> Tom McDonald, "NATO Foreign Ministers Adopt Limited Proposals on Arms Control," BASIC REPORTS (No. 76, February 10, 2001).
- <sup>72</sup> White House Fact Sheet on US-Russia Plutonium Disposition Agreement, (Moscow: June 4, 2000).
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- <sup>74</sup> US Department of State, *Freedom From War: The United States Program for General and Complete Disarmament in a Peaceful World*, Department of State Publication 7277 (September 1961).
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84. Jayantha Dhanapala, *Keynote Address, Towards NPT 2005: An Action Plan for the 13 Steps*, Middle Powers Consultation, United Nations, 29 April 2001, p. 4.

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