

Recent developments in nuclear weapons verification

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The year 2001–2002 again saw little or no progress on nuclear weapons verification; on some issues there was actually a retreat or indications that retreat might happen in the near future. Specifically, the Conference on Disarmament in Geneva failed, once again, to initiate negotiations on a fissile material cut-off treaty (FMCT). The review process for the 1968 Nuclear Non-Proliferation Treaty (NPT) saw attempts to weaken ideas for improving compliance reporting with respect to Article VI of that treaty. Finally, after several attempts to conclude a new treaty that would reduce strategic offensive arms beyond the only treaty currently in force (the 1991 Treaty on the Reduction and Limitation of Strategic Offensive Arms, START I), the United States and Russia concluded, on 24 May 2002, a treaty without any verification provisions whatsoever—the Strategic Offensive Reductions Treaty (SORT), also known as the Moscow Treaty. In the meantime, American withdrawal from the 1972 Anti-Ballistic Missile (ABM) Treaty triggered Russia’s announcement on 14 June 2002 that the 1992 START II Treaty (the second Strategic Arms Reduction Treaty, which had been ratified by both sides but had never entered into force) was null and void.

This chapter will concentrate only on the issues where there have been some developments in the past year. In considering these it is vital to keep in mind that verification is not only a means to confirm that the parties to an international regime abide by their obligations. It is also—and probably primarily—a means to ensure the transparency of intentions and capabilities, which, in turn, enhances the predictability of the international system. The reduction of nuclear arsenals does not itself increase confidence and trust among the nuclear weapon states or demonstrate to the non-nuclear weapon states that Article VI of the NPT, which

calls for efforts in good faith to achieve nuclear disarmament, is being taken seriously. Reductions often have the purpose of cost-effective optimisation of nuclear arsenals rather than nuclear disarmament, and might in some cases actually reduce the nuclear threshold.

Implementation of START I

START I was signed on 31 July 1991 and entered into force on 5 December 1994.¹ Verification began in January 1995. In 2001–2002 implementation continued without major problems, having become largely routine. On 5 December 2001 the US and Russia reported that they had completed reductions mandated by the treaty.

START I provides for the most comprehensive verification mechanism among the bilateral treaties on nuclear weapons. It includes 12 types of on-site inspections (five of them short-notice inspections with procedures that provide for an element of surprise), perimeter and portal continuous monitoring (PPCM) at production facilities for mobile inter-continental ballistic missiles (ICBMs), a comprehensive reporting system that covers hundreds of categories of data, extensive exchange of telemetry data, and a system of notifications that covers all changes in strategic nuclear arsenals on an almost daily basis.² The verification regime will remain in force until the treaty expires on 1 December 2009, unless it is extended.

Since entry into force of the treaty and up until mid-2002, the US had conducted 335 inspections, while Russia, Belarus, Kazakhstan and Ukraine³ had conducted only 243 (the bulk of them conducted by Russia).⁴ In 2001 35 inspections were carried out by the US and 28 by the four former Soviet states, but in the first half of 2002 the numbers of inspections were almost equal—25 and 24, respectively.

The difference in the numbers is partly explained by the difference in the numbers of inspectable facilities: there were 27 in the US at the end of 2001, as opposed to 41 in Russia and 13 in Belarus, Kazakhstan and Ukraine.⁵ Another, probably more important, reason is cost. Russia and to an even greater extent the other newly independent states are not prepared or able, given their other pressing priorities, to spend too much on inspection activity. In fact, the majority of Russian inspections have reportedly been sequential, that is, conducted by the same group moving from one facility to another.⁶ This option allows Russia at least to save money on air transport, but it also reduces the element of surprise.

Russia deemed the cost of inspections to be so high that it informally raised with the US the possibility of reducing the number of short-notice inspections.⁷ It argued that each facility had been inspected so many times that short-notice inspections were no longer useful. Other elements of the verification regime, including notifications, data exchange and telemetry data exchange, in Russia's view, could have remained intact, but the number of short-notice inspections would be reduced or some replaced by 'visits' to clarify concerns. Russian soundings followed a similar (and also unsuccessful) attempt in 1997 to terminate inspections under the 1987 INF Treaty (the Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles) more than three years earlier than provided for by the treaty (on 31 May 2001).⁸ The US declined the Russian proposal, citing the need for a complicated and lengthy process of ratification of amendments and probably also fearing setting a precedent for other changes.

START I implementation has not been free of disagreements, discussed confidentially in the Joint Compliance and Implementation Commission (JCIC). In most cases these have been successfully resolved, although some issues have remained unresolved for years. Russian concerns are somewhat better known than those of the US, since Russia is more outspoken, but the US has its share as well. Reportedly, the Russian side has repeatedly raised the following four issues.⁹

The inability to confirm the number of warheads on American SLBMs. During re-entry vehicle (RV) inspections (designed to confirm that the number of warheads deployed on a particular ballistic missile does not exceed the number attributed to it under the treaty) the inspected party is allowed to cover warheads to keep secret these elements that are not relevant for verification purposes. In most cases both sides use soft covers separately for each warhead; the US Navy, however, uses a single hard cover for the entire front section. The Russian side claims that this prevents inspectors from ascertaining that the missile front section does not contain undeclared warheads. Two possible problems have reportedly been mentioned: undeclared warheads could be concealed inside the cover; and a second platform with warheads could be hidden beneath the one inspectors see. Reportedly, Russian inspection teams have not certified a single RV inspection of Trident II submarine-launched ballistic missiles (SLBMs). The US claims that the treaty does not prohibit single hard covers and that hiding warheads would be impossible.

The number of warheads on Trident II SLBMs displayed during test launches. Some test launches of these SLBMs include front-section manoeuvres whose telemetry 'signature' is indistinguishable from that involved in a release of RVs. Since the number of warheads demonstrated during a flight test is the sum of the number of warheads actually released plus the number of release procedures, telemetry data could be interpreted as indicating that Trident II SLBMs are being tested for up to 12 warheads, four above the legal limit. According to the US, these additional manoeuvres are not associated with release of warheads and Russia might run into the same problem if it deploys a manoeuvring warhead on its Topol-M ICBM, as many expect.

Flight tests of British Trident II SLBMs from American test ranges. According to the Russians, these tests are indistinguishable from tests of American SLBMs, but Russia does not receive telemetry information from them. Reportedly, some elements of these tests would have violated START I had they been conducted by the US and the possibility of sharing data allows the US to effectively circumvent the treaty. The American side responds that the co-operative programme with the United Kingdom is sanctioned by START I and that the Russian side was supplied with the dates of test flights conducted for the UK so that they could be distinguished from those conducted by the US.¹⁰

Elimination of MX ICBMs. The US is eliminating only the first stages of its MX ICBMs, but the Russian side claims that, since that missile is legally considered a mobile one (even though none have been actually deployed in that mode), all three stages should be eliminated, as well as the front section. Furthermore, it says that, since the first stage of the Castor-120 space launch vehicle (SLV) is similar to the first stage of the MX ICBM (SLVs are not limited by START I), the US is de facto acquiring the capability to assemble new, MX-like missiles using the first stages of the Castor-120 SLV and the second and third stages of the MX. Alternatively, the second and third stages could conceivably be used as an intermediate-range ballistic missile (IRBM).

The US contends that, since its ICBMs are accounted for by first stages only, elimination of the first stage should be sufficient for the whole missile to be considered eliminated and, further, SLV stages cannot be used with the second and third stages of the MX without additional modernisation and testing.

These are serious problems which could under different circumstances justify the abrogation of the treaty. The US has not publicly raised equally serious problems. There have been other significant concerns on both sides that have apparently been resolved, since they are no longer publicly mentioned, as well as dozens of smaller ones. Notwithstanding multiple complaints, both sides clearly judge START I a success and have given no indication of being ready to withdraw.

Furthermore, it appears that the Russian decision to go public with these complaints about implementation is usually triggered by events not related to START I, including the expectation that the US would withdraw from the ABM Treaty. For example, in January 1999 Leonid Ivashov, then the chief of the International Cooperation Main Department of the Russian Ministry of Defence, gave an interview in which he detailed Russian complaints following an unsuccessful attempt by the Russian Duma to ratify START II (the vote was cancelled in protest against US and British bombing of Iraq). An official statement by the Russian Foreign Ministry in January 2001 questioning American implementation of START I appeared immediately after allegations in the US media about the suspected deployment of land-based tactical nuclear weapons (TNW) in Kaliningrad Oblast.¹¹ On 5 December 2001 a statement by the Foreign Ministry in connection with the completion of reductions mandated by START I noted that Russia had 'questions with regard to the implementation of certain provisions of that Treaty',¹² but this intimation was probably intended to set the stage for withdrawal from START I if deemed necessary as a response to impending American withdrawal from the ABM Treaty. When that withdrawal took place, the Russian government reacted very mildly, and statements concerning START I implementation did not reappear.

US support for verification weakens

With hindsight it is clear that the inauguration of the US administration of President George W. Bush in January 2001 heralded the end of an era in nuclear arms control. In place of the traditional approach, which emphasised legally binding, verifiable agreements, the new administration has promoted as much freedom from legal and other constraints as possible. Surprisingly to many, Russia did not offer much resistance but embraced flexibility as an opportunity to reduce the costs of optimising its nuclear arsenal.¹³

Symbolic of the new US approach was its formal abrogation of the ABM Treaty on 13 June 2002 (the announcement of its intention to do so had been made on 13 December 2001). The next day Russia announced that it no longer considered itself bound by START II, thus ending the long story of attempts to bring that treaty into force.¹⁴

The demise of START II meant, among other things, that several types of verification measures created specifically for that treaty would not go into effect. These include, in particular, inspections to confirm the conversion of silos for MIRVED ICBMs (those equipped with multiple independently targetable re-entry vehicles) to house single-warhead ICBMs, as well as additional RV inspections, which could have been instrumental for verifying the 2002 Moscow Treaty (see below).

The new American administration also failed to resume consultations on a START III treaty, which had been conducted on and off since late 1997. These consultations nevertheless left an important legacy of proposals tabled by both sides—the American draft text of January and February 2000, and the Russian draft of June 2000.

START III was expected to change some provisions of START I to give both sides greater flexibility and opportunities for cost savings. For example, the US planned to convert four Ohio Class nuclear-powered, ballistic-missile submarines (SSBNs) from SLBM carriers into carriers of conventionally armed sea-launched cruise missiles (SLCMs) without following START I procedures, which made such conversion very expensive. Russia reportedly considered MIRVing its new ICBM, the Topol-M, although no proposals to that effect were included in the Russian START III draft. As noted above, Russia also proposed cutting the number of short-notice inspections, which were considered excessively expensive and not as essential in the post-Cold War world.

The American draft contained additional verification measures with regard to mobile ICBMs, which only Russia has, and a Memorandum of Understanding that contained the most exhaustive list so far of categories of data officially proposed for exchange. These included the location of warhead storage facilities and the number of warheads at each location; the location and number of all containers with fissile materials removed from nuclear warheads; the number of newly assembled and disassembled warheads at each facility; the location of components of nuclear

warheads (trigger mechanism); and information about fissile materials disposed of in accordance with international agreements. The proposal did not, however, include a mechanism to verify the data.

The two sides failed to reach agreement in the short time left until the 2000 US presidential elections. Nevertheless, the draft texts registered certain similarities, in particular with regard to the simplification of the START I rules and procedures to give both sides greater flexibility in planning their nuclear postures and reducing the costs of reduction. The American draft of the Memorandum of Understanding was the first formalised attempt to address verification of nuclear warheads and could still be used when the US and Russia are once again prepared to tackle that issue.

Under the new American administration, on 24 May 2002, the two countries concluded SORT. Whereas START III drafts had provided for limited simplification of the START I rules, SORT went to the other extreme, being one of the shortest arms control treaties in history. Its only substantive provision obliges the parties to 'reduce and limit strategic nuclear warheads . . . so that by December 31, 2012 the aggregate number of such warheads does not exceed 1700–2200 for each Party'.¹⁵ That number refers to so-called 'operationally deployed' warheads. Reductions will be primarily implemented by 'downloading'—reducing the number of warheads on delivery vehicles. The treaty does not limit or account for the warheads that are put in reserve or prevent them being uploaded again. The number of warheads in 'ready reserve' has not been announced, but is expected to be in the thousands (the officially announced figure for the US is 2400;¹⁶ Russian sources have not disclosed any figures, but the number is widely expected to be negligible).

A particular feature of the new treaty is the complete absence of data exchange and verification mechanisms.¹⁷ As things stand now, transparency will depend on the voluntary provision of information by the two sides. Much of this information will not be verifiable. The START I verification regime, which will remain in force at least until the end of 2009, will not be able to fill the SORT verification gap. START I RV inspections can confirm downloading, but only 10 of those can be conducted annually and, as mentioned above, downloading of Trident II SLBMs cannot be verified because of the hard covers. Nor does the treaty provide for any means of verifying the number of stored warheads or any uploading activities.

Following the signing of SORT, both sides tentatively declared their intention to address the issues of verification and transparency in various fora, including the Bilateral Implementation Commission which SORT establishes. High-level Russian officials noted that they saw SORT as only 'the first step' in a series of agreements and announced their intention to discuss measures that would guarantee against clandestine uploading of warheads, presumably meaning verification measures. American officials emphasised transparency, that is, primarily an exchange of information.¹⁸ Still, there seems to be enough common ground to allow some hope for progress in that area in the years ahead.

Tactical nuclear weapons

TNW are subject to an informal regime created by parallel unilateral declarations made by presidents George Bush and Mikhail Gorbachev in September and October 1991. Gorbachev's was subsequently confirmed and expanded on by President Boris Yeltsin in January 1992 (these statements are known as the Presidential Nuclear Initiatives).

The regime provides for the removal to central storage facilities or the elimination of all TNW except for a limited number of short-range air-based weapons which remain deployed—that is, usable on short notice. The subsequent reductions, including moving them to central storage and elimination, numbered in the thousands and probably represented the largest single reduction of nuclear warheads ever. It was clear that the warheads were removed from deployment quickly, but the status of their elimination remains uncertain as a result of the lack of data exchange and verification. The status of Russia's TNW is, in particular, often questioned.

In September 1996 Russia announced that the elimination of warheads pursuant to its undertakings would be completed by 2000.¹⁹ However, its National Report on the Implementation of the NPT at the 2000 NPT Review Conference mentioned the reduction of artillery shells and nuclear mines as only 'nearing completion'.²⁰ Two years later, the Russian report to the 2002 NPT Preparatory Committee (Prep-Com) meeting stated that Russia planned to 'complete implementation of the initiatives . . . by 2004' but only 'on condition of adequate financing'. The list of uncompleted eliminations included land-based short-range missile warheads.²¹

Even as Russian progress was widely doubted, it was generally assumed that the US had completed the implementation of its 1991 statement relatively quickly, especially since it did not have similar funding problems. In 1998, however, a US representative to the Conference on Disarmament, Ambassador Norman A. Wulf, said that, while dismantlement in some categories had been completed, artillery shells, warheads for short-range missiles and nuclear depth bombs would be eliminated by 1999.²² Neither his statement at the 2002 NPT PrepCom nor the US Information Paper on Article VI included specific details, although they gave an impression that elimination had been completed.²³ According to a recent report, however, artillery shells are still awaiting dismantlement because dismantlement capacity is insufficient, although completion of that work was originally scheduled for August 2000.²⁴ If this is correct, then the US is in roughly the same position with regard to implementation of its unilateral statement as Russia. It appears that the completion of work has now been scheduled for the end of 2003.

International pressure for the formalisation of the 1991 statements and further reduction of TNW suffered a temporary setback at the First Committee of the UN General Assembly in late 2001. At that time Mexico was unable to gain support from several key states, including its partners in the New Agenda Coalition (NAC),²⁵ for a significant draft resolution on 'Reduction of Non-Strategic Nuclear Weapons' and Mexico limited itself to a statement,²⁶ with individual support from a number of countries. The 2002 PrepCom meeting registered the renewal of the non-nuclear weapon states' interest in further reductions of TNW. A large number of delegations called for progress beyond unilateral initiatives, including Spain on behalf of the European Union. The NAC and Finland (on behalf of itself and Sweden) also made strong statements, and Germany introduced an important working paper.²⁷

NPT reporting requirements

The 2002 PrepCom meeting witnessed conflict over the reporting requirements provided for in the Programme of Action (Next Steps) on Nuclear Disarmament, which was adopted at the 2000 NPT Review Conference. Paragraph 12 of that document provided for '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’.²⁸ The US and France threatened to block the programme of work if it explicitly included discussion of reports. Other nuclear weapon states remained on the sidelines but supported the substance of the American and French objections, namely, that reports should not be linked to the issue of implementation of Article VI of the NPT and that they should not be ‘excessively formal’. Effectively, the issue was left unresolved, and the conflict might resume at future meetings.

The Trilateral Initiative

Another area that has not seen progress is the Trilateral Initiative—the agreement between the International Atomic Energy Agency (IAEA), the US and Russia to develop methods of putting fissile materials excess to defence requirements under IAEA control. The initiative was launched in 1996 following unilateral statements by the two countries about their intention to dispose of considerable amounts of surplus plutonium extracted from weapons; in 2000 the US and Russia concluded an agreement pledging to dispose of 34 tonnes of plutonium each. At the 2000 NPT Review Conference the Trilateral Initiative was included in the Programme of Action (Next Steps) on Nuclear Disarmament.

The special feature of the Trilateral Initiative and the reason for the protracted negotiations is the intention to allow IAEA inspectors access to plutonium, which still has classified properties, freshly removed from weapons. Procedures should enable inspectors to certify that the material is not being diverted to defence programmes and at the same time preserve sensitive information. All three sides have for years reported smooth progress, saying that only ‘technical details’ remained, but there is no saying when talks will end.

Conclusion

Thus, the distinguishing feature of the status of multilateral verification efforts regarding nuclear weapons in 2001–2002 was the slow decline of various initiatives, which seem to fade away without serious dissent, at least among the nuclear weapon states. All sides, in particular the US and Russia, but also France, the UK and China, espouse positive attitudes and report modest progress; but actual

progress is at best minimal, and retreats from past achievements and the dismantlement of promising endeavours are more frequent. The nuclear weapon states slide comfortably into convenient unilateralism, which provides flexibility in nuclear posture planning and cost reductions but no progress in verification.

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Endnotes

¹ The full title is the Treaty between the United States of America and the Union of Soviet Socialist Republics on the Reduction and Limitation of Strategic Offensive Arms.

² For details see Annette Schaper, 'Verifying nuclear arms control and disarmament', in Trevor Findlay (ed.), *Verification Yearbook 2000*, The Verification Research, Training and Information Centre (VERTIC), London, December 2000, p. 60.

³ These three states became parties to START I because strategic nuclear weapons were located on their territories at the time of the dissolution of the Soviet Union in December 1991. Their status as parties to START I was recognized in the May 1992 Lisbon Protocol, but all three also undertook to join the NPT as non-nuclear weapon states.

⁴ See also Defense Threat Reduction Agency, 'Strategic Arms Reduction Treaty (START)', DTRA Factsheet available at www.dtra.mil/news/fact/nw_start.html, current as of January 2002.

⁵ At the entry of START I into force, there were 43 inspectable facilities in the US and 69 in the newly independent states. See Defense Threat Reduction Agency, 'Strategic Arms Reduction Treaty (START) inspectable sites in the former Soviet Union', available at www.dtra.mil/news/fact/nw_stfsu.html; and 'Strategic Arms Reductions Treaty (START) inspectable sites in the United States', available at www.dtra.mil/news/fact/nw_stus.html, both documents current as of January 2002.

⁶ Sequential inspections were introduced for the first time in START I precisely for cost-saving reasons; the INF Treaty did not provide for them. After an agreement at the START I talks on this option, sequential inspections were also adopted for the Conventional Armed Forces in Europe (CFE) Treaty.

⁷ Although the cost for Russia of inspecting American facilities is considerable, the cost of receiving American inspection teams on Russian territory is even greater since the inspected party covers all in-country expenses. According to the treaty, however, Russia does not have control over the number of these inspections within the quotas established by the treaty. The number of American inspections could be reduced only by a special agreement.

⁸ ITAR-TASS, 1 December 1997.

⁹ See Gennadiy Obolenskiy, 'O serykh zonakh budushchikh peregovorov po dogovoru SNV-3' [On the 'grey areas' of future negotiations on a START III treaty], *Yadernaya bezopasnost'*, November 1997, pp. 4–5; a statement of an unnamed representative of the Russian Ministry of Defence, Interfax, 16 June 1998; a statement by Vladimir Lukin and Roman Popkovich, chairmen of the International Affairs and Defence committees of the Duma, respectively, in *Nezavisimaya gazeta*, 28 August 1998, p. 1; Ivan Sidorov, 'Naskol'ko otvetstvenno storony vypolnyayut dogovor SNV-1?' [How responsibly are the parties implementing the START I Treaty?], *Yadernoye rasprostranenie*, August/October 1999, pp. 64–69; 'SShA narushayut dogovor SNV-1' [The US is violating the START I Treaty], *Krasnaya zvezda*, 23 January 1999, pp. 1–2; and 'O narusheniyakh SShA dogovora SNV-1' [On the US's breaches of the START I Treaty], Statement no. 6-04-01-2001 of the Ministry of Foreign Affairs of the Russian Federation, 4 January 2001.

¹⁰ The Russian concern is caused by the fact that such tests could produce useful information for the US and thus present an opportunity to circumvent the treaty.

¹¹ Nikolai Sokov, 'The tactical nuclear weapons controversy', *Jane's Defence Weekly*, 31 January 2001.

¹² Statement of the official representative of the Russian Foreign Ministry Alexander Yakovenko, document no. 2273-05-12-2001, 5 December 2001.

¹³ From the point of view of maintaining its remaining missiles it may be cheaper for Russia not to have any treaty at all. The technical details of START I and possible other treaties often require expensive changes in standard operating procedures. START I rules would entail extra costs if three warheads were to be deployed on the Topol-M. Implementation of some provisions in the American draft of START III could also be expensive. These concerns are very similar to those that drive the American approach.

¹⁴ Since START II never entered into force, Russia was not obligated to implement it, but according to the 1969 Vienna Convention on the Law of Treaties it was bound to 'refrain from acts which would defeat the object and purpose' of START II. The 14 June 2002 announcement formally relieved Russia from that obligation.

¹⁵ For the text of the treaty see, e.g., the website of the US State Department, www.state.gov/t/ac/trty/10527.htm.

¹⁶ Statement of Secretary of State Colin Powell before the US Senate Foreign Relations Committee, 9 July 2002, transcript by Federal News Service on 10 July 2002; and Bill Nichols, 'us to keep 2,400 nukes in reserve despite treaty', *USA Today*, 10 July 2002, p. 10.

¹⁷ Nikolai Sokov, 'No SORT of verification', *Trust & Verify* (VERTIC), issue 103, July/August 2002, pp. 1–3.

¹⁸ See, e.g., a statement by the Russian Minister of Foreign Affairs, Igor Ivanov, at a joint session of the International Relations Committees of the State Duma and the Federation Council on 21 May 2002, Ministry of Foreign Affairs document no. 1069-24-05-2002; 'Neobkhodima posledovatel'nost' v reshenii problem yadernogo razoruzheniya, zayavil Yuriy Baluevskiy' [Follow-up is essential in resolving issues of nuclear disarmament, says Yuriy Baluevskiy], available at www.Strana.ru, 18 May 2002; Statement of the State Duma on the new strategic stability agreements between the Russian Federation and the United States of America, 21 June 2002, available at www.armscontrol.ru/start/rus/docs/dumao614o2.htm; and Statement of Secretary of State Colin Powell before the United States Senate Foreign Relations Committee, 9 July 2002.

¹⁹ Interfax, 26 September 1996.

²⁰ 'National report on the implementation of the nuclear nonproliferation treaty by the Russian Federation, 25 April 2000', document of the Permanent Mission of the Russian Federation to the United Nations no. 37.

²¹ Statement of the delegation of the Russian Federation at the first session of the Preparatory Committee for the 2005 NPT Review Conference under Article VI of the treaty, New York, 11 April 2002 (document distributed by the Russian delegation at the PrepCom).

²² Statement by US Ambassador Norman A. Wulf on 27 April 1998 at the second Preparatory Committee (PrepCom) meeting for the 2000 Review Conference of the Non-Proliferation Treaty NPT, available at www.acronym.org.uk/textonly/dd/dd26/26doc.htm.

²³ Statement of Ambassador Norman A. Wulf on 8 April 2002 at the first session of the Preparatory Committee for the 2005 NPT Review Conference under Article VI of the Treaty, New York, 11 April 2002, available at www.acronym.org.uk/npt/2002us.htm; and 'us Information Paper on Article VI', 11 April 2002, at www.acronym.org.uk/npt/2002us2.htm.

²⁴ Walter Pincus, 'Powerhouse H-bomb heads for graveyards', *Washington Post*, 8 August 2002, p. 10.

²⁵ Besides Mexico, the NAC includes Brazil, Egypt, Ireland, New Zealand, South Africa and Sweden.

²⁶ 'Statement by the Representative of Mexico, H.E. Mr Gustavo Albin, on reductions of non-strategic nuclear weapons', New York, 24 October 2001 (document distributed at the meeting). See also 'Statement by H.E. Mr Markku Reimaa, Permanent Representative of Finland to the Conference on Disarmament', New York, 23 October 2001 (document distributed at the meeting).

²⁷ 'Statement by H.E. Mr Markku Reimaa'. For a description of the German proposal see Rebecca Johnson, 'The 2002 PrepCom: papering over the cracks?', *Disarmament Diplomacy*, May–June 2002, available at www.acronym.org.uk/dd/dd64/64npt.htm.

²⁸ See 'Nuclear Disarmament Plan of Action, final document', *Disarmament Diplomacy*, no. 46, May 2000, pp. 20–21.

