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Summary:

A compilation of the latest news, events, and publications related to nuclear weapons and nuclear non-proliferation. The "Newsbrief" was produced by the PPNN and personally edited by Ben Sanders.

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NEWSBRIEF

4th Quarter 1999

Editorial Note

The *Newsbrief* is published every three months, under the auspices of the Programme for Promoting Nuclear Non-Proliferation (PPNN). It presents information about the spread of nuclear weapons and their means of delivery, and about moves to deter that spread; where appropriate, reference is made to relevant developments with respect to other weapons of mass destruction and their means of delivery. The *Newsbrief* also refers to relevant developments regarding the peaceful use of nuclear energy. The contents of the *Newsbrief* are based on publicly available material.

This issue covers the period 1 October to 31 December. Unless otherwise indicated, dates (day/month) refer to 1999. Where reference is made to an uninterrupted series of items from a daily newspaper or a news agency, only the first and last dates of the series are noted. For example, "18-25/10" following the name or symbol of a particular publication means that use has been made of items appearing there on each day from 18 to 25 October 1999. Names of publications that are referred to often are abbreviated; a list is given on the back page.

PPNN's Executive Chairman, Ben Sanders, is editor of the *Newsbrief*. He produces it and takes responsibility for its contents. The inclusion of an item does not necessarily imply the concurrence of the members of PPNN's Core Group, collectively or individually, with its substance or its

relevance to PPNN's activities, nor with the way it is presented.

Readers who wish to comment on the substance of the *Newsbrief* or on the way any item is presented, or who wish to draw attention to information they think should be included, are invited to send their remarks to the editor for possible publication.

I. Topical Developments

a. Non-Proliferation

- On 30 November and 1 December the General Conference of the **Organization for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (OPANAL)** held its 16th regular session in Lima, Peru. The General Conference unanimously adopted the "Lima Appeal" for the complete and immediate prohibition of the use and manufacture of nuclear weapons and the prevention of their proliferation. OPANAL's Secretary General was requested to arrange for the distribution of the Lima Appeal as an official document of the Millennium Assembly of the United Nations. The text of the Lima Appeal as received from OPANAL is reproduced below, under **IV. Documentation**.

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- **Kazakhstan** and the **United States** have signed an 'implementing agreement' to close and decommission the plutonium-producing BN-350 nuclear reactor in Aktau, Western Kazakhstan, near the Iranian border. The US Department of Energy (DoE) is assisting Kazakhstan with the security and disposition of plutonium in spent fuel stored at the reactor site. The next phase of the project will involve the removal of the material from the secured spent fuel pools, to long-term storage; a study of options for such storage will be launched in 2000. (Department of Energy, 21/12; R, 22/12)

b. Nuclear Disarmament and Arms Limitation

During the 54th regular session of the **United Nations General Assembly** the First Committee was chaired by Ambassador Raimundo Gonzales of Chile. In the Chairman's words, the session reflected the deep concern of the international community at the impasse in the area of nuclear disarmament. The atmosphere of pessimism in which the session opened worsened further at the news of the rejection of the Comprehensive Test Ban Treaty (CTBT) by the US Senate. Lack of action in the Conference on Disarmament (CD) on a Fissile Material Cut-Off Treaty (FMCT), and the CD's inability to adopt an agenda of work, the apparent stalemate in the 'START' process and US plans to develop ballistic-missile defence systems even at the cost of adherence to the Anti-Ballistic Missile (ABM) Treaty of 1972, all worked to depress expectations for early progress in nuclear disarmament in general, and for success of the 2000 NPT Review Conference in particular. The fact that, at its third session, the Preparatory Committee for the Review Conference had been unable to come up with substantive recommendations, was seen by some delegates as a source of concern for the future of the strengthened review process.

A widely noted aspect of the session was the apparent realisation by delegations of the limitations in the ability of international initiatives to bring about nuclear disarmament. The First Committee discussed many of the usual subjects related to nuclear disarmament. A new item was a resolution sponsored by Belarus, China and the Russian Federation calling for efforts to strengthen and preserve the ABM Treaty and to limit the deployment of anti-ballistic missile systems. This resolution received four negative votes, including those of the US and Israel, against 80 in favour. Among the 68 delegations that abstained were all other Western states, with the exception of France and Ireland, which voted in favour.

The resolutions most closely relating to subjects referred to in the **Newsbrief** are listed below, with the votes cast in the General Assembly on 1 December. The full texts are reproduced under **IV. Documentation**. For a number of resolutions, parts were voted on separately, but the voting results quoted below pertain only to votes on the resolutions as a whole. At the time this issue of the **Newsbrief** went to press, resolution numbers were not yet available; the numbers given here are those of the documents as they were voted on in the Plenary Session of the General Assembly.

- **54/63 Comprehensive Nuclear-Test-Ban Treaty**, introduced by Mexico, was adopted by 158 votes in favour, none against, and six abstentions;
- **54/54 P Nuclear disarmament**, introduced by Myanmar, which *inter alia* called for the negotiation in the Conference on Disarmament of a multi-lateral agreement committing states to nuclear disarmament, no-first-use, and the conclusion of an internationally binding instrument on security assurances and urged the nuclear-weapon states to start "plurilateral negotiations among themselves" on nuclear disarmament, was adopted by 104 votes in favour, 41 against, and 17 abstentions;
- **54/54 Q Follow-up to the advisory opinion of the International Court of Justice on the *Legality of the Threat or Use of Nuclear Weapons***, introduced by Malaysia, was adopted by 110 votes in favour, 28 against, and 22 abstentions;
- **54/54 D Nuclear disarmament with a view to the ultimate elimination of nuclear weapons**, introduced by Japan, was adopted by 153 votes in favour, none against, and 12 abstentions;
- **54/54 G Towards a nuclear-weapon-free world: the need for a new agenda**, introduced by New Zealand, was adopted by 111 votes in favour, 13 against, and 39 abstentions. The no-votes included those of the recognised nuclear-weapon states, except for China, which abstained, as well as of India, Israel and Pakistan. This time, except for Hungary and Poland, all non-nuclear-weapon states members of the North Atlantic Treaty Organization (NATO), of whom in 1998 some had voted against, abstained. It was noted that while this meant that three fewer delegations voted in favour than did so in 1998, there were five fewer no-votes while the number of abstentions stayed the same;
- **54/55 D Convention on the Prohibition of the Use of Nuclear Weapons**, introduced by India, was adopted by 103 votes in favour, 42 against, and 17 abstentions;
- **54/54 A Preservation of and compliance with the Treaty on the Limitation of Anti-Ballistic Missile Systems**, introduced by the Russian Federation, was adopted by 80 votes in favour, 4 against and 68 abstentions;
- **54/48 African Nuclear-Weapon-Free Zone Treaty (Treaty of Pelindaba)**, introduced by Burkina Faso on behalf of the Group of African States, was adopted without a vote;
- **54/51 Establishment of a nuclear-weapon-free zone in the region of the Middle East**, introduced by Egypt, was adopted without a vote;
- **54/57 The risk of nuclear proliferation in the Middle East**, introduced by Egypt on behalf of the members of the League of Arab States, was adopted by 149 votes in favour, three against, and nine abstentions;
- **54/60 Consolidation of the regime established by the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco)**, introduced by Mexico, was adopted without a vote;

although related little concrete progress, debate on one

- **54/54 L Nuclear-weapon-free southern hemisphere and adjacent areas**, introduced by Brazil, was adopted by 157 votes in favour, three against, and four abstentions;
 - **54/52 Conclusion of effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons**, introduced by Pakistan, was adopted by 111 votes in favour, none against, and 53 abstentions;
 - **54/54 F Missiles**, introduced by Iran (Islamic Republic of), was adopted by 95 votes in favour, none against, and 65 abstentions, including all Western delegations as well as several states belonging to the Non-Aligned Movement (NAM);
 - **54/56 B Report of the Conference on Disarmament**, introduced by Australia, was adopted without a vote; and
 - **54/54 U Convening of the fourth special session of the General Assembly devoted to disarmament**, introduced by South Africa on behalf of the NAM, was adopted without a vote. This resolution noted *inter alia* that no consensus had been reached on the item in the Disarmament Commission and decided, among other things, to convene the Fourth Special Session subject to the emergence of such a consensus.
- In early October it was reported from Moscow that in a letter to the Prime Minister of Japan, **Russia's** then President Yeltsin had said that he was making considerable efforts to achieve the prompt ratification of START II, notwithstanding his opposition to modifying the ABM Treaty. At the time, political analysts expressed doubt that the Russian State Duma (the lower house of Parliament) would be inclined to ratify START II so soon after the rejection by the US Senate of the CTBT. On 13 December, the Duma refused the government's request to include the issue in its agenda for that day — the last day of session before the parliamentary elections of 19 December, reportedly because its leaders saw that there was no clear majority in favour. The strongest opposition was said to have come from the Communist Party faction and its allies, largely as the product of anti-American sentiment. Reportedly, the Communists and the parties that traditionally align themselves with the Communists lost just enough support in the elections for the Prime Minister of the time, Vladimir V. Putin, to be able to line up a legislative majority without them. In a meeting with leaders of the new Duma, on 21 December, Putin renewed his call for the prompt ratification of START II; the Communists promptly rejected the proposal, but this was now seen in the Russian press to have a higher chance of success than before the vote. Observers were concerned, however, that resentment about the American intentions to seek modifications of the ABM Treaty, and continued Western criticism of Russia's actions in Chechnya, might again prompt the Duma to defer action on the matter. (AP, 8/10; R, 8/12, 14/12; *Sovietskaya Rossia*, 11/12; NYT, 14/12, 22/12; *Moscow Times*, 23/12)
 - There is opposition in **Canada** to plans to test-burn plutonium from dismantled American and Russian warheads in Canadian nuclear power plants. The

environmental organization *Energy Probe* is said to resist the idea because, supposedly, reactor operators elsewhere would be able to derive from the process information on the production of plutonium in their own facilities; *Greenpeace Canada* is against because it says this means making Canada "the nuclear waste dump for the world"; and aboriginal Iroquois and Anishnabe peoples want to make sure that the material does not transit their lands and seek to block any shipment of mixed-oxide (MOX) fuel that uses the Trans-Canada Highway, which cuts through territory of the North Shore Tribal Council. The concern seems to have worsened as the result of a letter from a prominent nuclear critic to newspaper editors, claiming that Canada was about to import 100 metric tons of weapons-grade plutonium. In fact, present plans call for a three-year test burn of a small sample of weapons-grade plutonium in the Chalk River research reactor in Ontario. The Canadian government and Atomic Energy of Canada Limited (AECL) have pointed out that the quantity concerned is no more than 240g of plutonium in MOX fuel, containing three per cent plutonium against 97 per cent uranium oxide. The Canadian authorities have meanwhile confirmed that the test will take place as planned; shipment of the US sample was scheduled for December, and a Russian sample was expected to be received in Spring 2000.

In the **United States**, individuals and environmental groups also oppose the shipment of the material. A call for a temporary restraining order, advanced on the grounds that the shipment could harm the state's environment, was rejected by a federal court in Michigan. The plaintiffs, including the environmental group *Citizens for Alternatives to Chemical Contamination*, have announced they will challenge the verdict. A final ruling was expected in December, but has not yet come to the editor's attention.

DoE is said to have decided that it is no longer actively pursuing the option of using Canadian power reactors to assist in disposition of surplus US weapons plutonium, but it does want to keep the CANDU option open. Reportedly, DoE has determined that for now "adequate reactor capacity is available in the United States to disposition that portion of the U.S. surplus plutonium suitable for MOX fuel".

DoE has estimated that its entire plutonium disposition programme will cost just over \$4 billion, including the siting, construction and operation of three plutonium disposition facilities at the Savannah River Site. The total is said to cover costs associated with irradiating MOX fuel in commercial reactors, and disposing of immobilised (vitrified) plutonium in a geologic [*sic*] repository.

(NW, 28/10, 23/12; R, 1/11; NYT, 16/11; *Toronto Star*, 16/11; *Toronto Sun*, 17/11; SF, 22/11, 29/11; NF, 29/11, 13/12, 27/12; CSM, 30/11; AP, 16/12)

c. Nuclear Testing

- From 6 to 8 October, the **Special Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty**, called for in Article XIV of that Treaty, was held in Vienna. It was attended by 92 states from among the 154 signatories of the Treaty; representatives of four non-signatories,

including Pakistan, also attended. President of the Conference was Masahiko Koumura, former Foreign Minister of Japan; Vice Presidents were the representatives of Australia, the Czech Republic, the Netherlands, Peru and South Africa. A number of states participated at the Foreign or Deputy-Foreign Minister level. The Conference unanimously adopted a Final Declaration which called upon all states that have not yet done so to sign and ratify the Treaty as soon as possible and it called in particular on those whose ratification is needed for the entry-into-force of the Treaty to accelerate the ratification process. In the Declaration, participants affirmed their commitment to the Treaty's basic obligations and the undertaking to refrain from acts which would defeat the object and purpose of the Treaty. The participants agreed that ratifying states would select one of their number to promote cooperation to facilitate the early entry-into-force of the Treaty. Japan was expected to assume this role, but reportedly China could not concur with the mention of Japan in the Final Declaration.

The possibility of holding a further conference pursuant to Article XIV was addressed; it is understood that this may be held in New York in 2001.

The Final Declaration is reproduced in full under **Section IV. Documentation.**

(**Report of the Conference**, CTBT-Art.XIV/1999/5, 8/10; direct information)

- [The rejection by the **United States** Senate of the Comprehensive Test Ban Treaty (CTBT) is widely expected to have a negative impact on the nuclear non-proliferation regime and the NPT, and therefore also on the work of PPNN and its **Newsbrief**. As stressed in the Editorial Note at the head of the **Newsbrief**, it is the policy of this publication to refer to relevant events and situations in an objective and dispassionate manner; the editor trusts that he has managed to avoid injecting his own views into the depiction of events that follows. While the Senate's decision, the manner in which it was adopted, and the negative policy approach to nuclear disarmament implied therein continue to give rise to much adverse comment from around the world, views aired in opinion pieces from other than official sources are not reflected here, however well-considered the editor may think they are. The only comments referred to are those presented in the printed press as coming from senior officials, within and outside of the US].

In mid-Summer, the White House and Democratic Senators stepped up their low-level campaign for ratification of the Comprehensive Test Ban Treaty (CTBT), which Senator Jesse Helms, Chairman of the Senate Foreign Relations Committee, had long refused to release for debate. On 1 October, however, Senate Majority Leader Trent Lott, in what is described as a well-prepared coup, unexpectedly announced that he wished to bring the Treaty to the floor, reportedly in the conviction that under current circumstances the Democratic minority would not be ready to muster the two-thirds majority, i.e., 67 votes, needed for its adoption. He set 12 October as the voting date. Hearings began on 5 October. As reported, a number of well-rehearsed objections to the Treaty were aired there. These included the argument that a CTBT would prevent

the US from maintaining, modernising and updating its nuclear weaponry; that the Treaty was not verifiable; that it would not keep 'rogue countries' or terrorist elements from producing nuclear weapons; and that it could be circumvented in a great variety of ways. US Representative Christopher Cox, the Chairman of the Select Committee of the House of Representatives that had assessed the consequences of supposed Chinese espionage of US nuclear secrets [see **Newsbrief** no. 47, page 12], added the novel element that among information China had illicitly acquired were data about the use of "miniaturized fusion explosions", which would enable it to violate the Treaty without detection.

Supporters of the Treaty countered with a series of arguments pertaining to international politics, including the ones that rejection of the CTBT might mean that China, India, Pakistan and Russia would resume testing; that it was likely to lead to a new arms race with China and Russia; that it would lead non-nuclear-weapon states, including allies of the US, to reconsider their continued adherence to the Non-Proliferation Treaty (NPT) and might even prompt them to embark on nuclear-weapon programmes of their own; that it would mean an effective end to negotiations on an FMCT; and that America's allies (especially the 15 out of the 19 member states of NATO that have ratified the Treaty) would feel betrayed. The argument that the Treaty is not verifiable — which was bolstered by the claim of some officials of the Central Intelligence Agency (CIA), coincidentally reported in the *Washington Post*, that their organisation was unable to distinguish between a conventional explosion, a small earthquake and a low-yield nuclear test — was rejected by Democratic politicians, the White House and a series of scientific experts. The American Geophysical Union and the Seismological Society of America expressed confidence that the combined worldwide monitoring resources would meet the verification goals. They pointed out that the Treaty would greatly enhance American monitoring capabilities and that the CTBT would create a mechanism for challenge inspections that would be able to allay suspicions, so that no country could be confident that it would be able successfully to conceal even a low-yield testing programme.

During the Senate hearings, members of the Administration stressed that, besides functioning as a powerful non-proliferation instrument, the CTBT would "lock in" American nuclear superiority. Republican opponents, however, including former Defense Secretaries, said they saw merit in doubts expressed by the heads of the three national nuclear-weapons laboratories, who warned that the means to carry out 'science-based' (simulated) nuclear tests were not yet fully available; that it was not possible to predict that the present confidence in the nuclear stockpile would last indefinitely; that without testing it would be impossible to retain and recruit qualified scientists; and that if the US restricted itself to zero-yield tests while other nations conducted experiments "up to the threshold of international detectability, [America] would be at an intolerable disadvantage".

The contention that the Treaty would undermine the country's ability to ensure the safety and reliability of its nuclear stockpile reportedly persuaded also those Republican senators who had earlier expressed

themselves in favour of the Treaty. A number of conservative senators also expressed a fundamental intolerance of the Treaty as an international instrument that would limit America's freedom of action with regard to its nuclear deterrence which, in the words of a member of a former Administration, had "never been as important to US security as it is today".

Following his announcement of 1 October, Senate Majority Leader Lott struck an agreement with the Minority Leader to begin on 8 October a total of 14 hours of debate, with a vote on 12 October, or as soon as possible thereafter. The Armed Services Committee also scheduled three days of hearings. Democrats expressed strong resentment at the precipitate scheduling of the vote, which they protested did not leave enough time for debate and hearings, on an issue on which the Administration had wished for months to have a thorough debate, which the Republican majority had consistently blocked.

Discussions between party leaders followed, in a reported attempt to postpone the vote in a manner that would best serve the interests of both sides. Attempts by the President to persuade the Republican leadership to give more time for consideration did not gain enough support, however, mainly because the latter reportedly did not wish to have the CTBT become an election issue in the year 2000.

In the course of the consultations, both sides did seem to seek ways of resolving the impasse. Senator Lott, said to be under pressure from conservatives, was reported to have warned the White House that a vote was inevitable unless the President promised not to bring the issue up for the rest of his term. The Administration was reported to oppose this; the President was said to seek a postponement of the vote, but not to wish to put it off until 2001. Senator Jesse Helms said he wanted Mr. Clinton to "pull the Treaty in writing and promise never to submit it during his presidency", and Senator Lott said the minimum would be for the President to agree not to resubmit it during the present Congress. This would have meant that the Treaty could not be submitted until 2001, just before Mr. Clinton would leave office.

Reportedly, for the next several days the President continued to press for a postponement but refused to withdraw the Treaty; he continued to insist that the time set aside for debate by the Republican leadership was too short given the importance of the issue, and meanwhile tried to persuade senators to vote for ratification. Majority Leader Lott was seen seeking a way to postpone the vote yet also satisfy Republican right wing senators who were reportedly eager to kill one of the President's top priorities and inflict "political pain"; several expressed their open disregard for the likely criticism of the international community. Senator Helms promised to give the Treaty "a Capitol Hill funeral". On 12 October, there were suggestions that the White House might be ready to accept an arrangement, apparently supported by Senators from both sides, under which the Treaty would be withdrawn and not returned until the next Administration; the compromise was rejected, however, by conservative senators. At that point the Democratic leadership in the Senate stated that they could no longer work for a delay and were ready for the vote. The President is said to have called Senator Lott only hours

before the scheduled vote, and to have asked him to put off the vote for national security reasons. Lott, reportedly, responded that the offer came too late.

The roll-call vote was held on 13 October and ended in the defeat of the Treaty. The result was largely along party lines, with 48 Democrats and 4 Republicans voting in favour, 1 Democrat voting 'present' (i.e., abstaining) and 50 Republicans and 1 Independent voting against.

At a subsequent press conference, President Clinton characterised the rejection of the Treaty as a purely partisan political move, reflecting a new isolationism among conservative Republicans, who had turned their backs on 50 years of American leadership against the spread of weapons of mass destruction — an assertion since vehemently denied by Republicans. The President warned that this tendency threatened America's national security and expressed apprehension that with a Republican President opposed to the CTBT, other states would be likely to resume testing. Mr. Clinton stressed that the Treaty was still on the Senate's agenda, however, and that he would try to honour "the obligations of the Treaty imposed on the [US]". In response to arguments that the CTBT would jeopardise the safety of the US nuclear deterrent, he recalled the assurances of "the entire military establishment", former Chairmen of the Joint Chiefs of Staff, and a long list of senior scientists, who all thought the security of the American nuclear arsenal could be preserved without testing, and he pointed out that he had specifically stipulated that the US would make use of its right to withdraw from the Treaty if it had evidence that it could not maintain the reliability of its nuclear deterrence. The President also cited the Treaty's provisions for on-site inspections and the possibility of "marshalling a much stronger rebuke to any country that violated [the CTBT] than we do now".

At his press conference, the President said that the US would not resume nuclear testing and he called on the other nuclear-weapon states also to refrain. On a visit to Singapore, on 19 October, US Assistant Secretary of State for East Asian and Pacific Affairs Stanley Roth reiterated that the US would not resume testing, and said that his government hoped that other countries would follow that example; later that month Secretary of State Madeleine Albright sent a letter to a number of governments, including those of China and Russia, reconfirming that the US would not test nuclear weapons and that it was still the intent of the Administration to seek Senate approval of the Treaty.

In a statement after the vote, Senate Majority Leader Trent Lott reiterated the view that the CTBT did not meet "even the minimal standards of previous arms control treaties. That is, it is ineffectual, even dangerous ... ; it is unverifiable and it is unenforceable". Lott added that as a first step, a process should be started to strengthen US nuclear deterrence, and that he had asked the Secretary of Defense to initiate "a comprehensive review of the state of the US weapons stockpile, infrastructure, management, personnel, training, delivery systems and related matters". He further called for a 'major' survey by the US Senate of the proliferation of weapons of mass destruction and associated means of delivery, which should include an assessment "whether or not and to what extent US policies and actions, or inactions, contributed

to the heightened proliferation that has occurred over the past seven years”.

The Republican front-runner in the race for the Presidency, George W. Bush, issued a written statement accusing the President of supporting a treaty “riddled with shortcomings”. He was reported to have denied requests for discussion of the issue with journalists, or to offer an alternative solution; asked to specify his objections to the treaty he is understood to have referred questioners to his aides. Republican presidential candidates Senator McCain and Mrs. Dole said the treaty lacked adequate means of verification; a third, Steve Forbes, said he supported underground testing.

The President’s assurance that he would continue to support the Treaty has caused agitation among Senate Republicans. Senator Lott has warned that “if the Administration persists in maintaining that the United States is bound as a matter of international law to a Treaty that has been rejected by the Senate, then there will be profound implications for the relationship between the President and the Senate on Foreign Policy matters”. He has also said that the Foreign Ministers who received the letter from the Secretary of State “should be under no illusion on this point”. Senator Helms has stated that “[the Vienna Convention] ... makes clear that the obligation of a signatory state terminates when the state shall have made its intention clear not to become a party to the treaty”. He has added that the intention “to never become a party” has been made “crystal clear”.

Meanwhile, however, Secretary Albright announced that the US Administration had set up a high-level task force to work with the Senate to address the issues raised during the debate on the CTBT. She said that the Administration was planning to invite ‘ordinary Americans’ into the debate, and made clear that it would discuss with the Senate possible additional conditions and understandings. Tying the matter to the issue of American anti-missile defences, she said that a bipartisan strategy was needed in which common ground would have to be established on the question of a national missile defence system and of the Anti-Ballistic Missile Treaty of 1972.

Senator Warner, head of the Armed Services Committee, has proposed setting up a bipartisan committee to take another look at the Treaty, and look into “the possibility of crafting a treaty that would meet the security interests of our nation”; he expressed the expectation that if his idea was adopted by Congress, “it would dispel much of the confusion [*sic*] in the world as to why this Senate failed to ratify the treaty”.

The ‘National Ignition Facility’, a powerful laser fusion device which since 1997 has been under construction at the Lawrence Livermore National Laboratory as part of the ‘nuclear stockpile stewardship program’, and is intended as one of the means of replacing the need for full-scale underground nuclear testing, is said to have run into large cost overruns, to the point where, even though \$800 million has been spent so far, there are rumours that the project may be cancelled. The project has come under heavy criticism, ranging from doubt that it will ever be able to function as intended — reinforcing the view of opponents of the CTBT that the Treaty would detract from US nuclear capabilities — to the view that the

limited thermonuclear explosions the device is supposed to generate would violate the Treaty. The director of the project has resigned. Energy Secretary Bill Richardson is said have called for a report on the cost overruns and to plan restructuring the project.

In a statement on 14 October, the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty (CTBTO) in Vienna said that it would continue its work, building up the global verification regime, which will take several more years. It expressed the hope that during this time the US would see its way to ratifying the CTBT. Still in October, Republican Senate staffers were seen campaigning for an end to US contributions to the Preparatory Commission for the CTBTO and the monitoring system it maintains. Reportedly, the plan was to kill the financing as part of the over-all national budget deal to be concluded by the end of the congressional year.

In America, the decision of the US Senate and the statements made by Republican politicians in and after the debates are seen by many as reflecting the end of 40 years of bipartisan support for arms limitation in the US Congress. International reactions to the Senate vote reflected shock, dismay and anger. China registered “profound regret”. The head of China’s delegation to the Vienna Conference on Facilitating the Entry into Force of the CTBT, said his country would abide by the CTBT; a spokesperson in Beijing said China remained committed to the CTBT, and would accelerate its process of ratification and, in a later interview, the senior official in charge of disarmament matters in China’s Ministry of Foreign Affairs called the Senate’s assertions about inadequate means of verification of the CTBT “an insult to the intelligence and the capabilities of the negotiators who worked so diligently” on the matter. He said China still intended to ratify the Treaty but he did not think that it had any hope of ever coming into effect without US ratification. China’s President has since repeated that he was proceeding to have the Treaty ratified. France’s President called the vote a setback for nonproliferation and disarmament. Germany’s Defence Minister called it “absolutely wrong”, and the German Foreign Minister spoke of “a wrong signal that we deeply regret”. Japan’s Foreign Minister also expressed regret and said his country had hoped for American leadership in nuclear disarmament; the country’s State Secretary for Foreign Affairs met with US Secretary of State Albright to register his government’s concern at the situation. Japan’s Prime Minister wrote to President Clinton asking him to do everything possible to achieve a quick ratification of the Treaty; the country’s Foreign Minister said he had received the assurance from Washington that the Administration would once again ask the Senate to ratify the Treaty. The new NATO Secretary General, Lord Robertson, described the Senate’s action as “very worrying” and expressed the hope that the US Congress could be persuaded to change its mind after the next presidential election. The Foreign Secretary of the Philippines called the rejection “an enormous blow to all our efforts to make the world a safer place”. The Minister of Foreign Affairs of the Republic of Korea called the CTBT “the basis of a nuclear non-proliferation structure”. The Russian Foreign Ministry spokesman expressed “dissatisfaction and serious concern” over the American “refusal” to ratify the CTBT; he called the rejection a “serious blow to the entire system of

agreements in the field of nuclear disarmament and non-proliferation" which "causes deep alarm". Russia's Foreign Minister Ivanov told US Secretary of State Albright that the US failure to ratify the CTBT would cause a serious problem for future disarmament negotiations. In mid-November, President Yeltsin said that he had submitted the CTBT to the State Duma for ratification, but comments from Moscow observers indicated considerable doubt that the Duma would act on the matter; the head of one of the major parties cited the unfriendly policy of the US towards Russia and American plans to 'violate' the ABM Treaty as reasons why the CTBT had "no chance whatsoever" of being ratified in the present Duma. There was also an unconfirmed report that serious consideration was being given in Moscow to the resumption of underground nuclear testing for which, it was said, the decision of the US Senate had now opened the way.

As the decision of the US Senate came within a week of the adoption by the CTBT Conference in Vienna of a declaration in which, among other things, the US was urged to ratify the Treaty, a number of allied and friendly states are said to have taken the rejection as a direct and deliberate insult. While the Senate was discussing the issue the President of France, the Federal Chancellor of Germany and the Prime Minister of the United Kingdom had appealed to the Senate to ratify the Treaty in a jointly authored newspaper article. The foreign ministers of Germany and Japan had urged the US Senate to ratify the Treaty. India and Pakistan are seen as now being under less pressure to adhere to the Treaty; while comments from the former reflected some satisfaction at the turn of events, its Ambassador to the US referred to India's unilateral declaration that it would conduct no further tests and said that its policy remained the same. India's External Affairs Minister Jaswant Singh has repeated New Delhi's commitment to sign the CTBT. The country's National Security Advisor, Brajesh Mishra, has said, however, that the failure of the US Senate to ratify the CTBT would make it more difficult for India to build the consensus it needs to ratify the Treaty.

[The editor notes that in his search for statements from governments on the Senate decision he was unable to find any that commented the rejection of the CTBT in a positive light.]

US Secretary of Energy Bill Richardson has ordered an across-the-board review of the Stockpile Stewardship Program to examine progress made over the past three years and to ensure continued confidence in that programme, which is devised to maintain the reliability of the American nuclear arsenal without explosive testing.

(**NYT**, 2/10, 4-10/10, 12-17/10, 29/10, 21/12; **R**, 4-6/10, 12/10, 14/10, 17-19/10, 21/10, 24/10, 27/10, 22/11; **AP**, 5/10, 6/10, 12-14/10, 16/10, 29/10, 2/11, 25/11; **Carnegie**, 6/10; **UPI**, 6/10; **WP**, 6/10, 10/10, 14/10, 11/11; **DJ**, 7/10; **FT**, 7/10, 27-28/11; **IHT**, 8/10, 15/10, 25/10, 27/10; **People's Daily**, 8/10; **WSJ**, 11/10; **USIA**, 12/10, 14/10; **WT**, 12/10, 2/11, 3/11; **RFE/RL**, 14/10; **Bellona**, 15/10; **CSM**, 15/10; **The Hindu**, [New Delhi], 15/10; **Moscow Times**, 16/10; **DW**, 26/10; **NW**, 28/10; **RFE/RL**, 11/11)

d. Nuclear Trade, International Cooperation and Nuclear Export Issues

- **Armenia** has been offered help from **Russia** in the construction of a 600-650 MW nuclear power reactor. (**NEI**, October)
- Officials of **Iran** and the **Russian Federation** met in Moscow in mid-November to discuss the purchase by Iran of fuel rods for the Bushehr nuclear power plant. Russia's Minister for Atomic Energy, Yevgeny Adamov, has said that work was proceeding on major components of the plant and that more than 1,500 people were now employed at the site. He confirmed that work on the second reactor had started and that Iran was planning to add further units, which Russia would hope to supply.

Several Czech firms are said to have concluded a contract for the supply of ventilation and air conditioning equipment for the Bushehr power plant at a reported cost of \$30 million. Apparently the government of the Czech Republic is unable to prevent the supply, although it seems to feel that this might cause it serious embarrassment.

Israel claims that if assistance to Iran is not halted, that country will have a nuclear capability within five years. Its concern is said to have been triggered by intelligence about Iran's nuclear activities, but also by the fact that it is apparently upgrading its Shahab-3 ballistic missile to make it capable of carrying a nuclear warhead and extend its range to 1,300 miles (2,080 kms). Iran is also thought to be working on advanced versions of the missile. On 11 December, the British weekly *The Economist* reported that the head of Iran's atomic energy organisation had said that his country would no longer work with China on nuclear projects.

(**AP**, 19/11, 21/11; **CTK Business News** [Prague], 27/11; **IT**, 27/11; **NW**, 9/12; **E**, 11/12. See also **Newsbrief** no. 47, page 4.)

- The McDonnell Douglas Corporation of the **United States** has been indicted by a Federal Grand Jury of conspiring with an aerospace firm in **China** to violate US export laws by the export of American aerospace equipment that was to be used in a missile factory. China maintains that the equipment was not being used for military purposes, that it was made in 1983 and bought second-hand, and that it is not technologically advanced and can be bought anywhere.

The report that **Israel** has sold China an airborne radar system is said to have caused concern in the US, which has urged Israel to cancel the deal. Israel has apparently acknowledged the sale but has assured the US that this does not involve American technology. China has formally denied buying such a system from Israel, but Israeli officials are quoted as saying that the deal — which is said to involve up to eight radar systems mounted on Russian-built cargo planes as well as the co-production with China and with the Russian Federation of a fighter-bomber equipped with Israeli missiles — is proceeding despite the US objections. During a six-day visit to Israel, the speaker of the Chinese parliament is said to have sought to extend military cooperation between the two countries while, supposedly, Israel urged China to stop supplying "sensitive material" to Iran.

(AP, 20/10, 16/11; WP, 20/10; AFP, 11/11, 16/11, 1/12; NYT, 17/11)

e. IAEA Developments

- On 4 October, at its first meeting after the General Conference, the **Board of Governors** of the International Atomic Energy Agency (IAEA) elected the governor of Brazil, Mr. Sergio de Queiroz Duarte as its Chairman. As Vice Chairman, the Board elected the governor from Finland, Ambassador Tom Grönberg, and the governor from the Slovak Republic, Mr. Miroslav Lipár, Chairman of the Slovakian Nuclear Regulatory Authority. (IAEA Press Release PR 99/14, 4/10)
- On 17 October, during a visit to **Cuba**, the IAEA's Director General signed the Additional Protocol to the safeguards agreements pertaining to the unfinished nuclear power plant at Juragua and a zero power nuclear reactor. Cuba has signed but not ratified the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Tlatelolco Treaty) and is not a party to the NPT. (IAEA Document Gov/1999/58, 31/8; R, 17/10; Prensa Latina, 19/10)
- At a meeting in Vienna of states parties to the **Convention on Physical Protection of Nuclear Material** of 3 March 1980, a recommendation was adopted that a group of experts should be convened to examine the need for that Convention to be revised. States were asked to nominate experts to participate in an open-ended group that would meet in February 2000. Reportedly, the Agency's Secretariat had noted several contingencies for which the Convention as it now stands does not provide, including illicit trafficking of nuclear material, the increasing amounts of nuclear material from weapons programmes that are being transferred for peaceful uses, and the growing needs to protect nuclear facilities against acts of sabotage. (NF, 13/12)

f. Peaceful Nuclear Developments

- In its campaign to force countries in Central and Eastern Europe to set dates for the shut-down of their older Soviet-design nuclear power plants as a condition of entry into the European Union (EU) [see **Newsbrief** no. 47, page 9], **Austria** is reported to have accepted compromise language that would permit talks to begin with the first group of candidates for EU membership. Reportedly, to the growing irritation of other EU members and especially of those of its neighbouring states which it had criticised for operating nuclear reactors, Vienna had initially insisted on the requirement that states would not be allowed to enter the EU unless they bring their reactors up to the latest stage of nuclear technology; it now seems to have gone along with a formulation that refers only to the current safety standards in Western Europe. Nuclear opponents in Austria have expressed outrage at this change and have called on the head of the country's caretaker government, Viktor Klima, to take the matter up at the EU Foreign Ministers' summit, which was held in late November. Klima had previously refused to make a connection between the shut-down of old reactors, notably Bohunice in the Slovak Republic, and membership in the EU; Austria's Minister for Consumer Protection, however, had just publicly adopted the opposite course, which

caused some apparent confusion in Brussels. Austria had also called for the closure of the Krsko nuclear station in Slovenia, but the European Commission (EC) is understood to have said that this is a modern Western-design plant and that its continued operation should not stand in the way of the country joining the EU.

The EC is expected to help Lithuania and Slovakia each with 10 million Euros, to start preparing for the shut-down of Ignalina-1 in 2005, and Bohunice -1 and -2 in 2006 and 2008, respectively. The European Bank for Reconstruction and Development (EBRD) will also help in the financing. Bulgaria was promised assistance in the shut-down of the four oldest VVER-type reactors at Kozloduy, if it committed itself before the end of the current year to shut these units down early, as it has now done. The Western European Nuclear Regulators' Association (Wenra) is said to have completed in-depth reports on the safety situation of the older reactors at Bohunice and Kozloduy. The report, which will not be published until March 2000, is said to have found the safety level of Bohunice -1 and -2 to be excellent, and to have said that once the safety upgrade programme that had been planned for Kozloduy was completed, the level of safety there would be similar; it was not certain, however, that Bulgaria was ready to make the necessary investment.

(CTK Czech News Agency, 6/11, 9/11; DP, 6/11, 19/11; NW, 11/11, 18/11, 25/11, 2/12; Ux, 15/11; FAZ, 19/11)

- An agreement has been reached between the government of **Bulgaria** and the European Commission (EC) on the early closure of the four old VVER-440/230 reactors at the Kozloduy power station. Initially, Bulgaria was reported to have told the EC that it would shut the oldest two units, Kozloduy-1 and -2, after the completion of current upgrades of Kozloduy-5 and -6; that was expected to be in 2004 and 2005 and would be dependent on the receipt of financial assistance. Now, however, having been promised about \$200 million of support over the next six years, Bulgaria is said to have undertaken to shut the two first units down before 2003. There does not appear to be agreement on the date for the shut-down of units 3 and 4, which Bulgaria was planning to run until 2008 and 2010 respectively. Reportedly, the EC also wished to bring the shut-down date for these plants forward and it seems to have made the payment of the second half of the \$200 million grant dependent on definitive closure dates for these units, possibly around 2006. Kozloduy-5 and -6, which are newer VVER-1000 models, should be upgraded, with the help of a loan from the EC.

The parliament of Moldavia has refused to ratify an agreement with Bulgaria on a route for the shipment of spent fuel from Kozloduy for reprocessing at Ozersk (Chelyabinsk-65) in Russia. There is said to be still some hope that the agreement will be approved, but meanwhile the government in Sofia is said to consider alternative shipping routes and is also looking into the possibility of on-site storage of irradiated fuel; for the latter eventuality, it would be necessary for the existing storage facility to be upgraded.

(NW, 28/10, 18/11; NF, 1/11; Ux Weekly, 8/11 in UINB 99.45; NNN, 450/99, 487/99; Bulgarian Press Digest, 24/11)

- Over the past few months, **Germany's** policy of seeking an early phase-out of nuclear power has become a subject of growing disagreement between the Socialist/Green coalition government and industry. In late November, relations between the two sides were said to have deteriorated to the point where nuclear utility managers no longer believed that a consensus with the government was either possible or desirable. The head of one utility was quoted as saying that the government was welcome to order nuclear power plants to shut down: the utilities were already preparing court action which they were confident they would win. Shortly afterwards, there were reports that the utilities were planning to sue the government for \$50 billion D-Mark (\$27 billion) if a phase-out was promulgated without agreement with the utilities; one report had it that the utilities would sue for \$45 billion D-Mark (\$24 billion) if forced to close within 25 years and \$28.8 billion D-Mark (\$15 billion) if a closure within 28 years was enforced.

At the same time, there were reports that the government was preparing to force a nuclear phase-out if no consensus with industry about conditions could be reached. Apparently, however, there were also disagreements between the two major coalition partners about a time-frame for the shut-down. While Environment Minister Jürgen Trittin was reported to be drafting legislation for a forced shut-down of all 19 power reactors, starting in 2001, it seems that the Federal Chancellor was calling for the first shut-down to take place in 2003 and the last one in 2024. The original plan of the Greens was said to call for the shut-down of seven nuclear plants by 2002 and the last by 2014. By the end of the current year, Economics Minister Werner Müller (Independent), in what was seen a concession to the Greens, announced that at least one power reactor would have to shut down in late 2002, when the government's current four-year tenure runs out. This is said to have followed agreement within the Greens Party to call for a 30-year limit on the lifetime of any reactor, which will mean that the oldest power reactor, at Obrigheim, must be shut before 2002 and that, if the Federal Chancellor and industry go along, the Stade power station should also be phased out by then. Apparently, however, there is an authoritative view among German legal experts that it would be contrary to the Constitution for the government to force the closure of nuclear power plants without the consent of the operators. A warning that the government should seriously reconsider its decision, since there are no viable alternatives, has also come from 570 senior German scientists. However, as matters stand at present, it seems that the Schröder Cabinet is determined to submit a phase-out law within the first few months of 2000.

In early October, Economics Minister Müller had urged the utilities to reach agreement with the central government before the end of the year, given the decision by Chancellor Schröder, during the summer, that in the absence of agreement with industry a phase-out would have to be legislated. It is not clear, however, whether the Greens' determination to go along with a 30-year limit on the lifetime of the power reactors is acceptable to the entire Cabinet or to industry. Apparently the compensation agreed upon in Sweden for the early shut-down of Barsebäck implies acceptance of 35 "full-power" years and the industry's predictions are that no German judge will undercut this decision.

All the while, the utilities have become increasingly concerned that if no solution is found soon, several power plants could be forced to cease operation for lack of adequate storage space for irradiated fuel. Operators have accused the government of deliberately delaying the issue of licenses for the transport of irradiated fuel for reprocessing abroad, so as to force them to close their installations. The operator of the Stade nuclear power plant, Preussenelektra, expressed particular concern that Minister Trittin would deny the company a license for the transport of spent fuel to France for reprocessing, which would force the station to shut down and would make it unlikely that it ever operated again. It was expected that this issue might lead to a law suit between Preussenelektra and the government in Berlin.

In another controversial decision, Minister Trittin has ordered safety backfitting at the Biblis reactors stopped until experts at his Environment Ministry have given their approval. Reportedly, the upgrade plans of the operator, RWE Energie AG, were expected to be approved by the government of the Province ('Land') of Hesse; this issue, too, was seen as likely to lead to a case in Germany's Supreme Court.

(DW, 30/9, 9/11, 15/11, 24/11; NNN, 6/10, 19/11; DJ, 12/10; FAZ, 13/10, 22/11; NW, 28/10, 4/11, 11/11, 25/11, 23/12; SDZ, 8/11, 9/11, 25/11, 30/10; Ux, 15/11, and 22/11, in UINB 99.37 and 99.47, respectively)

- The criticality accident that occurred in **Japan** on 30 September is now known to have been the country's worst nuclear accident. The event is officially rated at level four on the International Nuclear Events Scale and the total tally of persons who have been exposed to radiation is said to be 69. Some 161 people were evacuated from within the immediate area of the facility and 310,000 people were advised to stay indoors for 18 hours as a precautionary measure. The three employees of the JCO Ltd. uranium conversion plant at Tokai Mura who suffered the highest radiation exposure are believed to have received lower doses than the 3, 10 and 17 Sievert (300, 1,000 and 1,700 rem) they were initially said to have received. While, reportedly, doses above 6 Sv are almost certain to be fatal, the worker who stood at the precipitation tank when fission began and received the highest dose survived for almost three months; he died on 21 December. As of this writing, the one who was least exposed had been released from hospital and the other was still improving. Other workers in the immediate vicinity were said to have received doses that were well below a perilous level. The fatality triggered renewed public opposition to the use of nuclear power; the mayor of Tokai Mura called the one fatality "a victim of a myth ... that nuclear energy is safe", a view repeated in several leading newspapers

Accounts agree that the event is to be ascribed to human error and attempts to cut corners. Reportedly, in violation of approved procedure, a uranyl nitrate solution enriched to 18.8 per cent was poured into a large-volume precipitation tank, where regulations call for the use of a smaller storage container. Instead of using the approved mechanism, in order to gain time workers are said to have moved the liquid by hand in stainless steel buckets, thereby adding seven to eight times the permissible quantity and setting off a critical reaction in the material. Apparently the shortcut procedure was laid down in a

secret version of the official manual, which had been used in the past without incidents. According to some reports, the shift foreman, who is among the radiation victims, has admitted that he wanted to finish the work early and instructed his workers to use the faster method so as to complete the task, which should normally take about three hours, in 30 minutes. Other accounts claim that the company had sanctioned the violations of the rule, under pressure to compete with foreign fuel suppliers. There is also talk about insufficient training for staff and inadequate supervision at the plant.

The leader of a team from DoE (US) has said that the accident did not reveal any new problems, but that it underlined the importance of facility operators being diligent in following procedures and in training workers about the importance of those procedures.

An offer by the IAEA immediately after the event to help investigate its causes was initially turned down but eventually accepted. Three IAEA experts visited the plant between 13 and 15 October. They prepared a 35-page report which concluded that, while the event was a serious industrial accident, it did not result in a radiologically significant release of radioactive materials and should have no lasting effect on the surrounding environment or public health. The report confirms that "the accident seem[ed] to have resulted primarily from human error and serious breaches of safety principles", i.e., from workers bypassing criticality controls in contravention of approved measures.

The accident has increased public opposition to plans of the Japanese government for the addition of new nuclear power stations, and there are suggestions that it may lead to the termination of Japan's fast-breeder reactor programme. In a poll taken after the accident, 42 per cent of respondents opposed the use of nuclear power for electricity and 35 were in favour. The majority of the respondents are quoted as saying that the number of nuclear power plants should be maintained at the present level and only about 20 per cent said it should be increased. The government, which has confirmed that it intends to adhere to its nuclear power programme, has announced an intensified information effort to explain the virtues of nuclear energy to the public. Reportedly, however, concerns about the possible impact of earthquakes on nuclear power plants, which appear to have been dormant for some time, have also surfaced once again.

Japan's Science and Technology Agency has revoked the business license of JCO Ltd. In a brochure explaining the cause and consequences of the criticality event, Japan's Federation of Electric Power Companies has announced the creation of the JCO Accident Special Response Committee, which intends to ensure the safety-first principle in member companies and seek to secure additional safety measures. The Japanese Federation of Electric Power Companies has set up a new body to foster safety culture throughout the industry, involving about 35 operators of nuclear facilities. The cause and nature of the accident have been the subject of in-depth investigations by Japan's Nuclear Safety Commission (NSC), which has recommended that the Prime Minister should restructure the regulatory regime and introduce more stringent monitoring and inspection of facilities and better handling of health, safety, and site

maintenance issues. The government is reported to be considering a bill that would authorise the Prime Minister in a future nuclear emergency to bring in Japan's Self-Defence Forces to render the necessary services.

According to a survey made by the prefecture governing the area, damage to industry and lost revenues resulting from the accident as of late October amounted to more than 15.3 billion Yen (about \$150 million), of which damage to commerce and industry totalled 9.6 billion Yen (about \$94.5 million) and damage to agriculture totalled 2.5 billion Yen (about \$24 million). Agricultural and fishing interests in the Tokai area are said to have submitted to JCO Ltd. claims amounting to \$39 million, mainly as compensation for the diminished demand for their products.

In connection with the report that workers at the uranium conversion facility may have been instructed to bypass official regulations, the *New York Times* claims that at the Plutonium Finishing Plant at Hanford, supervisors sometimes instructed personnel to ignore safety rules. According to a DoE report cited in that newspaper, the typical criticality safety staff at some US nuclear plants have no prior first-hand experience in criticality. Nuclear authorities in other Asian countries, including notably the RoK and Taiwan, have expressed their indignation at the criticality accident which, they complained, will make it more difficult for them to get public acceptance for continued reactor construction and waste disposal. Coming on top of the sodium leak event at the Monju fast reactor in 1995, and the explosion in 1997 at a waste processing plant at Tokai, the event is seen in Taiwan as irreparably shaking faith in Japan's nuclear safety leadership in Asia.

(**Atoms in Japan**, October, November; NNN, 1/10, 8/10, 10/10; AP, 2/10, 4/10, 6/10, 7/10, 9/11, 11/10, 14/10, 28/10; NYT, 2/10, 4/10, 7/10, 22/10, 23/12; LAT, 3/10, 5/10; **Sankei Shimbun**, 3/10, 5/11; WP, 3/10, 8/10; ASS, 4/10, 6/10, 12/10; **China Daily**, 4/10; NF, 4/10; SF, 4/10, 11/10, 29/11; WSJ, 4/10, 8/10; R, 5/10, 7/10, 15/11; LT, 7/10; NW, 7/10, 14/10, 21/10, 28/10, 4/11, 11/11, 18/11, 23/12; IHT, 8/10, 9/10, 16-17/10, 9/11; **New Scientist**, 8/10; E, 9/10; **Kyodo News**, 10/10; **IAEA Press Release**, PR 99/12, 1/10 and 99/15, 12/10; NF, 18/10; information brochure from the **Council for Nuclear Fuel Cycle** [Tokyo], 27/10 SDZ, 9/11; **JiJi Press**, 15/11; NNN, 18/11, in UINB 99.47; **Daily Yomiuri**, 25/11. See also **Newsbrief** no. 47, page 10)

- The Parliament of **Lithuania** has voted to set a deadline of 2005 for the shut-down of Ignalina-1, which provides 80 per cent of the country's electricity, on condition that adequate financial compensation is obtained from Western governments. The Lithuanian government estimates that decommissioning and obtaining new sources of supply will cost \$3.5 billion; Western estimates speak of \$2.5 billion, and the EU reportedly will initially provide about \$106 million. A decision regarding the shut-down of Ignalina-2 is said to have been put off until 2004. By setting dates for the decommissioning of Ignalina-1, Lithuania qualified to start talks with the European Union about eventual membership. (NNN, 6/10; NW, 7/10, 21/10, 18/11; see also the first item of this section)

- The utility owning the Borssele nuclear power plant in the **Netherlands** is said to have asked the government to reconsider its 1994 decision that the plant should be shut down in 2003. The utility says it will be unable to pay the cost of the safety enhancement programme it has carried out unless the plant is permitted to continue operating longer. (NW, 28/10)
- In **Pakistan**, construction of the 300 MWe Chashma pressurised water reactor is said to be completed and fuel loading has begun. The plant was supplied by China under a turnkey contract and will be under IAEA safeguards. It is expected to start producing electricity early in 2000. (NNNN, 10/11; W, 2/12)
- A leak of heavy water at the Candu-type nuclear power plant at Walsung, in the **Republic of Korea** on 4 October, is said to have exposed 22 plant employees to low-level radioactivity. Reportedly, the leak occurred during maintenance of a pump, and was the result of the failure of mechanics to apply the appropriate sealing. The leak is said to have been contained within the building and the escape of radioactivity is not thought to have been serious although, as the event occurred almost immediately after the criticality accident in Japan, it has caused much public interest. The government has said that these events will not influence its nuclear power policy, which calls for the completion of six reactors by 2005 and ten more by 2015. Nuclear power currently supplies about 40 per cent of the country's electricity. (R, 4-6/10; AP, 5/10, 8/10; **China Daily**, 6/10; **ChI**, 6/10, 8/10, 11/10; **NYT**, 6/10; **KH**, 7/10; **KT**, 11/10)
- Fuel loading at the Mochovce-2 reactor in the **Slovak Republic** started on 5 October. As reported, the design of the 440-MW VVER reactor has been upgraded to modern safety standards. Mochovce-2 is scheduled to come on line in 2000. The Slovak government has decided that Mochovce units -3 and -4 will not be completed because of an anticipated over-supply of electricity in the European market. In Austria, the move to prepare Mochovce-2 for operation is called a "provocation". The Slovak government has announced that it will decommission the two old VVER-type Bohunice reactors in 2006, respectively 2008, which is two years earlier than planned originally, but there are indications that if the Slovak Republic were to be allowed to enter the EU in 2005, it might be prepared to take steps to close down the reactors even earlier. Setting the date for decommissioning has enabled the Slovak Republic to enter into accession talks with the EU, but there are reports that Austria still considers the decommissioning dates suggested by Bratislava too late. (DW, 1/10; SN, 6/10; NW, 7/10, 21/10; NNN, 12/10; StV, 20/10. See also the first item of this section)
- In **Sweden**, the 615-MW(e) boiling water reactor, Barsebäck-1, belonging to Sydkraft AG, was shut down on 30 November. The shut-down followed the rejection by Sweden's Supreme Court of a request for an injunction to stay the government order to shut the plant down, pending the outcome of the review of the case by the European Commission (EC). That case was based on the company's claim that the Court, before making its decision of last June, should have sought an advisory ruling from the European court. Negotiations on compensation between the operator and the government are said to have resulted in an arrangement involving a cash indemnity and the transfer of shares. While this was thought to be acceptable to shareholders, the deal still had to be endorsed by the Swedish Parliament. Sydkraft will continue operating Barsebäck-2 until 2001. The fact that there are no current plans for the shut-down of any of Sweden's other ten power plants is seen by observers as indicating an indefinite postponement of the total phase-out of Sweden's nuclear power programme, which was part of the present government's platform. Reportedly, the power previously generated by unit-1 will be replaced by energy from Denmark and Germany, which is partly produced by coal-fired facilities; the Swedish Power Association has said that this will result in an additional production of about 4 million metric tons of CO₂ a year. (NNN, 7/10, 19/10, 20/10, 23/11, 30/11; NW, 14/10, 21/10, 11/11, 18/11, 25/11, 2/12; **Ux Weekly**, 8/11 in UINB 99.45; **fF**, 15/11; **fF**, 22/11 in UINB 99.47; **R**, 29/11; **DP**, 1/12; **FAZ**, 1/12; **FT**, 1/12; **NZZ**, 1/12; **SN**, 1/12)
- In **Ukraine**, Chernobyl-3 was restarted on 26 November, operating initially at five per cent of capacity. The reactor was shut down again six days later, because of a leak in a pipe of the cooling system, and it was started up once more on 9 December for what observers believe may well be its last run. A memorandum of understanding of 1995 had called for the shut-down of the plant by the end of the current year, but the Kiev government maintains that the plant will have to continue operating during at least part of 2000 and that its definitive shut-down is dependent on the availability of replacement capacity. To this end, it was counting on Western assistance of about \$1.2 billion for the completion of Rovno-4 and Khmel'nitski-2, but negotiators for the Group of Seven most highly industrialized nations (G-7) are said to have rejected Kiev's offer to shut Chernobyl-3 down in exchange for funds to buy thermal power from the moment of the shut-down until either of those two reactors starts to operate. It seems that part of the funds needed for the completion of these plants might come from the EC as well as from other sources, including the EBRD. Neither institution seems to have taken a final decision yet, however; reportedly, they had expected that Russia would also contribute, but its financial situation does not seem to permit this for now. Meanwhile, Chernobyl-3 is becoming increasingly unprofitable because of long outages and costly repairs. It is currently running at 80 per cent of nominal power and it is generally expected that the plant will have to be shut down in the near future even if there is no immediate replacement capacity. Reportedly, also, Ukraine lacks the funds to keep Chernobyl-3 running beyond 2000, but it is also understood not to have the \$600 million needed for decommissioning.
- Work has started on reinforcing the sarcophagus over Chernobyl-4, the reactor that blew up in 1987. Reportedly, the beams holding up the structure are in an "alarming condition" and there is fear that parts of the roof may collapse unless immediate efforts are made to reinforce them. The work is done as part of the Shelter Implementation Plan (SIP) and is paid for mainly by Western governments; in 1998 the EBRD made \$41 million available to start the work. So far, of the \$780 million needed, \$400 million have been pledged. A pledging conference is said to be planned for May 2000

to raise the remaining funds but reputedly the G-7 has warned Kiev that this would not succeed unless a final date has been set for the shut-down of Chernobyl-3.

(NNN, 20/10, 30/11; K, 27/11; LM, 27/11; NYT, 27/11, 3/12; IHT, 30/11; NW, 2/12, 23/12)

g. Nuclear Policies and Related Developments in Nuclear-Weapon States

- **The People's Republic of China (PRC)** is reported to be developing a new three-stage ballistic missile that can carry five to eight warheads and has a range of 7,500 miles (12,000 kms). The missile, called Dong Feng-31 (DF-31), will use solid fuel. Official American sources also claim that the Chinese navy is constructing a new missile submarine that will carry 12 to 16 of a smaller underwater variant of the DF-31, called Julang-2 (JL-2) which has almost the same range and which will be able to reach all of US territory as well as Western Europe. Estimates as to the explosive yield of the warhead with which the missile will be equipped (reputedly similar to, and allegedly derived from, the W-88 warhead of the Western Trident missile) are reported to range between 25 kiloton and 2.5 megaton, but in either case the missile is thought to give China a second-strike capability. In early December, military observers in Beijing considered a test of the new missile to be imminent. The new submarines should be deployed by 2005–06. Beijing has said that it is installing the JL-2 missile on its submarines but it has categorically denied that it is producing a new submarine; sources in Taiwan claim that reports about the production of a new-type submarine in the PRC are correct. Washington sources have said that the US had been aware of the PRC's plans to modernise its nuclear means and would be ready to defend itself against any Chinese force; the White House spokesman has said there was no indication that China was using American technology in its deployed nuclear forces.

A senior military official in Beijing has announced that the Chinese government is devoting the equivalent of almost \$10 billion to give the country a second-strike capability; predictions are that the Chinese strategic missile force may be expanded to 60–80 weapons with multiple warheads. Western strategic experts are quoted as expecting that China, even more than Russia, will strengthen its nuclear forces and find ways to neutralise any US anti-ballistic missile defence.

On 21 November, China announced that it had successfully launched an unmanned space craft which had made 14 orbits before being recovered in Inner Mongolia. The 'Long March' missile that put the space craft into orbit is said to be nearly identical to the Dong Feng missile, and official Chinese sources have emphasised that it is based entirely on indigenous science. China is also reported to have test-fired a new surface-to-air anti-ballistic missile rocket (code-named KDI), possibly having multiple warheads, with which to hit several incoming missiles at once. Beijing is said to be considering the use of "low-power propulsion technology", such as is used to adjust the orbit of a space craft, to alter the path of offensive missiles so as to evade anti-ballistic missiles. Chinese ballistic missiles would thus be able to neutralise the effect of any American National Missile Defense (NMD) and Theater Missile

Defense (TMD) system. Beijing has formally urged the US to refrain from building a national missile-defence system.

In a follow-up on previous allegations that Dr. Wen Ho Lee, an employee of the Los Alamos National Laboratory, had supplied China with classified information on nuclear weapons, there has been a report that America's Federal Bureau of Investigation (FBI) has suggested that it may in fact have obtained this information from one of the points where the W-88 warhead is assembled: the Sandia National Laboratory, which builds warhead prototypes, the Lockheed Martin Corp., which combines the warhead with the missiles, or the US Navy. The report notes that errors found in a Chinese intelligence document describing the warhead have been traced to a US defence installation and to weapons contractors. Beijing is adhering firmly to its rejection of allegations that it had made clandestine efforts to obtain American nuclear information. In December five leading American security experts, led by a former Director of the Livermore National Laboratory released a study claiming that the report issued on the matter in May, by a congressional select committee under Republican Representative Christopher Cox [see *Newsbrief* no. 46, pages 20-22, and *Newsbrief* no. 47, page 12], presented "no credible evidence or instances of actual theft" of US technology, was riddled with factual errors, was written in "inflammatory language", and presented "unwarranted" conclusions.

In early December, Dr. Wen Ho Lee was arrested and indicted on 59 counts of violating the Atomic Energy Act and the Foreign Espionage Act by mishandling classified information; reputedly, the accusations against Lee do not include the charge of espionage, but 49 of the counts in the indictment are said to carry possible life sentences. Lee, who reportedly was being held "in severe conditions" in a Santa Fe prison, has pleaded not guilty, but according to testimony from a former supervisor he had privately expressed concern that he might inadvertently have disclosed some secrets to a foreign country. Dr. Lee has brought suit against the FBI and the Departments of Energy and of Justice, for violating the Privacy Act and selectively leaking misleading information. On 13 December, a federal magistrate in Albuquerque, New Mexico, granted the prosecution's motion for denial of bail. In hearings in a federal court on an appeal against this decision, the government brought evidence that the accused had methodically and repeatedly violated procedures designed to protect design, construction and testing data concerning nuclear weapons. Testimony was presented that the classified data and computer codes Lee downloaded from classified files and subsequently transferred on to ten tapes, of which only three were found while seven were supposedly destroyed, could reveal "the complete design of the current US nuclear arsenal". The head of Sandia National Laboratory was quoted as saying that a release of the information could change the world strategic balance. The defence tried to show that everything Dr. Lee had done was in the open, and he had merely intended to create back-ups to protect against computer breakdowns. After three days of hearings the Federal District Judge refused the appeal for bail, but said that he would reconsider if it could be shown that Dr. Lee spoke the truth when he claimed that the seven missing tapes had been destroyed. Lee is reported to have offered to

take a lie-detector test, which the FBI said it was ready to administer, but the prosecution was thought to be unwilling to accept the suggestion.

The actual trial is not likely to start for about one year, and reportedly might well be put off for a further ten or twelve months, so that Dr. Lee could expect to spend up to two years in prison, in solitary confinement, before the matter is heard in court. The case has caused concern in the Asian-American community, where it is seen as the result of ethnic prejudice.

China is reputed to have relaxed its pressure on Taiwan, presumably as a result of the US Administration's policy of distancing itself from Taiwan's President Lee Teng-hui's ambitions of national sovereignty. Reportedly, in September, at the opening of the United Nations General Assembly, the US opposed a move by Taiwan to become a member of the UN. In October, a delegation from the Chinese National People's Congress met with members of the US Congress who reportedly expressed support for the one-China policy and the "three nos": no support for Taiwan's independence; for two Chinas; or for Taiwan's membership in organizations that require statehood. Meanwhile, Taiwan's President, in an article in the American journal *Foreign Affairs*, has once again said that "parity" was a precondition for talks with Beijing; referring to his earlier claim that Taiwan-China relations were "state-to-state", he asserted he had meant only to clarify the legal and historical reality.

Officials in Washington have claimed to have intelligence information pointing to the construction by the PRC of two new missile bases: one about 270 miles (440 km) from Taiwan, which reportedly would accommodate a brigade (about 100) of CSS-7 Mod 2 missiles with a range of up to 300 miles (480 km) and one less than half that distance from Taiwan, with the same capacity. This news was confirmed in Taipei, where mention was made of the construction on the Mainland of several bases for short-range missiles. Between them, these bases should be able to launch enough missiles to cover all of the island. China has denied the reports about the construction of the missile bases and has said it is not targeting missiles at Taiwan. US President Clinton has expressed "grave concern" at the reported missile base construction, but has reiterated his view that there is "one China". Taiwan's Vice President and its Defence Minister have said that the island needs the means to defend itself against Beijing's missiles and there has been a report from Taipei that Taiwan is planning to start its own missile programme. In Washington, the US State Department has said it would not preclude the future sale to Taiwan of anti-ballistic missile systems. Pending the availability of such systems, most of which are still in the developmental stage, Taiwan is said to opt for a more modest system including early warning radar and Patriot PAC-III missiles.

An American opinion poll published in the US in October showed that only 20 per cent of those questioned thought the US should continue to help Taiwan defend itself; 47 per cent of respondents said that the US should let Taiwan and the PRC work the problem out between themselves. The US House of Representatives has postponed the vote on the 'Taiwan Security

Enhancement Act', reportedly for fear of provoking the PRC's anger while it was negotiating with the US over membership in the World Trade Organization (WTO).

In October, the PRC sent Taiwan \$800,000 said to be raised by the Chinese public for earthquake relief. Beijing has said it was ready to give Taiwan considerable medical aid, but that Taipei had turned its offer down.

In October, shortly before the start of a state visit to the UK by China's President Jiang Zemin, the British newspaper *The Observer* claimed to have information that the bombing of the Chinese embassy in Belgrade had not been a mistake, and that NATO had removed the embassy from the list of prohibited targets because it was providing an opportunity for Serbian army radio signals to be broadcast from the premises, when the original site of the signals had been destroyed in an air raid. This would confirm the assertion of Beijing that the attack was carried out deliberately. According to the newspaper account, in return China was to have received technology from the F-117 'stealth' aircraft that was shot down over Serbia. The report has been denied by NATO's spokesman, who repeated the statement that the raid was caused by human error and was not deliberate; the British Foreign Secretary and the US Secretary of State have also denied it.

Discussions between China and the US, about compensation for the bombing damage culminated in mid-December in an agreement that the US would pay China \$28 million in damages for the Belgrade embassy, and China would pay the US \$2.87 million for damage to US diplomatic missions in China. High-level Sino-American military-to-military contacts resumed in November. On trade relations, and in particular the conditions for China's entry into the WTO, an agreement was reached on 15 November which would enable the US to support China's entry into that organization. Meanwhile, another problem in Sino-American relations arose as a result of a report by the US National Intelligence Council which confirmed that in the early 1990s, China had transferred M-11 ballistic missiles to Pakistan. These missiles apparently exceed the parameters of the Missile Technology Control Regime (MTCR) and as pointed out by American commentators, their supply should trigger US sanctions on China.

(FT, 7/10; AP, 15/10, 17/10, 21/10, 22/11, 24/11, 25/11; O, 17/10R, 17/10, 24/10, 19/11, 25/11, 29/11, 2/12, 7/12, 14/12; **China Daily**, 18/10, 17/12, 22/12; SCMP, 18/10, 19/11; **Central News Agency** [Taiwan], 19/10; **Izv**, 19/10; **NG**, 19/10; **AFP**, 28/10, 6/11, 8/11, 16/11, 24/11, 26/11, 7/12, 9/12, 14/12, 16/12; **WP**, 2/11, 21/12; **NYT**, 5/11, 12/11, 13/11, 16/11, 21/11, 22/11, 25/12, 28-31/12; **IHT**, 7-9/11, 15/12; **WT**, 16/11, 23/11, 24/11, 6/12, 7/12, 22/12; **LAT**, 19/11; **People's Daily**, 21/11; **WT**, 8/12, 9/12; **Defense Daily**, 9/12; **CNN On Line**, 10/12. See also **Newsbrief** no. 47, pages 12-14)

- On 10 October, a new draft military doctrine of the **Russian Federation** was released in Moscow. As expected, this incorporates the possibility of the first use of nuclear weapons, by saying that "the Russian Federation reserves the right to use nuclear weapons in response to the use of nuclear or other mass destruction weapons ... and also in response to large-scale aggression

involving conventional arms". The text describes nuclear weapons as "an effective factor of deterrence, guaranteeing the military security of the Russian Federation and its allies, supporting international stability and peace"; it adds that as a deterrence potential, nuclear weapons should be capable "of guaranteeing calculated damage" to any aggressor under any circumstances. Military analysts have noted a strikingly anti-Western tone in the document; reputedly, this was predicated in particular on the eastward enlargement of NATO. Observers claim that stress on the existence of an external threat serves largely to justify increasing defence spending. In October, Russian press reports noted that the draft was published before it had been endorsed by President Yeltsin. [It is not clear whether President Yeltsin approved the draft before his resignation or if it is up to his successor to do so — Ed.] (R, 11/10; LT, 14/10; RFE/RL, 14/10)

- A memorandum was signed by **Russia** and the **United States** on 15 October establishing a direct closed communication line between the Russian Prime Minister and the US Vice President as well as between the Secretary of the Russian Security Council and the US National Security Advisor. (IT, 15/10)
- On 20 October, the Foreign and Defence Ministries of the **Russian Federation** said they had rejected an American proposal to revise the Anti-Ballistic Missile Treaty of 1972, that would make it possible for the **United States** to deploy an NMD system. Russia was reported to have warned the US that talks on strategic arms reduction would become pointless if the ABM Treaty was changed. Negotiations were still going on, however, and Washington was reported to remain hopeful it would be able to effect some changes to the Treaty. By way of compromise, the US was reported to have offered to help Russia complete a missile-tracking radar under construction in Siberia. Senior American officials have been trying to persuade Moscow that an NMD system would be directed exclusively against "rogue states", and to have proposed what they said were limited changes to the ABM Treaty that would leave its essence intact. The proposal was said also to include a sharing of computer simulations of anti-missile systems and of intelligence on threats from "rogue states"; collaboration in developing missile observation satellites; a joint presence at one radar site of each country; and joint exercises in battlefield missile defence. The Russian Foreign Ministry had denied earlier that the US had made an offer of this nature, and said there were no grounds for American newspaper reports that an arrangement of this kind was under discussion; Russian observers had concluded that this was a signal that a trade-off on the ABM Treaty might be in the works. By late October it seemed obvious, however, that the Russian military and the Foreign Ministry were determined to adhere to the position that any attempt to change the ABM Treaty would lead to the complete unraveling of disarmament measures, going back all the way to START I. Russia's Chief of Staff General Anatoly Kvashnin claimed that the US had effectively already decided to breach the ABM Treaty and that its almost irreversible plans for ballistic missile defence could compel Russia to improve its nuclear forces.

Russia has repeatedly said that it considered the ABM Treaty fundamental to the entire network of nuclear disarmament measures now in place. While on a visit to France, Foreign Minister Igor Ivanov stated categorically that Moscow was not engaging in any haggling with the Americans on the ABM Treaty. The chief of the international military cooperation agency in the Russian Ministry of Defence has said that the US is trying to change the strategic balance and is upsetting international security norms and principles, destroying progress in strategic nuclear arms limitation made over many years. Two-day talks held in Moscow in late October on adjustments to the ABM Treaty and on START III negotiations are reported to have been unproductive, with both sides adhering to their initial positions. In November, Russia's Deputy Foreign Minister Sergei Ordzhonikidze said that talks set for the middle of that month had been cancelled at Washington's request; Washington sources denied there had been firm plans to meet at that time. Discussions in late December, between then-Prime Minister Putin and US Deputy Secretary of State Talbot were said to have made "little headway"; at the end of their two-day meeting Talbot was quoted as saying that "substantial differences, even disagreements" remained about the US proposal to amend the ABM Treaty, while the Russian position was described as "if the basic foundations are changed... the Treaty would lose its point". Russia's Defence Ministry reported once again that it had rejected the American propositions; Minister Sergeyev said relations were sinking to a new low. The news of President Yeltsin's retirement is said to have raised hopes in Washington that the Acting President, Vladimir Putin, may be more open to ideas for amendments to the ABM Treaty than political conditions allowed Mr. Yeltsin to be; Putin's position in this regard is expected to be even stronger if in the March elections he is returned as President.

Reports from Russia indicate that the American NMD test of 1 October [see next page] is seen there as a violation of the ABM Treaty. Russia's first Deputy Defence Minister, Nikolai Mikhailov, has stated that his country can easily deploy enough ballistic missiles to overwhelm any anti-ballistic missile systems, at much lower cost than is involved in the deployment of a national anti-missile defence system. He has also said that Russia could target nuclear warheads at all ABM facilities. In that context, Russian sources have spoken repeatedly about the possibility of equipping the new 'Topol-M' strategic ballistic missile with multiple (presumably three) warheads. The Topol-M missile is said already to be equipped with counter-measures such as means to follow a low trajectory, a maneuverable warhead that can avoid interceptor rockets, and short engine burn that makes detection more difficult. It can also be equipped with 'chaff' to mimic warheads and mislead intercepting missiles. Some Russian experts claim that Topol-M can penetrate any anti-missile system, and General Yakovlev, the commander of Russia's ballistic missile forces, has stated that even the densest system of anti-missile defence could be overcome with 100–200 warheads; given that both the US and Russia have 3,500 strategic warheads, the general was quoted as saying, negotiations on arms reductions should continue. Prime Minister Putin said in November, however, that Russian military forces had to be rebuilt regardless of cost, given the growing instability

at home and the increasing use of force in world affairs; he announced that military spending would be increased by 57 per cent.

On the occasion of the test launch of a Topol-M missile Mr. Putin, reacting to criticism of Russia's campaign in Chechnya, reminded Western nations that Russia was a nuclear-weapon state; a few days earlier, President Yeltsin had also responded to US criticism of the Chechnya war by stating that America was not treating his country with the respect due to a nuclear power.

In the US, a State Department official expressed "distress" that Russia was "raising the specter of an arms competition" when the US was trying to work with Moscow to focus on "rogue states". In what was seen, as a hint at a possible compromise with regard to the ABM Treaty, General Yakovlev, was reported to have proposed the establishment of a joint Russian-US commission to examine the threat that would arise from an American limited National Defense System. Quoted as saying that if the ABM Treaty was "dumped", a new round of the Cold War would be inevitable, Yakovlev is reported to have said that if this commission worked properly the two sides could speak in more detail about the need to create national anti-missile systems. Similarly, UN Ambassador Sergey Lavrov has said that while the changes in the ABM Treaty as proposed by the US would destroy the cornerstone of international stability, Russia was ready to address US concerns and discuss amendments. However, the Chief of Russia's General Staff, Anatoly Kvashnin, has said that the US NMD plans were aimed at Russia and China and that if the ABM Treaty was violated, nuclear missile reductions could be ended.

On 20 October, Russia test-fired a short-range anti-missile rocket from the Baikonur missile base in Kazakhstan. General Yakovlev has said that the rocket belonged to the defence system deployed around Moscow [permitted under the ABM Treaty — Ed.] and that the test should be seen in the context of Russia's possible response, should the US withdraw from the ABM Treaty. Shortly afterwards a strategic missile was reported to have been test-launched in southern Russia; General Yakovlev said this demonstrated the extended shelf-life of the missile (which was first deployed in 1976) and that if the US stepped back from the ABM Treaty, Russia would be freed from all its obligations. In mid-November, two further ballistic missiles were launched, this time by a Russian submarine in the Barents Sea; they reportedly struck targets 3,100 miles away, on the Kamchatka Peninsula. The Moscow weekly, *Nezavisimoye Voyennoye Obozreniye*, has reported that the Russian government had decided to resume production of sea-based ballistic missiles. It has also been announced in Moscow that a second regiment of the new Topol-M nuclear missile was deployed in the first half of December. Like the first, this unit has ten missiles. There was also a report of two missile early-warning systems being near completion in Belarus (whose merger with the Russian Federation was approved by the Duma on 13 December) and in the Far East. Russia is said to contemplate once again having its mobile land-based missiles on patrol; a test of a mobile Topol-M is said to be planned for early 2000.

The 1999–2000 edition of 'The Military Balance', published in October by the *International Institute for Strategic Studies* (IISS), reports Russia's deployed strategic missile forces as comprising: 180 RS-20 (SS-18 Satan), 160 RS-18 (SS-19 Stiletto), 46 RS-22 (SS-24 Scalpel), 370 RS-12M (SS-25 Sickle) and 15 Topol-M. The IISS reports that it expects a further 15 Topol-M missiles to be deployed during the year 2000.

On the occasion of the 40th anniversary of Russia's nuclear forces, General Yakovlev said that economic considerations and the emergence of regional powers armed with missiles and nuclear technology were forcing Russia to lower the threshold for using nuclear weapons and extending the nuclear deterrent to smaller-scale conflicts. His comments were read in Moscow as indicating that Russia is prepared to use nuclear arms against chemical or biological weapons or a more powerful opponent using conventional means.

A spokeswoman for China's Foreign Ministry has claimed that "a new round of an arms race" had been triggered by the US' move to revise the ABM Treaty and the development of its NMD system. This has been emphasised also by the Foreign Ministry's senior disarmament official, who wrote in the government newspaper *China Daily* that even if the system was intended to stop attacks from countries like North Korea and Iraq, it would cause more states to develop nuclear weapons.

In the United Nations General Assembly, Russia, together with Belarus and China, has sponsored a resolution confirming the salience of the ABM Treaty. The move was resisted by the US which alleged that, as a bilateral measure, the Treaty was outside the dominion of the United Nations. [See also page 2]

(AP, 4/10, 18-20/10, 22/10, 25/10, 4/11, 17/11, 23/11, 25/11, 8/12, 10/12, 15/12; LT, 4/10; US Defense Department, 4/10; WP, 4/10, 16/10, 17/10, 20/10, 6/11, 8/11, 24/11; R, 5/10, 6/10, 8/10, 18/10, 21/10, 22/10, 3-5/11, 11/11, 15/11, 16/11, 22/11, 24/11, 8/12, 10/12, 14/12, 17/12, 22/12; LM, 6/10; RFE/RL, 11/10, 5/11, 22/11, 14/12; NYT, 17/10, 21/10, 22/10, 6/11, 16/11, 18/11, 20/11, 25/11, 10/12, 23/12, 24/12, 1/1/2000; LAT, 18/10; China Daily [Beijing], 23/10, 25/10; IT, 27/10; People's Daily [Beijing], 28/10, 19/11; AFP, 29/10, 10/12; Moscow Times, 29/10; WSJ, 2/11; Izv, 13/11, 10/12; NG, 10/12; IHT, 15/12; Defense Monitor, I.S.S.M #0195-6450; direct information)

- There have been reports in the British press about safety problems at a nuclear fuel fabrication plant in Raynesway, near Derby, in the **United Kingdom**. The plant, owned by Rolls Royce, fabricates highly-enriched (reportedly up to 93 per cent) uranium fuel elements for the propulsion systems of British nuclear submarines. Reportedly, the UK Nuclear Installations Inspectorate (NII) had previously found flaws in the safety provisions at the facility, including the absence of an emergency plan and of means for containing radioactivity in case of a serious accident. According to the British Defence Secretary, safety concerns have been addressed and the NII had now given the plant "an entirely clean bill of health"; the Secretary also said there was no reason to close the facility as demanded by anti-nuclear groups. Concern about the plant's activities, which until recently

appear to have been secret, is said to have worsened in the wake of recent events at the Tokai Mura plant in Japan. (DT, 18/10; IHT, 18/10; SN, 18/10; O, 25/10; STZ, 25/10; DW, 26/10)

- The **United States** Department of Defense (DoD) has reported that on 1 October [rather than on 3 October, as reported in *Newsbrief* no. 47, page 16 — Ed.], the US Ballistic Missile Defense Organization successfully completed the first planned intercept of an intercontinental ballistic missile target. In the test, reportedly, “[a]n exo-atmospheric kill vehicle weighing about 120 lbs, equipped with two infra-red sensors, a visible sensor, and a small propulsion system, located and tracked the target, guiding the kill vehicle to a body-to-body impact with the target and resulting in [its] destruction using only the kinetic energy of the collision”. The outcome was said to demonstrate that a warhead carrying a weapon of mass destruction could be “totally destroyed and neutralized”. Subsequent reports indicate that the target missile was equipped with counteractive technology devices of the kind thought to be under development in the DPRK and Iran. US analysts praise the event as a “hole-in-one”, but point out that since a missile defence system must work perfectly if it is going to work at all, the system will have to be able to attain the same perfect result every time it is activated. The latest issue of the Washington periodical *The Defense Monitor* claims that only the actual kinetic energy “kill” warhead with its close-in sensors will be part of a deployed NMD, and it says that all other elements of the missile: the booster rocket, radars to track the target, the interceptor guidance system, and the battle management system, were either substitutes or simulated.

A ‘deployment readiness review’ of the status of the NMD programme will begin in Summer 2000. It will include assessments of potential costs, the actual and potential threats, and of the status of arms reduction efforts involving Russia. After receiving the results of this review, the Secretary of Defense is to make a recommendation to the President whether or not to deploy the NMD system, and if the latter takes the decision to deploy, the system should be operational in 2005. About 20 intercept tests are said to be planned over the next six years, to demonstrate “NMD system technology, effectiveness and reliability”. The next NMD test is scheduled for the first quarter of 2000.

In a speech delivered on 5 November, the US Under Secretary for Defense Policy, Walter B. Slocombe, confirmed that President Clinton would decide in the Summer of 2000, at the earliest, whether to order the deployment of a limited NMD system. He was quoted as saying also that the Administration might go ahead with NMD even if this meant withdrawing from the ABM Treaty; the US, he said, would not let Russian objections stand in the way of a missile defence system if it determines that this is in its national security interest. He is supposed to have added, however, that the US expected Moscow to agree eventually to a modification of the Treaty.

In mid-November, a panel of outside experts appointed by DoD submitted a report claiming that the NMD program had serious testing and management problems. According to the report, without more tests it would be

possible to judge only whether it was technically feasible to continue developing an anti-missile system, but not whether the system should be deployed. The Ballistic Missile Defense Organization at the Pentagon is said to agree with most of the findings of the report and to be changing the testing programme, increasing the number of tests, and speeding up the schedule for building key elements. A US intelligence study of September 1999 is reported to have said that, based on readily available technology, the DPRK, Iran and Iraq would be able to develop “penetration aids” involving balloon decoys, chaff and jammers. Several well-placed experts have expressed doubt that what may work on a test range will also succeed against even a few warheads equipped to foil the system.

In November, US Deputy Secretary of State Talbott flew to Brussels to respond to representatives of European NATO countries who are said to have complained that the US until now had not taken the trouble to explain to them its stance on NMD and on the ABM Treaty. Apparently, some of America’s European allies are afraid that an American withdrawal from the ABM Treaty would trigger a new arms race and that a separate American anti-missile system would leave Europe unprotected by destroying the concept of ‘shared risk’ which has long been basic to NATO’s security doctrine.

Germany’s Foreign Minister, on a visit to Washington, said that the American willingness to consider abandoning the Treaty was based on internal political calculations; were it not, it would mean that the US had changed its policy of promoting disarmament. Senior European officials are said to fear that the NMD issue might put the survival of NATO at risk, and that if the system works, it will mean that the US and Europe will no longer be exposed to the same threats; there also seems to be fear that America might launch preemptive strikes against rogue states, with or without its allies’ consent. During a visit to Brussels in early December, US Defense Secretary William S. Cohen said that US development of a missile defence system to counter the “real” threat from “rogue states” would be done with allied security interests in mind. He was quoted as saying that NATO could not avoid the consequences of such a threat. He said the US was willing to provide its European allies with a missile defence system that would provide the same kind of protection as sought by the US. The French and German defence ministers expressed doubts about, respectively, the cost effectiveness and the timing of the decision to employ NMD; the former called for caution about a programme that could end up damaging security if it offered indirect encouragement to an arms race.

(AP, 4/10, 18-20/10, 22/10, 25/10, 4/11, 17/11; LT, 4/10; **US Defense Department**, 4/10; WP, 4/10, 17/10, 20/10, 16/10, 6/11, 8/11, 3/12; R, 5/10, 6/10, 8/10, 18/10, 21/10, 22/10, 3-5/11, 11/11, 15/11, 16/11, 22/11, 8/12; LM, 6/10; RFE/RL, 11/10, 5/11, 22/11; NYT, 17/10, 21/10, 22/10, 6/11, 16/11, 18/11, 20/11; LAT, 18/10; **China Daily** [Beijing], 23/10, 25/10; IT, 27/10; **People’s Daily** [Beijing], 28/10; AFP, 29/10; **Moscow Times**, 29/10; WSJ, 2/11; Izv, 13/11; IHT, 8/12; **Defense Monitor**, I.S.S.M #0195-6450; direct information)

- In the **United States**, in a follow-up on the allegations that information on nuclear weapons had been stolen

from the Los Alamos National Laboratory, the Congress has decided that all nuclear weapons activities of DoE should be concentrated in a National Nuclear Security Administration (NNSA) within that Department. The proposal for the creation of this semi-autonomous body, to be headed by an Under Secretary for Nuclear Security charged with formulating policies on nuclear weapons development, naval nuclear propulsion, nuclear non-proliferation, and the disposal of surplus fissile material, had been opposed by the Secretary of Energy, presumably because it would erode his authority. It has been reported in Washington that rather than vetoing the measure, the President had ordered the Secretary of Energy to take over the duties of director of the NNSA. In October, President Clinton announced that he would not appoint a new Under Secretary until Congress had changed the plan's "deficiencies" (i.e., the perceived likelihood that the bill would isolate personnel and contractors of the new agency from outside direction, and limit the Secretary's authority to direct its activities), and ordered Secretary Richardson to assign present members of the staff of the Department to similar offices within the NNSA. In response, the Senate has held "oversight hearings" in which Republican members of several Committees expressed "outrage" over what they saw as an attempt on the President's part to circumvent Congressional legislation. There has been talk in the Congress of unspecified "punitive measures", one of which allegedly would be to take the entire nuclear-weapon programme away from DoE. The likelihood that the Congress will revise the law to remedy the 'deficiencies' identified by the President is thought to be small.

DoE has sharply restricted access by foreign scientists from 25 'sensitive' countries to computers in weapons laboratories that contain even unclassified information connected with nuclear weapons programmes. Access by non-US nationals is to be pre-approved and periodically audited, and non-resident foreign nationals from the so-called 'threat' countries may have access only to systems that do not contain controlled nuclear information or information on nuclear propulsion.

(NF, 4/10, 1/11; WP, 8/10; SF, 18/10, 25/10; AP, 28/10; NW, 28/10; Defense News, 15/11. See also Newsbrief no. 47, page 16)

- Also in the **United States**, the *Bulletin of the Atomic Scientists* of November/December, revealed that, during the Cold War, a total of 12,000 American nuclear weapons were deployed in 23 countries and 5 American territories abroad. The article was the result of research work based on a recently declassified Defense Department study which had contained many deletions as a condition of its release. According to the article, US nuclear gravity bombs, missiles or depth charges were in, among other countries, Canada, Cuba, Iceland, Japan, Morocco, the Philippines, Spain, the RoK, and six Western European states members of NATO, between 1955 and the end of 1977. [The authors have since accepted that Iceland had been misidentified and have promised that a follow-up article will reveal further details — Ed.] The article also claims that while the US no longer maintains nuclear weapons in Asia, it still has around 150 nuclear bombs altogether in Belgium, Germany, Greece, Italy, the Netherlands, Turkey, and the UK, and as such is the only country that currently deploys

nuclear weapons outside its own territory. The report has caused comment from some of the countries in question, notably Japan, where the previous presence of American nuclear weapons, presumably with the knowledge of senior Japanese politicians, is seen as having run counter to both that country's nuclear policy and US undertakings.

In response to the article, the US State Department has said that the country never violated its obligation under the pertinent international instruments. A similar statement was made by America's Ambassador in Tokyo. In line with established policy the US State Department has refused to disclose where and what kind of nuclear weapons are deployed overseas. Japan's Foreign Ministry has stated that it would be inappropriate to comment on a report by a private research institute.

Military sources in Brussels were reported to have told the news agency *Agence France Presse* in early November, that the US was preparing to withdraw "around 200 nuclear warheads" stored at bases in seven European states and that a decision to that effect would be announced at a NATO meeting in December. The US Department of Defense said it had no information on the matter.

A book by the director of the Secure World Program of the W. Alton Jones Foundation, George Perkovich, says that in the mid-1960s the US considered supplying friendly Asian countries with low-yield tactical nuclear weapons to counter Chinese aggression.

(AP, 20/10, 5/11; NYT, 20/10, 12/12; R, 20/10, 28/10; SCMP, 21/10; LM, 6/11; If, 9/11; AFP, 13/12. See also below, III. Recent Publications, page 26)

- In November, **Russia and the United States** finalised arrangements for the operation of a jointly-staffed command post at Space Command Center at Peterson Air Force Base, Colorado Springs in the state of Colorado, with the task of ensuring that 'Y2K' computer problems would not result in the accidental launch of strategic missiles or would be used as a pretext to launch a genuine attack. However, because data from US tracking stations were not fed direct to Moscow — as Russia had requested — but first went through the joint centre in Colorado, there is said to have been concern that if such data had not coincided with information coming from Russia's own sources, Moscow might not have heeded them. Besides information on launches, the information to be shared was said to have included data on material falling from space, and would have indicated where the objects concerned were coming from, where they were headed and what type of object was involved. In the event, the monitoring centre is said to have detected three launches, all involving missiles with a range below 500 km (310 miles), and thus irrelevant to the centre's preoccupations — a subsequent report claimed the launches took place in Chechnya. No further incidents appear to have been recorded.

DoE officials in the US also monitored Soviet-designed nuclear power plants and electric grids for Y2K problems. Reputedly, these reactors rely largely on analog technology, which is less susceptible to the problem than are Western facilities that use digital technology. Here, too, all is said to have proceeded

without obvious problems. The IAEA reported on 1 January that it had received confirmation from all countries operating nuclear power plants "... that no incident with implications for safety had occurred at any nuclear power plant as a result of the immediate transition to the year 2000".

(*Baltimore Sun*, 27/10; *NYT*, 28/10, 1/1/2000; *AP*, 10/11; *NW*, 9/12; *IAEA Press Release PR 2000/1*; *NPR News*, 1/1-2000. See also *Newsbrief* no. 47, page 16)

- On 1 November, **Russia** and the **United States** announced the opening of a joint 'Security Assessment and Training Center' (SATC), 30 miles (45 kms) northeast of Moscow, meant to serve as a test site for security procedures and technology, including physical security devices, and as a facility for the training of guard forces who would use these devices at Russian storage sites. The SATC, which is part of the 'Cooperative Threat Reduction Program' that was started in 1992 upon the initiative of US Senators Nunn and Lugar, will also help upgrade Russia's 'Personnel Reliability Program' (PRP), which assists in ensuring the reliability of personnel safeguarding nuclear weapons. Among equipment provided by the US DoD for this programme are drug and alcohol testing kits and polygraph systems.

There have been reports that Russian authorities increasingly restrict access of American officials to nuclear sites where joint projects are underway. The US Ambassador to Moscow was not granted permission to bring his science advisor to the opening, on 2 November, of a US-financed business centre at Krasnoyarsk-26, and consequently cancelled his own visit. Reportedly, such restrictions are applied at least partly as a reaction to similar measures taken against Russian visitors at American installations, and in part to control the influx of growing numbers of American visitors to Russian nuclear sites. There also appears to be increased suspicion in Russia of American intentions, promoted especially, it is said, by Russia's security forces, whose influence is said to be growing. The US Administration has set up a task force to examine the access issue.

The US Congress, which is seen as growing cool to the Administration's policy of helping the closed cities convert to a post-Cold War economy, has cut funding for the 'Nuclear Cities Initiative', for the retraining and reemployment of nuclear scientists formerly employed on nuclear-weapon programmes. For the next fiscal year, \$7.5 million has been appropriated, which is one half of the current year's sum; the Administration had requested \$30 million. DoE has confirmed, however, that it will try to maintain projects in three Russian nuclear cities: Sarov, Snezhinsk, and Zheleznogorsk. George W. Bush, the frontrunner among the aspiring Republicans seeking to be candidate for President, has expressly endorsed the US security assistance programme in the former Soviet Union.

The Russian Foreign Ministry has announced that a nuclear waste site in Chechnya is now under Russian control. It says the IAEA has been informed of the situation.

With financial support from a group of Western donors (particularly Finland, France, Hungary, Japan, Sweden, UK and US), the IAEA has been helping 14 newly

independent states of the former Soviet Union develop their own state systems of nuclear materials accounting and control. Such systems are basic to the effective application of IAEA safeguards. A meeting to review progress was held at IAEA headquarters in Vienna in November; reportedly, participants were warned that funding was limited and that the states would have to look for a way to complete the programmes.

(*R*, 1/11; *USIA*, 1/11; *NYT*, 3/11, 20/11; *WP*, 12/11, 27/11; *NF*, 29/11; *Carnegie*, 2/12; *AFP*, 3/12)

- A **United States** Congressman has raised the old issue of Soviet 'suitcase-size' nuclear devices having been hidden in the US. The (Republican) politician, citing 1997 reports on the matter [see *Newsbrief* no. 40, page 15] and evidence from (then) Russian presidential candidate General Aleksandr Lebed, from KGB defectors and from a British researcher, alleges that 132 10-kiloton weapons were made and only 48 are accounted for, of which a number are supposed to be in the US. He has accused the FBI, which he claims acknowledges the possibility of the existence of hidden weapon caches, of making only a perfunctory search. (*New York Post*, 6/11)

In the **United States**, the board of directors of the Tennessee Valley Authority (TVA) has agreed to make its Watts Bar-1 reactor available for the production of tritium for the US weapons programme. In 1998 TVA was selected by DoE to do so; it had initially hoped to get federal funds to complete its Bellefonte plant for the purpose, but DoE requires it to make the material at an operating facility. Reportedly, production would not start until 2003; TVA is said to expect that under present conditions the current supply of tritium will not run out until 2005, and that new international treaties may make the need for additional tritium less urgent. (*NW*, 9/12, 16/12)

h. Proliferation-Related Developments

- A non-classified version has been released in the US of the report by a panel led by former Defense Secretary Dr. William Perry, Special Coordinator for issues relating to the **Democratic People's Republic of Korea (DPRK)** [see *Newsbrief* no. 47, page 19]. The principal recommendation of the report is for the US and its allies to seek peaceful coexistence with the DPRK, rather than trying to undermine it or seek to reform its governmental system. It recommends that the US should gradually relax sanctions and reduce its pressures in return for assurances that Pyongyang will relinquish its nuclear and missile programmes. Dr. Perry has said that the American Administration hopes to persuade the DPRK to join the Missile Technology Control Regime (MTCR), which prohibits development, deployment and export of missiles with a range over 185 miles (300 km).

In late October, there was a report from the Republic of Korea (RoK) that the DPRK had enhanced its missile capabilities by deploying four long-range Taepodong-1 (now known abroad as TD-1) missile units. Other reports speak of the recent deployment of Scud-C missiles. [At the same time, there was a report of the recent deployment of four battalions equipped with Rodong-1 missiles in the same area as the TD-1, and it is possible, therefore, that the various reports refer to the

same event — Ed.] A researcher with *Jane's Intelligence Review* has told the US Congress that the DPRK "may have one to five Taepodong-2 (TD-2) missiles", in addition to its TD-1 missiles, and 50 to 70 short-range Nodongs. In all, this analyst is reported to have said, the DPRK has produced between 750 and 1,150 (sic) missiles of which it has exported between 300 and 400 and has deployed between 425 and 725 [sic]. US Air Force intelligence sources claim that the three-stage TD-2, which would be capable of carrying a payload of several hundred kilograms, is so far advanced that it might be tested at any time; in late October they said, however, that there were no signs of any impending test and there have been indications that Pyongyang may extend its moratorium if relations with the US improve further.

South Korean official sources claim that the DPRK continues to strengthen its armed forces and is now spending 30 per cent of its budget on its military. As reported, by the International Institute for Strategic Studies, Pyongyang has increased the number of its battle tanks by 500, to 3,500 and its 'land strength' by 27,000 men, to 950,000, but appears to have slightly reduced its artillery and its navy. The Defence Ministry of the RoK said in October that the North is building five new tactical-missile launching bases and has stockpiled between 2,500 and 5,000 tons of chemical and biological agents, including nerve gas, mustard gas and anthrax, all deliverable by missile. The amounts reported supposedly represent a five-fold increase over previous estimates. Notwithstanding recent indications of a thaw in relations between the DPRK and the US, renewed concern is said to have arisen in Seoul about the North's intentions, following reports that in November, the US military issued dependents of American soldiers and diplomatic staff in South Korea with gas masks and hoods.

In the US House of Representatives, the (Republican) Chairman of the International Relations Committee, Representative Gilman, has called for caution in normalising relations with "this rogue state" and has expressed fear that US policy towards the DPRK was 'a failure' and that US aid was helping maintain a 'barbaric regime'. Gilman's response to the Perry Report is not thought to give much hope that its recommendations will be adopted by the Republican majority in the House. In a press release, Rep. Gilman referred to the possibility that the DPRK is "seeking a parallel [nuclear] program based on highly enriched uranium which strongly suggests that [it] never intended to curb its nuclear ambitions [and will] combine its covert nuclear weapons program with an intercontinental ballistic missile capable of striking the United States ...". In his statement, in which he calls the DPRK's government "the world's most repressive regime", Gilman accuses Pyongyang of buying weapons abroad while its people go hungry; inveighs against the alleged inability of the World Food Programme to monitor actual distribution sites; asserts that Pyongyang "oppresses the fundamental human rights of its people"; accuses the DPRK of involvement in international narcotics trafficking and other crimes, including the counterfeiting of American currency; and alleges that it still holds prisoners from the 1950 war, possibly including "live Americans".

The 'North Korea Advisory Group' of leading Republican members of the US House of

Representatives [see *Newsbrief* no. 47, page 19] has released a report claiming that the DPRK is continuing [sic] its acquisition of uranium-enrichment technologies and conducting nuclear-related high explosive tests. The Group has accused the Clinton Administration of conducting a policy of "appeasement and bribery" with the DPRK and has announced that in 2000 it will make a complete review of that policy. Representative Cox has accused the Clinton Administration of giving support to North Korea that will allow it to "build reactors that will result in enough spent nuclear fuel to produce 100 nuclear bombs a year". Along with many other Republicans, former US Defense Secretary Weinberger has called the Berlin agreement, in which the DPRK undertook to freeze the testing of its long-range ballistic missiles during negotiations with the US [see *Newsbrief* no. 47, pages 16, 18 and 19], a "meaningless accord" and an excuse for letting the DPRK "extort" more funds from the US.

In mid-November, the Trilateral Coordination and Oversight Group (consisting of Japan, the RoK and the US), met in Washington in preparation for a further four-day round of discussions in Berlin between the DPRK and the US, on ways to improve bilateral relations and ease the hostility between the two countries. Early indications were that the talks had been productive; a senior Foreign Ministry official of the DPRK said they had been "constructive and business-like", but subsequent press reports have it that there was no agreement about the agenda for a high-level meeting envisaged by both sides. Apparently, the DPRK had demanded that one issue to be discussed should be a no-first-strike undertaking from the US; rumours that such an undertaking had already been given were denied by America's Defense Secretary Cohen. It is further understood that Pyongyang repeated its demand that all US economic sanctions should be lifted. The US, on the other hand, was said to have called for a discussion on a permanent freeze of the DPRK's missile and nuclear programmes.

While reportedly relations between the DPRK and the US are improving, and progress is said to have been made in talks about the establishment of liaison offices in the respective countries, Pyongyang continues to excoriate Washington. On 1 December, the DPRK Foreign Ministry threatened to reconsider the continuation of the bilateral negotiations on the presumed ground that the US was seeking to start a war of aggression against the DPRK. In a newspaper commentary, Pyongyang has said that the lifting of US sanctions would neither be a benefit nor a gift, and that if the US wanted to improve relations it should totally lift all sanctions, sign a peace treaty with the DPRK and withdraw all its troops from the Peninsula. Pyongyang has also denounced the American anti-missile test that was held over the Pacific in September as a demonstration that US aggressive policy against North Korea had not changed. In another move seen as running counter to the generally positive trend in relations, the DPRK has been railing, lately, at what it described as a 150-mile long concrete wall which it has said the South erected twenty years ago to divide the two parts of the Peninsula. South Korean and American officials have stressed that while the demarcation line is strongly fortified, no such wall exists. Notwithstanding the doubts expressed in Pyongyang, officials in Seoul and Washington are said to be optimistic about the

likelihood that high-level talks between the DPRK and the US will be held soon and that arrangements for the event will be discussed in January. Meanwhile, it is expected that further four-party peace talks may be put off until progress is made on the bilateral level.

According to South Korean sources, the DPRK is in the final stages of sealing the nuclear fuel rods from its two nuclear reactors at Yongbyon. The process has taken nearly three years and has been supervised by officials from the IAEA and the US. At the same time, there has been a report from a researcher at the (South) Korea Institute for Defense Analysis, quoting the American Central Intelligence Agency (CIA), that since 1994, the DPRK has held 40 kg plutonium, which, it says, is enough for ten small nuclear warheads.

In mid-December a "technical consultation meeting" was held in Vienna, between medium-level officials of the IAEA and members of the DPRK mission to the United Nations. The subject was reportedly a renewed application of the Agency's safeguards measures. Once again, the consultations are understood not to have made progress and there was said to be an expectation in Vienna that it might be 2003 or 2004 before the IAEA would get the data it needs to verify the DPRK's declared fissile material inventory. It was noted that the Agency would need to get the operating records of the 25-MW plutonium-production reactor and to have access to spent fuel from the plant, to help it reconstruct at least part of the operating history of the reactor, which may already have irradiated enough natural uranium to produce several plutonium devices. In a resolution adopted during its 1999 regular session, the UN General Assembly expressed "deep concern" that the DPRK still prevents the IAEA from applying its safeguards at the facilities in question.

Japan is reported to be considering lifting its sanctions against the DPRK. It has already lifted the ban on charter flights to that country and in early December it was reported that the two countries were to begin formal negotiations on establishing diplomatic relations.

The Korean Peninsula Energy Development Organization (KEDO) has appealed for more funds and political support. It has announced that the Czech Republic had become a member, and that France, Italy and Mexico have made contributions. On 15 December, in the presence of the representatives of 12 states and the EU, KEDO and the [South] Korea Electric Power Corporation (KEPCO) — the lead contractor for the project — signed a 'turn-key' contract for the construction of two pressurised-water reactors at a cost of \$4.6 billion, of which South Korea will contribute \$3.2 billion, Japan \$1 billion and part of the remaining \$400 million will come from the European Union; the US has undertaken to take the lead in raising the remaining funds, if necessary. No representatives of the DPRK attended the signing, but a week later a DPRK Foreign Ministry spokesman was quoted as saying that it was fortunate the contract was signed, "though belatedly"; he was also said to have warned of serious consequences if there was a delay in the construction.

The event received much publicity in the international press. The signing date was indeed overdue, but there had been fear that it might have to be postponed further

because the presumed manufacturer of the turbine generators, the General Electric Co., reportedly hesitated to commit itself formally to the project, pleading liability considerations; its cooperation is said not to have been fully assured yet. At KEDO's October meeting it had been announced that construction of the reactors would start in the near future and South Korean officials have said that at the normal pace of construction the first reactor should be finished by 2007, which would be five years behind schedule. It was also announced that by late 1999 the US had supplied all the heavy fuel oil it had promised for the year. Pyongyang continues to berate the US in the media and in Foreign Ministry statements, for supposedly holding up progress in the construction of the reactors and delaying the supply of heavy oil. There has been an official denial in Seoul that the RoK would provide financial assistance for the construction of an electric grid in the DPRK, but apparently KEDO would help the DPRK attract foreign loans for this purpose.

From 26 October to 5 November, RoK and US forces held their annual joint military maneuvers in South Korea. Qualified as "rear-area field-training exercises", the maneuvers involved among other things amphibious landings, river crossings and various defence operations. A total of about 330,000 troops took part, including 35,000 American soldiers, as well as US naval forces. Government sources in Pyongyang cited the exercises as the reason for developing missiles to protect itself from the "continued menace of the United States", which it said had shown itself unworthy to be a dialogue partner and stabbing the DPRK in the back. Pyongyang warned that the outbreak of war was "merely a matter of time" and that it expected a military invasion from the US, Japan and the RoK.

Although farm crops in the North are said to have increased somewhat over those of last year and techniques seem to have improved, the food crisis is said to be by no means over. Reportedly, the DPRK is still said to face a grain shortfall of 1.3 million tons, to replace which it needs assistance from abroad. The UN food agencies have said that the country is caught in a vicious cycle of hunger, in which chronic food shortages weaken agricultural workers who, in consequence, produce less. The Republican majority in the US Congress have expressed skepticism about the wisdom of making food supplies to the DPRK, because they claim that there are no means to make sure these are not diverted to feed the armed forces and withheld from the intended recipients. In Pyongyang, officials have expressed hope that the improvement of relations with the US will have a positive effect on the food situation in the DPRK. Japan has announced that it plans to resume its food aid to the North.

(KEDO Annual Report 1998/1999, 31/7; AP, 5/10, 6/10, 10/10, 12/10, 13/10, 17/10, 25/10, 27/10, 7/12, 9/12, 15/12, 16/12, 23/12; CHI, 5/10, 6/10, 14/10, 24/10, 8/11; Nikkei Shimbun, 5/10; R, 5/10, 12-14/10, 20/10, 26/10, 3/11, 15/11, 19/11, 1/12, 14/12; WT, 6/10, 28/10; Pacific Stars and Stripes, 7/10, 19/10, 26/10; IHT, 8/10, 16/12; USIA, 8/10, 28/10, 9/11, 15/12; Forbes Magazine, 11/10; House International Relations Committee Press Release, 13/10, 3/11; JAI, 15/10, 5/11, 11/11, 18/11, 9/12; KH, 18/10, 22/10, 25/10, 28/10, 8/11, 9/11, 11/11, 18/11, 6/12, 10/12, 18/12; KT, 18/10, 10/11, 11/11, 22/11, 30/11, 10/12, 16/12, 17/12; ASS, 28/10,

3/11; NYT, 16/11, 20/11, 4/12, 8/12, 15/12; AFP, 18/11, 1/12, 2/12, 13-15/12, 26/12; NW, 25/11, 9/12, 16/12; SF, 29/11; E, 11/12; NNN, 15/12; direct information)

- The elections in **India** ended with the return of Prime Minister A.B. Vajpayee, whose re-election is seen as a call for moderation. Senior US officials, including Energy Secretary Richardson and Deputy Secretary of State Talbott, who have both visited New Delhi, have urged it to end its production of fissile material, strengthen its nuclear export controls, and accede to the CTBT. In preparation for a visit President Clinton is expected to make in early 2000, Washington has lifted the sanctions against 51 government agencies and private firms on the purchase of items that might have nuclear or other military applications. An Indian Foreign Ministry spokesman has said that India still expects that export restrictions regarding another 250 entities will be lifted also. There is a report that Indian industry is gearing up to expand its exports of military missiles.

(AP, 2/10, 3/10, 5/10, 15/10, 25/10, 26/10; DJ, 6/10; FT, 7/10; E, 9/10; R, 25/10, 27/11, 17/12; NYT, 27/10; NW, 23/12)

- **Israel** is reported to have once again asked **Russia** to stop providing **Iran** with nuclear technology. In a meeting in Oslo, in early November, Prime Minister Ehud Barak voiced concern at the spread of nuclear and missile technology to Iran. His Russian counterpart, Vladimir Putin, proposed making the relations more transparent and setting up a joint commission for exchange of information. (R, 2/11)
- In the absence of any verification in **Iraq** for over a year, rumours that Baghdad had once again embarked on a clandestine nuclear weapons programme and had missiles with which to deliver them continued to circulate in Western capitals. As before, there were documented claims that Iraq had a comprehensive design of a nuclear weapon and was seeking to procure fissile material abroad. In early December, the IAEA advised Iraq that it would have to make one of its annual inspections of the 1.8 tons of low (2.6 per cent) enriched uranium in the country, under the terms of the safeguards agreement pursuant to the NPT. There are said to be 13 tons of natural uranium fuel stored at the Tuwaitha nuclear research centre. As of late December, Iraq had not responded to the Agency's request for visas for the inspectors and it was not known at that time if it intended to treat IAEA inspectors operating pursuant to the bilateral safeguards agreement in the same way as UN inspectors which, following the Security Council's adoption on 17 December of a new verification resolution, it had said it would not admit into the country. The issue raised concern about Baghdad's intentions with regard to its adherence to the Treaty and there were suggestions that it might be planning to enrich the uranium for weapons use. The IAEA's Director General has set the first week of January 2000 as a deadline by which, if Iraq does not issue the visas, he would have to take further steps.

In mid-November, when discussions were resumed in New York on a new inspection regime in Iraq, that country's foreign minister said that his government would reject any UN initiative to 'suspend' economic sanctions in return for Baghdad's cooperation with a new

monitoring programme. Instead, he said, Iraq insisted that the sanctions should be lifted altogether, as a precondition for any Iraqi cooperation. In the Security Council, the UK and the US led a majority of members who held that a new resolution would have to make the lifting of sanctions conditional upon the finding that Iraq was complying with the provisions of previous resolutions. China, France and Russia were among Council members advocating that sanctions should be lifted early and completely, but during the November meeting in Istanbul of the Organization for Security and Cooperation in Europe (OSCE), Russia's Foreign Minister was alleged to have told his American counterpart that if the US would agree not to raise the Russian military action against Chechnya in the Security Council, Russia would instruct its representative in the Council to be flexible on Iraq. Reportedly, Washington said that it would find such linkage unacceptable. Also in November, the Security Council was unable to adopt another six-month extension of the 'oil for food' programme in Iraq, reportedly because it could not agree on a Russian proposal to liberalise the restrictions on the uses to which Iraq could put the funds earned with its oil sales and to relax constraints on air travel. The Council's decision to extend the programme by only two weeks prompted Iraq to suspend its oil exports in protest. On 10 December, the Council unanimously decided to continue to permit the export of up to \$5.26 billion in Iraqi oil for a new period of 180 days under the 'oil for food' programme.

Consultations among members of the Security Council, and in particular among the permanent five members (P-5), intensified in early December, amidst press reports that the non-permanent Council members were growing impatient with the P-5 for the secretive way in which they dealt with the Iraq issue and for their tardiness in coming to a decision. The possibility of agreement on a resolution was said to have increased, with the Russian Federation seen showing more flexibility as to the continuation of economic sanctions, and France reputedly having come closer to US-UK demands for the maintenance of those sanctions until Iraq's full compliance with the Council's earlier resolutions had been verified. While the likelihood that some form of the Anglo-Dutch draft resolution might be adopted [see *Newsbrief* no. 47, page 22] was thought to be high, there did not yet seem to be a text that could be supported by all permanent members. Meanwhile, staff of the IAEA and of the UN Special Commission (UNSCOM) were understood to be preparing to return to Baghdad on short notice, so as to start setting up a new monitoring system as soon as the opportunity arose.

Reportedly, two somewhat different drafts of a resolution, discussed in November, called for a resumption of stringent inspections in return for the eventual partial lifting of the embargo. In either version, the resolution would create a new inspection body — the UN Monitoring, Verification and Inspection Commission (UNMOVIC) — to replace UNSCOM. UNMOVIC's staff would be international civil servants, subject to Article 100 of the UN Charter, responsible only to the UN and not to be influenced by member states. Both the new body and the IAEA would report to the Security Council on their verification and monitoring activities in Iraq; they would have to begin by developing and implementing clearly defined and precise work

programmes and identify the key remaining tasks that would have to be fulfilled before sanctions could be suspended for renewable periods. The main differences between Western P-5 members and Russia were said to hinge on ways of judging whether Iraq is in compliance with the inspection regime, so that sanctions could be lifted. Also, in the US view, the verification bodies should determine the actions incumbent on Iraq only once they had started work, whereas Russia was said to argue that the requirements to be met by Iraq should be set in advance. The latter would have to be met within a given time, after which sanctions would be suspended.

A new resolution text, of 9 December, reputedly amended to bring it closer in line with Russian views, strengthened the influence of the Security Council by giving it the task of approving the work programmes to be drawn up by the two executing bodies and consulting with the Secretary-General on the membership of the College of Commissioners that would advise and guide UNMOVIC on significant policy decisions. Commentators, including UNSCOM's former Executive Director Richard Butler, noted that the changes would greatly detract from the independence of the new body.

On 17 December, the Security Council adopted the resolution with 11 votes in favour, including the UK and the US, and four abstentions: China, France, Malaysia, and the Russian Federation. France had called for a delay in the voting so as to make a last-minute attempt to obtain consensus among the P-5 by softening the requirements for ending the sanctions; its eventual abstention, together with those of China and Russia, was seen as seriously weakening the potential impact of the resolution. On the other hand, the fact that Russia had not vetoed the resolution, as Iraq had urged it to do, and the retention in the text of the principle that sanctions would be lifted only if Iraq had met its obligations under the post-Gulf War resolutions of the Security Council, as well as the omission of any reference to the 'no-fly zones' proclaimed by the UK and the US, were seen as indications that there remained ample international support for the maintenance of a regime of restrictions on Iraq. On 18 December, the official Iraqi news agency distributed a statement by Iraq's Deputy Prime Minister Tariq Aziz, that the Security Council "had failed to meet Iraq's legitimate demand for a lifting of sanctions". A day later, the official Baghdad press warned that Iraq would not cooperate with a "criminal" new resolution, but it was noted that the Iraqi government had not said that it completely rejected the resolution. Accordingly, there was speculation in New York that the UN Secretary-General would start making an effort to implement the resolution as soon as possible in hopes that Iraq would eventually cooperate. Meanwhile, Iraq was said to have begun to avail itself of the opportunity set by the lifting of the ceiling on its oil exports. Relevant parts of Security Council Resolution 1284 (1999) are reproduced below in section IV. **Documentation.**

During the period covered by this **Newsbrief** the almost-daily British-American air strikes against targets in the so-called no-fly zones of Iraq continued. As reported, the US had tried to reduce the risk of causing 'collateral damage', by experimenting with laser-guided bombs filled with concrete instead of explosives. Nevertheless, there were frequent reports of civilian casualties among the Iraqi population. Baghdad,

claiming "a great victory" over the UK and the US, said that since the start of the air campaign in mid-December 1998, aircraft from those states had flown 16,848 missions over Iraq, during which 156 persons had been killed [American sources have reported this number of sorties to have been made over Southern Iraq alone, with 11,000 more supposedly having been made over the no-fly zone in the North — Ed.]. The Director of the US Defense Intelligence Agency has said that Iraq has begun rebuilding military installations American and British warplanes destroyed during the campaign of December, 1998.

In what was said to be a shift in policy, the US Administration in late October authorised the first direct military training for opponents of the Saddam Hussein regime. Four Iraqi rebel leaders were reported to be given a ten-day training course at an American army base, in 'non-lethal' subversive activities. The parallel supply of equipment is said to involve mainly office items such as computers and fax machines. In late October, the Iraqi National Congress, which comprises opponents of the current regime, held a conference in New York where divisions among the factions are said to have far outweighed unity.

(LT, 5/9; IHT, 8/10, 24/11; AP, 11/10, 8/11; R, 11/10, 14/12; NYT, 28/10, 1/11, 4/11, 18-20/11, 23/11, 24/11, 27/11, 5/12, 6/12, 8/12, 10/12, 11/12, 14-20/12; E, 6/11, 4/12; ISIS Issue Brief, 24/11, 14/12; BBC, 21/11; CNN On Line, 10/12; UN Press Release SC/6769, 10/12; New Yorker, 12/12; NW, 23/12)

- In Israel, the daily newspaper *Jedioth Achronoth* has published an article about the case of Mordechai Vanunu, a former technician at the Dimona reactor, who in 1986 released information to the *Sunday Times* of London about Israel's presumed nuclear weapons programme. Vanunu was forcibly returned to Israel and has been serving a prison sentence for treason. The fact that the authorities have allowed the paper to publish excerpts from the classified transcript of the trial is seen as an implicit acknowledgement of the existence of the country's nuclear weapons programme. Former Israeli Prime Minister Shimon Peres has criticised the publication of the transcript, claiming that Vanunu's disclosures had prompted Arab states to accelerate their nuclear activities. (NYT, 25/11; SDZ, 25/11; StV, 25/11; See also **Newsbrief** no. 2, page 7)
- The suggestion by a senior official of Japan's defence ministry that **Japan** should abandon its renunciation of nuclear weapons, has attracted much attention in that country and in neighbouring states. In an interview with *Weekly Playboy*, Deputy Vice Minister for Defence Shingo Nishimura said that the time had come for a national debate about whether Japan would be better off if it armed itself with nuclear weapons. In a subsequent interview with the prestigious *Asahi Shimbun* he is said to have rejected the idea that either Japan's long-standing non-nuclear policy or its constitution would prevent nuclear armament. Prime Minister Obuchi immediately prevailed upon Mr. Nishimura, who had held his function for just two weeks, to resign, and has reportedly also managed to prevent him from holding a press conference in which he was expected to expound on his views. The furor caused by the affair among Japan's political parties is said to indicate that he is not alone in his views, and it

is believed that the uproar may hasten parliamentary debate on a revision of the country's military policy. The Cabinet Secretary has stated formally that Japan abides by its "three nuclear principles", i.e., not to produce nuclear weapons; not to possess them; and not to allow them into the country. Some newspapers, however, have published the views of analysts who reason that in a fast-moving international situation it is no longer unthinkable that the government's policy of nuclear abstinence, which was adopted in 1968, may have to be reconsidered.

South Korea's foreign affairs ministry has expressed "regret" over Nishimura's remarks.

A committee has been set up by the Science and Technology Agency and the Japan Atomic Industrial Forum (JAIF), chaired by Professor Mitsuro Kurosawa, to advise the Japanese government on a nuclear non-proliferation policy for Japan.

Reports that during the Cold War, nuclear weapons were stored at US bases on the Japanese mainland [see above, page 17] have caused much adverse comment in the press and among critics of Japan's nuclear policy. According to archival evidence recently released in the US, in 1960, an understanding was reached between the two countries in the context of the Japan-US Mutual Defense Treaty of that year, that American assurances not to "introduce" nuclear weapons into Japan "would not apply" to weapons on US vessels or aircraft in transit. In addition, confidential arrangements are said to have been made, providing for the possibility that "in the event of the renewal of Communist aggression in Korea", US forces might react instantaneously without consultation with the Japanese government.

(NW, 7/10; BBC, 19/10; AFP, 20/10; AP, 20/10; KT, 20/10; R, 20/10, 21/10, 31/10; IHT, 21/10; NYT, 21/10; StV, 21/10; YOS, 21/10; Daily Yomiuri, 22/10; CSM, 26/10)

- After the military coup in **Pakistan**, US nuclear security experts expressed concern about the safety and security of that country's nuclear weapons. Pakistan's stock of nuclear weapons is estimated at about a half-dozen, and it is said to have enough enriched uranium to construct up to 25 in all. In Washington, Pakistan's new ruler, General Pervez Musharraf, and his team are "[expected] to be careful stewards of their weaponry". Pakistan's new Foreign Minister, Abdus Sattar, has stated that Pakistan will never be the first to conduct any further nuclear tests; he has said that the country cannot afford an arms race and it is not necessary to have one. Minister Sattar has also said, however, that his country will keep a minimum nuclear deterrent and will upgrade its systems as India builds up its arsenal; he has stated that what Pakistan needed to maintain a "minimum" deterrence would be decided by the actions of India. He has further been quoted as saying that if India stages another nuclear test, Pakistan would have the right to do the same, whether it has signed the CTBT or not.

The US Congress has adopted legislation that will enable the President to waive the sanctions against Pakistan as well as India, imposed last year because of their development of nuclear weapons. The State Department has said, however, that there are currently no plans to sell

military equipment to Islamabad and it is pointed out in Washington that even if restrictions on such supplies are eased, sales of items that could be used to develop missiles or nuclear weapons would remain prohibited. Reportedly, while Washington has removed 51 Indian government agencies and firms from a list of 212 that are prevented from buying sensitive US items, no such waiver has been made with respect to the 92 Pakistani entities that are still under US sanctions. Similarly, Pakistan does not seem to be included in the itinerary for the trip President Clinton is planning to make to South Asia in 2000.

On 18 October, it was reported that Pakistan was withdrawing its troops from the Kashmir border in order to reduce tensions with India. According to British Foreign Office Minister Peter Hain, India and Pakistan had come "very close" to a nuclear exchange during the Kargil conflict.

India's External Affairs Minister has told his country's Parliament that Pakistan was getting help in its missile programme from China and the DPRK. China had, he said, provided M-11 missiles, technology and components, and the DPRK had supplied long-range missiles.

(AP, 3/10, 16/10; NYT, 13/10, 14/10, 17/10, 9/11, 16/12; UPI, 13/10; **The Hindu Online**, 30/11, 25/11; R, 25/11, 26/11, 17/12; NW, 2/12)

- **The Republic of Korea (RoK)**, which has long been known for an interest in obtaining the means of producing long-range ballistic missiles, is said to be developing solid-fuelled missiles with a range beyond the 185-mile (300-km) limit set by the Missile Technology Control Regime (MTCR). Reportedly, the RoK has expressed the wish to increase its missile range to 312 miles (500 km). The US State Department, however, while open to an extension beyond the 110-mile limit previously agreed to between the two countries, is said to resist an increase of the range of Seoul's missiles beyond the MTCR limit. Reportedly, Washington is concerned about recent evidence that the RoK is developing a missile with a range exceeding 185 miles (300 km) [see **Newsbrief** no. 46, page 23] and has constructed a secret missile-testing facility; there is fear in the US that this may be a sign of an emerging missile-race on the Korean Peninsula. Officials in Seoul have categorically denied the report and are said to be irked that it was aired just when the two states started discussing the extension of the permitted range. These discussions, held in Seoul in November, in which the US was said to have called for greater transparency of the RoK's missile development programme, are said to have ended without agreement although both sides reported they had narrowed the differences on some "key issues". The talks are expected to be resumed at a later date; time and venue are yet to be decided. In mid-December the head of the Strategic Technology Development Division at the RoK Science and Technology Ministry announced that South Korea planned to launch a space satellite into a low-altitude orbit by 2005, using a domestically produced rocket. Construction of a launch site would start in 2001; a test run would be made in 2004. The RoK government has also announced that it has begun to mass-produce short-range surface-to-air missiles, largely based on indigenous technology.

The DPRK's official newspaper, *Rodong Sinmun*, has accused the RoK of developing long-range missiles and has threatened to take "a stronger countermeasure" against it. Pyongyang has also accused the US of conniving at the RoK's "criminal" ballistic missile development.

(*NYT*, 14/11; *KT*, 15/11; *R*, 15/11, 18/11, 21/11; *AP*, 16/11, 18/11, 19/11, 14/11; *KH*, 16/11, 22/11; *AFP*, 18/11, 19/11, 23/11; *2 ChI*, 21/11; *Strait Times*, 17/12)

i. Nuclear Material Trafficking and Physical Security

- On the border between the **Russian Federation** and the **Democratic People's Republic of Korea (DPRK)**, two railway engines are reported to have been found to carry radioactive materials supposedly intended for the latter. The reports do not specify what material was involved. The Russian trains on which the material is supposed to have been found, operate on broad-gage tracks that lead well into the DPRK and a report from Seoul suggests that radioactive materials may have long been secretly smuggled into the North. (*KBS Radio* [Seoul], 23/10 in *BBC* 25/10; *SDZ*, 23/10)
- In a canal on the outskirts of the closed city of Ozyorsk, in **Russia**, police have found a ton of radioactive steel. There is speculation that the material was stolen to be sold as scrap but that the thieves disposed of it when they found it was radioactive. (*AP*, 18/12)
- News reports from **Sweden** claim that in 1998, an Iranian-born college student sent electronics equipment to **Iran**, which could be used to trigger nuclear devices. Dr. Hans Blix, former Director General of the IAEA, is quoted as saying that the alleged export indicates that Iran is developing nuclear weapons. The equipment in question is described as a "hydrogen thyratron tube", which reportedly can also be used in laser eye surgery. Reportedly, the equipment was bought from an American electronics firm which had advised the purchaser that reexporting it could be illegal, and had been assured that it was to be used in Sweden. (*AP*, 11/10)

j. Environmental Issues

- Joshua Handler, an American researcher looking into environmental hazards posed by nuclear facilities in **Russia**, has been interrogated by law enforcement officials, who also searched his apartment (reportedly spending seven hours doing so) and seized papers and a computer. Handler, said to be a one-time *Greenpeace* activist, was in Moscow to do research for his Princeton doctorate, and worked with the Institute for the Study of the United States and Canada of the Russian Academy of Sciences. The director of the Institute said that the action fitted the pattern of harassment against environmental researchers in Russia; a lawyer representing Grigori Pasko, the military journalist from Vladivostok who reported on the navy's practice of dumping nuclear waste and was acquitted of espionage after spending almost two years in gaol [see *Newsbrief* no. 47, page 25] said it appeared to be part of a large-scale plan to teach environmentalists not to interfere with Russia's nuclear business.

Around the same time, police detained a Russian researcher, Igor Sutyagin, who was working at the same Institute on issues of nuclear arms reduction. They interrogated him, searched his apartment and seized research materials. He has subsequently been charged with spying for the United States. Another Russian researcher, Pavel Podvig, who was working in the area of nuclear weapons and safety, had his apartment searched and his papers and computers impounded.

A new case was brought in the St. Petersburg City Court against former Soviet naval (nuclear engineer) captain Alexandr Nikitin, who had been tried in October 1998 for high treason after revealing information about nuclear hazards created by the Russian navy. That case had been dismissed for lack of evidence and had been sent back to the Russian security service for further investigation. This time, Nikitin was tried, among other things, for having given the Norwegian environmental organisation Bellona information about an accident to a nuclear submarine that took place in 1968. After a trial of one month, during which the defence consistently complained about the prosecution's unfair practices, and the latter demanded a 12 year sentence for Nikitin on charges of high treason and disclosure of state secrets, the Court acquitted him of all charges. As reported, the judge found that the accusations were unconstitutional because they were based on secret decrees from the Ministry of Defence which the accused could not have known; the case was also found to have run counter to the European Convention on Human Rights. The prosecution is not expected to appeal against the verdict.

(*AP*, 28/10; *Moscow Times*, 30/10; *WP*, 31/10, 18/11; *R*, 24/11; *Bellona*, 22/11-29; *Sierra Club*, press release 29/12; *NYT*, 30/12)

k. Miscellaneous

- Proposals made in the framework of a reorganization of the **European Commission**, to bring the institutions dealing with nuclear matters into a single agency under the administrative control of the directorate-general for environment, have not so far been realised. As reported, the European Supply Agency under director-general Michael Goppel will remain formally within the organisation of the directorate-general for energy and will report directly to the commissioner for energy. The safeguards agency, headed by Wilhelm Gmelin, will also remain within the energy directorate-general. Reportedly, the reorganization may not yet be complete and it is said not to be certain that these units may not eventually become part of the environment directorate. (*NF*, 1/11)
- **Israel** has announced that its Arrow-II missile has intercepted and destroyed a dummy incoming missile fired from a warship in the Mediterranean. As reported, Arrow-II is designed to hit missiles up to 30 miles (45 km) away, at altitudes of up to 25 miles (40 km). Two batteries of the missile are in the process of being deployed at a cost of \$170 million each. Two-thirds of the cost of the programme is reportedly funded from Israel's defence budget, with the US said to cover the remaining third. The US Congress recently appropriated \$42 million for the third battery, which would raise this year's American contribution to \$83 million. (*Israeli Air Force* report, 1/11; *NYT*, 2/11)

II. PPNN Activities

- PPNN's Core Group held its twenty-sixth semi-annual meeting at the Hotel Norge Høsbjør, Høsbjørvegen, Norway, from 9 December to 12 December. Members of the Core Group present were Jiri Beranek, Thérèse Delpech, Lewis Dunn, Akira Hayashi, Mahmoud Karem, Sverre Lodgaard, Enrique Román-Morey, Ben Sanders, John Simpson and Iftekhhar Zaman. Olu Adeniji, Raja Adnan, Grigori Berdennikov, Rolf Ekéus, Peter Goosen, Martine Letts and Harald Müller were unable to attend.

The Core Group devoted 10 December to discussing a wide range of contemporary non-proliferation issues, and the draft of a possible future Issue Review. From the evening of that day to lunchtime on 12 December Core Group members and invited senior government officials and researchers met as a workshop on **The Tough Challenges facing Nuclear Non-Proliferation**. This event was co-sponsored by the Norwegian Institute of International Affairs (NUPI). The workshop addressed issues that were likely to play a role in the 2000 NPT Review Conference specifically, and in the evolution of the regime generally. The event was chaired by Ben Sanders, Executive Chairman of PPNN, and attended by 25 diplomats, officials and researchers from 23 countries.

The workshop was opened by a keynote address from Sverre Lodgaard on "the tough challenges". Papers discussed during the workshop were *Nuclear Disarmament: Ways Forward and Potential Obstacles* by Christopher Westdal; *Global Nuclear Materials Management: FMCT, Weapons Material Management and the IAEA* by William Walker; *Can the Nuclear Non-Proliferation Regime be Insulated from the Impact of Developments in Missile Technologies* by Aaron Karp; *Engaging India and Pakistan in the Nuclear Non-Proliferation Regime* by Iftekhhar Zaman; *Ways to Involve Israel in the Nuclear Non-Proliferation Regime* by Emily Landau; *Security Assurances: Possible New Approaches* by Thomas Markram; *Strengthening the NPT and the Review Process* by Thomas Graham and *The NPT Review Conference in 2000: What can it Realistically Expect to Achieve* by Ben Sanders and John Simpson. In addition, Piet de Klerk made an after-dinner presentation on *Compliance with the NPT and IAEA Safeguards: Problems of Rule-Breaking and Enforcement*. In the early months of 2000, it is the intention to prepare a bound volume containing these papers.

- PPNN will hold its twenty-seventh Core Group meeting at the Chauncey Conference Centre, near Princeton, New Jersey, from 9 to 12 March 2000. This will be combined with a Briefing Seminar for government officials likely to participate in the 2000 NPT Review Conference, to be held in New York from 24 April to 19 May.
- From 16 to 18 June, PPNN plans to organise at Annecy, France, a workshop for key participants in the 2000 NPT Review Conference. This will be held in co-operation with the Monterey Institute of International Studies, and will focus on events at that Conference, and on the possible consequences of its outcome.
- Arrangements have been made to hold the twenty-eighth meeting of the PPNN Core Group from 5-8 October at

the Chilworth Conference Centre of the University of Southampton, UK.

- At its meeting in Norway in December, PPNN's Core Group welcomed Hu Xiaodi, Deputy Director-General in the Arms Control and Disarmament Department of the Ministry of Foreign Affairs in Beijing as a member, following the retirement of Fan Guoxiang.
- PPNN has received pledges of further grants to support its work during 2000 from the W. Alton Jones Foundation, the Japanese Atomic Energy Relations Organisation and the Prospect Hill Foundation.
- In October, two members of PPNN's staff got married. Emily Bailey is now Emily Taylor and Abigail Sanders is now Abigail Sanders-King.

III. Recent Publications

Books:

George Perkovich, *India's Nuclear Bomb: The Impact on Global Proliferation*, University of California Press, November, 673 pp.

William Walker, *Nuclear Entrapment — THORP and the politics of commitment*, Institute for Public Policy Research, London, 162 pp.

Articles and other materials:

Ehsan Ahrari, 'China Changes Its Strategic Mindset', *Jane's Intelligence Review*, Vol. 11, No. 12, 12 December 1999, pp. 30-35.

Ehsan Ahrari, 'Growing Strong: The Nuclear Genie in South Asia', *Security Dialogue*, Vol. 30, No. 4, December 1999, pp. 431-444.

Gilles Andeani, 'The Disarray of US Non-Proliferation Policy', *Survival*, Vol. 41, No. 4, Winter 1999-2000, pp. 20-42.

Deborah Yarsike Ball, 'How Safe Is Russia's Nuclear Arsenal?', *Jane's Intelligence Review*, Vol. 11, No. 12, 12 December 1999, pp. 10-11.

Michael Barletta and Amy Sands, eds., *Nonproliferation Regimes At Risk*, Monterey Nonproliferation Strategy Group, Occasional Paper No. 3, Center for Nonproliferation Studies, Monterey Institute of International Studies, November, 46 pp., with contributions by Timothy V. McCarthy, Evan S. Medeiros, Clay Moltz, William C. Potter, Tariq Rauf, Lawrence Scheinman, Brad Roberts, Amin Tarzi, and Jonathan B. Tucker.

Hugh Beach, 'Viewpoint on Nuclear Arms Control', *CDS Bulletin of Arms Control*, No. 35, September 1999.

Hans A. Bethe, 'The Treaty Betrayed', *New York Review of Books*, Vol. 46, No. 18, November 18, pp. 6.

George Bunn and John B. Rhinelander, 'Senate Rejection of CTBT Not The End', *Disarmament Diplomacy*, No. 41, November, pp. 3-4.

Daniel Byman, 'A Farewell to Arms Inspections', *Foreign Affairs*, Vol. 79, No. 1, January/February 2000, pp. 119-132.

Julio C. Carasales, 'The So-Called Proliferator that Wasn't: The Story of Argentina's Nuclear Policy', *Nonproliferation Review*, Vol. 6, No. 4, Fall, pp. 51-64.

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Arthur S. Ding, 'China's Concerns ABOUT Theater Missile Defense: A Critique', *Nonproliferation Review*, Vol. 6, No. 4, Fall, pp. 93-101.

June Teufel Dreyer, 'Tangled up with Taiwan', *Bulletin of the Atomic Scientists*, Vol. 55, No. 6, November/December, pp. 46-51.

Steve Fetter and Frank von Hippel, 'When the dust settles', *Bulletin of the Atomic Scientists*, Vol. 55, No. 6, November/December, pp. 42-45.

- Andrei Gordiyenko, 'Draft of the Military Doctrine: The Nuclear Factor' — Analysis, *Yaderny Kontrol (Nuclear Control) Digest*, Volume 5, No. 1, Winter 2000, pp. 43-46.
- Hugh Gusterson, 'Los Alamos: A summer under seige', *Bulletin of the Atomic Scientists*, Vol. 55, No. 6, November/December, pp. 36-41.
- Morton H Halperin, *The Nuclear Dimension of the US-Japan Alliance*, Berkeley, US, Special Report.
- Joseph P Harahan, 'Start Implementation: A Report', *Disarmament Forum*, No. 3, 1999, pp. 27-39.
- 'Illuminating Global Interests: The UN and Arms Control', An Interview With UN Undersecretary-General Jayantha Dhanapala, *Arms Control Today*, Vol. 29, No. 6, September/October, pp. 3-8.
- Ryukichi Imai, 'From Canberra Commission to Tokyo And Thereafter?', *Plutonium*, No. 26, Summer, pp. 2-9.
- Tsutomu Ishiguri, 'Dialogue on Disarmament and Security — 10 Years Later', *Plutonium*, No. 26, Summer, pp. 23-27.
- Japan's First Nuclear Criticality Accident at a Fuel Conversion Facility', *Plutonium*, No. 27, Autumn, pp. 3-13.
- Rebecca Johnson, 'Non-Proliferation in Crisis — Conflict and confusion before the 2000 Review Conference', *INESAP Information Bulletin*, No. 17, pp. 65-68.
- Rebecca Johnson, 'Preparing for the 2000 NPT Review Conference', *Disarmament Diplomacy*, No. 41, November, pp. 5-7.
- Rebecca Johnson, 'Vienna Article XIV Conference on Entry Into Force', *Disarmament Diplomacy*, No. 40, September/October, pp. 2-7.
- Scott Jones, 'Non-Proliferation Export Controls: Looking Towards the Next Century', *The Monitor*, Vol. 5, No. 3, Summer 1999, pp. 23-28.
- Wang Jun, 'CTBT Verification Regime: Preparations and Requirements', *Disarmament Forum*, No. 3, 1999, pp. 39-45.
- Daryl Kimball, 'What Went Wrong with US Senate Ratification', *Disarmament Diplomacy*, No. 40, September/October, pp. 8-15.
- Andrew Koch, 'Non-Proliferation — On the Way out?', *Jane's Defence Weekly*, Vol. 32, No. 16, 20 October 1999, pp. 23-25.
- Hans M. Kristensen and Wade L. Huntly, 'NATO Nuclear Policy: Back To The Future', *Monitor: Nonproliferation, Demilitarization, and Arms Control*, Vol. 5, No. 3, Center for International Trade and Security, University of Georgia, Summer, pp. 8-12.
- Patricia M. Lewis, 'International Implications of US Senate Vote', *Disarmament Diplomacy*, No. 40, September/October, pp. 15-18.
- Xia Liping, 'Nuclear-Weapon-Free Zones: Lessons for Nonproliferation in Northeast Asia', *Nonproliferation Review*, Vol. 6, No. 4, Fall, pp. 83-92.
- Karamchund (Krish) Mackerduh, 'Towards a world free from nuclear weapons: Why South Africa gave up the nuclear option', *DDA Occasional Papers*, No. 1, July, 16 pp.
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- Tom McDonald, 'India Launches test of Proliferation Policy', *BASIC Reports*, No. 71, 1 October 1999, pp. 3-4.
- David Malone, 'Goodbye UNSCOM: A Sorry Tale in US-UN Relations', *Security Dialogue*, Vol. 30, No. 4, December 1999, pp. 393-414.
- Curtis H. Martin, 'Lessons of the Agreed Framework for Using Engagement as a Nonproliferation Tool', *Nonproliferation Review*, Vol. 6, No. 4, Fall, pp. 35-50.
- Yevgeny Maslin, 'CTBT and Maintenance of Nuclear Warheads Safety', *Nuclear Control*, No. 12, Fall 1999, pp. 16-17.
- Oliver Meier, 'Verifying the CTBT', *Disarmament Diplomacy*, No. 40, September/October, pp. 19-21.
- Jack Mendelsohn, 'NATO's Nuclear Weapons: The Rationale for 'No First Use'', *Arms Control Today*, July/August, pp. 3-8.
- Victor Mikhailov, 'Russia's Nuclear Complex Marks 50 Years', *Monitor: Nonproliferation, Demilitarization, and Arms Control*, Vol. 5, No. 3, Center for International Trade and Security, University of Georgia, Summer, pp. 6-8.
- 'Missile development and its impact on global security', *DDA Occasional Papers*, No. 2, with articles by Edmundo S. Fujita, Istvan Gyarmati, Kapil Kak, Aaron Karp, Wang Qun and an introduction by Jayantha Dhanapala, September, 55 pp.
- Mark Moher, 'The Nuclear Disarmament Agenda and the Future of the NPT', *Nonproliferation Review*, Vol. 6, No. 4, Fall, pp. 65-69.
- Daniel Morrow and Michael Carriere, 'The Economic Impacts of the 1998 Sanctions on India and Pakistan', *Nonproliferation Review*, Vol. 6, No. 4, Fall, pp. 1-16.
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IV. Documentation

a. General Assembly Resolutions

54/63 — Comprehensive Nuclear-Test-Ban Treaty

The General Assembly,

Recalling that the Comprehensive Nuclear-Test-Ban Treaty was adopted by resolution 50/245 of 10 September 1996 and opened for signature on 24 September 1996,

Noting that the first meeting of the States Signatories adopted resolution CTBT/MSS/RES/1 of 19 November 1996, thereby establishing the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization,

Noting also that in decision 53/422 of 4 December 1998, it decided to include in the provisional agenda of its fifty-fourth session the item entitled "Comprehensive Nuclear-Test-Ban Treaty",

Encouraged by the signing of the Treaty by one hundred fifty-five States, including forty-one States of the forty-four needed for its entry into force, and welcoming also the ratification of fifty-one States, including twenty-six of the forty-four needed for its entry into force,

Welcoming the convening of the Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty at Vienna from 6 to 8 October 1999 to promote its entry into force at the earliest possible date,

1. *Endorses* the Final Declaration of the Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty and, in particular:

(a) Calls upon all States that have not yet signed the Treaty to sign and ratify it as soon as possible and to refrain from acts that would defeat its object and purpose in the meanwhile;

(b) Calls upon all States that have signed but not yet ratified the Treaty, in particular those whose ratification is needed for its entry into force, to accelerate their ratification processes with a view to their early successful conclusion;

2. *Urges* all States to sustain the momentum generated by the Conference by continuing to remain seized of the issue at the highest political level;

3. *Welcomes* the contributions by States signatories to the work of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization, in particular to its efforts to ensure that the Treaty's verification regime will be capable of meeting the verification requirements of the Treaty at entry into force, in accordance with article IV of the Treaty;

4. *Urges* States to maintain their moratoria on nuclear weapon test explosions or any other nuclear explosions;

5. *Decides* to include in the provisional agenda of its fifty-fifth session the item entitled "Comprehensive Nuclear-Test-Ban Treaty".

54/54 P — Nuclear disarmament

The General Assembly,

Recalling its resolution 49/75 E of 15 December 1994 on a step-by-step reduction of the nuclear threat, and its resolutions 50/70 P of 12 December 1995, 51/45 O of 10 December 1996, 52/38 L of 9 December 1997 and 53/77 X of 4 December 1998 on nuclear disarmament,

Reaffirming the commitment of the international community to the goal of the total elimination of nuclear weapons and the establishment of a nuclear-weapon-free world,

Bearing in mind that the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction of 1972 and the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction of 1993 have already established legal regimes on the complete prohibition of biological and chemical weapons, respectively, and determined to achieve a nuclear weapons convention on the prohibition of the development, testing, production, stockpiling, loan, transfer, use and threat of use of nuclear weapons and on their

destruction, and to conclude such an international convention at an early date,

Recognizing that there now exist conditions for the establishment of a world free of nuclear weapons,

Bearing in mind paragraph 50 of the Final Document of the Tenth Special Session of the General Assembly, the first special session devoted to disarmament, calling for the urgent negotiations of agreements for the cessation of the qualitative improvement and development of nuclear-weapon systems, and for a comprehensive and phased programme with agreed time-frames, wherever feasible, for the progressive and balanced reduction of nuclear weapons and their means of delivery, leading to their ultimate and complete elimination at the earliest possible time,

Noting the reiteration by the State parties to the Treaty on the Non-Proliferation of Nuclear Weapons of their conviction that the Treaty is a cornerstone of nuclear non-proliferation and nuclear disarmament and the reaffirmation by the State parties of the importance of the decision on strengthening the review process for the Treaty, the decision on principles and objectives for nuclear non-proliferation and disarmament, the decision on the extension of the Treaty on the Non-Proliferation of Nuclear Weapons and the resolution on the Middle East, adopted by the 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons,

Reiterating the highest priority accorded to nuclear disarmament in the Final Document of the Tenth Special Session of the General Assembly and by the international community,

Recognizing that the Comprehensive Nuclear-Test-Ban Treaty and any proposed treaty on fissile material for nuclear weapons or other nuclear explosive devices must constitute disarmament measures, and not only non-proliferation measures, and that these measures, together with an international legal instrument on the joint undertaking of no first use of nuclear weapons by the nuclear-weapon States and on adequate security assurances of non-use and non-threat of use of such weapons for non-nuclear-weapon States, respectively, and an international convention prohibiting the use of nuclear weapons, should be integral measures in a programme leading to the total elimination of nuclear weapons,

Welcoming the entry into force of the Treaty on the Reduction and Limitation of Strategic Offensive Arms (START I), to which Belarus, Kazakhstan, the Russian Federation, Ukraine and the United States of America are States parties,

Welcoming also the conclusion of the Treaty on Further Reduction and Limitation of Strategic Offensive Arms (START II) by the Russian Federation and the United States of America and the ratification of that Treaty by the United States of America, and looking forward to the full implementation of the START I and START II Treaties by the States parties, and to further concrete steps for nuclear disarmament by all the nuclear-weapon States,

Welcoming further the joint declaration of the Russian Federation and the United States of America to commence START III negotiations, regardless of the status of completion of the START II process,

Noting with appreciation the unilateral measures by the nuclear-weapon States for nuclear arms limitation, and encouraging them to undertake further such measures,

Recognizing the complementarity of bilateral, plurilateral and multilateral negotiations on nuclear disarmament, and that bilateral negotiations can never replace multilateral negotiation in this respect,

Noting the support expressed in the Conference on Disarmament and in the General Assembly for the elaboration of an international convention to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons, and the multilateral efforts in the Conference on Disarmament to reach agreement on such an international convention at an early date,

Recalling the advisory opinion of the International Court of Justice on the *Legality of the Threat or Use of Nuclear Weapons*, issued on 8 July 1996, and welcoming the unanimous

reaffirmation by all Judges of the Court that there exists an obligation for all States 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,

Mindful of paragraph 114 and other relevant recommendations in the Final Document of the Twelfth Conference of Heads of State or Government of the Non-Aligned Countries, held at Durban, South Africa, from 29 August to 3 September 1998, calling upon the Conference on Disarmament to establish, on a priority basis, an ad hoc committee to commence negotiations in 1998 on a phased programme of nuclear disarmament and for the eventual elimination of nuclear weapons with a specified framework of time,

Bearing in mind the proposal of twenty-eight delegations to the Conference on Disarmament that are members of the Group of 21 for a programme of action for the elimination of nuclear weapons, and expressing its conviction that this proposal will be an important input and will contribute to negotiations on this question in the Conference,

Commending the initiative by twenty-six delegations to the Conference on Disarmament that are members of the Group of 21 proposing a comprehensive mandate for an ad hoc committee on nuclear disarmament, which includes negotiations for, as a first step, a universal and legally binding multilateral agreement committing all States to the objective of the total elimination of nuclear weapons, an agreement on further steps required in a phased programme leading to the total elimination of these weapons and a convention on the prohibition of the production of fissile material for nuclear weapons and other nuclear explosive devices taking into account the report of the Special Coordinator on that item and the views relating to the scope of the treaty,

Recalling paragraphs 38 to 50 of the final communiqué of the meeting of Ministers for Foreign Affairs and Heads of Delegation of the Movement of Non-Aligned Countries, held in New York on 23 September 1999,

Taking note of the draft decision and mandate on the establishment of an ad hoc committee on nuclear disarmament proposed by the Group of 21,

1. *Recognizes* that, in view of recent political developments, the time is now opportune for all the nuclear-weapon States to undertake effective disarmament measures with a view to the total elimination of these weapons;

2. *Also recognizes* that there is a genuine need to de-emphasize the role of nuclear weapons and to review and revise nuclear doctrines accordingly;

3. *Urges* the nuclear-weapon States to stop immediately the qualitative improvement, development, production and stockpiling of nuclear warheads and their delivery systems;

4. *Also urges* the nuclear-weapon States, as an interim measure, to de-alert and deactivate immediately their nuclear weapons;

5. *Calls* for the conclusion, as a first step, of a universal and legally binding multilateral agreement committing States to the process of nuclear disarmament leading to the total elimination of nuclear weapons;

6. *Reiterates its calls upon* the nuclear-weapon States to undertake the step-by-step reduction of the nuclear threat and to carry out effective nuclear disarmament measures with a view to the total elimination of these weapons;

7. *Calls upon* the nuclear-weapon States, pending the achievement of the total elimination of nuclear weapons, to agree on an internationally and legally binding instrument on the joint undertaking not to be the first to use nuclear weapons, and calls upon all States to conclude an internationally and legally binding instrument on security assurances of non-use and non-threat of use of nuclear weapons against non-nuclear-weapon States;

8. *Urges* the nuclear-weapon States to commence plurilateral negotiations among themselves at an appropriate stage on further deep reductions of nuclear weapons as an effective measure of nuclear disarmament;

9. *Welcomes* the establishment in the Conference on Disarmament in 1998 of the Ad Hoc Committee on the prohibition of the production of fissile material for nuclear weapons and other nuclear explosive devices, urges a speedy conclusion of a universal and non-discriminatory convention thereon, welcomes the establishment in 1998 of the Ad Hoc Committee on effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons, and urges the pursuit of efforts in this regard as a matter of priority;

10. *Expresses its regret* that the Conference on Disarmament was unable to establish an ad hoc committee on nuclear disarmament at its 1999 session, as called for in General Assembly resolution 53/77 X;

11. *Reiterates its call upon* the Conference on Disarmament to establish, on a priority basis, an ad hoc committee on nuclear disarmament to commence negotiations early in 2000 on a phased programme of nuclear disarmament and for the eventual elimination of nuclear weapons, through a set of legal instruments, which may include a nuclear weapons convention;

12. *Calls* for the convening of an international conference on nuclear disarmament at an early date with the objective of arriving at an agreement or agreements on a phased programme of nuclear disarmament and for the eventual total elimination of nuclear weapons, through a set of legal instruments, which may include a nuclear weapons convention;

13. *Requests* the Secretary-General to submit to the General Assembly at its fifty-fifth session a report on the implementation of the present resolution;

14. *Decides* to include in the provisional agenda of its fifty-fifth session the item entitled "Nuclear disarmament".

54/54 Q — Follow-up to the advisory opinion of the International Court of Justice on the Legality of the Threat or Use of Nuclear Weapons

The General Assembly,

Recalling its resolutions 49/75 K of 15 December 1994, 51/45 M of 10 December 1996, 52/38 O of 9 December 1997 and 53/77 W of 4 December 1998,

Convinced that the continuing existence of nuclear weapons poses a threat to all humanity and that their use would have catastrophic consequences for all life on Earth, and recognizing that the only defence against a nuclear catastrophe is the total elimination of nuclear weapons and the certainty that they will never be produced again,

Reaffirming the commitment of the international community to the goal of the total elimination of nuclear weapons and the creation of a nuclear-weapon-free world,

Mindful of the solemn obligations of States parties, undertaken in article VI of the Treaty on the Non-Proliferation of Nuclear Weapons, particularly to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament,

Recalling the principles and objectives for nuclear non-proliferation and disarmament adopted at the 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, and in particular the objective of determined pursuit by the nuclear-weapon States of systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goal of eliminating those weapons,

Recalling also the adoption of the Comprehensive Nuclear-Test-Ban Treaty in its resolution 50/245 of 10 September 1996, and expressing its satisfaction at the increasing number of States that have signed and ratified the Treaty,

Recognizing with satisfaction that the Antarctic Treaty and the treaties of Tlatelolco, Rarotonga, Bangkok and Pelindaba are gradually freeing the entire southern hemisphere and adjacent areas covered by those treaties from nuclear weapons,

Noting the efforts by the States possessing the largest inventories of nuclear weapons to reduce their stockpiles of such weapons through bilateral agreements or arrangements and unilateral decisions, and calling for the intensification of

such efforts to accelerate the significant reduction of nuclear-weapon arsenals,

Recognizing the need for a multilaterally negotiated and legally binding instrument to assure non-nuclear-weapon States against the threat or use of nuclear weapons,

Reaffirming the central role of the Conference on Disarmament as the single multilateral disarmament negotiating forum, and regretting the lack of progress in disarmament negotiations, particularly nuclear disarmament, in the Conference on Disarmament during its 1999 session,

Emphasizing the need for the Conference on Disarmament to commence negotiations on a phased programme for the complete elimination of nuclear weapons with a specified framework of time,

Desiring to achieve the objective of a legally binding prohibition of the development, production, testing, deployment, stockpiling, threat or use of nuclear weapons and their destruction under effective international control,

Recalling the advisory opinion of the International Court of Justice on the *Legality of the Threat or Use of Nuclear Weapons*, issued on 8 July 1996,

Taking note of the relevant portions of the note by the Secretary-General relating to the implementation of resolution 53/77 W,

1. *Underlines once again* the unanimous conclusion of the International Court of Justice that there exists an 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;

2. *Calls once again upon* all States immediately to fulfil that obligation by commencing multilateral negotiations in 2000 leading to an early conclusion of a nuclear weapons convention prohibiting the development, production, testing, deployment, stockpiling, transfer, threat or use of nuclear weapons and providing for their elimination;

3. *Requests* all States to inform the Secretary-General of the efforts and measures they have taken on the implementation of the present resolution and nuclear disarmament, and requests the Secretary-General to apprise the General Assembly of that information at its fifty-fifth session;

4. *Decides* to include in the provisional agenda of its fifty-fifth session the item entitled "Follow-up to the advisory opinion of the International Court of Justice on the *Legality of the Threat or Use of Nuclear Weapons*".

54/54 D — Nuclear disarmament with a view to the ultimate elimination of nuclear weapons

The General Assembly,

Recalling its resolutions 49/75 H of 15 December 1994, 50/70 C of 12 December 1995, 51/45 G of 10 December 1996, 52/38 K of 9 December 1997 and 53/77 U of 4 December 1998,

Bearing in mind the recent nuclear tests, as well as the regional situations, which pose a challenge to international efforts to strengthen the global regime of non-proliferation of nuclear weapons,

Noting the progress made in commencing the discussions between the United States of America and the Russian Federation on START III,

Welcoming the efforts to increase transparency on nuclear disarmament activities as a contribution towards building international confidence and security,

Also welcoming the international efforts to promote the entry into force of the Comprehensive Nuclear-Test-Ban Treaty at the conference convened at Vienna from 6 to 8 October 1999 in accordance with article XIV of that Treaty,

Taking note of the report of the Tokyo Forum for Nuclear Non-Proliferation and Disarmament, bearing in mind the views of Member States on the report,

Recognizing that the enhancement of international peace and security and the promotion of nuclear disarmament mutually complement and strengthen each other,

Reaffirming the crucial importance of the Treaty on the Non-Proliferation of Nuclear Weapons as the cornerstone of the

international regime for nuclear non-proliferation and as an essential foundation for the pursuit of nuclear disarmament,

Also reaffirming the conviction that further advancement in nuclear disarmament will contribute to consolidating the international regime for nuclear non-proliferation, ensuring international peace and security,

1. *Reaffirms* the importance of achieving the universality of the Treaty on the Non-Proliferation of Nuclear Weapons, and calls upon States not parties to the Treaty to accede to it without delay and without conditions;

2. *Also reaffirms* the importance for all States parties to the Treaty on the Non-Proliferation of Nuclear Weapons to fulfil their obligations under the Treaty;

3. *Calls* for the determined pursuit by the nuclear-weapon States of systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goal of eliminating those weapons, and by all States of general and complete disarmament under strict and effective international control;

4. *Stresses* that, in order to make advancements towards the ultimate goal of eliminating nuclear weapons, it is important and necessary to pursue such actions as:

(a) The early signature and ratification of the Comprehensive Nuclear-Test-Ban Treaty by all States, especially by those States whose ratification is required for its entry into force, with a view to its early entry into force, as well as the cessation of nuclear tests pending its entry into force;

(b) Intensive negotiations in the Conference on Disarmament on the early conclusion of a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices, on the basis of the report of the Special Coordinator in 1995 and the mandate contained therein, and, pending its entry into force, a moratorium on the production of fissile material for nuclear weapons;

(c) Multilateral discussions on possible future steps on nuclear disarmament and nuclear non-proliferation;

(d) The early entry into force of the Treaty on Further Reduction and Limitation of Strategic Offensive Arms (START II) and the early commencement and conclusion of negotiations for START III by the Russian Federation and the United States of America, and the continuation of the process beyond START III;

(e) Further efforts by the five nuclear-weapon States to reduce their nuclear arsenals unilaterally and through their negotiations;

5. *Invites* the nuclear-weapon States to keep the States Members of the United Nations duly informed of the progress or efforts made towards nuclear disarmament;

6. *Welcomes* the ongoing efforts in the dismantlement of nuclear weapons, notes the importance of the safe and effective management of the resultant fissile material, and calls for continued efforts by States that possess fissile material no longer required for defence purposes to make such material available for safeguards by the International Atomic Energy Agency as soon as practicable;

7. *Calls upon* all States to redouble their efforts to prevent the proliferation of weapons of mass destruction, *inter alia*, nuclear weapons, confirming and strengthening if necessary their policies not to export equipment, materials or technology that could contribute to the proliferation of those weapons;

8. *Stresses* the importance of the Model Protocol Additional to the Agreement(s) between State(s) and the International Atomic Energy Agency for the Application of Safeguards for ensuring nuclear non-proliferation, and encourages all States that have not done so to conclude an additional protocol with the International Atomic Energy Agency as soon as possible;

9. *Underlines* the vital importance of the 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons for the preservation and strengthening of the regime anchored therein, and calls upon all States parties to that Treaty to reaffirm the decisions and the resolution adopted by the 1995 Review and Extension Conference of the Parties to the Treaty and to intensify their efforts with a view to reaching an agreement on updated objectives for nuclear

non-proliferation and disarmament, based on a review of the achievements since 1995;

10. *Encourages* the constructive role played by civil society in promoting nuclear non-proliferation and nuclear disarmament.

54/54 F — Missiles

The General Assembly,

Reaffirming the role of the United Nations in the field of arms regulation and disarmament and the commitment of Member States to take concrete steps to strengthen that role,

Realizing the need to promote regional and international peace and security in a world free from the scourge of war and the burden of armaments,

Convinced of the need for a comprehensive approach towards missiles, in a balanced and non-discriminatory manner, as a contribution to international peace and security,

Bearing in mind that the security concerns of the Member States at the international and regional levels should be taken into consideration in addressing the issue of missiles,

Underlining the complexities involved in considering the issue of missiles in the conventional context,

Expressing its support for the international efforts against the development and proliferation of all weapons of mass destruction,

1. *Requests* the Secretary-General to seek the views of all Member States on the issue of missiles in all its aspects, and to submit a report to the General Assembly at its fifty-fifth session;

2. *Decides* to include in the provisional agenda of its fifty-fifth session an item entitled "Missiles".

54/54 G — Towards a nuclear-weapon-free world: the need for a new agenda

The General Assembly,

Convinced that the existence of nuclear weapons is a threat to the survival of humanity,

Concerned at the prospect of the indefinite possession of nuclear weapons, believing that the contention that nuclear weapons can be retained in perpetuity and never used is not supported by the history of human experience, and convinced that the only complete defence is the elimination of nuclear weapons and the assurance that they will never be produced again,

Concerned also at the continued retention of the nuclear-weapons option by those three States that are nuclear-weapons-capable and that have not acceded to the Treaty on the Non-Proliferation of Nuclear Weapons, and concerned at their failure to renounce that option,

Concerned further that negotiations on nuclear arms reductions are currently stalled,

Bearing in mind that the overwhelming majority of States have entered into legally binding commitments not to receive, manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, and recalling that these undertakings were made in the context of the corresponding legally binding commitments by the nuclear-weapon States to the pursuit of nuclear disarmament,

Recalling the unanimous conclusion of the International Court of Justice in its 1996 advisory opinion that there exists an 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,

Stressing that the international community must not enter the new millennium with the prospect that the possession of nuclear weapons will be considered legitimate for the indefinite future, and convinced of the imperative to proceed with determination to prohibit and eradicate them for all time,

Recognizing that the total elimination of nuclear weapons will require measures to be taken firstly by those nuclear-weapon States that have the largest arsenals, and stressing that these States must be joined in a seamless process by those nuclear-weapon States with lesser arsenals in the near future,

Welcoming the achievements to date and the future promise of the Strategic Arms Reduction Talks process and the possibility it offers for development as a plurilateral mechanism including all the nuclear-weapon States, for the practical dismantling and destruction of nuclear armaments undertaken in pursuit of the elimination of nuclear weapons,

Welcoming also the Trilateral Initiative between the United States of America, the Russian Federation and the International Atomic Energy Agency to ensure the irreversible removal of fissile materials from weapons programmes,

Believing that there are a number of practical steps that the nuclear-weapon States can and should take immediately before the actual elimination of nuclear arsenals and the development of requisite verification regimes take place, and in this connection noting certain recent unilateral and other steps,

Underlining that the Treaty on the Limitation of Anti-Ballistic Missile Systems remains a cornerstone of strategic stability,

Stressing that each article of the Treaty on the Non-Proliferation of Nuclear Weapons is binding on the respective States parties at all times and in all circumstances,

Stressing the importance of pursuing negotiations in the Conference on Disarmament in the Ad Hoc Committee established under item 1 of its agenda entitled "Cessation of the nuclear arms race and nuclear disarmament", on the basis of the report of the Special Coordinator and the mandate contained therein, 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, and considering that such a treaty must further underpin the process towards the total elimination of nuclear weapons,

Emphasizing that, for the total elimination of nuclear weapons to be achieved, effective international cooperation to prevent the proliferation of nuclear weapons is vital and must be enhanced through, *inter alia*, the extension of international controls over all fissile material for nuclear weapons or other nuclear explosive devices,

Emphasizing the importance of existing nuclear-weapon-free-zone treaties and of the early signature and ratification of the relevant protocols to these treaties,

Noting the Joint Ministerial Declaration of 9 June 1998 and its call for a new international agenda to achieve a nuclear-weapon-free world, through the pursuit, in parallel, of a series of mutually reinforcing measures at the bilateral, plurilateral and multilateral levels,

Acknowledging the report of the Secretary-General on the implementation of General Assembly resolution 53/77 Y of 4 December 1998,

Taking note of the observations of the Director-General of the International Atomic Energy Agency contained in the report of the Secretary-General,

1. *Calls upon* the nuclear-weapon States to make an unequivocal undertaking to accomplish the speedy and total elimination of their nuclear arsenals and to engage without delay in an accelerated process of negotiations, thus achieving nuclear disarmament, to which they are committed under article VI of the Treaty on the Non-Proliferation of Nuclear Weapons;

2. *Calls upon* the United States of America and the Russian Federation to bring the Treaty on Further Reduction and Limitation of Strategic Offensive Arms (START II) into force without further delay and to commence negotiations on START III with a view to its early conclusion;

3. *Calls upon* the nuclear-weapon States to undertake the necessary steps towards the seamless integration of all five nuclear-weapon States into the process leading to the total elimination of nuclear weapons;

4. *Calls* for the examination of ways and means to diminish the role of nuclear weapons in security policies so as to enhance strategic stability, facilitate the process of the elimination of these weapons and contribute to international confidence and security;

5. *Calls upon* the nuclear-weapon States, in this context, to take early steps:

- (a) To reduce tactical nuclear weapons with a view to their elimination as an integral part of nuclear arms reductions;
- (b) To examine the possibilities for and to proceed to the de-alerting and removal of nuclear warheads from delivery vehicles;
- (c) To further examine nuclear weapons policies and postures;
- (d) To demonstrate transparency with regard to their nuclear arsenals and fissile material inventories;
- (e) To place all fissile material for nuclear weapons declared to be in excess of military requirements under International Atomic Energy Agency safeguards in the framework of the voluntary safeguards agreements in place;

6. *Calls upon* those three States that are nuclear weapons capable and that have not yet acceded to the Treaty on the Non-Proliferation of Nuclear Weapons to reverse clearly and urgently the pursuit of all nuclear weapons development or deployment and to refrain from any action that could undermine regional and international peace and security and the efforts of the international community towards nuclear disarmament and the prevention of the proliferation of nuclear weapons;

7. *Calls upon* those States that have not yet done so to adhere unconditionally and without delay to the Treaty on the Non-Proliferation of Nuclear Weapons and to take all the necessary measures which flow from adherence to that instrument as non-nuclear-weapon States;

8. *Calls upon* those States that have not yet done so to conclude full-scope safeguards agreements with the International Atomic Energy Agency and to conclude additional protocols to their safeguards agreements on the basis of the Model Protocol approved by the Board of Governors of the Agency on 15 May 1997;

9. *Calls upon* those States that have not yet done so to sign and ratify, unconditionally and without delay, the Comprehensive Nuclear-Test-Ban Treaty and, pending the entry into force of the Treaty, to observe a moratorium on nuclear tests;

10. *Calls upon* those States that have not yet done so to adhere to the Convention on the Physical Protection of Nuclear Material and to work towards its further strengthening;

11. *Urges* the development of the Trilateral Initiative between the United States of America, the Russian Federation and the International Atomic Energy Agency, and urges that similar arrangements be developed by the other nuclear-weapon States;

12. *Calls upon* the Conference on Disarmament to re-establish the Ad Hoc Committee under item 1 of its agenda entitled "Cessation of the nuclear arms race and nuclear disarmament", on the basis of the report of the Special Coordinator and the mandate contained therein, of a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices, taking into consideration both nuclear non-proliferation and nuclear disarmament objectives, and to pursue and conclude these negotiations without delay, and, pending the entry into force of the treaty, urges all States to observe a moratorium on the production of fissile materials for nuclear weapons or other nuclear explosive devices;

13. *Also calls upon* the Conference on Disarmament to establish an appropriate subsidiary body to deal with nuclear disarmament and, to that end, to pursue as a matter of priority its intensive consultations on appropriate methods and approaches with a view to reaching such a decision without delay;

14. *Considers* that an international conference on nuclear disarmament and nuclear non-proliferation, which would effectively complement efforts being undertaken in other settings, could facilitate the consolidation of a new agenda for a nuclear-weapon-free world;

15. *Notes*, in this context, that the Millennium Summit of the United Nations in 2000 will consider peace, security and disarmament;

16. *Stresses* the importance of the full implementation of the decisions and the resolution adopted at the 1995 Review and Extension Conference of the Parties to the Treaty on the

Non-Proliferation of Nuclear Weapons, and, in this connection, underlines the significance of the forthcoming Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, to be held in April/May 2000;

17. *Affirms* that the development of verification arrangements will be necessary for the maintenance of a world free from nuclear weapons, and requests the International Atomic Energy Agency, together with any other relevant international organizations and bodies, to continue to explore the elements of such a system;

18. *Calls* for the conclusion of an internationally legally binding instrument to effectively assure non-nuclear-weapon States parties to the Treaty on the Non-Proliferation of Nuclear Weapons against the use or threat of use of nuclear weapons;

19. *Stresses* that the pursuit, extension and establishment of nuclear-weapon-free zones, on the basis of arrangements freely arrived at, especially in regions of tension, such as the Middle East and South Asia, represent a significant contribution to the goal of a nuclear-weapon-free world;

20. *Affirms* that a nuclear-weapon-free world will ultimately require the underpinnings of a universal and multilaterally negotiated legally binding instrument or a framework encompassing a mutually reinforcing set of instruments;

21. *Requests* the Secretary-General, within existing resources, to compile a report on the implementation of the present resolution;

22. *Decides* to include in the provisional agenda of its fifty-fifth session the item entitled "Towards a nuclear-weapon-free world: the need for a new agenda", and to review the implementation of the present resolution.

54/55 D — Convention on the Prohibition of the Use of Nuclear Weapons

The General Assembly,

Convinced that the use of nuclear weapons poses the most serious threat to the survival of mankind,

Bearing in mind the advisory opinion of the International Court of Justice of 8 July 1996 on the *Legality of the Threat or Use of Nuclear Weapons*,

Convinced that a multilateral, universal and binding agreement prohibiting the use or threat of use of nuclear weapons would contribute to the elimination of the nuclear threat and to the climate for negotiations leading to the ultimate elimination of nuclear weapons, thereby strengthening international peace and security,

Conscious that some steps taken by the Russian Federation and the United States of America towards a reduction of their nuclear weapons and the improvement in the international climate can contribute towards the goal of the complete elimination of nuclear weapons,

Recalling that, in paragraph 58 of the Final Document of the Tenth Special Session of the General Assembly, it is stated that all States should actively participate in efforts to bring about conditions in international relations among States in which a code of peaceful conduct of nations in international affairs could be agreed upon and that would preclude the use or threat of use of nuclear weapons,

Reaffirming that any use of nuclear weapons would be a violation of the Charter of the United Nations and a crime against humanity, as declared in its resolutions 1653 (XVI) of 24 November 1961, 33/71 B of 14 December 1978, 34/83 G of 11 December 1979, 35/152 D of 12 December 1980 and 36/92 I of 9 December 1981,

Determined to achieve an international convention prohibiting the development, production, stockpiling and use of nuclear weapons, leading to their ultimate destruction,

Stressing that an international convention on the prohibition of the use of nuclear weapons would be an important step in a phased programme towards the complete elimination of nuclear weapons, with a specified framework of time,

Noting with regret that the Conference on Disarmament, during its 1999 session, was unable to undertake negotiations

on this subject as called for in General Assembly resolution 53/78 D of 4 December 1998,

1. *Reiterates its request* to the Conference on Disarmament to commence negotiations, in order to reach agreement on an international convention prohibiting the use or threat of use of nuclear weapons under any circumstances;

2. *Requests* the Conference on Disarmament to report to the General Assembly on the results of those negotiations.

54/54 A — Preservation of and compliance with the Treaty on the Limitation of Anti-Ballistic Missile Systems

The General Assembly,

Recalling its resolutions 50/60 of 12 December 1995 and 52/30 of 9 December 1997 on compliance with arms limitation and disarmament and non-proliferation agreements,

Recognizing the historical role of the Treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems of 26 May 1972 as a cornerstone for maintaining global peace and security and strategic stability, and reaffirming its continued validity and relevance, especially in the current international situation,

Stressing the paramount importance of full and strict compliance with the Treaty on the Limitation of Anti-Ballistic Missile Systems by the parties,

Recalling that the provisions of the Treaty on the Limitation of Anti-Ballistic Missile Systems are intended as a contribution to the creation of more favourable conditions for further negotiations on limiting strategic arms,

Mindful of the obligations of the parties to the Treaty on the Limitation of Anti-Ballistic Missile Systems under article VI of the Treaty on the Non-Proliferation of Nuclear Weapons,

Concerned that the implementation of any measures undermining the purposes and provisions of the Treaty on the Limitation of Anti-Ballistic Missile Systems affects not only the security interests of the parties, but also those of the whole international community,

Recalling the widespread concern about the proliferation of weapons of mass destruction and their means of delivery,

1. *Calls* for continued efforts to strengthen the Treaty on the Limitation of Anti-Ballistic Missile Systems and to preserve its integrity and validity so that it remains a cornerstone in maintaining global strategic stability and world peace and in promoting further strategic nuclear arms reductions;

2. *Calls also* for renewed efforts by each of the States parties to preserve and strengthen the Treaty on the Limitation of Anti-Ballistic Missile Systems through full and strict compliance;

3. *Calls upon* the parties to the Treaty on the Limitation of Anti-Ballistic Missile Systems, in accordance with their obligations under the Treaty, to limit the deployment of anti-ballistic missile systems and refrain from the deployment of anti-ballistic missile systems for the defence of the territory of their country and not to provide a base for such a defence, and not to transfer to other States or deploy outside their national territory anti-ballistic missile systems or their components limited by the Treaty;

4. *Considers* that the implementation of any measure undermining the purposes and the provisions of the Treaty also undermines global strategic stability and world peace and the promotion of further strategic nuclear arms reductions;

5. *Urges* all Member States to support efforts aimed at stemming the proliferation of weapons of mass destruction and their means of delivery;

6. *Supports* further efforts by the international community, in the light of emerging developments, towards safeguarding the inviolability and integrity of the Treaty on the Limitation of Anti-Ballistic Missile Systems, which is in the strongest interest of the international community;

7. *Decides* to include in the provisional agenda of its fifty-fifth session an item entitled "Preservation of and

compliance with the Treaty on the Limitation of Anti-Ballistic Missile Systems".

54/48 — African Nuclear-Weapon-Free Zone Treaty (Treaty of Pelindaba)

The General Assembly,

Recalling its resolution 52/46 of 9 December 1997 and all its other relevant resolutions, as well as those of the Organization of African Unity,

Recalling also the successful conclusion of the signing ceremony of the African Nuclear-Weapon-Free Zone Treaty (Treaty of Pelindaba) that was held in Cairo on 11 April 1996,

Recalling further the Cairo Declaration adopted on that occasion, which emphasized that nuclear-weapon-free zones, especially in regions of tension, such as the Middle East, enhance global and regional peace and security,

Noting the statement made by the President of the Security Council on behalf of the members of the Council on 12 April 1996, in which it was stated that the signature of the African Nuclear-Weapon-Free Zone Treaty constituted an important contribution by the African countries to the maintenance of international peace and security,

Considering that the establishment of nuclear-weapon-free zones, especially in the Middle East, would enhance the security of Africa and the viability of the African nuclear-weapon-free zone,

1. *Calls upon* African States that have not yet done so to sign and ratify the Treaty as soon as possible so that it may enter into force without delay;

2. *Expresses appreciation* to the nuclear-weapon States That have signed the Protocols that concern them, and calls upon those that have not yet ratified the Protocols concerning them to do so as soon as possible;

3. *Calls upon* the States contemplated in Protocol III to the Treaty that have not yet done so to take all necessary measures to ensure the speedy application of the Treaty to territories for which they are, *de jure* or *de facto*, internationally responsible and which lie within the limits of the geographical zone established in the Treaty;

4. *Calls upon* the African States parties to the Treaty on the Non-Proliferation of Nuclear Weapons that have not yet done so to conclude comprehensive safeguards agreements with the International Atomic Energy Agency pursuant to the Treaty, thereby satisfying the requirements of article 9 (b) of and annex II to the Treaty of Pelindaba when it enters into force, and to conclude additional protocols to their safeguards agreements on the basis of the Model Protocol approved by the Board of Governors on 15 May 1997;

5. *Expresses its gratitude* to the Secretary-General of the United Nations, the Secretary-General of the Organization of African Unity and the Director General of the International Atomic Energy Agency for the diligence with which they have rendered effective assistance to the signatories to the Treaty;

6. *Decides* to include in the provisional agenda of its fifty-sixth session the item entitled "African Nuclear-Weapon-Free Zone Treaty".

54/51 — Establishment of a nuclear-weapon-free zone in the region of the Middle East

The General Assembly,

Recalling its resolutions 3263 (XXIX) of 9 December 1974, 3474 (XXX) of 11 December 1975, 31/71 of 10 December 1976, 32/82 of 12 December 1977, 33/64 of 14 December 1978, 34/77 of 11 December 1979, 35/147 of 12 December 1980, 36/87 A and B of 9 December 1981, 37/75 of 9 December 1982, 38/64 of 15 December 1983, 39/54 of 12 December 1984, 40/82 of 12 December 1985, 41/48 of 3 December 1986, 42/28 of 30 November 1987, 43/65 of 7 December 1988, 44/108 of 15 December 1989, 45/52 of 4 December 1990, 46/30 of 6 December 1991, 47/48 of 9 December 1992, 48/71 of 16 December 1993, 49/71 of 15 December 1994, 50/66 of 12 December 1995, 51/41 of 10 December 1996, 52/34 of 9 December 1997 and 53/74 of 4 December 1998 on the

establishment of a nuclear-weapon-free zone in the region of the Middle East,

Recalling also the recommendations for the establishment of such a zone in the Middle East consistent with paragraphs 60 to 63, and in particular paragraph 63 (d), of the Final Document of the Tenth Special Session of the General Assembly,

Emphasizing the basic provisions of the above-mentioned resolutions, which call upon all parties directly concerned to consider taking the practical and urgent steps required for the implementation of the proposal to establish a nuclear-weapon-free zone in the region of the Middle East and, pending and during the establishment of such a zone, to declare solemnly that they will refrain, on a reciprocal basis, from producing, acquiring or in any other way possessing nuclear weapons and nuclear explosive devices and from permitting the stationing of nuclear weapons on their territory by any third party, to agree to place their nuclear facilities under International Atomic Energy Agency safeguards and to declare their support for the establishment of the zone and to deposit such declarations with the Security Council for consideration, as appropriate,

Reaffirming the inalienable right of all States to acquire and develop nuclear energy for peaceful purposes,

Emphasizing the need for appropriate measures on the question of the prohibition of military attacks on nuclear facilities,

Bearing in mind the consensus reached by the General Assembly since its thirty-fifth session that the establishment of a nuclear-weapon-free zone in the Middle East would greatly enhance international peace and security,

Desirous of building on that consensus so that substantial progress can be made towards establishing a nuclear-weapon-free zone in the Middle East,

Welcoming all initiatives leading to general and complete disarmament, including in the region of the Middle East, and in particular on the establishment therein of a zone free of weapons of mass destruction, including nuclear weapons,

Noting the peace negotiations in the Middle East, which should be of a comprehensive nature and represent an appropriate framework for the peaceful settlement of contentious issues in the region,

Recognizing the importance of credible regional security, including the establishment of a mutually verifiable nuclear-weapon-free zone,

Emphasizing the essential role of the United Nations in the establishment of a mutually verifiable nuclear-weapon-free zone,

Having examined the report of the Secretary-General on the implementation of General Assembly resolution 53/74,²

1. *Urges* all parties directly concerned to consider seriously taking the practical and urgent steps required for the implementation of the proposal to establish a nuclear-weapon-free zone in the region of the Middle East in accordance with the relevant resolutions of the General Assembly, and, as a means of promoting this objective, invites the countries concerned to adhere to the Treaty on the Non-Proliferation of Nuclear Weapons;

2. *Calls upon* all countries of the region that have not done so, pending the establishment of the zone, to agree to place all their nuclear activities under International Atomic Energy Agency safeguards;

3. *Takes note* of resolution GC(43)RES/23, adopted on 1 October 1999 by the General Conference of the International Atomic Energy Agency at its forty-third regular session, concerning the application of Agency safeguards in the Middle East;

4. *Notes* the importance of the ongoing bilateral Middle East peace negotiations and the activities of the multilateral Working Group on Arms Control and Regional Security in promoting mutual confidence and security in the Middle East, including the establishment of a nuclear-weapon-free zone;

5. *Invites* all countries of the region, pending the establishment of a nuclear-weapon-free zone in the region of the Middle East, to declare their support for establishing such a

zone, consistent with paragraph 63 (d) of the Final Document of the Tenth Special Session of the General Assembly, and to deposit those declarations with the Security Council;

6. *Also invites* those countries, pending the establishment of the zone, not to develop, produce, test or otherwise acquire nuclear weapons or permit the stationing on their territories, or territories under their control, of nuclear weapons or nuclear explosive devices;

7. *Invites* the nuclear-weapon States and all other States to render their assistance in the establishment of the zone and at the same time to refrain from any action that runs counter to both the letter and the spirit of the present resolution;

8. *Takes note* of the report of the Secretary-General;

9. *Invites* all parties to consider the appropriate means that may contribute towards the goal of general and complete disarmament and the establishment of a zone free of weapons of mass destruction in the region of the Middle East;

10. *Requests* the Secretary-General to continue to pursue consultations with the States of the region and other concerned States, in accordance with paragraph 7 of resolution 46/30 and taking into account the evolving situation in the region, and to seek from those States their views on the measures outlined in chapters III and IV of the study annexed to his report or other relevant measures, in order to move towards the establishment of a nuclear-weapon-free zone in the Middle East;

11. *Also requests* the Secretary-General to submit to the General Assembly at its fifty-fifth session a report on the implementation of the present resolution;

12. *Decides* to include in the provisional agenda of its fifty-fifth session the item entitled "Establishment of a nuclear-weapon-free zone in the region of the Middle East".

54/57 — The risk of nuclear proliferation in the Middle East

The General Assembly,

Bearing in mind its relevant resolutions,

Taking note of the relevant resolutions adopted by the General Conference of the International Atomic Energy Agency, the latest of which is resolution GC(43)RES/23 adopted on 1 October 1999,

Cognizant that the proliferation of nuclear weapons in the region of the Middle East would pose a serious threat to international peace and security,

Mindful of the immediate need to place all nuclear facilities in the region of the Middle East under full-scope safeguards of the International Atomic Energy Agency,

Recalling the resolution on the Middle East adopted by the 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons on 11 May 1995, in which the Conference noted with concern the continued existence in the Middle East of unsafeguarded nuclear facilities, reaffirmed the importance of the early realization of universal adherence to the Treaty and called upon all States in the Middle East that had not yet done so, without exception, to accede to the Treaty as soon as possible and to place all their nuclear facilities under full-scope International Atomic Energy Agency safeguards,

Recalling the decision on principles and objectives for nuclear non-proliferation and disarmament adopted by the 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons on 11 May 1995, in which the Conference urged universal adherence to the Treaty as an urgent priority and called upon all States not yet parties to the Treaty to accede to it at the earliest date, particularly those States that operate unsafeguarded nuclear facilities,

Noting that, since the adoption of General Assembly resolution 51/48 of 10 December 1996, Israel remains the only State in the Middle East that has not yet become party to the Treaty on the Non-Proliferation of Nuclear Weapons,

Concerned about the threats posed by the proliferation of nuclear weapons to the security and stability of the Middle East region,

Stressing the importance of taking confidence-building measures, in particular the establishment of a nuclear-weapon-free zone in the Middle East, in order to enhance peace and security in the region and to consolidate the global non-proliferation regime,

Noting the adoption of the Comprehensive Nuclear-Test-Ban Treaty and its signature by 155 States, including a number of States in the region,

1. *Calls upon* the only State in the region that is not party to the Treaty on the Non-Proliferation of Nuclear Weapons to accede to the Treaty without further delay and not to develop, produce, test or otherwise acquire nuclear weapons, and to renounce possession of nuclear weapons, and to place all its unsafeguarded nuclear facilities under full-scope International Atomic Energy Agency safeguards as an important confidence-building measure among all States of the region and as a step towards enhancing peace and security;

2. *Requests* the Secretary-General to report to the General Assembly at its fifty-fifth session on the implementation of the present resolution;

3. *Decides* to include in the provisional agenda of its fifty-fifth session the item entitled "The risk of nuclear proliferation in the Middle East".

54/60 — Consolidation of the regime established by the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco)

The General Assembly,

Recalling that in its resolution 1911 (XVIII) of 27 November 1963 it expressed the hope that the States of Latin America would take appropriate measures to conclude a treaty that would prohibit nuclear weapons in Latin America,

Recalling also that in the same resolution it voiced its confidence that, once such a treaty was concluded, all States, and in particular the nuclear-weapon States, would lend it their full cooperation for the effective realization of its peaceful aims,

Considering that in its resolution 2028 (XX) of 19 November 1965 it established the principle of an acceptable balance of mutual responsibilities and obligations between nuclear-weapon States and those which do not possess such weapons,

Recalling that the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco) was opened for signature at Mexico City on 14 February 1967,

Noting with satisfaction the holding on 14 February 1997 of the eleventh special session of the General Conference of the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean in commemoration of the thirtieth anniversary of the opening for signature of the Treaty of Tlatelolco,

Recalling that in its preamble the Treaty of Tlatelolco states that military denuclearized zones are not an end in themselves but rather a means for achieving general and complete disarmament at a later stage,

Recalling also that in its resolution 2286 (XXII) of 5 December 1967 it welcomed with special satisfaction the Treaty of Tlatelolco as an event of historic significance in the efforts to prevent the proliferation of nuclear weapons and to promote international peace and security,

Recalling further that in 1990, 1991 and 1992 the General Conference of the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean approved and opened for signature a set of amendments² to the Treaty of Tlatelolco, with the aim of enabling the full entry into force of that instrument,

Recalling resolution C/E/RES.27 of the Council of the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean in which the Council called for the promotion of cooperation and consultations with other nuclear-weapon-free zones,

Noting with satisfaction that the Treaty of Tlatelolco is now in force for thirty-two sovereign States of the region,

Also noting with satisfaction that on 18 January 1999 Colombia and on 20 January 1999 Costa Rica deposited their instruments of ratification of the amendments to the Treaty of Tlatelolco approved by the General Conference of the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean in its resolutions 267 (E-V) of 3 July 1990, 268 (XII) of 10 May 1991 and 290 (E-VII) of 26 August 1992,

Further noting with satisfaction that the amended Treaty of Tlatelolco is fully in force for Argentina, Barbados, Brazil, Chile, Colombia, Costa Rica, Guyana, Jamaica, Mexico, Paraguay, Peru, Suriname, Uruguay and Venezuela,

1. *Welcomes* the concrete steps taken by some countries of the region during the past year for the consolidation of the regime of military denuclearization established by the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco);

2. *Urges* the countries of the region that have not yet done so to deposit their instruments of ratification of the amendments to the Treaty of Tlatelolco approved by the General Conference of the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean in its resolutions 267 (E-V), 268 (XII) and 290 (E-VII);

3. *Decides* to include in the provisional agenda of its fifty-fifth session the item entitled "Consolidation of the regime established by the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco)".

54/54 L — Nuclear-weapon-free southern hemisphere and adjacent areas

The General Assembly,

Recalling its resolutions 51/45 B of 10 December 1996, 52/38 N of 9 December 1997 and 53/77 Q of 4 December 1998,

Welcoming the adoption by the Disarmament Commission at its 1999 substantive session of a text entitled "Establishment of nuclear-weapon-free zones on the basis of arrangements freely arrived at among the States of the region concerned",

Determined to continue to contribute to the prevention of the proliferation of nuclear weapons in all its aspects and to the process of general and complete disarmament under strict and effective international control, in particular in the field of nuclear weapons and other weapons of mass destruction, with a view to strengthening international peace and security, in accordance with the purposes and principles of the Charter of the United Nations,

Recalling the provisions on nuclear-weapon-free zones of the Final Document of the Tenth Special Session of the General Assembly, the first special session devoted to disarmament, as well as of the decision on principles and objectives for nuclear non-proliferation and disarmament of the 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons,

Stressing the importance of the treaties of Tlatelolco, Rarotonga, Bangkok and Pelindaba, establishing nuclear-weapon-free zones, as well as the Antarctic Treaty, to, *inter alia*, the ultimate objective of achieving a world entirely free of nuclear weapons, and underlining also the value of enhancing cooperation among the nuclear-weapon-free zone treaty members by means of mechanisms such as joint meetings of States parties, signatories and observers to those treaties,

Recalling the applicable principles and rules of international law relating to the freedom of the high seas and the rights of passage through maritime space, including those of the United Nations Convention on the Law of the Sea,

1. *Welcomes* the continued contribution that the Antarctic Treaty and the treaties of Tlatelolco, Rarotonga, Bangkok and Pelindaba are making towards freeing the southern hemisphere and adjacent areas covered by those treaties from nuclear weapons;

2. *Calls* for the ratification of the treaties of Tlatelolco, Rarotonga, Bangkok and Pelindaba by all States of the region, and calls upon all concerned States to continue to work together in order to facilitate adherence to the protocols to

nuclear-weapon-free zone treaties by all relevant States that have not yet done so;

3. *Welcomes* the steps taken to conclude further nuclear-weapon-free zone treaties on the basis of arrangements freely arrived at among the States of the region concerned, and calls upon all States to consider all relevant proposals, including those reflected in General Assembly resolutions on the establishment of nuclear-weapon-free zones in the Middle East and South Asia;

4. *Reiterates* the important role of nuclear-weapon-free zones in strengthening the nuclear non-proliferation regime and in extending the areas of the world that are nuclear-weapon-free, and, with particular reference to the responsibilities of the nuclear-weapon States, calls upon all States to support the process of nuclear disarmament, with the ultimate goal of eliminating all nuclear weapons;

5. *Calls upon* the States parties and signatories to the treaties of Tlatelolco, Rarotonga, Bangkok and Pelindaba, in order to pursue the common goals envisaged in those treaties and to promote the nuclear-weapon-free status of the southern hemisphere and adjacent areas, to explore and implement further ways and means of cooperation among themselves and their treaty agencies;

6. *Encourages* the competent authorities of nuclear-weapon-free zone treaties to provide assistance to the States parties and signatories to such treaties so as to facilitate the accomplishment of these goals;

7. *Decides* to include in the provisional agenda of its fifty-fifth session the item entitled "Nuclear-weapon-free southern hemisphere and adjacent areas".

54/52 — Conclusion of effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons

The General Assembly,

Bearing in mind the need to allay the legitimate concern of the States of the world with regard to ensuring lasting security for their peoples,

Convinced that nuclear weapons pose the greatest threat to mankind and to the survival of civilization,

Welcoming the progress achieved in recent years in both nuclear and conventional disarmament,

Noting that, despite recent progress in the field of nuclear disarmament, further efforts are necessary towards the achievement of general and complete disarmament under effective international control,

Convinced that nuclear disarmament and the complete elimination of nuclear weapons are essential to remove the danger of nuclear war,

Determined strictly to abide by the relevant provisions of the Charter of the United Nations on the non-use of force or threat of force,

Recognizing that the independence, territorial integrity and sovereignty of non-nuclear-weapon States need to be safeguarded against the use or threat of use of force, including the use or threat of use of nuclear weapons,

Considering that, until nuclear disarmament is achieved on a universal basis, it is imperative for the international community to develop effective measures and arrangements to ensure the security of non-nuclear-weapon States against the use or threat of use of nuclear weapons from any quarter,

Recognizing that effective measures and arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons can contribute positively to the prevention of the spread of nuclear weapons,

Bearing in mind paragraph 59 of the Final Document of the Tenth Special Session of the General Assembly, the first special session devoted to disarmament, in which it urged the nuclear-weapon States to pursue efforts to conclude, as appropriate, effective arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons, and desirous of promoting the

implementation of the relevant provisions of the Final Document,

Recalling the relevant parts of the special report of the Committee on Disarmament submitted to the General Assembly at its twelfth special session, the second special session devoted to disarmament, and of the special report of the Conference on Disarmament submitted to the Assembly at its fifteenth special session, the third special session devoted to disarmament, as well as the report of the Conference on its 1992 session,

Recalling also paragraph 12 of the Declaration of the 1980s as the Second Disarmament Decade, contained in the annex to its resolution 35/46 of 3 December 1980, which states, *inter alia*, that all efforts should be exerted by the Committee on Disarmament urgently to negotiate with a view to reaching agreement on effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons,

Noting the in-depth negotiations undertaken in the Conference on Disarmament and its Ad Hoc Committee on Effective International Arrangements to Assure Non-Nuclear-Weapon States against the Use or Threat of Use of Nuclear Weapons, with a view to reaching agreement on this question,

Taking note of the proposals submitted under the item in the Conference on Disarmament, including the drafts of an international convention,

Taking note also of the relevant decision of the Twelfth Conference of Heads of State or Government of Non-Aligned Countries, held at Durban, South Africa, from 29 August to 3 September 1998, as well as the relevant recommendations of the Organization of the Islamic Conference,

Taking note further of the unilateral declarations made by all the nuclear-weapon States on their policies of non-use or non-threat of use of nuclear weapons against the non-nuclear-weapon States,

Noting the support expressed in the Conference on Disarmament and in the General Assembly for the elaboration of an international convention to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons, as well as the difficulties pointed out in evolving a common approach acceptable to all,

Taking note of Security Council resolution 984 (1995) of 11 April 1995 and the views expressed on it,

Recalling its relevant resolutions adopted in previous years, in particular resolutions 45/54 of 4 December 1990, 46/32 of 6 December 1991, 47/50 of 9 December 1992, 48/73 of 16 December 1993, 49/73 of 15 December 1994, 50/68 of 12 December 1995, 51/43 of 10 December 1996, 52/36 of 9 December 1997 and 53/75 of 4 December 1998,

1. *Reaffirms* the urgent need to reach an early agreement on effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons;

2. *Notes with satisfaction* that in the Conference on Disarmament there is no objection, in principle, to the idea of an international convention to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons, although the difficulties with regard to evolving a common approach acceptable to all have also been pointed out;

3. *Appeals* to all States, especially the nuclear-weapon States, to work actively towards an early agreement on a common approach and, in particular, on a common formula that could be included in an international instrument of a legally binding character;

4. *Recommends* that further intensive efforts be devoted to the search for such a common approach or common formula and that the various alternative approaches, including, in particular, those considered in the Conference on Disarmament, be further explored in order to overcome the difficulties;

5. *Recommends also* that the Conference on Disarmament actively continue intensive negotiations with a view to reaching early agreement and concluding effective international arrangements to assure the non-nuclear-weapon States against

the use or threat of use of nuclear weapons, taking into account the widespread support for the conclusion of an international convention and giving consideration to any other proposals designed to secure the same objective;

6. *Decides* to include in the provisional agenda of its fifty-fifth session the item entitled "Conclusion of effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons".

54/56 B — Report of the Conference on Disarmament

The General Assembly,

Having considered the report of the Conference on Disarmament,

Convinced that the Conference on Disarmament, as the single multilateral disarmament negotiating forum of the international community, has the primary role in substantive negotiations on priority questions of disarmament,

Recognizing, in this respect, the need for additional impetus to multilateral negotiations with the aim of reaching concrete agreements,

Noting that the Conference on Disarmament has a number of urgent and important issues to negotiate,

1. *Reaffirms* the role of the Conference on Disarmament as the single multilateral disarmament negotiating forum of the international community;

2. *Urges* the Conference on Disarmament to fulfil that role in the light of the evolving international situation, with a view to making early substantive progress on priority items of its agenda;

3. *Welcomes* the decision of the Conference on Disarmament on 5 August 1999 to admit five new members, and notes that the Conference recognizes the importance of continuing consultations on the question of the expansion of its membership;

4. *Also welcomes* the strong collective interest of the Conference on Disarmament in commencing substantive work as soon as possible during its 2000 session;

5. *Further welcomes* the undertaking by the current President of the Conference on Disarmament to conduct consultations jointly with the incoming President during the inter-sessional period to try to achieve this goal, as expressed in his statement contained in paragraph 38 of the report of the Conference;

6. *Encourages* the Conference on Disarmament to continue the ongoing review of its agenda and methods of work;

7. *Requests* the Secretary-General to continue to ensure the provision to the Conference on Disarmament of adequate administrative, substantive and conference support services;

8. *Requests* the Conference on Disarmament to submit a report on its work to the General Assembly at its fifty-fifth session;

9. *Decides* to include in the provisional agenda of its fifty-fifth session the item entitled "Report of the Conference on Disarmament".

54/54 U — Convening of the fourth special session of the General Assembly devoted to disarmament

The General Assembly,

Recalling its resolutions 49/75 I of 15 December 1994, 50/70 F of 12 December 1995, 51/45 C of 10 December 1996, 52/38 F of 9 December 1997 and 53/77 AA of 4 December 1998,

Recalling also that, there being a consensus to do so in each case, three special sessions of the General Assembly devoted to disarmament were held in 1978, 1982 and 1988, respectively,

Bearing in mind the Final Document of the Tenth Special Session of the General Assembly, adopted by consensus at the first special session devoted to disarmament, which included the Declaration, Programme of Action and Machinery for disarmament,

Bearing in mind also the objective of general and complete disarmament under effective international control,

Taking note of paragraph 145 of the Final Document of the Twelfth Conference of Heads of State or Government of

Non-Aligned Countries, held at Durban, South Africa, from 29 August to 3 September 1998, which supported the convening of the fourth special session of the General Assembly devoted to disarmament, which would offer an opportunity to review, from a perspective more in tune with the current international situation, the most critical aspects of the process of disarmament and to mobilize the international community and public opinion in favour of the elimination of nuclear and other weapons of mass destruction and of the control and reduction of conventional weapons,

Taking note also of the report of the 1999 substantive session of the Disarmament Commission and of the fact that no consensus was reached on the item entitled "Fourth special session of the General Assembly devoted to disarmament",

Desiring to build upon the substantive exchange of views on the fourth special session of the General Assembly devoted to disarmament during the 1999 substantive session of the Disarmament Commission,

Reiterating its conviction that a special session of the General Assembly devoted to disarmament can set the future course of action in the field of disarmament, arms control and related international security matters,

Emphasizing the importance of multilateralism in the process of disarmament, arms control and related international security matters,

Noting that, with the recent accomplishments made by the international community in the field of weapons of mass destruction as well as conventional arms, the following years would be opportune for the international community to start the process of reviewing the state of affairs in the entire field of disarmament and arms control in the post-cold-war era,

1. *Decides*, subject to the emergence of a consensus on its objectives and agenda, to convene the fourth special session of the General Assembly devoted to disarmament;

2. *Requests* the Secretary-General to seek the views of Member States of the United Nations on the objectives, agenda and timing of the special session and to report to the General Assembly at its fifty-fifth session;

3. *Decides* to include in the provisional agenda of its fifty-fifth session the item entitled "Convening of the fourth special session of the General Assembly devoted to disarmament".

b. Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty (Vienna, 1999)

FINAL DECLARATION

1. Recalling the responsibilities which we assumed by signing the Comprehensive Nuclear-Test-Ban Treaty and pursuant to Article XIV of that Treaty, we the ratifiers, together with the Signatory States, met in Vienna from 6-8 October 1999 to promote its entry into force at the earliest possible date. We welcomed the presence of representatives of non-Signatory States, international organizations and non-governmental organizations.

2. Determined to enhance international peace and security throughout the world, we reaffirmed the importance of a universal and internationally and effectively verifiable comprehensive nuclear-test-ban treaty. We reiterated that the cessation of all nuclear weapon test explosions and all other nuclear explosions, by constraining the development and qualitative improvement of nuclear weapons and ending the development of advanced new types of nuclear weapons, constitutes an effective measure of nuclear disarmament and non-proliferation in all its aspects and thus a meaningful step in the realization of a systematic process to achieve nuclear disarmament. We therefore renewed our strong determination to work for universal ratification of the Treaty, and its early entry into force as provided for in Article XIV.

3. In accordance with the provisions of Article XIV of the Treaty, we examined the extent to which the requirement set out in paragraph I had been met and decided by consensus what

measures consistent with international law may be undertaken to accelerate the ratification process in order to facilitate the early entry into force of the Treaty.

4. Since the Treaty was adopted at the United Nations General Assembly and opened for signature three years ago, 154 States have signed and 51 States have deposited their instruments of ratification. Of the 44 States listed in Annex 2 to the Treaty whose ratification is required for the entry into force of the Treaty, 41 have signed, and 26 have both signed and ratified the Treaty. A list of those States is provided in the Appendix. The ratification process has accelerated. We welcomed this as evidence of the determination of States not to carry out any nuclear weapon test explosion or any other nuclear explosion, and to prohibit and prevent any such nuclear explosion at any place under their jurisdiction or control.

5. Since the opening for signature of the CTBT, nuclear explosions have been carried out. The countries concerned subsequently declared that they would not conduct further nuclear explosions and indicated their willingness not to delay the entry into force of the Treaty.

6. We noted with satisfaction the report of the Executive Secretary of the Preparatory Commission of the Comprehensive Nuclear-Test Ban Treaty Organization (CTBTO) to the Conference on progress made by the Preparatory Commission and its Provisional Technical Secretariat since November 1996 in fulfilment of the requirement to take all necessary measures to ensure the effective establishment of the future CTBTO.

7. Conscious of the objectives we all share and of the importance of universal adherence to the Treaty, welcoming the ratifications of all the States that have done so, and stressing particularly the steps required to achieve its early entry into force, as provided for in Article XIV of the Treaty, we:

- (a) Call upon all States that have not yet signed the Treaty to sign and ratify it as soon as possible and refrain from acts which would defeat its object and purpose in the meanwhile;
- (b) Call upon all States that have signed but not yet ratified the Treaty, in particular those whose ratification is needed for its entry into force, to accelerate their ratification processes with a view to their early successful conclusion;
- (c) Recall the fact that two States whose ratification is needed for the Treaty's entry into force but which have not yet signed it have expressed their willingness not to delay the entry into force of the Treaty, and call upon them to fulfil these pledges;
- (d) Note the fact that one State whose ratification is needed for the Treaty's entry into force but which has not yet signed it has not expressed its intention towards the Treaty, and call upon this State to sign and ratify it so as to facilitate the entry into force of the Treaty;
- (e) Note the ratification by two nuclear weapon States, and call upon the remaining three to accelerate their ratification processes with a view to their early successful conclusion;
- (f) In pursuit of the early entry into force of the Treaty, undertake ourselves to use all avenues open to us in conformity with international law, to encourage further signature and ratification of the Treaty; and urge all States to sustain the momentum generated by this Conference by continuing to remain seized of the issue at the highest political level;
- (g) Agree that ratifying States will select one of their number to promote cooperation to facilitate the early entry into force of the Treaty, through informal consultations with all interested countries;
- (h) Urge all States to share legal and technical information and advice in order to facilitate the processes of signature, ratification and implementation by the States concerned, and upon their request. We encourage the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization and the Secretary-General of the United Nations to support actively these efforts consistent with their respective mandates;
- (i) Call upon the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization to continue its international cooperation activities demonstrating the benefits of the application of verification technologies for peaceful purposes in accordance with the provisions of the Treaty, thus

encouraging signature and ratification of the Treaty by the States concerned;

(j) Appeal to all relevant sectors of civil society to raise awareness of and support for the objectives of the Treaty, as well as its early entry into force as provided for in Article XIV of the Treaty.

8. We reaffirm our commitment to the Treaty's basic obligations and our undertaking to refrain from acts which would defeat the object and purpose of the Treaty pending its entry into force.

9. We remain steadfast in our commitment to pursue the efforts to ensure that the Treaty's verification regime shall be capable of meeting the verification requirements of the Treaty at entry into force, in accordance with the provisions of Article IV of the Treaty; We will continue to provide the support required to enable the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization to complete its tasks.

10. The Conference addressed the issue of possible future conferences and took note of the provisions contained in paragraph 3 of Article XIV of the Treaty.

c. Security Council resolution 1284 (1999) on the situation between Iraq and Kuwait [extract]

[Adopted by the Security Council at its 4084th meeting, on 17 December 1999]

The Security Council,

Recalling its previous relevant resolutions, [...],

Recalling the approval by the Council in its resolution 715 (1991) of the plans for future ongoing monitoring and verification submitted by the Secretary-General and the Director General of the International Atomic Energy Agency (IAEA) in pursuance of paragraphs 10 and 13 of resolution 687 (1991),

Welcoming the reports of the three panels on Iraq (S/1999/356), and *having held* a comprehensive consideration of them and the recommendations contained in them,

Stressing the importance of a comprehensive approach to the full implementation of all relevant Security Council resolutions regarding Iraq and the need for Iraqi compliance with these resolutions,

Recalling the goal of establishing in the Middle East a zone free from weapons of mass destruction and all missiles for their delivery and the objective of a global ban on chemical weapons as referred to in paragraph 14 of resolution 687 (1991),

Concerned at the humanitarian situation in Iraq, and *determined* to improve that situation, [...]

Acknowledging the progress made by Iraq towards compliance with the provisions of resolution 687 (1991), but *noting* that, as a result of its failure to implement the relevant Council resolutions fully, the conditions do not exist which would enable the Council to take a decision pursuant to resolution 687 (1991) to lift the prohibitions referred to in that resolution, [...]

A.

1. *Decides* to establish, as a subsidiary body of the Council, the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC) which replaces the Special Commission established pursuant to paragraph 9 (b) of resolution 687 (1991);

2. *Decides also* that UNMOVIC will undertake the responsibilities mandated to the Special Commission by the Council with regard to the verification of compliance by Iraq with its obligations under paragraphs 8, 9 and 10 of resolution 687 (1991) and other related resolutions, that UNMOVIC will establish and operate, as was recommended by the panel on disarmament and current and future ongoing monitoring and verification issues, a reinforced system of ongoing monitoring and verification, which will implement the plan approved by

the Council in resolution 715 (1991) and address unresolved disarmament issues, and that UNMOVIC will identify, as necessary in accordance with its mandate, additional sites in Iraq to be covered by the reinforced system of ongoing monitoring and verification;

3. *Reaffirms* the provisions of the relevant resolutions with regard to the role of the IAEA in addressing compliance by Iraq with paragraphs 12 and 13 of resolution 687 (1991) and other related resolutions, and *requests* the Director General of the IAEA to maintain this role with the assistance and cooperation of UNMOVIC;

4. *Reaffirms* its resolutions [...] and statements of its President, which establish the criteria for Iraqi compliance, *affirms* that the obligations of Iraq referred to in those resolutions and statements with regard to cooperation with the Special Commission, unrestricted access and provision of information will apply in respect of UNMOVIC, and *decides* in particular that Iraq shall allow UNMOVIC teams immediate, unconditional and unrestricted access to any and all areas, facilities, equipment, records and means of transport which they wish to inspect in accordance with the mandate of UNMOVIC, as well as to all officials and other persons under the authority of the Iraqi Government whom UNMOVIC wishes to interview so that UNMOVIC may fully discharge its mandate;

5. *Requests* the Secretary-General, within 30 days of the adoption of this resolution, to appoint, after consultation with and subject to the approval of the Council, an Executive Chairman of UNMOVIC who will take up his mandated tasks as soon as possible, and, in consultation with the Executive Chairman and the Council members, to appoint suitably qualified experts as a College of Commissioners for UNMOVIC which will meet regularly to review the implementation of this and other relevant resolutions and provide professional advice and guidance to the Executive Chairman, including on significant policy decisions and on written reports to be submitted to the Council through the Secretary-General;

6. *Requests* the Executive Chairman of UNMOVIC, within 45 days of his appointment, to submit to the Council, in consultation with and through the Secretary-General, for its approval an organizational plan for UNMOVIC, including its structure, staffing requirements, management guidelines, recruitment and training procedures, incorporating as appropriate the recommendations of the panel on disarmament and current and future ongoing monitoring and verification issues, and recognizing in particular the need for an effective, cooperative management structure for the new organization, for staffing with suitably qualified and experienced personnel, who would be regarded as international civil servants subject to Article 100 of the Charter of the United Nations, drawn from the broadest possible geographical base, including as he deems necessary from international arms control organizations, and for the provision of high quality technical and cultural training;

7. *Decides* that UNMOVIC and the IAEA, not later than 60 days after they have both started work in Iraq, will each draw up, for approval by the Council, a work programme for the discharge of their mandates, which will include both the implementation of the reinforced system of ongoing monitoring and verification, and the key remaining disarmament tasks to be completed by Iraq pursuant to its obligations to comply with the disarmament requirements of resolution 687 (1991) and other related resolutions, which constitute the governing standard of Iraqi compliance, and *further decides* that what is required of Iraq for the implementation of each task shall be clearly defined and precise;

8. *Requests* the Executive Chairman of UNMOVIC and the Director General of the IAEA, drawing on the expertise of other international organizations as appropriate, to establish a unit which will have the responsibilities of the joint unit constituted by the Special Commission and the Director General of the IAEA under paragraph 16 of the export/import mechanism approved by resolution 1051 (1996), and *also requests* the Executive Chairman of UNMOVIC, in consultation with the Director General of the IAEA, to resume the revision and

updating of the lists of items and technology to which the mechanism applies;

9. *Decides* that the Government of Iraq shall be liable for the full costs of UNMOVIC and the IAEA in relation to their work under this and other related resolutions on Iraq;

10. *Requests* Member States to give full cooperation to UNMOVIC and the IAEA in the discharge of their mandates;

11. *Decides* that UNMOVIC shall take over all assets, liabilities and archives of the Special Commission, and that it shall assume the Special Commission's part in agreements existing between the Special Commission and Iraq and between the United Nations and Iraq, and *affirms* that the Executive Chairman, the Commissioners and the personnel serving with UNMOVIC shall have the rights, privileges, facilities and immunities of the Special Commission;

12. *Requests* the Executive Chairman of UNMOVIC to report, through the Secretary-General, to the Council, following consultation with the Commissioners, every three months on the work of UNMOVIC, pending submission of the first reports referred to in paragraph 33 below, and to report immediately when the reinforced system of ongoing monitoring and verification is fully operational in Iraq;

B.

[...]

15. *Authorizes* States, ... to permit the import of any volume of petroleum and petroleum products originating in Iraq ...

[...]

26. *Decides* that Hajj pilgrimage flights which do not transport cargo into or out of Iraq are exempt from the provisions of paragraph 3 of resolution 661 (1990) and resolution 670 (1990), provided timely notification of each flight is made to the Committee established by resolution 661 (1990), and *requests* the Secretary-General to make the necessary arrangements, for approval by the Security Council, to provide for reasonable expenses related to the Hajj pilgrimage to be met by funds in the escrow account established by resolution 986 (1995);

27. *Calls upon* the Government of Iraq:

(i) to take all steps to ensure the timely and equitable distribution of all humanitarian goods, in particular medical supplies, and to remove and avoid delays at its warehouses;

(ii) to address effectively the needs of vulnerable groups, including children, pregnant women, the disabled, the elderly and the mentally ill among others, and to allow freer access, without any discrimination, including on the basis of religion or nationality, by United Nations agencies and humanitarian organizations to all areas and sections of the population for evaluation of their nutritional and humanitarian condition;

(iii) to prioritize applications for humanitarian goods under the arrangements set out in resolution 986 (1995) and related resolutions;

(iv) to ensure that those involuntarily displaced receive humanitarian assistance without the need to demonstrate that they have resided for six months in their places of temporary residence;

(v) to extend full cooperation to the United Nations Office for Project Services mine-clearance programme in the three northern Governorates of Iraq and to consider the initiation of the demining efforts in other Governorates;

[...]

30. *Requests* the Secretary-General to establish a group of experts, including oil industry experts, to report within 100 days of the date of adoption of this resolution on Iraq's existing petroleum production and export capacity and to make recommendations, to be updated as necessary, on alternatives for increasing Iraq's petroleum production [...]

[...]

D.

33. *Expresses its intention*, upon receipt of reports from the Executive Chairman of UNMOVIC and from the Director General of the IAEA that Iraq has cooperated in all respects with UNMOVIC and the IAEA in particular in fulfilling the work

programmes in all the aspects referred to in paragraph 7 above, for a period of 120 days after the date on which the Council is in receipt of reports from both UNMOVIC and the IAEA that the reinforced system of ongoing monitoring and verification is fully operational, to suspend with the fundamental objective of improving the humanitarian situation in Iraq and securing the implementation of the Council's resolutions, for a period of 120 days renewable by the Council, and subject to the elaboration of effective financial and other operational measures to ensure that Iraq does not acquire prohibited items, prohibitions against the import of commodities and products originating in Iraq, and prohibitions against the sale, supply and delivery to Iraq of civilian commodities and products other than those referred to in paragraph 24 of resolution 687 (1991) or those to which the mechanism established by resolution 1051 (1996) applies;

34. *Decides* that in reporting to the Council for the purposes of paragraph 33 above, the Executive Chairman of UNMOVIC will include as a basis for his assessment the progress made in completing the tasks referred to in paragraph 7 above;

35. *Decides* that if at any time the Executive Chairman of UNMOVIC or the Director General of the IAEA reports that Iraq is not cooperating in all respects with UNMOVIC or the IAEA or if Iraq is in the process of acquiring any prohibited items, the suspension of the prohibitions referred to in paragraph 33 above shall terminate on the fifth working day following the report, unless the Council decides to the contrary;

36. *Expresses its intention* to approve arrangements for effective financial and other operational measures, including on the delivery of and payment for authorized civilian commodities and products to be sold or supplied to Iraq, in order to ensure that Iraq does not acquire prohibited items in the event of suspension of the prohibitions referred to in paragraph 33 above, to begin the elaboration of such measures not later than the date of the receipt of the initial reports referred to in paragraph 33 above, and to approve such arrangements before the Council decision in accordance with that paragraph;

37. *Further expresses its intention* to take steps, [...] to enable Iraq to increase its petroleum production and export capacity, upon receipt of the reports relating to the cooperation in all respects with UNMOVIC and the IAEA referred to in paragraph 33 above;

39. *Decides* to remain actively seized of the matter and *expresses its intention* to consider action in accordance with paragraph 33 above no later than 12 months from the date of the adoption of this resolution provided the conditions set out in paragraph 33 above have been satisfied by Iraq.

d. The Lima Appeal

[Text reproduced from OPANAL document CG/Res.387]

The Member States of the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (OPANAL), on occasion of the XVI Ordinary Session of the General Conference held in Lima, Peru from November 30th to December 1st 1999.

Aware:

that Latin America and the Caribbean is the first densely inhabited region of the world that has consolidated its political will to prohibit nuclear weapons, through the full compliance of the Treaty of Tlatelolco that Nuclear Weapon Free Zones represent an important means to reach, in a next stage, general and complete disarmament under reliable international control.

Convinced:

that the current context offer us the appropriate opportunity to prohibit and eradicate forever the nuclear weapons, the international community must begin the third millennium with the commitment to move towards such objective, following a legitimate aspiration of humankind, that no effort towards a compete an immediate prohibition of the use or manufacture of nuclear weapons or towards preventing its proliferation, will have the result sought by the international community if it is not manifested the general will from the countries who have nuclear weapons and those who do not have them;

Make an appeal to International Community:

with the purpose of creating an international public awareness in order to advance in every field of action towards a complete prohibition of the use and manufacture of nuclear weapons and other mass destruction weapons; and particularly to the nuclear powers for the adoption of political decisions that constitute their firm commitment for the total destruction and prohibition of such weapons, in accordance with the text and the spirit of Resolution 808 (IX) unanimously approved by the General Assembly of the United Nations, and following the concern expressed by International Community reflected in Resolution 53/77 "Y" "Towards a Nuclear Weapons Free World: the Need for a New Agenda" dated December 4, 1998.

V. Comments from Readers/Corrections

The editor has been advised that the reference in *Newsbrief* 47, page 15, fourth full paragraph, to the three plutonium-production reactors in Siberia as being RBMK-type reactors is incorrect. The plants in question are the natural-uranium reactors ADE-2 at Zheleznogorsk (formerly Krasnoyarsk-26) and ADE-4 and -5, at Seversk (formerly Tomsk-7).

ANNEX — Abbreviations of Sources

ACT:	<i>Arms Control Today</i>	LP:	<i>La Prensa</i>
AFP:	<i>Agence France Presse</i>	LT:	<i>Times [London]</i>
AP:	<i>Associated Press</i>	M:	<i>Mena: Middle East Nuclear News Agency [Cairo]</i>
ASS:	<i>Asahi Shimbun</i>	MAS:	<i>Mainichi Shimbun</i>
BBC:	<i>BBC Monitoring Summary of World Broadcasts</i>	N:	<i>Nature</i>
CN:	<i>La Correspondence Nucléaire</i>	NEI:	<i>Nuclear Engineering International</i>
CNN:	<i>Cable News Network</i>	NF:	<i>NuclearFuel</i>
Carnegie:	<i>Proliferation Brief of the Carnegie Endowment for International Peace</i>	NG:	<i>Nezavisimaya gazeta</i>
CdS:	<i>Corriere della Sera [Italy]</i>	NN:	<i>Nuclear News</i>
ChI:	<i>Chosun Ilbo</i>	NNN:	<i>NucNet News</i>
CSM:	<i>Christian Science Monitor</i>	NPR:	<i>National Public Radio News</i>
DJ:	<i>Dow Jones Newswires</i>	NW:	<i>Nucleonics Week</i>
DP:	<i>Die Presse</i>	NS:	<i>New Scientist</i>
DS:	<i>Der Spiegel</i>	NYT:	<i>New York Times</i>
DT:	<i>Daily Telegraph</i>	NZZ:	<i>Neue Zürcher Zeitung</i>
DW:	<i>Die Welt</i>	O:	<i>Observer</i>
E:	<i>Economist</i>	PBS:	<i>Public Broadcasting System News Hour (TV)</i>
EP:	<i>El Pais</i>	RFLARL:	<i>Radio Free Europe/Radio Liberty</i>
FAZ:	<i>Frankfurter Allgemeine Zeitung</i>	R:	<i>Reuters</i>
fF:	<i>freshFUEL</i>	SCMP:	<i>South China Morning Post [Hongkong]</i>
FR:	<i>Foreign Report [UK]</i>	SDZ:	<i>Süddeutsche Zeitung</i>
FT:	<i>Financial Times</i>	SG-Sp:	<i>Secretary-General's Spokesman Daily Press Briefing</i>
G:	<i>Guardian</i>	SF:	<i>SpentFUEL</i>
I:	<i>Independent</i>	SN:	<i>Salzburger Nachrichten</i>
If:	<i>Interfax News Agency [Moscow]</i>	StL:	<i>Standard [London]</i>
IHT:	<i>International Herald Tribune</i>	StV:	<i>Standard [Vienna]</i>
IT:	<i>Itar-TASS</i>	ST:	<i>Sunday Times [London]</i>
Izv:	<i>Izvestia</i>	UINB:	<i>Uranium Institute News Briefing</i>
JAI:	<i>JoongAng Ilbo</i>	UPI:	<i>United Press International</i>
JDW:	<i>Jane's Defence Weekly</i>	USIA:	<i>United States Information Agency Transcript</i>
JFR:	<i>Jane's Foreign Report</i>	Ux:	<i>Ux Weekly</i>
JoC:	<i>Journal of Commerce</i>	VoA:	<i>Voice of America</i>
JP:	<i>Jerusalem Post</i>	WP:	<i>Washington Post</i>
KCNA:	<i>Korean Central News Agency [Pyongyang]</i>	WP/NWE:	<i>Washington Post National Weekly Edition</i>
KH:	<i>Korea Herald</i>	WT:	<i>Washington Times</i>
KT:	<i>Korea Times</i>	WSJ:	<i>Wall Street Journal</i>
KV:	<i>Kourier [Vienna]</i>	X:	<i>Xinhua News Agency [Beijing]</i>
LAT:	<i>Los Angeles Times</i>	Y:	<i>Yonhap [Seoul]</i>
Lib:	<i>Libération</i>	YOS:	<i>Yomiuri Shimbun</i>
LM:	<i>Le Monde</i>		

The Programme for Promoting Nuclear Non-Proliferation and the Newsbrief

The **Newsbrief** is part of the outreach effort which constitutes a major element of the Programme for Promoting Nuclear Non-Proliferation (PPNN). It is addressed to an audience interested in the subject of nuclear (non-)proliferation, to inform and help them alert their respective environments to the issue of nuclear non-proliferation.

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