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Programme for Promoting Nuclear Non-Proliferation, Newsbrief, Number 42

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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

2nd Quarter 1998

Editorial Note

The *Newsbrief* is published every three months, under the auspices of the Programme for Promoting Nuclear Non-Proliferation (PPNN). It gives information about the spread of nuclear weapons and about moves to deter that spread; it also contains references to relevant developments in the realm of the peaceful use of nuclear energy. The contents of the *Newsbrief* are based on publicly available material, chosen and presented so as to give an accurate and balanced depiction of pertinent events and situations.

This issue of the *Newsbrief* covers the period 1 April to 30 June 1998.

Considerations of space make it necessary to choose among items of information and present them in condensed form. Another reason for using in the *Newsbrief* only part of the material on hand is that many different publications contain items from the same sources, but often presented differently. Reports that appear overly speculative are used only if a back-up can be found from other sources or if the fact of their publication is noteworthy in itself.

Subheadings are used in the *Newsbrief* to facilitate presentation; they do not imply judgements on the nature of the events covered. Related developments that might logically be dealt with under separate subheadings may be combined under a single subheading if doing so makes the text more readable.

Unless otherwise indicated, dates (day/month) refer to 1998. Where reference is made to an uninterrupted series of items in a daily newspaper, only the first and last dates of the series are given. For example, '6-25/5' following the name of a particular publication, would mean that use has been made of items appearing there on each day from 6 to 25 May. In a departure from previous practice, to save space names of publications that are referred to repeatedly are abbreviated; a list is given on the back page.

In the quarter covered by this issue of the *Newsbrief* the events attracting most interest were the nuclear tests staged by **India** and **Pakistan**. The international press has devoted much attention to these events, their technical nature, the

effects they may have on bilateral, regional and global security, and the political and economic responses they have evoked around the world. Even a limited and selective presentation of the most meaningful items from among the massive amounts of material that has been generated results in an unusually large portion of the *Newsbrief* being taken up by this subject. Given the uniquely topical nature of the material it seemed appropriate to present it separately, as an insert to the present issue. The insert contains the names of the publications referred to in unabbreviated form.

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

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. The Non-Proliferation Treaty

[Note: During the second session of the Preparatory Committee (PrepCom) for the Review Conference of the NPT, the editor of the *Newsbrief* was associated with the PrepCom's Secretariat. As this prevented him from taking notes on the proceedings, PPNN's Programme Director, Professor John Simpson has written the following report, making use also of the daily summaries issued by The Acronym Institute].

The second session of the PrepCom for the 2000 Review Conference of the Non-Proliferation Treaty (NPT) was held at the Palais des Nations, Geneva, from 27 April until 8 May 1998. Representatives of 97 states parties to the NPT participated, compared with the 147 who attended the first session, in New York in 1997. Brazil and Israel participated

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as observers; Cuba and Pakistan, who had been represented in 1997, did not attend.

Following an agreement reached at the first session, the second session was chaired by a representative of the Group of Eastern European States, Ambassador Eugeniusz Wyzner of Poland. It had also been agreed that the Group of Non-Aligned and Other States (NAM) would chair the third session in 1999. Ambassador Andelfo Garcia of Colombia was nominated to serve in this role and acted as Vice-Chairman of the second session. The PrepCom was informed that Ambassador Pasi Patokallio of Finland, the Chairman of the 1997 session, had moved to a new post. His countryman Ambassador Markku Reimaa was named Vice-Chairman of the PrepCom instead.

The PrepCom confirmed the provisional agreement of 1997 to hold its third session from 12 to 23 April 1999 in New York and to have the Review Conference of 2000 from 24 April to 19 May, also in New York.

With respect to some as yet unresolved organisational matters, the PrepCom agreed to the schedule of the division of costs for the PrepCom and the Review Conference as provided by the Secretariat but it did not reach agreement on the draft Rules of Procedure of the Review Conference or on Background Documentation for the Conference.

Agreement on the schedule of substantive work was reached shortly before the session was convened. This allocated three plenary meetings [i.e., a total of one-and-a-half days] at the start of the session to a general exchange of views; this was later extended into a fourth meeting. During these plenary meetings, 33 delegations made statements. Some interventions, notably those of South Africa, focused on the type of product that should emerge from the session in order to produce a qualitatively different review process; other delegations, such as Canada, offered ideas on the substance of that product; while the majority highlighted the substantive issues they regarded as significant for the session to address. Individual nuclear-weapon states offered an overview of the steps they had taken to fulfill their NPT obligations, in particular those contained in Article VI of the Treaty. They also made a joint statement. Two working papers presented to the plenary meetings, by Canada and the NAM, proposed detailed language for the final report on the session. As the session progressed, other states submitted working papers proposing language on one or more specific subjects.

It had been agreed that non-governmental organizations (NGOs) would address the PrepCom at an informal meeting early in the first week. Thirteen statements were made at this meeting on a wide, but coordinated, range of topics. Many NGO representatives were present during the entire session; they made an extensive range of documentation available.

The agreed schedule for the remainder of the session involved mainly informal and closed meetings. Three of these focused on the topics of nuclear non-proliferation and disarmament; one on proposals for a Fissile Material Cut-off Treaty (FMCT); three on safeguards and nuclear-weapon-free zones (NWFZ); one on proposals relating to the 1995 Resolution on the Middle East [i.e. on Israel]; three on peaceful uses of nuclear energy; one on security assurances; and four meetings were set aside for the discussion of recommendations to the next session of the PrepCom and the 2000 Review Conference. In practice, more time was available than was needed for some of the

substantive discussions, and two of the scheduled informal meetings were cancelled. Much time was devoted to meetings of a consultative group with limited membership, in which the text was discussed of a possible substantive portion of the PrepCom's report.

In the plenary informal meetings the discussions dealt with a variety of aspects of the topics allocated to them. As expected, much attention was devoted once again to the subject of nuclear disarmament. Nuclear-weapon states were considered to have offered greater detail on the actions taken to implement the Treaty than they had presented in the opening plenary meetings; many non-nuclear-weapon states criticised the lack of progress on nuclear disarmament. It was notable that this criticism did not only come from NAM states but also from several states in the western camp. Calls were made for all states to sign and ratify the Comprehensive Test Ban Treaty (CTBT). Considerable attention was paid to the issue of the FMCT although disagreements about its scope persisted. There was considerable discussion about the issue of negative security assurances and about the venue for negotiations on that topic; South Africa and Myanmar made specific proposals in this regard. The progress made by five Central Asian states towards the development of a NWFZ in their area was generally acclaimed. Egypt made a number of proposals for implementing the resolution on the Middle East. There were many calls for states to negotiate as soon as possible an Additional Protocol (on the INFCIRC/540 model) to their INFCIRC/153 safeguards agreements. While there was relatively little discussion on the peaceful uses of nuclear energy, the issue of nuclear export controls received attention; Iran proposed that measures should be taken to negotiate through the IAEA an agreement on nuclear export controls. In general, it was striking that although there were obvious differences in views between individual delegations and groups of delegates, there was again relatively little real dialogue between them at these informal sessions.

The report from the 1997 session of the PrepCom had consisted of four elements: procedural decisions taken by the PrepCom in respect of both its own activities and those of the Review Conference; a Chairman's statement on the allocation of time to specific topics; a Chairman's Working Paper whose paragraph 3 contained points on which there was "general agreement, subject to review and updating ... and pending final agreement on all draft recommendations at the last session", and in which paragraph 4 listed a great number of specific proposals made in the course of the session; and the summary records of the formal plenary meetings of the session, *inter alia*, containing statements by representatives of Mexico articulating disagreements with the Chairman's statement and Working Paper. Apart from the last, these had all been drafted by a group of delegates whom the Chairman had asked to work on these issues.

At the current session, the Chairman initially discussed the procedures of the PrepCom with his bureau, extended with a few delegates. Work on the integration of the many new ideas put forward in the current session with those contained in paragraph 4 of the text inherited from the Chairman's Working Paper of 1997, began at the end of the first week in a consultative group convened by the Chairman, whose hope it was to remove overlaps between the old and the new proposals and streamline what was already a large document. From the beginning, it had been the Chairman's aim to end up with a document of which the substantive

portion would consist of paragraph 3 of the Chairman's Working Paper in Annex II to the report of the PrepCom on its first session, "enriched" by whatever further elements from the proposals in paragraph 4 of that Working Paper, and proposals made at the current session, the PrepCom could agree on. Early in the second week, in expressed recognition that "nothing would be agreed until everything had been agreed", the Chairman tabled a Working Paper containing his suggestions of items that he thought might lend themselves for such agreement or that, in his view, had already found general acceptance. In the remainder of the session, much effort was expended on agreeing on as many items as possible from this text. Eventually there is said to have been a high degree of convergence on the issues of universality, non-proliferation, disarmament, and NWFZs.

While these discussions on possible ways to "enrich" last year's document proceeded in the main consultative group, in the middle of the second week parallel discussions on specific aspects of the PrepCom's report opened in two sub-groups. One, led by Vice-Chairman Ambassador Andelfo Garcia, examined procedural issues. These dealt with a proposal by South Africa for special time to be allocated in 1999 for a focused discussion on disarmament, with a view to establishing a subsidiary body on this topic at the 2000 Conference. The sub-group also discussed proposals for the special allocation of time to the issue of the Middle East and to other topics. In the end, the group is reported to have agreed on a text which left the allocation of time in 1999 to be resolved by the Chairman of that session.

The second sub-group, under Vice-Chairman Ambassador Markku Reimaa, examined the possibility of the PrepCom addressing substantive questions, some of which had current relevance. A draft text for this purpose was submitted by Canada in what it described as a "Track II" approach. This text, *inter alia*, included wording on the Middle East situation and on disarmament. Apparently the US had objections to this approach because it held that it was the task of the PrepCom to make substantive preparations for the 2000 Conference and to make recommendations to it, and not to make statements on issues which might have lost their relevance by the time that Conference convened. This was said to have been the reason why no agreement was possible within this sub-group.

When the informal plenary meeting eventually reconvened, several issues were still unresolved. The meeting first discussed the draft administrative report which had been prepared by the Secretariat and which, *inter alia*, listed the working papers produced by the session. Agreement was reached on this, together with language recommending that the Chairman of the third session should be charged with the task of resolving the issue of allocating time to specific subjects in that session.

The meeting then addressed the proposals of Canada for a section of the report to be devoted to the results of the discussions on substantive issues, including current ones. This was done in the understanding that the several topics covered by the text of the proposal would be discussed one by one and that if any of them met with an objection, it would be eliminated. The US delegation was understood to have expressed objections along the lines it had advanced in the sub-group; reportedly, it also said it would disagree with the inclusion in the report on the session of the PrepCom of any language that would give prominence to the implementation of the 1995 Resolution on the Middle East

or the issue of Israel. Apparently this was an important point of contention with other delegations.

The result was an impasse that could not be resolved, despite intensive efforts at compromise. In the end, the only product of the session was a procedural report on the meeting that would enable a further session of the PrepCom to be held in 1999. A listing of the additional substantive ideas and proposals collected in the course of the meeting and the final version of the Chairman's Working Paper were included among the documentation that would be forwarded to the third session of the PrepCom.

Some delegations made final statements reflecting their frustration that it had not been possible to produce a substantive report. Bhutan and Mauritius asked for their reservations to the part of the NAM paper that advocated the creation of an NWFZ in South Asia to be formally recorded, a move generally seen to be made at the behest of India.

Unlike on previous occasions, the issue of the "Federal Republic of Yugoslavia" did not arise, as no representative of that country demanded to be seated.

b. Further Non-Proliferation Developments

- In April, American technicians removed approximately four kg of highly-enriched uranium and 800 grammes of irradiated reactor fuel from a research reactor at the Institute of Physics of the Georgian Academy of Science, near Tbilisi in Georgia. The material was flown to the UK, for safekeeping and processing at the Dounreay nuclear complex in Scotland, where it was reported to have been "secured on site". The material — the remains of a stock of reactor fuel, part of which had earlier been moved to Uzbekistan for use in a research reactor like the one at Tbilisi — had lain unused at the Georgian facility for seven years, a source of growing concern for local security services. The removal of the material, code named 'Auburn Endeavor', was agreed between Georgia, the US and the UK, both to prevent it falling into the wrong hands and for reasons of safety. The US said that several years ago it had discussed with Russia the possibility of moving the material there, but without result. France is also said to have declined to take it and the US itself felt unable to do so, reputedly because it feared opposition from environmentalists. Secret discussions with the UK appear to have begun in 1997. There has been criticism in the British parliament and in Scotland, of the secrecy of the deal — defended by the Prime Minister as a measure of safety and security — apparently few members of the Cabinet were in the picture. The problem for the British government was seen to be aggravated by the resignation of the chief of the UK Atomic Energy Authority Constabulary, who had complained about conditions at British nuclear installations, including Dounreay, and said he had too few officers and could no longer guarantee the security of installations against attacks by terrorists and environmental activists. The government has denied that there is any need for concern about security at Dounreay.

Reporting on "Auburn Endeavor", the Carnegie Endowment's Proliferation Brief points to a recent study it has made with the Monterey Institute of International Studies, on nuclear successor states of the Soviet Union, which claims that there still are 715 tons of fissile material situated in those states, besides the 770 tons contained in Russia's nuclear weapons.

(NYT, 21/4, 23/4, 24/4; R, 21/4; AP, 22/4; DT, 22/4; G, 22/4; I, 22/4, 23/4; LT, 22/4, 23/4, 25/4; WP, 22/4; Carnegie, 23/4; FT, 23/4; IHT, 25-26/4; ST, 26/4; NW, 30/4)

c. Nuclear Disarmament and Arms Limitation

- In **Russia**, the State Duma has again postponed ratification of the START II Treaty. In May, President Yeltsin had resubmitted the Treaty to the Duma; on 13 May, a 'Ratification Commission' was established but on 19 May, apparently ignoring the President's call for quick action and against predictions by Duma speaker Seleznyov, the Duma decided not to debate the matter until September. Reportedly, it was in particular the Communist members of the Duma, led by Gennady Zyuganov, who opposed action. The version submitted to the Duma had included the memoranda agreed upon in September 1997 between Russia's Foreign Minister and the US Secretary of State, extending implementation of the Treaty from 2003 to 2007. Yeltsin had confirmed that as soon as the Treaty entered into force negotiations would begin on START III. In late April there was a report from Moscow that the analytical department of the Duma had concluded that the treaty contained clauses that jeopardise Russian interests because it supposedly allows the US to "reduce" nuclear weapons without dismantling them, so that they could be quickly restored to service in a crisis. President Clinton told his Russian colleague when they met in Birmingham, just after the Indian nuclear tests, that ratification of START II and the beginning of negotiations of START III would send a signal to India and Pakistan that they were moving backward while the rest of the world was moving ahead. Military circles in Russia, however, were reported to have seen the developments in South Asia as a ground for reviewing their nuclear strategy on their southern border and to doubt the wisdom of further deep cuts in the nuclear arsenal.

When on 9 June the Duma reopened its hearings on the Treaty, the speaker warned that the hearings could be delayed again if President Clinton — who reportedly had made a Moscow meeting with President Yeltsin conditional on prior ratification of START II — kept on pushing the issue; a spokesman for the Russian foreign ministry later expressed the view that Washington did not see a strict linkage. In fact, on 10 June, the Duma decided once again to postpone the hearings until it returns from the summer recess. Reports from late June say that although the Duma has extended its session until August, to discuss the Russian economy, there is no chance that START II will be taken up until the autumn. The proposal to postpone, said to have been made by the ultra-nationalist Vladimir Zhirnovsky, was adopted by a vote of 235 to 39.

(WP, 7/4, 14/4, 24/4, 18/5, 24/5; DJ, 13/4; R, 14/4, 18/5, 5/6; Carnegie, 7/5; AP, 12/5; NYT, 18/5, 20/5, 3/6; Izv, 28/5; SF, 15/6; Moscow Times, 25/6)

- There is a report from Moscow that at a meeting with the Chairman of the US Joint Chiefs of Staff, high-level **Russian** military officers complained that the **United States** was helping the **United Kingdom** test Trident ballistic missiles to see whether they could carry ten to twelve warheads, which is more than the eight allowed under the START I Treaty. They also alleged that the US had adjusted B-1B bombers to make it easier to restore

their capability to carry cruise missiles. The officers were also said to object to uncontrolled scrapping of US MX missiles. (AP, 16/6)

- It has been announced in the **United Kingdom** that all that country's WE177 free-fall nuclear bombs, of which 100 were reportedly kept in reserve until the end of the current year, have now been withdrawn from service. Reportedly, the warheads will be dismantled at the atomic research centre at Burghfield, but no decision is said to have been taken yet about the fate of the plutonium. This leaves the UK with only one nuclear weapon system: the Trident D-5 missiles deployed on board the Vanguard-class ballistic-missile submarines of which the Royal Navy now has three, with a fourth to be brought into service in August. The British government is said to plan cutting the number of warheads carried on each submarine by half: from 96 to 48. The alert status of the submarine arm is also said to have been relaxed. (G, 1/4, 18/6; JDW, 8/4)
- In the **United States**, Senators are said to be impatient with the lack of progress on disposition of excess weapons plutonium in both their own country and Russia. On 13 March, Senator Pete Domenici wrote a letter to Russia's Atomic Affairs Minister, Yevgeny Adamov, calling for an acceleration of "the dismantlement of nuclear weapons, the conversion of classified fissile materials into forms suitable for use as valuable resources in commercial nuclear power programs, and the implementation of materials accounting and safeguards for sensitive nuclear materials". The Senate version of the Department of Energy (DoE)'s 1999 budget appropriates funds for the mixed-oxide fuel (MOX) programme but part of these would be released only once there is a joint US–Russian plutonium disposition scheme in place, containing a provision that the US will at no time convert to non-weapons form, quantities of plutonium greater than those converted by Russia. This new requirement is seen as yet another potential cause for delay in the joint US–Russian MOX programme. The version of the House of Representatives does not contain this provision but its Appropriations Committee has warned that it will not authorise expenditure for the construction of actual facilities until a formal agreement is concluded with Russia.

Representatives of DoE and of the Nuclear Regulatory Commission (NRC) are said to be working on plans to obtain the necessary authorisation from Congress that will permit the NRC to license a MOX fuel fabrication plant. Under current law the NRC does not appear to have the authority to license a MOX fuel fabrication plant built under contract to DoE, but NRC licensing is nevertheless considered indispensable. A Defense Authorization Bill being debated in the Senate would amend the Atomic Energy Act of 1954 by giving the NRC that authority.

On 19 May, DoE finally issued the request for private-sector proposals to carry out the Department's dual-track plutonium disposition programme. The Savannah River site has been chosen for a MOX fuel fabrication plant.

France, Germany and the Russian Federation have signed an agreement that provides the political basis for work to begin on the industrial infrastructure for

plutonium conversion and MOX production. The necessary commercial agreements still have to be worked out.

(NF, 6/4, 20/4, 15/6; SF, 6/4, 13/4, 4/5, 8/6, 15/6, 22/6; NW, 21/5, 4/6, 11/6, 25/6)

d. Nuclear Testing

- On 6 April, France and the **United Kingdom** deposited their instruments of ratification of the **Comprehensive Test Ban Treaty (CTBT)**. The Treaty has been signed so far by 149 countries of whom 13 have ratified it. Out of these, six (Austria, France, Japan, Peru, Slovak Republic, and UK) are among the 44 states whose ratification is required for the Treaty to enter into force. (LT, 6/4; **White House Statement**, 6/4; DT, 7/4; DW, 7/4; FT, 7/4; WP, 7/4; WSJ, 7/4; DP, 8/4; NZZ, 8/4; direct information)
- The nuclear tests by **India** and **Pakistan** are covered in a special insert in this issue of the **Newsbrief**.
- In the **United States**, on 7 April, senior Administration officials urged the Senate to ratify the CTBT by this autumn lest the US loses the opportunity to participate in the conference that is to be held in 1999, i.e., three years after the Treaty was opened for signature, if by then it has not entered into force. Senator Jesse Helms, Chairman of the Senate Foreign Relations Committee, has so far refused to hold hearings on the matter. He was quoted as saying in a letter to President Clinton, that the Treaty had no chance of entering into force for a decade or more and that it would be unwise to press the Senate for swift ratification. A spokesman for the senator has added that the Indian nuclear tests have not changed Helms' opinion. Senate Majority leader Trent Lott said that the Indian event would spell trouble for US ratification of the Treaty. According to acting Under Secretary of State John Holum — speaking before the Indian tests — there would be enough support for the Treaty in the Senate if that body were to take the issue up. Holum also claimed that polls show that only 13 per cent of the US public oppose a ban on nuclear testing; at that time 70 per cent indicated approval. A poll taken shortly after the Indian tests took place showed that 73 per cent of the US public were in favour of Senate ratification of the CTBT. Many American disarmament analysts claim that the US Nuclear Stockpile Stewardship and Management Program runs counter to commitments under the NPT. In response, Thomas Graham, former Assistant Director in the Arms Control and Disarmament Agency, has said that without it the CTBT would have almost no chance of approval by the US Senate. (AP, 7/4; R, 7/4, 13/5; NYT, 8/4, 12/5; WP, 28/4)

e. Nuclear Trade, International Cooperation and Nuclear Export Issues

- There has been talk of a deal between the **United States** and **China**, under which American firms would get a contract to build at least four reactors, in Shandong and Guangdong provinces. Reportedly, France is competing for this job, said to be worth about \$12 billion, but during a visit to China its industry minister has apparently been told that China is not yet ready to take a decision regarding its nuclear future. While acquiring nuclear reactors abroad, China is said to be interested in having increasing numbers of components manufactured locally

and gaining design expertise, so as to become self-reliant in the nuclear field. Nuclear cooperation was on the agenda for President Clinton's visit to Beijing in June. However, before US firms can make nuclear supplies to China under the bilateral cooperation agreement that entered into force when the certification of the latter's non-proliferation credentials took effect in late March (see **Newsbrief** no. 41, pages 3 and 4), China needs to bring its nuclear liability coverage in line with the pertinent international conventions on third party liability.

The fast-growing use of devices like cellular telephones and pagers is putting increasing demands on satellite communication services. Because it is cheaper to launch satellites in China than in the US, Washington has sought to facilitate procedures permitting the launch of American satellites on Chinese missiles. In 1993, reportedly, members of Congress, mostly Republican, urged the Secretary of State to lift a temporary ban on Chinese launches of US-made satellites, assuring him that no technology transfer was possible "at any time". Recently, however, Congress has come to fear that launching American satellites may have helped Beijing acquire knowledge about missile accuracy that could be applied towards the improvement of strategic nuclear missiles. On 20 May, the House of Representatives voted to prohibit the export of American-made commercial satellites to China. The vote was 364 to 54 against the export of satellites, and 412 to 6 against the export of sensitive technologies used in the manufacture of such satellites.

The US Congress is increasingly preoccupied with the issue and with reports that the Chinese armed forces may be communicating through US-made satellites. Much is made by opponents of the Administration of unconfirmed reports that the success rate of Chinese rocket launches has improved lately. Republican members of Congress assail the Clinton Administration, which in 1996 transferred jurisdiction over exports of satellite technology from the Department of State to the Commerce Department, presumably to facilitate the issuance of export licenses in this area, for acting against national strategic interests and non-proliferation considerations, by waiving restrictions on technology exports to China. The Administration is also accused of obstructing Congressional investigations into allegations that it has promoted trade with China in hopes of obtaining contributions for election purposes. The firms Loral Space and Communications and Hughes Electronics, which have made large contributions to the Democratic party, are under indictment by a federal grand jury; they have denied obtaining any favours or benefits. Senator Helms has accused the Administration of turning a blind eye to China's missile sales to Iran and Pakistan. A special select committee of the House of Representatives is inquiring into allegations that the exports have endangered US security; most recently it was disclosed in Washington that a secret encoded circuit board containing sensitive technology had disappeared from the wreckage of an American satellite which had been launched on a Chinese rocket that failed. The US Administration, holding that the maintenance of good relations with China serves not only the US economy, but also the non-proliferation of nuclear and missile technology, has rejected the allegations and denied that authorised space-launch activities have

benefited Chinese missile efforts. US intelligence sources are said to be unconvinced that any of the items exported to China are used in that country's nuclear missiles. There is said to be a possibility, however, that Loral Space and Communications and Hughes Electronics may have revealed to Chinese authorities information they were not authorised to give them, and which may have helped China to find the cause of rocket failures.

Discussions during the June visit of President Clinton to Beijing, are said to have included the issues of the export of nuclear and missile-related items to Pakistan and of the possibility of China joining the Missile Technology Control Regime. The outcome is not yet clear. The visit has reportedly served for the conclusion of an agreement on the reciprocal detargeting of strategic missiles like the one concluded with Russia in 1994. China is said to have 18 intercontinental ballistic missiles (ICBMs) aimed at the US (some experts speak of 13) in silos, without warheads and without their liquid propellant; the US has many more ICBMs that are targeted at China, and that, with their solid fuel, are kept at ready-to-fire status. Given this imbalance, China is understood to feel it could not make a first strike and would not survive a US strike. This is said to be behind its preference for a no-first-strike agreement over a detargeting agreement. The US, on the other hand, has traditionally rejected no-first-strike agreements and insisted on detargeting as a means of reducing the risks from accidental or unauthorised launches. The new agreement is seen in Washington as a positive move.

China is understood to be making progress in drafting legislation to control the export of nuclear technology. As reported, this legislation will include ways of monitoring end-users and ensuring the exclusively civilian application of exported materials.

(NW, 2/4, 9/4, 14/5, 18/6; NYT, 4/4, 9/5, 19-22/5, 24/5, 12-14/6, 18/6, 19/6, 22/6, 27/6; JDW, 6/5; R, 19/5, 21/5, 17/6; AP, 21/5, 17/6, 18/6; WP, 21/5, 16/6, 19/6; Dallas Morning News, 12/6; PBS, 15/6; USIA, 17/6; WT, 17/6; CNN, 26/6)

- For some time, **Indonesia** and the **Russian Federation** discussed about the supply of small (35 MW) power reactors mounted on pontoons which would be moored in coastal areas of outlying islands. It now appears that, given Indonesia's present economic difficulties, these plans have been put on hold. Earlier plans to build nuclear reactors in Northern Java are also said to be suspended. (NW, 9/4)
- In April, Yevgeny Adamov, **Russia's** new Minister for Atomic Energy, visited **India** to conclude an agreement for the construction of two 1,000-MW power reactors, costing upwards of \$3 billion. On 21 June, an agreement on the financing of the project was signed in New Delhi. The first unit is to be ready in about 2006; the other one year later. The US had hoped to dissuade Russia from the deal even before India carried out its nuclear tests; interventions made after the tests were equally unsuccessful. (NN, 20/3; NYT, 23/6; **Nucleonics Week**, 25/6)
- Minister Adamov has said that **Russia** proposes building a research reactor in **Iran** that would use uranium enriched to less than 20 per cent. He has also confirmed

that Russia will continue to assist Iran complete the Bushehr nuclear power station. An \$800-million contract is said to have been concluded for the construction of one of the 1,000-MW units as a turnkey project. This will, among other things, involve more Russian experts in the project. (Moscow TV, 6/4, in BBC, 8/4; WP, 7/4; DJ, 16/4; NW, 21/5. See also **Newsbrief** no. 41, pages 9 and 10.)

f. IAEA Developments

- The Director General of the **International Atomic Energy Agency (IAEA)** has announced several initiatives designed to enhance the relevance and impact of the Agency's work. One is a comprehensive review process to test the Secretariat's efficiency and effectiveness. An action plan is understood to be under way in the areas of coordination and policy; programme and budget; management and organisational structure; and people management. Secondly, an external review has been started of the Agency's overall programme priorities, by a group of leading experts who are examining the main programme activities of the Agency and advise on their future direction. The aim of this review is said to ensure that all programme activities meets member states' priorities and the Agency is the organisation most suitable to do this work. The review, said to be the first comprehensive review of the IAEA's programme in ten years, is expected to be completed by the end of 1998. One of the experts is Mme. Thérèse Delpech, a member of PPNN's Core Group. Thirdly, a group of specialists in public information has discussed the Agency's programme in that field. (**Foratom News Letter**, January, in UINB, 98.15; direct information. See also **Newsbrief** no. 41, page 4.)
- The IAEA's Safeguards Implementation Report (SIR) for 1997 states that:

[i]n 1997, the Secretariat did not find any indication of the diversion of nuclear material, or of the misuse of any facility, equipment or non-nuclear material, which had been declared and placed under safeguards. All the information available to the Agency support the conclusion that the nuclear material and other items which had been declared and placed under safeguards remained in peaceful nuclear activities or were otherwise adequately accounted for. However, the Agency is still unable to verify the initial declaration made by the Democratic People's Republic of Korea (DPRK) and the DPRK continues to be in non-compliance with its NPT safeguards agreement.

The report refers to last year's major events in the field of safeguards, including the Secretariat's preparations for the implementation of the Additional Protocol to the Agency's safeguards agreements; the safeguards measures applied in the Democratic People's Republic of Korea; the continued investigations in Iraq of that state's clandestine nuclear weapons programme, and the implementation of the plan for the ongoing monitoring and verification (OMV) of Iraq's fulfilment of its obligations under the relevant Security Council resolutions; and preparations for the verification of weapons-origin materials in the US and Russia.

At the end of 1997, safeguards agreements were in force with 135 states (including Taiwan, China) of which 68 had declared nuclear activities. In 1997, a total of 2,499

inspections were carried out involving 10,240 person-days of inspection effort.

(IAEA PR 98/8, 18/6)

- At its meeting in June, the Agency's Board of Governors approved the protocols additional to the safeguards agreements between, respectively, France and the United Kingdom, and the European Atomic Energy Community and the International Atomic Energy Agency.

g. Peaceful Nuclear Developments

- Bulgaria is hoping to obtain the agreement of the European Bank for Reconstruction and Development (EBRD) to put off the shut-down of the four oldest VVER 440/230 reactors at Kozloduy, which had been planned for the current year, until well into the next century. NEK, Bulgaria's state-owned utility, and Electricité de France have begun an analysis of a modernisation programme for the four units; it reportedly involves extensive modernisation that would permit units-1 and -2 to operate until 2004-2005, and units-3 and -4 until 2010 and 2012. The work would apparently be based on that done at the Bohunice-1 and -2 reactors, in Slovakia. The summit meeting of the G-24 which was held in early April called on Bulgaria to shut the four reactors down by the end of the current year, as agreed with the EBRD. Meanwhile, the rupture of a pipe in a steam generator at Kozloduy-1 may complicate matters. (**Bulgarian Press Digest**, 1/4; *Ux*, 20/4; *NW*, 23/4, 4/6)
- The cost of completing the Temelin VVER-1,000 reactors in the **Czech Republic** has risen further. A new budget has been established at the equivalent of US \$3 billion, a 35 per cent increase over an estimate of 1993. The current schedule provides for fuel loading at Temelin-1 to start in August 2000 and commercial operation to begin in May 2001; Temelin-2 is expected to follow 15 months later. The delay in the construction and the cost overrun have raised doubts about the plant's future. The Czech environment minister has come out against completion but nuclear experts estimate that it will be cheaper to finish the plant than to abandon it. Moreover, estimates of the cost of electricity produced by the plant are lower than any other potential new source of power. It is not expected that the government that was elected in June will consider the issue immediately. (*NW*, 2/4, 9/4, 30/4, 7/5, 14/5, 18/6; *SN*, 3/4; *DP*, 4/4. See also *Newsbrief* no. 41, pages 4 and 5.)
- At a conference on "International Challenges for French Energy Policy", the Prime Minister of **France** has said that his government is "attached" to "the future of nuclear power". The French economics minister underlined the importance of nuclear energy in reducing emissions of greenhouse gasses and said that nuclear must remain an option for the next century.

The French nuclear safety authority DSIN has authorised the 250 MW Phénix fast-breeder reactor to be restarted for an initial operating cycle at two-thirds of its nominal power of six to eight months and, depending on the results of renovation and subsequent inspection, for eventual operation until 2004. Anti-nuclear groups have advised the government that they deplore the decision. Restart took place on 27 May. One anti-nuclear group, Forum Plutonium, has asked a local court to prohibit the

operation of the facility until a new license can be issued, after a public inquiry.

The French parliament has set up a commission of inquiry into the closure of Superphénix. An application for further operation has been rejected by the cabinet ministers concerned, who have asked the operators to submit information needed for the decommissioning license, including unloading of fuel and of the 5,500 MT of sodium coolant.

(*DSIN*, 9/4; *Lib*, 10/4; *NN*, 14/4; *NW*, 16/4, 7/5, 14/5, 4/6, 18/6)

- A report of the Ministry of Industry and International Trade of **Japan** on energy supply and demand is said to conclude that nuclear power will be needed in the next century if Japan is to reduce emissions of greenhouse gasses, as it has committed itself to do at the 1997 Kyoto Climate Conference, and is to meet its energy needs. However, senior Japanese officials have expressed fear that plans to complete 20 reactors by 2010 will not be realised. (*SF*, 22/6; *NW*, 25/6)
- In **Pakistan**, the Kanupp reactor is being overhauled. Once completed in 2000, the overhaul is expected to permit the 27-year old power station to operate at 137 MW. Since Pakistan cannot import nuclear equipment from abroad because it has not accepted full-scope safeguards, the necessary equipment is designed and manufactured indigenously. (*NW*, 2/4)
- On 9 June, the upgraded VVER-440/213 Mochovce-1 power reactor (408 MW) in the **Slovak Republic** reached first criticality. As reported, if tests at zero power were successful, the plan was to license the reactor for 20 per cent power by late June. Full power is expected in July or August. The start-up was met with vehement criticism from Austria, whose Federal Chancellor called it "an irresponsible and unfriendly act". The Chancellor had warned that a start-up would endanger the chances of the Slovak Republic joining the European Union (EU); following the event he again indicated that his country might block Slovakia's entrance into the EU. For months, the Austrian press had been engaged in a relentless campaign against the operation of the facility. Austrian media, politicians and anti-nuclear groups are also said to have intervened with the Slovak parliament; and the government had asked the European Commission to stop the reactor from going critical.

A team of French and German nuclear safety experts who inspected the facility in early May, were said to have been favourably impressed with the work done and to have made some additional recommendations. A 22-member international commission sponsored by the Austrian government was allowed to visit Mochovce to obtain information about its safety; their findings were unable to influence the decision to start operations. The members of the group, whose expertise is understood to have varied considerably from one to another, appear to have come to quite different conclusions, some saying that the upgrades introduced during the completion by western firms have not fundamentally improved the safety of the plant, and others being quoted as having come away with a favourable impression. After first reporting positively about the state of the plant, the group's leader later came out publicly against start-up. Mutual recriminations arising from the visit have led to

worsening of relations over a situation that is seen as particularly critical because it concerns the first time that a Soviet-designed power reactor is completed with the participation of western firms and at western-level safety standards.

Following the start-up, a meeting was held at IAEA headquarters on the composition of an expert group to discuss the safety of the reactor, focussing first on its pressure vessel, which has been criticised by members of the Austrian expert group. A visit by an expert commission selected by the IAEA was foreseen for the autumn. The facility had been reviewed several times by the IAEA but the Slovak authorities are said to attach importance to a further visit which they expect to vindicate them.

The government-owned power company Slovenske Elektrarne has confirmed that even after completion of the two Mochovce units (the second unit is scheduled to go on-line in the spring of 1999), the two first-generation VVER-440/230 at Bohunice will remain in service indefinitely. These reactors have been extensively upgraded. There are altogether four reactors at Bohunice, which now supply somewhat less than half of the country's electricity. The Austrian government has long urged the Slovak Republic to shut the Bohunice power station down.

(NW, 2/4, 30/4, 7/5, 28/5, 11/6; DP, 4/4, 22/4, 28/4, 29/4, 2/5, 4/5, 9/5, 16/5, 18/5, 20/5, 22/5, 26/5, 27/5; NN, 15/4, 11/5; BBC, 27/4, in UINB, 98.17; KV, 27/4, 28/4, 1/5, 9/5, 11/5, 15-18/5, 20/5, 22/5, 26/5; R, 27/4, 25/5; SN, 28/4, 9/5, 20/5, 26/5, 27/5; StV, 28/4, 29/4, 16/5, 18/5, 20/5, 22/5, 26/5, 28/5; CTK News Agency [Prague], 8/5, in BBC, 11/5; SDZ, 19/5, 23/5, 27/5. See also Newsbrief no. 41, pages 5 and 6.)

- The Supreme Administrative Court of Sweden has ruled that the Barsebäck-1 power reactor must not be shut down until the Court can complete its review of the claim by the reactor's owner that the government's order to decommission the plant is unconstitutional. The ruling is not open to appeal. The final decision of the Court is not expected until after the summer holidays, and operation is therefore expected to extend over the shut-down date of 1 July set by the Government, and perhaps also beyond Sweden's next general elections, in September. Earlier, there had been concern that the expectation of the plant's impending shut-down could affect the safety of its operation up to that time. The waiting is now for the government to take further decisions regarding the dismantling of Sweden's nuclear power installations, which is expected to be an issue in the general election. Sweden's parliament has decided that the government may conclude an agreement on the compensation to be paid for the shut-down of Barsebäck without parliamentary approval. The government has set aside the equivalent of \$130,000 for an initial payment. The opposition calls this sum ludicrous.

Inhabitants of the Danish capital of Copenhagen, which is about 25 miles (40 km) from Barsebäck are said to have been disturbed at word that the shut-down may be postponed. Denmark, which has opted against nuclear energy, gets part of its power from Sweden.

The Swedish government has proposed lowering taxes on hydropower plants but maintaining taxes on the production of nuclear power at their present level.

(NW, 2/4, 16/4, 23/4, 14/5, 21/5, 11/6; NN, 14/5; R, 14/5; FT, 15/5; Libération, 16/5. See also Newsbrief no. 41, page 6)

- In Ukraine, Chernobyl-3 started up again in mid-May, was shut again for a turbine malfunction and restarted in mid-June. The May restart had been delayed by the discovery, reportedly through the use of new Russian ultrasound examination methods, of cracks in coolant pipes, of which the most important ones are now said to have been repaired. There appears to be some controversy over the reliability of the detection method, which is said not to allow measurement of crack depth. The reactor will again be shut down at the end of this year for further upgrades. In 1995, Ukraine promised the G-7 group of nations to shut it down altogether by 2000, but this now seems unlikely. Ukraine's Ministry of Energy recently also proposed to restart Chernobyl-2, which has been off-line since it was damaged by fire in 1991, and to run both it and unit-3 until the end of their design life, in 2016. Ukraine's President, on the other hand, is said to favour running only Chernobyl-3, until the Rovno-4 and Kmelnitsky-2 reactor units have been completed. Notwithstanding some doubts about the efficiency and cost of these facilities, the EBRD was expected in late June to lend Ukraine \$160 million towards their completion. Earlier, the EBRD had expressed preference to see Ukraine upgrade its fossil-fuel power stations. Kiev however, backed by a recent study carried out under the auspices of the US and the EU, sees nuclear power as the best alternative for the production of large amounts of electricity, especially because its fossil fuel is costly and of low quality. It had said that if the West did not support completion of the reactors, it would seek financing from Russia.

Twelve years after the explosion of Chernobyl-4 there is still no consensus on the health effects of the event. Recent official figures published by the Health Ministry of Ukraine, which western sources claim tends to aggravate the situation, give the number of 12,500 from among the 350,000 people recovery workers — called "liquidators" — as having died since the event, while Ukraine's radiological research centre puts the figure of persons who have died as the result of radiation exposure at 3,178. Of the surviving liquidators, 83 per cent are reported to be ill.

Ukraine and the EBRD are said to have agreed on projects to start implementing the Shelter Implementation Plan (SIP) for the reinforcement of the sarcophagus over Chernobyl-4, to which eighteen donor countries and the EU have pledged a total of \$378 million; Ukraine itself is to contribute \$50 million. As reported, the projects deal with four areas of initial activity which should be carried out over two years: stabilisation of structures and the definition of a strategy for a new cover; perfecting the monitoring systems; management of dust and water within the existing shelter; research into technologies for managing fuel-containing materials within the shelter.

(NEI, April; NW, 2/4, 16/4, 23/4, 30/4, 7/5, 14/5; FT, 4/4, 24/4, 19/6; NN, 20/4; R, 22/4; AP, 27/4, 22/6; NYT, 6/5; NN, 15/5 in UINB 98.20)

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

- The Ministry of Atomic Affairs of **Russia** has announced that, starting this year, it will reduce drastically the number of its nuclear research institutions and nuclear-weapon facilities. Plans call for the eventual survival of two research centres, Arzamas-16 and Cheljabinsk-70, and only one production facility. (NZZ, 30/4)
- In the **United States**, Los Alamos National Laboratory is reported to be preparing for the production of plutonium triggers as part of the stockpile stewardship program. Los Alamos is also said to be continuing its work on the production of tritium by the use of an accelerator.

The US House of Representatives has meanwhile decided that commercial nuclear reactors should not be used to produce tritium for nuclear weapons. The Tennessee Valley Authority, which had proposed completing its Bellefonte plant for the purpose of producing tritium, has said it will nevertheless go ahead with its plans, in the apparent assumption that the Congressional move may not become law. DoE is held to decide by the end of the current year what means it proposes to use for the production of tritium for weapons purposes.

A study by the US Brookings Institution claims that while DoD estimates the cost of the US nuclear arsenal through fiscal 1998 at \$13 billion, the actual expense for nuclear weapons and weapons-related programmes will be \$35.1 billion.

It has been reported in Washington that over the past fifteen years, the US has spent \$50 billion on the development of missile defences. The current policy calls for the development within three years of a Theater High Altitude Area Defense (THAAD) system, capable of being deployed by 2003 to defend all fifty American states against intercontinental missiles launched intentionally by states seen in the US as "rogue" nations, or accidental launches by major powers. Among smaller "suspect" states, so far only the DPRK is seen as being close to developing a missile that might, several years from now, be able to hit outlying US territory such as Hawaii or Alaska. In the US, the accidental or unauthorised launch of Russian missiles is seen as a growing threat, given that country's hair-trigger alert system and the presumably deteriorating control of the central authorities over its nuclear arsenal.

In April, the Boeing aircraft company won a \$1.6 billion contract to manufacture a variety of components for a limited defence system. No decision is said to have been taken yet regarding deployment, which apparently will depend on factors such as threat perception, effectiveness, cost and the question whether it will violate the Anti-Ballistic Missile (ABM) Treaty. American efforts during the past fifteen years to develop a missile that could hit another missile in flight seem to have had mixed results so far. Reportedly, in 20 test firings of various systems, intercepting missiles hit the target seven times and missed thirteen times. In eight tests of the THAAD system, of which five involved an actual missile flight and interception attempt, the missile is said to have failed to intercept a target five times in a row. DoD has said that tests will go on, but there is talk

about legislation that would oblige the government to find another contractor if the interception attempts continue to fail.

(WP, 2/4, 27/4; R, 21/4, 11/5, 12/5; AP, 27/4, 12/5; NYT, 30/4; NW, 28/5)

i. Proliferation-Related Developments

- Following a proposal by the **Democratic People's Republic of Korea** (DPRK), for a dialogue with the Republic of Korea (RoK), made at the time of the four-power negotiations in Geneva in March, a meeting was held in Beijing in April, between five-member delegations from each side, led by officials at the vice-ministerial level. The meeting was to discuss primarily the supply by the RoK to the North of fertilizer, of which Pyongyang was said to want 500,000 tons while Seoul offered 200,000 tons. The talks, which started on 11 April, seem to have begun as "very sincere and friendly", but to have bogged down on the second day, when the RoK demanded that in consideration of the supply of fertilizer, the DPRK should set a timetable for opening a mail exchange; establishing a reunion centre for families who were looking for missing relatives; exchanging diplomatic representatives and reactivating a liaison office at Panmunjon. Reportedly, for several days the two sides sought to keep the discussions going but they finally broke down when the DPRK insisted that the donation of fertilizer should precede a discussion of other issues, without allegedly committing itself to a schedule. By the time the discussions ended, the atmosphere is said to have seriously deteriorated, the DPRK claiming that Seoul had permitted RoK state-run TV to wire tap the conference room. No date was set for a resumption, but subsequent comments from both sides have hinted at the possibility of further contacts. South Korea's Unification Minister was reported to say, however, that it would take some time to renew the dialogue and that he would not be in a rush to do so.

On 29 April, the Korean Central News Agency in Pyongyang carried a statement by the DPRK head of state, Kim Jong Il, calling for a resumption of the North-

South dialogue and closer contact with a view to eventual unification. Kim Jong Il set as a condition that the RoK abolish its security laws and disband its intelligence agency. The South Korean President, Kim Dae-jung, has expressed willingness to meet his Northern counterpart. The move is strongly supported by the US.

As this issue of the **Newsbrief** went to press, the government in Seoul was reported to be making an effort not to let a new submarine incident disturb relations between the two Koreas. On 22 June, a small submarine was found entangled in fishing nets within South Korean territorial waters. Taken in tow by South Korean naval units, the submarine sank; the crew of nine was found dead, apparently killed by gunshots. Although the government in Seoul initially played down the incident in an effort not to let it disturb inter-Korean relations, RoK military officers subsequently reported having found evidence that the vessel had been engaged in an infiltration mission. There was said to be every indication that the vessel belonged to the DPRK navy, which announced that one of its submarines was missing.

Seoul has invited the DPRK to join it in investigating the deaths of the boat crew.

A survey made by a Korean religious organisation says that since August 1995 about three million people have died in the DPRK of famine-related causes. American news reports have complained that Pyongyang was hindering US efforts to monitor the distribution of food to the North Korean population and Washington officials have warned of increasing skepticism about the North's actual needs, in the absence of hard evidence that food aid is actually going to those who need it. Two Republican members of Congress have demanded that the President reduce the US' aid contribution by 75,000 tons if the DPRK does not allow access by ten US monitors; the DPRK has so far been willing only to admit five US observers, for visits of two weeks. The State Department had earlier expressed confidence in the monitoring system of the World Food Program (WFP) but the latter has said that it too has been barred from monitoring grain distribution in some areas, on the stated grounds that they harboured sensitive military installations. Apparently in response to a warning by the WFP — which is said to have promised to supply double the amount of last year's food donation, which was 385,000 tons, on condition that the number of international monitors would be increased and that they should be able to visit every area where food distribution should take place, so as to ascertain that the food is correctly distributed — Pyongyang promised to give WFP monitors access to 49 counties that had been off-limits to them. In mid-May, however, the WFP said it would cut back on the promised amount because it had still been granted only partial access and had been refused entry to 39 counties it had sought to enter.

A report by *Médecins sans Frontières* claims that army and government officials "pilfered" food aid. While there are also reports that recent food assistance seems to have resulted in many children being better nourished than they had been before, over-all the food shortages are reported to get steadily worse. *Médecins sans Frontières* mentions interviews with DPRK refugees in China which claim to have seen instances of cannibalism; the WFP executive director, Catherine Bertini, has quoted reports of people subsisting on roots, leaves and bark. She has said that donor nations have so far pledged only one third of the food aid needed. Ms. Bertini has warned of a "true humanitarian catastrophe" and has expressed fear that the country will remain dependent on food aid for many more years. The South Korean Red Cross has promised to donate 50,000 tons of food; the first shipments were reported to have arrived in mid-April.

Concern is said to be growing in Washington that financial problems may jeopardise the realisation of the light-water reactor project provided for under the Agreed Framework. In light of the current economic difficulties in the RoK, the latter has been trying to persuade the US to shoulder a substantial part of the cost of the project but so far Washington has refused to do so. The US Administration apparently expects that South Korea's financial difficulties may not last and that if the South were to pay less than their share in the short term, they could make up for this once the economy improves. Suggestions by US opponents of the deal, that the North would be better served by several small fossil fuel plants than by large nuclear reactors, are dismissed by the US Administration because the DPRK has let it be known

that it does not consider any such substitute as acceptable. During a recent visit to Seoul, US Secretary of State Albright was reported to have confirmed that the Clinton Administration would stand by its pledge to guarantee funding for the North Korean reactor project. At the same time, however, South Korean and US officials both saw the Agreed Framework as being "at grave risk" as a result of the inability to solve the funding crisis. The refusal of the US Congress to allocate funds for this year's supply of heavy fuel oil to the DPRK may make it difficult for the US to live up to this part of its undertaking under the Agreed Framework. European governments are understood to be unwilling to make substantial financial commitments, supposedly because most of them feel that the project is not feasible until Korea is unified politically. Insistent pressure by the US Secretary of State on the government of Japan is said to have resulted in an increase to \$1 billion in that country's contribution; the total cost of the project in dollar terms is said to have shrunk by about 25 per cent as a result of the change in the exchange rate of the Korean won against the US dollar; it is now estimated at \$4.5 billion. South Korea's contribution has been set at \$3.154 billion. This leaves the US to contribute \$350 million or eight per cent of the total but Washington is still said to resist the suggestion that it should provide anything but a minimal amount. The issue of finding the funds for the shipment of heavy oil is still unresolved; Japan and the RoK seemed to have turned down a US proposal that as an interim measure they should provide the necessary funds. A meeting of the executive council of the Korean Peninsula Economic Development Organization (KEDO) on 1 and 2 June has failed to solve the cost-sharing issue; the discussions were to resume in Brussels on 29 June. The Japanese government is said to be willing to pay \$1 billion to KEDO, which, in terms of the current value of the Japanese Yen, appears to be 35 per cent more than its initial commitment. Reportedly, however, in constant dollar terms it equals that commitment. The government is said to be concerned that if the Agreed Framework is not promptly implemented, the DPRK might be encouraged by Pakistan's recent nuclear tests to resume its nuclear weapons development.

In early May, the DPRK complained about the delay in the oil deliveries, claimed that the light-water reactor project was one year behind schedule, and accused the US of being in non-compliance with the Agreed Framework. A spokesman of the Foreign Ministry in Pyongyang said that his country would have to go back on its agreement for safe storage of the 8,000 irradiated fuel rods of the 5-MW reactor and might reactivate its nuclear programme. In an informal meeting with a US academic, the DPRK's foreign minister is understood to have said that since the US was behind in meeting its obligations, his country would slow down and suspend some parts of the agreement; it had halted the canning of the 200 spent fuel rods that had not yet been prepared and had unsealed the 5-MW reactor for maintenance; there were some suggestions that it might revive its nuclear programme. Pyongyang's move was seen by observers in Seoul as testing the strength of the US' intention to implement the Agreed Framework, which both countries seemed to fear had lately been lagging. In mid-May the US State Department said that, although in late April the DPRK had indeed temporarily suspended some clean-up operations, accounts that it was unsealing the

Yongbyong reactor were inaccurate. The IAEA had confirmed that the seals remained in place and the freeze was going on, but the DPRK was conducting regular maintenance, in accordance with agreed arrangements, under the observation of IAEA officials. According to the same US statement, canning of the spent fuel was essentially completed and only some clean-up, involving recovery of remaining material, remained to be done. There is still some concern, however, that the DPRK might reconsider its nuclear programme, not only in the light of its apparent dissatisfaction with the implementation of the Agreed Framework but also of the potentially new situation created by the South Asian nuclear tests. In that context, RoK officials have raised the possibility that Pakistan might transfer nuclear material and technology to Pyongyang in return for the latter's assistance with their missile programme.

On 16 June, the Korean Central News Agency announced that the DPRK intended to continue developing, testing and deploying missiles and to sell them abroad. Apparently in response to American efforts to have the DPRK cease its missile exports and deployment, the statement said that the exports were aimed at obtaining foreign money and was an option that had to be taken; if the US wanted to prevent the export, it should lift the economic embargo and compensate for the losses caused by the discontinued missile export. Some analysts in Washington are said to connect the timing of this statement with the Indian and Pakistani nuclear tests; it is also thought to be aimed at having the US relax the sanctions. The US State Department has called the statement "irresponsible"; DoD says that the US has been trying to stop the exports and will continue to do so.

The DPRK is reported to be about to deploy a successor to its 'Rodong' missile; the new missile, called 'Daepodong-1', would supposedly have a range of about 1,000 miles (1,600 km) and is said to be identical to Pakistan's 'Ghauri'. US experts expect that the DPRK has received technical information from Pakistan that will permit it to deploy the missile without testing.

The Director General of the IAEA has said that five years of negotiations have not moved the DPRK any closer to providing access to the spent fuel or to the operating records of the reactor. Dr. ElBaradei is quoted as saying that he is not sure that the DPRK has even preserved the technical data.

Several news agencies have disclosed that according to an internal report of Japan's Defence Agency, cited in a Tokyo financial daily, the DPRK may have at least one nuclear weapon; the report was said to express concern that South Korea may respond by doing the same. There is also speculation in Japan that given the military cooperation between the DPRK and Pakistan, especially in regard to ballistic missiles, the latter might provide Pyongyang with nuclear-weapon technology in exchange for missile technology; there is concern that the recent South Asian nuclear tests may encourage the DPRK to proceed with a possibly clandestine nuclear-weapon programme. A spokesman for the Russian atomic energy ministry (Minatom) is quoted as saying that the DPRK "probably" does not possess a nuclear weapon. Reportedly, Japan's Prime Minister plans to call an expert meeting in Hiroshima on ways of maintaining the nuclear non-proliferation regime.

Taiwan's state power utility has reconfirmed that it intends to go through with plans to ship nuclear waste to the DPRK. Currently, these plans are on hold because of diplomatic objections from Seoul and Washington. Reportedly, the Republic of Korea would consider using the waste repository site in the North itself, once the two parts of Korea are reunited.

(R, 2/4, 6/4, 10/4, 12-16/4, 18/4, 21/4, 29/4, 1/5, 8/5, 14/5, 2/6, 23-25/6; AP, 6/4, 7/4, 13-16/4, 21/4, 24/4, 27/4, 29/4, 8/5, 2/6, 3/6, 17/6, 23/6, 26/6; CHI, 6/4, 13/4, 14/4, 20/4, 24/4, 14/5, 17/6, 23/6, 25/6; WP, 6/4, 2/5, 15/5, 17/6, 26/6; KT, 7/4, 8/4, 12/4, 14/4, 18/4, 24/4, 6/5, 8/5, 10/5, 12/5, 18/5, 29/5, 2/6, 5/6, 8/6, 25/6; USIA, 7/4, 14/4, 8/5, 12/5, 14/5, 17/6, 24/6; KH, 8/4, 9/4, 15/5; LAT, 6/4, 10/4; ASS, 12/4; NYT, 12/4, 13/4, 15/4, 18/4, 19/4, 13/5, 17/6, 24/6, 27/6; UPI, 16/4, 18/4, 1/5; E, 18/4; WSJ, 27/4; IHT, 30/4, 2/5, 1/7; NAPSNet, 4/5 in UINB, 98.18; NW, 7/5, 14/5, 11/6; VoA, 8/5; FT, 15/5; LT, 4/6; DJ, 23/6; WT, 24/6)

- Recent events in **India** and **Pakistan** are covered in the special insert to this issue of the **Newsbrief**.
- In April there were several reports from Jerusalem that in 1991, **Iran** had purchased, for \$25 million, tactical atomic weapons smuggled out of the former Soviet Union by members of a Russian criminal organisation. On 9 April, the *Jerusalem Post* said that Iran had "up to four nuclear bombs", and cited various US official statements of 1992 for the authenticity of the reports. While the *Jerusalem Post* maintains that it obtained Iranian government documents confirming the allegation, both Moscow and Washington dismissed the reports as spurious. On 12 April, the same newspaper alleged that Iran had obtained two weapons and that these were being "maintained and made operational" by Russian and Argentine technicians. While, once again, officials from the US DoD and State Department were quoted as saying that they had investigated the 1992 report and had found no evidence that, as alleged, Washington had known two nuclear bombs were missing from the former Soviet Union, the *Jerusalem Post* insisted that it had been told that US government officials were of the opinion that the documents were genuine. A few days later the *Jerusalem Post* quoted two US Congressmen as expressing the conviction that the report must be taken seriously and that Iran does have nuclear weapon parts and supplies from former Soviet states. The paper also referred to a US intelligence source which claimed that Teheran had a "small-sized nuclear weapon". On 22 April, *Jane's Defence Weekly* carried the report of an Israeli claim that Iran had acquired nuclear weapons from Kazakhstan and Russia; again Washington said it had no credible evidence of this claim. A few days later, the *Jerusalem Post* cited Israeli government experts as saying that the Iranian documents referred to are authentic. It also claimed that US government experts were convinced that Iran had "some sort of a non-operational nuclear device". The report in *Jane's* also alleges that at the time, Russian nuclear specialists were expected to demonstrate how to decouple safety mechanisms that had rendered the devices non-operational.

Russia's Minister for Atomic Energy has denied an American report that Russia might be selling Iran a gas centrifuge for uranium enrichment.

The UK Foreign Secretary has announced that during the past year British intelligence services had disrupted "Iranian attempts to procure British [nuclear] technology".

A shipment of 22 tons of a special steel alloy used in the production of fuel tanks for ballistic missiles has been stopped by customs officers in Azerbaijan, on its way from Russia to Iran. Reportedly, several days before the material was to leave Russia, US officials warned Moscow of the impending move, but they were told that the information had not been detailed enough to have the transport halted in time. The issue of Russian exports to Iran is seen in Washington as a source of increasing friction between Russia and the US. Iran's ability to manufacture ballistic missiles is reported to be a source of concern in Israel and a number of western states. Teheran is said to have deployed a 900 mile (1,440 km) range surface-to-surface missile, the 'Shihab-3', in an underground missile base that may have been under construction for several years in the Bakhtaran, near the country's western border, within reach of Israel. The missile is said to be based on the DPRK's 'Nodong' missile, improved with Russian assistance.

The US Administration is reported to have declared 20 Russian agencies and research facilities that might have provided or might be providing assistance to Iran's missile programme, ineligible to receive US assistance. Reportedly to help him persuade Russia to decide voluntarily not to make missile sales to Iran, President Clinton has vetoed new Congressional legislation that would impose mandatory sanctions on such sales.

(WP, 7/4; AP, 9/4; JP, 9/4, 10/4, 12/4, 16/4, 24/4; DT, 10/4; DJ, 16/4; JDW, 22/4; I, 24/4; NYT, 25/4, 26/6; R, 25/4; RIA News Agency [Moscow], 9/5, in BBC, 12/5)

- It was announced on 3 April, that inspections had been made in Iraq at each of the 1,058 buildings at the eight 'presidential sites.' Most of the buildings are said to have been empty (the term used was "totally evacuated") and no prohibited material was found. UN officials were quoted as saying that they had not expected to find much but that the visits served as a precedent for the United Nations Special Commission (UNSCOM)'s right to unrestricted access. The 71 arms monitors who took part in the inspection were said to have had all the access they wanted; parts of the compound around the Republican Palace were open only to the chief inspector, two senior arms experts, and the head of the group of diplomats which monitored the inspections, Ambassador Jayantha Dhanapala. The diplomats were reported to have left Baghdad after completing a report which Ambassador Dhanapala submitted to the UN Secretary-General. Meanwhile, inspections at other sites continued. The opulence of some of the presidential buildings visited, and the impression gained by the visitors that Iraq's leaders spend lavishly, in disregard of the hardships the embargo causes for the Iraqi people, is thought to have had some influence on the subsequent Security Council decision to leave the sanctions in place.

There were indications that Iraqi officials saw the inspections at the eight 'presidential sites' as a finite process that would end soon after some short follow-up visits. This view was not shared by UNSCOM, which treated the visits as preliminary inspections or "base line visits" that could be followed up by substantive searches. From

the UN side, however, it was made clear that there was no time limit on inspections nor any restriction on future access. So far the matter has not been put to the test.

The report of the independent experts who were called by the UN at Iraq's initiative to review its progress in eliminating biological weapons, was said to coincide largely with UNSCOM's view that the disclosures Iraq had made so far were "incomplete, inadequate and technically flawed" and that its claim that missile warheads containing biological agents had been destroyed, could not be reconciled with physical evidence. The team, made up of experts from thirteen countries, including the P-5, China, France, Russia, the UK and the US, and specialists from states friendly to Iraq, were said to agree with UNSCOM that Iraq may still have an active biological weapons programme or the means to initiate one at short notice.

On 16 April, the Chairman of UNSCOM also submitted his semi-annual report to the Security Council. This said, among other things, that Iraq still had not made the full, final and complete declarations on its various weapons programmes which it is held to make under the pertinent Security Council resolutions. In fact, the report intimated that Iraq was no closer to meeting the requirements for the lifting of sanctions than it had been last October, when it first raised barriers to the continued application of UNSCOM's verification activities. The four-month confrontation this gave rise to is said to have caused UNSCOM to have made virtually no headway in determining whether and to what extent Iraq is in compliance with its obligation to eliminate all its weapons of mass destruction, their delivery vehicles, and the means of producing them. Doubt was expressed of Iraq's contention that it has indeed done so and that some weapons still in its possession have become useless over time. A case in point was seen in UNSCOM's disclosure that artillery shells discovered earlier but tested only recently, turned out to contain active mustard gas. As reported, Iraqi officials had claimed that the gas was no longer effective. Apparently, several hundreds of these shells remained unaccounted for. These findings, together with those of the various international technical teams — on chemical-weapon developments, on Iraq's missile-production capabilities, and most recently on biological weapons — were seen to make an early end to the sanctions unlikely.

Iraq nevertheless increased its pressure to have the sanctions lifted; an official government statement warned of a new crisis, should the sanctions be maintained; reportedly, Iraq had been hoping that the sanctions would be lifted shortly. On 23 April, just before the Security Council was due to discuss the issue, Deputy Prime Minister Tariq Aziz in a letter to the Security Council formally demanded that sanctions be lifted "immediately without any new restrictions or conditions". The letter dismissed UNSCOM's latest report as full of "tremendous and flagrant fallacies and lies" and demanded a public hearing of all charges. It also expressed disappointment at the findings of the technical experts meetings. Officials in Baghdad warned the Council to pay serious heed to the threat that Iraq's enemies would pay a heavy price if the sanctions were not lifted, and announced that, if they were maintained, Iraq would disregard them.

The Security Council met on 27 April to review the sanctions. It noted that the most recent UNSCOM reports, including the reports of the technical evaluation meetings referred to, indicated that Iraq had not provided full disclosure in a number of critical areas and called on Iraq to do so, and once again decided to extend the sanctions. One concession to Iraq was that the period until the next time the Council will consider the matter was reduced from six months to sixty days. Reportedly, shortly before the Security Council met, Iraq had rejected as inadequate a proposal circulated by Russia in a draft resolution, to lift the sanctions in stages.

On 1 May, Baghdad issued Iraq's formal reply to the review by the Security Council. In a letter from the Revolutionary Command Council and the Ba'ath Party Leadership, it announced once again that the Security Council would have to face "serious consequences" if sanctions were not lifted. In a meeting with Secretary-General Kofi Annan in early May, Iraq's Deputy Prime Minister Tariq Aziz asked Mr. Annan to speed up the work of UN inspectors and so hasten the lifting of the sanctions.

The question whether a relaxation is due in the way Iraq's nuclear programme is monitored has divided the US and several of the permanent members of the Security Council since the submission on 9 April of the latest six-monthly report from the IAEA on its activities in Iraq. This says that the Agency's ongoing monitoring and verification activities since October 1997 have not revealed indications of the existence in Iraq of prohibited equipment or materials or of the conduct of prohibited activity. The report also states that Iraq has successfully given a full, final and complete account of its past nuclear weapons programme. Reportedly, the IAEA has suggested that it should refocus its efforts on long-term monitoring while retaining the right to investigate Iraq's clandestine programme and act upon any new information that might come to its attention. Apparently, a Russian draft resolution circulated before the Security Council's meeting of 27 April contained the proposal that the IAEA's intrusive inspections for nuclear weapons should be replaced by a long-term monitoring system, known as Ongoing Monitoring and Verification (OMV). However, in light of the negative information in the UNSCOM report about Iraq's compliance with its obligations regarding chemical and biological weapons and means of their delivery, the US has indicated that it could not agree to this move. Although in principle a shift to the OMV mode would still leave the IAEA with the right to inspect suspect sites at short notice, it was seen by some as raising the risk that it might prompt Iraq to maintain that the IAEA's inspections should be no more intrusive than those applied elsewhere.

The Security Council discussed the matter again on 14 May. It asked the IAEA in the report due by 11 October, to provide information "whether the necessary and substantive clarifications had been made by Iraq, including responses to all IAEA questions and concerns." The Council agreed that once it heard that those clarifications had been made, it would agree in a resolution that the IAEA "dedicate resources to implement its ongoing monitoring and verification activities as approved under resolution 715 (1991)". On 31 July, the IAEA is to present a status report.

The decision of the Security Council was laid down in a statement of 14 May by its President which is reproduced below in section IV. **Documentation**, page 19.

The Council's decision seems to represent a compromise between China, France and Russia on the one hand, who are said to favour a prompt transition to OMV, and the US, which holds that the time may not be ripe for a different nuclear verification regime, since Iraq has not answered all the questions about its nuclear programme, and that the nuclear file should not be closed. This position is backed domestically by a number of American experts who have met the IAEA's report with skepticism, believing that Iraq's past records of deception and the continued availability of highly-trained scientists and technicians will enable it to resume its weapons programme at short notice and that any relaxation in the monitoring system would give Iraq more room to hide clandestine activities.

In early May, there were reports in American media that the IAEA was investigating a secret Iraqi memorandum about an offer by the Pakistani nuclear-weapon scientist A.Q. Khan to sell Iraq designs of a nuclear bomb. The Agency has confirmed this. An Iraqi government spokesman is quoted in the US press as having said that a Greek intermediary had offered to give Iraq an introduction to a Pakistani scientist who could help it build a bomb; Iraq had rejected the offer and informed the IAEA. Both Dr. Khan and the Pakistani government are said to have denied involvement.

On 3 and 4 June, upon the request of the Security Council, UNSCOM's Executive Chairman and members of his staff gave a detailed briefing on the information Iraq had failed to provide on its biological and chemical weapons programmes and missile development. This involved unusually detailed technical presentations, accompanied by aerial photographs and satellite imagery, said to show instances where Iraqi claims were gainsaid by evidence. The presentation sketched, among other things, problems arising from Iraq's claim to have unilaterally destroyed most of its weapons of mass destruction, including warheads and propellants; Iraq's denials of the production of certain warfare agents, which subsequently turned out to be incorrect; the systematic effort to "move around, reclassify, destroy or retain documents" about weapons programmes and the clandestine retention and concealment of weapons, including missiles, missile components, biological and chemical stockpiles.

As reported, UNSCOM's analysis of areas where information was lacking, and of the actions Iraq would still have to take to meet its obligations under the Security Council resolutions, had permitted the preparation of a list of issues to be taken up with Baghdad, described as a "road map" towards the fulfillment of the conditions that would make it possible to lift the sanctions. At the UN, Iraq's foreign minister rejected as "a non-starter", Butler's conclusions that Iraq was still withholding critical material and information, and claimed that all relevant documents had been presented.

From 11 to 14 June, UNSCOM's Executive Chairman, accompanied by his Deputy and four Commissioners, had consultations in Baghdad to seek Iraq's cooperation in fulfilling the necessary requirements. As reported, Deputy Prime Minister Tariq Aziz, who led the Iraqi

delegation, did not accept the "road map" but did accept a schedule of work for the next two months aimed at bringing to an end as soon as possible the work of disposing of Iraq's prescribed weapons of mass destruction. The parties said they would resume their discussions during the second week in August and depending on the results, would aim to agree on further work before the presentation of the next semi-annual report to the Security Council.

There was reported to be concern at the UN that Iraq might interpret this agreement as meaning that UNSCOM had committed itself to bring its activity to an end after two more months. UN officials are quoted as saying that it had never been the intention to predict that the conditions for ending sanctions could be met by then; rather, a first assessment of compliance would be made at that time. Observers noted that in Baghdad, Ambassador Butler had said that his experts were willing to accept that it is impossible to verify every Iraqi claim and that perhaps UNSCOM could not achieve 100 per cent verification. However, Butler confirmed that there had been no change in UNSCOM's demand that Iraq cease its policy of concealment. Reportedly, at the Baghdad meeting, Deputy Prime Minister Tariq Aziz had agreed to deal by August with a list of outstanding issues. There were said to be a number of items he had refused to discuss, however. Among these was the issue of nerve agent VX, which he stated was now closed. This is seen as particularly important, both in UNSCOM and in Washington, where new evidence was said to have emerged, based on US laboratory analyses, that before the 1990 war, Iraq had loaded VX into missile warheads, which would confirm earlier suspicions that it had succeeded in stabilising and weaponising this highly lethal warfare agent. Iraq flatly rejected this conclusion.

Iraq's Deputy Prime Minister also contended that on biological weapons, Iraq had presented all the available evidence and would give no more information or documentation. Tariq Aziz had asked for a new technical evaluation of the entire biological issue, which would include international experts; this meeting has since started in Vienna and was scheduled to continue until it had settled all outstanding problems. Iraq had also refused to account for proscribed missile propellants. Among other items on which there was still disagreement was the proposal by UNSCOM to have a special meeting to discuss the issue of possible concealment activities by Iraq. Yet another subject on which the two sides were reported to be at odds was that of aerial surveillance. France and Russia were prepared to carry out part of this activity and while expressing agreement, Iraq demanded that UNSCOM should stop using the American U-2 aerial surveillance aircraft.

On 24 June, Ambassador Butler briefed the Security Council in closed session. Reportedly, he said the tests had shown unambiguously that VX had been loaded into missile warheads. Two days earlier, Tariq Aziz had written to the Security Council, criticising Butler's report as misrepresenting Iraq's willingness to make a full disclosure and "concentrating on controversial points in a manner that fails to give a balanced and objective picture...". Reportedly, the Security Council asked UNSCOM to have further analyses made of the supposed traces of VX nerve agent, in French and Swiss laboratories. The Council also urged Ambassador Butler to press ahead with the work schedule for Iraq's

disarmament that had been discussed in Baghdad. It was reported that France and Russia were encouraging Iraq to make a full disclosure of its VX deployment.

Iraqi sources have reported that on 23 June, the leadership of the Ba'ath Party had reaffirmed their statement of 1 May that demanded the speedy lifting of sanctions and had decided that if this did not take place to consider an appropriate reaction. The official Iraqi News Agency called the findings of the laboratory analysis "baseless and mere fabrications".

Even before the discussions started in the Security Council, Republican politicians drew attention to the VX issue as demonstrating a need to give strong support to further aggressive UNSCOM inspections in Iraq, as well as efforts to overthrow President Saddam Hussein. Congressional leaders wrote to President Clinton on the matter, alleging that the US had not responded to attacks on the integrity of US-provided intelligence information presented by UNSCOM to the Security Council, had acquiesced in the suspension of challenge inspections by UNSCOM designed to uncover evidence of Iraqi concealment, and was no longer urging UNSCOM to present strong evidence of Iraqi violations to the Security Council. Republican Senators warned that the issue would "figure heavily" in the nominations of Richard Holbrooke as UN Ambassador and Bill Richardson as Secretary of Energy (see also page 16). At the UN, meanwhile, Ambassador Richardson called the disclosures about Iraq's nerve-agent activities "a nail in the coffin for Iraq's efforts to lift sanctions".

A recent American book about the war in the Persian Gulf alleges that even before that war, the US suspected Iraq of having biological weapons. The fact that Iraqi soldiers captured in a secret raid were supposedly found to have been recently immunised against anthrax is said to have been a factor in accelerating US military action.

In a letter to the UN Secretary-General, Iraq has demanded compensation for supposed damage to the health of people in the southern part of the country during the Persian Gulf War, done by shells fired from British tanks that were made with depleted uranium. The UK Ministry of Defence says that 88 such shells were fired in Iraq and that there is no evidence to suggest they caused ill-health (sic).

(NYT, 4/4, 10/4, 15/4, 17/4, 19/4, 21/4, 25/4, 26/5, 28/4, 29/4, 1/5, 9/5, 13/5, 15/5, 1/6, 4-7/6, 15/6, 17/6, 19/6, 23-25/6; USIA, 4/4; UNSCOM, 8/4; SG-Sp, 13/4, 14/4; WP, 14/4, 18/4, 22/4, 14/6, 23/6; LT, 14/4, 1/7; DT, 16/4, 18/4, 28/5; FAZ, 18/4; IAEA GOV/INF/1998/13, 22/4; IHT, 27/4, 29/4, 30/4, 4/5, 8/5, 1/7; NZZ, 27/4, 29/4, 4/5; AP, 4/5, 24/6; R, 7/5, 14/6, 17/6, 22/6; CNN, 14/5, 14/6; S/PRST/1998/11, 14/5; Press Release SC/6516, 14/5; AFP, 14/6; UN Doc. S/1998/545, 21/6. See also Newsbrief no. 41, pages 10-17)

- In an interview on Danish television, the former Prime Minister of Israel, Shimon Peres has said that in the 1950s his country began developing a "nuclear option". Reportedly, in the interview Peres did not go so far as to say that Israel actually had nuclear weapons.

According to a report in the *New York Times*, an inquiry about Israel's reaction to the recent nuclear tests in India and Pakistan has elicited the standard response that

"[Israel] will not be the first to introduce nuclear weapons into the Middle East". This was said to have been accompanied by a reference to Iran.

As quoted in the *New York Times*, *Jane's Intelligence Review* says that Israel maintains a missile base at Zachariah with about 50 Jericho-2 missiles, supposed to have a maximum range of 3,000 miles (4,800 kms) with a 1,000 kg warheads. Also according to *Jane's*, Israel may have up to 400 nuclear weapons. A study by the American Rand Corporation commissioned by DoD is quoted as saying that Israel had enough plutonium to make 70 weapons.

(R, 1/5; NYT, 21/6)

- A newspaper in **Jordan** has quoted the Chairman of the Arab Atomic Energy Commission as saying that, given the availability of expertise, money and technology, bought from various sources, the production of an Arab nuclear bomb was no longer a major problem. (**Al-Arab al-Awm**, 14/3, in **BBC**, 17/3)

j. Nuclear Material Trafficking and Physical Security

- Nuclear material seized during an anti-Mafia operation in **Italy** in late March has turned out to have been fuel for a TRIGA Mark II research reactor. According to a report by the nuclear news agency, *NucNet*, police confiscated a fuel rod containing 38 grammes of U²³⁵ and 150 grammes of U²³⁸ in zirconium. It is said to have come from a research reactor in the Republic of Congo and to have been offered for sale for \$12 million. A report in the Austrian periodical, *Profil*, speaks of nine "containers", each with 38 grammes of U²³⁵ and 200 grammes of U²³⁸; the total price as quoted in *Profil* was the same. The Italian police is said to have concluded that the Mafia in Calabria, southern Italy, is in charge of European trafficking in uranium. (**NN**, 27/3; **Profil**, 30/3)
- **Latvia**: Following reports of a possible terrorist attack against a nuclear research reactor near Riga, security at the site has been tightened. (**R**, 9/4)
- In **Russia**, three people have been arrested under suspicion of trying to smuggle dual-use technology to Iran. Reportedly, the attempt involved a large quantity of alloyed steel that was to have been trans-shipped through Azerbaijan. (**AP**, 9/4)

k. Environmental Issues

- On 7 May, shipments of spent fuel to the La Hague reprocessing plant in **France** were halted because some of the shipping casks, as well as the railway cars that carried them, were found to be contaminated; the personnel involved, including railway workers, are said to have shown "no sign of contamination by artificial radio elements". The casks are routinely cleaned before shipment, but for some as yet unknown reason some are said to have shown traces of contamination upon arrival at the facility. Investigations are underway and it is not certain when shipments will be resumed. Most of the transports involved irradiated reactor fuel from Germany, whose government has prohibited such shipments, pending resolution of the problem; the halt will remain in force at least for the rest of the year. Given the anti-nuclear views of Germany's political opposition

and the upcoming general elections, the matter is becoming a political issue and a subject of much press attention. Some German reactor operators are said to worry that unless the matter is resolved soon they will run out of storage room for spent fuel. Germany's environment minister has said that the level of the contamination had at no time represented a danger to public health, but the parliamentary opposition blames her for claiming ignorance of a problem of which allegedly the utilities had long been conscious. The German nuclear industry has apologised for not having informed her earlier; Germany's Federal Chancellor has expressed his strong disapproval of the secrecy. UK nuclear authorities say that only a small fraction of casks in transit between British facilities and the Continent have shown any contamination and that flasks from Germany show lower levels of radiation than are reported in France. One possible reason for the contamination is said to be the phenomenon of "sweating" in which exposure during transport may cause some radioactivity to be released.

(**NF**, 4/5, 1/6; **NW**, 14/5, 21/5, 28/5, 11/6; **SDZ**, 20/5, 22/5, 25-28/5; **R**, 21/5; **EP**, 22/5; **FAZ**, 22/5, 23/5, 28/5; **FT**, 23-24/5, 26/5; **NZZ**, 26/5, 27/5, 29/5; **LM**, 26/5; **DW**, 27/5)

- The IAEA has released a study of the radiological situation at the atolls of Mururoa and Fangataufa, in **French Polynesia**, where France has conducted a series of nuclear tests. The study was launched in 1996 at the request of France and was carried out by 55 experts; 18 scientific laboratories took part.

The ten-member International Advisory Committee that prepared the report has concluded that the residual material is of no radiological significance and that there will be no radiological health effects which could be either medically diagnosed in an individual or epidemiologically discerned in a group of people and which could be attributable to radiation doses from the residual radioactive material remaining at the atolls. The study also assessed the implications of the residual radioactivity for the local biota and concluded that they would not be affected. It concluded therefore that neither remedial actions nor continuing environmental monitoring at Mururoa and Fangataufa are needed on radiological protection grounds but suggested nevertheless that an environmental monitoring programme may be useful in assuring the public about the continuing radiological safety of the atolls.

A follow-up conference is being held at IAEA headquarters from 30 June to 3 July.

(**IAEA Document GOV/1998/14**, 20/4; **IAEA Press Release 98/4**, 29/5; **NW**, 18/6)

- An inquiry into possible radioactive contamination caused by the crash in Amsterdam in 1992 of an Israeli cargo jet is underway in the **Netherlands**. Traces of radioactivity are claimed to have been found, which might either stem from wingtip ballast of depleted uranium or from the plane's cargo. (**FAZ**, 30/3; **DW**, 31/3; **LT**, 3/4)
- Companies from France, Norway, Sweden and the UK are expecting to undertake a large nuclear clean-up project in the Kola Peninsula, near Murmansk, in **Russia**,

involving the removal of reactors and spent fuel from over 100 decommissioned submarines. It is anticipated that after removal of the material — which would be taken to the Siberian nuclear complex of Chelyabinsk for reprocessing and storage — there will have to be an extensive clean-up operation of the heavily contaminated area, from which effluents threaten to contaminate the Barents Sea. The project has apparently not yet been approved by Russia's naval authorities. During a state visit by the King of Norway to Moscow, President Yeltsin is supposed to have said that he would be prepared to have the work done, but that Norway would have to advance the funds.

A Russian missile specialist has warned that many of the country's SS-N-18 liquid-fuelled missiles, of which 208 are said to be deployed on Delta-class submarines in the Northern Fleet, are corroded and potentially unreliable. The SS-N-18 missile was first deployed 20 years ago. His comments follow an incident involving a Russian nuclear missile submarine on 5 May, which sent an emergency call and was escorted to its base at the Kola Peninsula. A western source alleges that there had been a fuel leak from a missile aboard the submarine.

One of the initiators of the clean-up project in the Kola Peninsula is Russian former naval captain Alexandr Nikitin, who was imprisoned for treason after he told the Norwegian environmental group Bellona about radioactive waste dumped by the Russian navy off Kola, and later released, has been charged once again. Nikitin is said to be unable to defend himself as he is not permitted to see the charges. Confined to St. Petersburg pending settlement of the case, he is said to be under continuous harassment by the intelligence services.

(**Foreign Report**, 14/5; **WP**, 14/5; **LT**, 22/5; **EP**, 27/5; **SDZ**, 27/5; **SN**, 27/5)

- In the **United States**, the State of Washington is suing DoE for non-compliance with the 1989 timetable for cleaning up the Hanford nuclear reservation. Of the 149 old underground tanks, at least 70 are said to be leaking. DoE was committed to pump radioactive waste from the old tanks into new double-shelled tanks. (**SF**, 15/6. See also **Newsbrief** no. 41, page 19.)

I. Miscellaneous

- There are reports from **Norway** that in the period 1950–1972, radiation experiments were carried out in that country on mentally retarded or insane individuals. The experiments are said to have been made with American backing and funds. (**IHT**, 29/4)
- As expected, in **Russia**, Yevgeny Adamov was reappointed as Minister for Atomic Energy Affairs in the new cabinet. Among changes reported by the new Minister are cuts in the personnel of Minatom's military branch. (**FT**, 11/5; **NW**, 14/5)
- About 375 lbs (180 kg) of enriched uranium which was reported to have been missing from the Dounreay reprocessing plant in the 1960s is now said never to have existed. The initial calculation of material unaccounted for is thought to have been based on an overestimation of stocks. The situation, which came to light only recently, is turning into a political issue, with anti-nuclear groups calling for an investigation. It has been decided that upon

completion of existing contracts, in the early years of the next century, the reprocessing plant will be shut down, for what are said to be "business reasons". (**IHT**, 4/6; **LT**, 4/6; **FT**, 6-7/6, in **UINB**, 98.23)

- In the **United States** on 5 April, Energy Secretary Federico Peña announced his decision to resign for personal and family reasons by 30 June. His departure is expected to delay the completion of a number of pending projects and decisions, including plutonium disposition, tritium production, and the disposal of nuclear waste. Ambassador Bill Richardson, currently the US Representative to the United Nations, has been nominated as Peña's successor. As the new UN Ambassador the President has nominated Ambassador Richard C. Holbrooke. Hearings on both nominations were expected to be delayed as a result of Republican Congressional criticism of the Administration's handling of the situation in Iraq. Richardson's nomination had already been said to be at some risk as a result of Congressional disagreement with the way the Administration is dealing with the disposal of nuclear waste. (**NPR**, 6/4; **NW**, 9/4, 30/4, 25/6; **SF**, 13/4, 22/6; **FT**, 11/5; **NYT**, 18/6, 19/6; **WP**, 23/6)

II. PPNN Activities

- With the start of the new phase of PPNN's existence, PPNN's Core Group has been reconstituted. Dr. Djali Ahimsa (Indonesia), Ambassador Jayantha Dhanapala (Sri Lanka), Ambassador Oleg Grinevsky and Ambassador Yoshio Okawa (Japan) have left. New members are Dr. Raja Adnan (Scientific Advisor, Permanent Mission of Malaysia to the International Organizations in Vienna), Ambassador Grigori Berdennikov (Director, Department of Security and Disarmament, Ministry of Foreign Affairs, Russian Federation), Ambassador Rolf Ekéus (Ambassador of Sweden to the United States), Ambassador Akira Hayashi (Permanent Representative of Japan to the Conference on Disarmament, Geneva), Ambassador Mahmoud Karem (Deputy Assistant Foreign Minister for Disarmament, Egypt), Dr. Iftekhar uz Zaman (Bangladesh, Executive Director, Regional Centre for Strategic Studies, Colombo). Two current members of the Core Group have assumed new functions: Ambassador Olu Adeniji (Nigeria) as Special Representative of the UN Secretary-General for the Central African Republic, and Ambassador Martine Letts (Australia) as her country's Ambassador to Argentina. They remain on the Core Group.
- On 29 May, the Core Group held its twenty-third semi-annual meeting, at the Chilworth Manor Conference Centre, Chilworth, Southampton, United Kingdom. All members attended except Olu Adeniji, Grigori Berdennikov, Rolf Ekéus and Martine Letts. Discussions focussed on the consequences of the nuclear tests in India and Pakistan, on the basis of introductory comments by Iftekhar uz Zaman, Fan Guoxiang and Lewis Dunn, and background papers by Lewis Dunn, Ben Sanders, John Simpson and Iftekhar uz Zaman. Gary Dillon, leader of the Iraq UNSC Resolution 687 (1991) Action Team of the IAEA made a presentation to the Core Group on the implementation of the nuclear element of that resolution. The Core Group also had its customary discussion of administrative matters,

including finance, the programme of meetings and the publications programme.

On Saturday 30 and Sunday 31 May, as part of a series of meetings co-sponsored with the Center for Non-Proliferation Studies (CNS), Monterey Institute of International Studies, Monterey, USA, on the consequences of NPT Review Conferences and the sessions of the Preparatory Committee (PrepCom) for those conferences, PPNN convened a workshop for senior government officials who had attended the 1998 PrepCom session.

The workshop was divided into three main sections and a short concluding session. Discussions in the main sections were guided by a list of issues/questions which had been distributed to participants in advance. The first section, chaired by Ben Sanders, was on **The Review and Analysis of the 1998 PrepCom Session**. It was opened by brief statements from Li Changhe (China), Peter Goosen (South Africa), Mark Moher (Canada) and Marek Orlinski (Poland). The second section, on **The Implications of the 1998 PrepCom Session for the 1999 Session**, was chaired by William Potter; introductory comments were presented by Akira Hayashi (Japan), Hannelore Hoppe (PrepCom Secretary), Mahmoud Kareem (Egypt) and Juliet Swiecicki (USA). The third section: **The Review Conference of 2000: Some Preliminary Thoughts**, was chaired by Sudjadnan Parnohadiningrat and initiated by short statements from Hamid Baidi-Nejad (Iran), Timo Kantola (Finland), Olexiy Rybak (Ukraine) and Ian Soutar (UK). In the **Concluding Session** remarks were made by Sudjadnan Parnohadiningrat, William Potter and Ben Sanders. An additional session was held after the scheduled close of the workshop, on the recent events in South Asia.

- PPNN plans to hold its next (24th) semi-annual Core Group meeting at the Pocantico Conference Center of the Rockefeller Brothers Fund, Tarrytown, New York, from Thursday 29 October to Sunday 1 November 1998. The 25th Core Group meeting which, if possible, will be combined with a briefing seminar on the 1999 PrepCom Session, will be held at the Chauncey Conference Center near Princeton, New Jersey, from 11 to 15 March 1999.
- At the 1998 PrepCom Session in Geneva, PPNN distributed copies of the revised and updated versions of **Volume I** and **Volume II** of the **PPNN Briefing Book**. In addition, three newly-published **Issue Reviews**, **No. 12: Approaches to Disarmament: Two Views**, by Harald Müller and Makarim Wibisono; **No. 13: A Ban on Production of Fissile Materials for Weapon Purposes: Doomed Prospects**, by Harald Müller; and **No. 14: The 1998 PrepCom for the 2000 Review Conference: Issues and Options**, by John Simpson and Emily Bailey, were made available to delegates.

III. Recent Publications

Books

Harald Müller (Ed.), *Europe and Nuclear Disarmament: Debates and Political Attitudes in 16 European Countries*, PRIF, European Interuniversity Press, Brussels, Series "European Policy", No. 14, 311 pp.

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IV. Documentation

[Note: documentation relevant to the recent events in India and Pakistan are included in the special supplement to this issue of the *Newsbrief*.]

The situation between Iraq and Kuwait (S/PRST/1998/11 of 14 May 1998)

STATEMENT BY THE PRESIDENT OF THE SECURITY COUNCIL

At the 3880th meeting of the Security Council, held on 14 May 1998, in connection with the Council's consideration of the item entitled "The situation between Iraq and Kuwait", the President of the Security Council made the following statement on behalf of the Council:

The Security Council has reviewed the report of 16 April 1998 from the Executive Chairman of the United Nations Special Commission (S/1998/332) and the report of 9 April 1998 from the Director General of the International Atomic Energy Agency (IAEA) (S/1998/312). The Council welcomes the improved access provided to the Special Commission and the IAEA by the Government of Iraq following the signature of the Memorandum of Understanding by the Deputy Prime Minister of Iraq and the Secretary-General on 23 February 1998 (S/1998/166) and the adoption of its resolution 1154 (1998) of 2 March 1998. The Council calls for continued implementation of the Memorandum of Understanding.

The Security Council expresses the hope that the agreement by the Government of Iraq to fulfil its obligation to provide immediate, unconditional, and unrestricted access to the Special Commission and the IAEA will reflect a new Iraqi spirit with regard to providing accurate and detailed information in all areas of concern to the Special Commission and the IAEA as required by the relevant resolutions.

The Security Council expresses its concern that the most recent reports of the Special Commission, including the reports of the technical evaluation meetings (S/1998/176 and S/1998/308), indicate that Iraq has not provided full disclosure in a number of critical areas, in spite of repeated requests from the Special Commission, and calls upon Iraq to do so. The Council encourages the Special Commission to continue its efforts to improve its effectiveness and efficiency and looks forward to a technical meeting of the members of the Council with the Executive Chairman of the Special Commission as a follow-up to the review of sanctions held by the Council on 27 April 1998.

The Security Council notes that the Special Commission and the IAEA must discharge their mandates as defined under resolutions 687 (1991) of 3 April 1991 and 707 (1991) of 15 August 1991 with full Iraqi cooperation in all areas, including fulfilment by Iraq of its obligation to provide full, final and complete declarations of all aspects of its prohibited programmes for weapons of mass destruction and missiles.

The Security Council notes that the investigations by the IAEA over the past several years have yielded a technically coherent picture of Iraq's clandestine nuclear programme, although Iraq has not supplied full responses to all of the questions and concerns of the IAEA, including those specified in paragraphs 24 and 27 of the report of the Director General of 9 April 1998.

The Council affirms its intention, given the progress of the IAEA, and in line with paragraphs 12 and 13 of resolution 687 (1991), to agree in a resolution that the IAEA dedicate its resources to implement the ongoing monitoring and verification activities of the IAEA under resolution 715 (1991) of 11 October 1991, upon receipt of a report from the Director General of the IAEA stating that the necessary technical and substantive clarifications have been made, including provision by Iraq of the necessary responses to all IAEA questions and concerns, in order to permit full implementation of the ongoing monitoring and verification plan approved by resolution 715 (1991). In this regard, the Council requests the Director General of the IAEA to provide this information in his report due on 11 October 1998 and to submit a status report by the end of July 1998 for possible action at that time.

The Security Council acknowledges that the IAEA is focusing most of its resources on the implementation and strengthening of its activities under the ongoing monitoring and verification plan. The Council notes that, within the framework of its ongoing monitoring and verification responsibilities, the IAEA will continue to exercise its right to investigate any aspect of Iraq's clandestine nuclear programme, in particular through the follow-up of any new information developed by the IAEA or provided by Member States and to destroy, remove or render harmless any prohibited items discovered through such investigations falling under resolutions 687 (1991) and 707 (1991) in conformity with the IAEA's ongoing monitoring and verification plan approved by resolution 715 (1991).

V. Comments From Readers/Corrections

- The following information has been received from Mr. Tom Clements, Greenpeace International in Washington, D.C. (tom.clements@wdc.greenpeace.org):

Please allow me to add some information relevant to the first article in [PPNN's Newsbrief] issue number 41 under "Environmental Issues" on page 18 — about the transit of the Pacific Swan — and make a few comments:

1. None of the entities involved in the shipment of radioactive material between France and Japan (British Nuclear Fuels, COGEMA, Japan), nor the Panama Canal Commission (PCC), have prepared any type of environmental assessment on the shipment of radioactive waste or plutonium. Thus, they have made no formal attempt to prove that such shipments are safe. We and a number of governments continually call for and await such documentation. (If these shipments were being conducted by the US at least there would be a public environmental assessment process.) The cargo is without question quite dangerous, each shipment containing more than the amount of cesium released during the Chernobyl accident.

2. Likewise, I am not aware of any security assessment which has been prepared pertaining to transit of nuclear waste along any part of the route or through the Panama Canal. Greenpeace have asked the Panama Canal Commission to show us the documentation which led to one official to say that Greenpeace was a threat to the transit. As no such documentation (declassified or otherwise) or any type of clarification has been provided I have now filed a Freedom of Information Act request for any security assessment and associated memos, cables, etc. (The PCC is subject to FOIA until it is closed at the end of 1999.)

3. The STOP PLUTONIUM banner was hung on a large radio mast and was visible as the ship pulled into the first set of locks. Embarrassed nuclear officials looked on from the side of one of the locks as the ship pulled up to

let on those waiting for a press tour. It was amazing that despite all the advance news reports about the ship arriving at the canal and the talk about the security protection that there ended up being essentially no security. Whomever was in charge of security failed in their job.

4. Greenpeace had nothing to do with any lawsuit brought in federal court in Puerto Rico. Greenpeace filed no friend-of-the-court brief nor helped anyone prepare such a document and we did not know any details of such a filing or its timing. I have not seen anything about our involvement mistakenly reported in any news media.

5. Numerous governments and NGOs have communicated to us that the problem absolutely is due to those who ship nuclear materials as part of the reprocessing and plutonium-stockpiling industry. Similarly Greenpeace firmly believes that those who ship nuclear waste and proliferate plutonium present the problem, not those who point out the environmental and proliferation risks of such. We support the January 30 statement by the Caribbean High Commissioners in London who called for no new reprocessing contracts between Japan and BNFL and COGEMA as a way to greatly reduce the number of shipments.

Abbreviations of Sources

AFP:	<i>Agence France Presse</i>	LAT:	<i>Los Angeles Times</i>
AP:	<i>Associated Press</i>	Lib:	<i>Libération</i>
ASS:	<i>Asahi Shimbun</i>	LM:	<i>Le Monde</i>
BBC:	<i>BBC Monitoring Summary of World Broadcasts</i>	LT:	<i>Times [London]</i>
Carnegie:	<i>Proliferation Brief of the Carnegie Endowment for International Peace</i>	NEI:	<i>Nuclear Engineering International</i>
ChI:	<i>Chosun Ilbo [Seoul]</i>	NF:	<i>NuclearFuel</i>
CNN:	<i>Cable News Network</i>	NN:	<i>NucNet News</i>
CSM:	<i>Christian Science Monitor</i>	NPR:	<i>National Public Radio</i>
DJ:	<i>Dow Jones Newswires</i>	NW:	<i>Nucleonics Week</i>
DP:	<i>Die Presse</i>	NYT:	<i>New York Times</i>
DS:	<i>Der Spiegel</i>	NZZ:	<i>Neue Zürcher Zeitung</i>
DT:	<i>Daily Telegraph</i>	PBS:	<i>Public Broadcasting System News Hour (TV)</i>
DW:	<i>Die Welt</i>	R:	<i>Reuters</i>
E:	<i>Economist</i>	SDZ:	<i>Süddeutsche Zeitung</i>
EP:	<i>El Pais</i>	SG-Sp:	<i>Secretary-General's Spokesman Daily Press Briefing</i>
FAZ:	<i>Frankfurter Allgemeine Zeitung</i>	SF:	<i>SpentFUEL</i>
FT:	<i>Financial Times</i>	SN:	<i>Salzburger Nachrichten</i>
G:	<i>Guardian</i>	StL:	<i>Standard [London]</i>
I:	<i>Independent</i>	StV:	<i>Standard [Vienna]</i>
IHT:	<i>International Herald Tribune</i>	ST:	<i>Sunday Times [London]</i>
Izv:	<i>Izvestia</i>	UINB:	<i>Uranium Institute News Briefing</i>
JDW:	<i>Jane's Defence Weekly</i>	UPI:	<i>United Press International</i>
JoC:	<i>Journal of Commerce</i>	USIA:	<i>United States Information Agency Transcript</i>
JP:	<i>Jerusalem Post</i>	Ux:	<i>Ux Weekly</i>
KH:	<i>Korea Herald</i>	VoA:	<i>Voice of America</i>
KT:	<i>Korea Times</i>	WP:	<i>Washington Post</i>
KV:	<i>Kurier [Vienna]</i>	WP/NWE:	<i>Washington Post National Weekly Edition</i>
		WSJ:	<i>Wall Street Journal</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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