October 1996

Programme for Promoting Nuclear Non-Proliferation, Newsbrief, Number 35

Citation:

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.

Credits:

This document was made possible with support from Carnegie Corporation of New York (CCNY)

Original Language:

English

Contents:

PROGRAMME FOR PROMOTING NUCLEAR NON-PROLIFERATION

Number 35 NEWSBRIEF 3rd Quarter 1996

Editorial Note

The **Newsbrief** is a quarterly publication of the Programme for Promoting Nuclear Non-Proliferation (PPNN) which gives information about the actual or potential spread of nuclear weapons and about moves to prevent that spread; it also contains selected references to developments relating to the peaceful uses 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 developments.

This issue of the **Newsbrief** covers the period July–September 1996. Unless otherwise indicated, sources used and publications listed date from 1996.

The limited size of the **Newsbrief** makes it necessary to choose among items of information and present them in condensed form. The special attention the media tend to pay to particular issues and events, and the fact that many press organs take their information from the same sources, means that often different news items cover the same ground. This adds to the need for careful selection of references to be used for the **Newsbrief** from among the available material.

Subheadings used in the **Newsbrief** are meant to facilitate presentation and are not intended as judgements on the nature of the events covered.

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 NPT

- During the run-up to the fifty-first regular session of the UN General Assembly, consultations were held in New York among the Depositary States of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and the UN Secretariat, about preparations for the first session of the Preparatory Committee (PrepCom) for the sixth Review Conference of the NPT. The Depositary Powers called a caucus of representatives of states party to the Treaty, to discuss when and where the PrepCom would have its first session, and to elaborate a draft resolution to be submitted for the

Contents

consideration of the Assembly's First Committee, by which the Assembly would note parties' confirmation of the determination of the Decision taken at the 1995 Review and Extension Conference, to hold a Review Conference every five years, which would be preceded by PrepCom meetings in each of the three years prior to the Review Conference with, if necessary, a fourth PrepCom meeting in the year of the Conference. The Resolution would contain a request to the Secretary-General to render the necessary secretarial assistance. (**Direct Information**, August/September)

b. Further Non-Proliferation Developments

- At the second plenary session of the parties to the **Wassenaar Arrangement on Export Controls for Conventional Weapons and Dual-Use Goods and Technologies**, which was held in Vienna on 11 and 12 July, the **Russian Federation** agreed to the provision that a party to the Arrangement which supplies sensitive dual-use technologies to a state that other parties have put on a restricted list should give advance notification of those supplies to the other parties. At the previous plenary meeting, in April, Russia had proposed that members should give such notification 30 to 60 days after shipment had taken place. (See **Newsbrief** 34, page 2). Its change in position is ascribed to a more cooperative attitude on arms control issues following the re-election of President Boris Yeltsin. (**Arms Control Today**, July; **Guardian**, 11/7; **International Herald Tribune**, 13/7; **Financial Times**, 13-14/7)

- The President of **Belarus** has proposed the creation of a nuclear-weapon-free zone consisting of the former Socialist countries of eastern Europe, Belarus, Ukraine, and the Baltic states. In the Conference on Disarmament **Belarus** has proposed the start of negotiations on this issue in the Organization for Security and Cooperation in Europe (OSCE). It is expected that Belarus and Ukraine will submit a draft resolution on this subject to the General Assembly at its 51st session, which began on 24 September. (**Neue Zürcher Zeitung**, 4/7, 30/8; **Die Welt**, 30/8)

- The spent fuel of at least three research reactors in **Germany** will be sent back to the **United States** pursuant to last year's take-back offer of the Department of Energy (DoE). It had been reported initially that German authorities preferred to send the fuel to the UK for reprocessing (see **Newsbrief** 34, page 2). A US Federal District Court has rejected the claim of the state of South Carolina that, before fuel can be accepted for storage at the Savannah River Site, further study should be made of the impact that tornadoes or seismic disturbances might have on the project. The state had also argued that the storage facilities at the site were not designed for long-term storage. The judge's ruling was based on the argument that the shipments were 'necessary in light of the nonproliferation interests of the United States' and that greater harm would result if the spent fuel did not come under US control. Reportedly, the ruling — which South Carolina said it will not appeal — may have helped bring about the change in the German decision. The first two shipments of US-origin spent fuel assemblies arrived at Charleston, South Carolina on 22 September. (**NuclearFuel**, 12/8, 26/9; **New York Times**, 17/8; **SpentFUEL**, 19/8, 2/9)

- Research organisations from **Japan**, the **United Kingdom** and the **United States** are said to be working together on a new technology, called super-critical fluid extraction, by which uranium would be removed from spent fuel without the usual solvent reprocessing methods. (**NuclearFuel**, 12/8)

c. Nuclear Disarmament and Arms Limitation

- In its Advisory Opinion handed down on 8 July, on the 1994 request of the UN General Assembly, the **International Court of Justice** has ruled that the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law. The Court was unable to conclude definitely whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of the state would be at stake. The ruling was adopted by a split vote of the fourteen members of the Court, with the President casting the deciding vote. It may be noted that three of the dissenting justices opposed the ruling because they felt it did not go far enough. In a unanimously adopted *Obiter Dictum* the Court held that '[t]here exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control'. The Court dismissed a request by the World Health Organization for an opinion on the legality of nuclear weapons, because it held that it was not within the competence of that organization to request such an opinion. The text of the Advisory Opinion is reproduced in **IV. Documentation** of this **Newsbrief**, together with the Declaration of the President of the Court.

  Reactions to the Court's ruling varied. The Chief Naval Judge Advocate (legal advisor) of the British Royal Navy is reported to have expressed the opinion that given their existing policies it was inconceivable that the nuclear powers would be presently prepared to relinquish possession of nuclear weapons. He is also quoted as having said that the commanders of the Trident nuclear missile force would not be acting illegally in obeying the orders of the state. The French Foreign Ministry has questioned the competence of the Court in the issue. The mayor of Hiroshima expressed his disappointment at the Court's lack of a clear decision on the legality of the use of nuclear arms for self defence. He challenged the basis for the existence of a court whose opinions were merely a confirmation of the present situation. The mayor of Nagasaki also expressed anger about the ruling.

  (**ICJ Communiqué**, 96/23, and 96/23 Corr., 8/7; **Jiji Press News Wire**, 8/7; **Financial Times**, 9/7; **Washington Post**, 9/7, 11/7; Information from **International Peace Bureau**, 9/7; **New York Times**, 9/7; **Guardian**, 9/7; **Asahi Evening News**, 9/7; **Times** [London], 18/7; **International Herald Tribune**, 18/7)

- **Belgium** has said that it is ready, willing and able to help the **United States** dispose of its surplus weapons

plutonium by building a mixed-oxide fuel (MOX) fabrication plant in the US. The firm Belgonucleaire has received certification for the construction of its new-design MOX plant in Belgium, but there is currently a moratorium on its construction (see also **Newsbrief** 34, page 5). Reportedly, it would cost less to build this plant for the disposition of weapons-grade plutonium than for commercial use, as the former is less radioactive; in the US, where there are large quantities of plutonium to dispose of, plant capacity would also be higher than it would be in Belgium. Lastly, construction costs in the US could be written-off over a fixed period, while in Belgium the facility would have to be amortised over the period that contracts are certain. Belgonucleaire has let it be known that it would be ready to fabricate test fuel rods and assemblies at its existing MOX plant at Dessel and deliver MOX reloads for commercial US reactors, while the plant was being built in the US. A study commissioned by the US Department of Energy (DoE) on options for plutonium disposition (principally three: burning plutonium in mixed-oxide fuel; immobilising it; and burying it in deep boreholes) is said to favour a dual approach that involves consuming some plutonium in MOX fuel in light-water or Candu-type reactors and disposing of some as waste immobilised by vitrification, ceramic immobilisation or electrometallurgical treatment. Reportedly, however, the cost and the time factors in each of these options present so many uncertainties, and are dependent on so many assumptions, that projections can only be very rough. Apparently, DoE estimates that vitrification may be cheaper than burning excess plutonium in MOX fuel. A decision is expected in December of this year and recent reports indicate that there is a high likelihood that DoE will opt for a dual-track approach, of both using MOX fuel to burn plutonium and vitrification. Canada had previously proposed burning excess US plutonium in MOX fuel in the Bruce-A generating station which, it maintains, could be modified for this purpose relatively easily. Besides cost considerations, however, the idea of converting plutonium to fuel has raised opposition among environmentalists who argue that it would involve unnecessary transport. Waste management experts, on the other hand, point to a number of problems connected with vitrification, arguing that before vitrification can be attempted, further detailed study is needed of, among others, the question of the amount of plutonium that can be safely immobilised in glass without changing its physical-chemical properties. It is also argued that disposition of vitrified plutonium may pose criticality risks that may last for thousands of years. Safeguards are also said to raise problems, reportedly because current techniques do not give continuity of knowledge of the plutonium in a glass matrix or allow independent verifications.

DoE has begun work on an assessment of the arms control and non-proliferation aspects of each of the plutonium disposition options under review. Many of the public comments received by the Department on the matter see these two issues as central in the choice of any of the principal options; the comments are said to differ, however, in their conclusions as to which option is accordingly to be adopted.

(**Belgonucleaire**, 9/7 in **UI News Briefing**, 96.28; **SpentFUEL**, 15/7, 5/8, 12/8, 19/8; **Enerpresse**, 15/7; **Nucleonics Week**, 1/8, 15/8; **NuclearFuel**, 12/8)

- In **France**, production of highly-enriched uranium (HEU) has ceased at Pierrelatte. The high-level and very-high-level plant will be permanently closed and dismantled over the next five to seven years. The low- and medium-level enrichment plants at Pierrelatte were closed in 1982–1984. The reprocessing plant at Marcoule is scheduled to close in 1997. These moves are in line with the statement of French President Chirac that France was the first country to make a formal commitment to cut-off of fissile material production. (**NuclearFuel**, 15/7)

- In the **United Kingdom**, a foreign policy and defence document issued by the opposition Labour Party in July, *A Fresh Start for Britain: Labour's Strategy for Britain in the Modern World*, calls for Britain to play a full part in multilateral nuclear disarmament and for the inclusion of British nuclear weapons in the negotiations once there is verified progress towards the goal of the global elimination of such weapons. For now, Labour would retain the British nuclear deterrent, Trident, but would work for a freeze on nuclear warhead numbers, ensuring as a first step that Trident carries no more warheads than Polaris, i.e. three per missile for a total of 192 on four submarines. The document, among other things, calls for a new commitment to transparency by the nuclear-weapon states, which, as a first step, should declare their existing inventories of plutonium and HEU to the IAEA, and open to inspection their nuclear production facilities. It also calls for an internationally verifiable Comprehensive Test Ban Treaty and a negotiated Fissile Material Cut-Off Convention; a negotiated, multilateral no-first-use agreement amongst the nuclear-weapon states and strengthened security assurances to non-nuclear-weapon states in the form of an international legally-binding treaty; and further international measures to assist the countries of the former Soviet Union with the dismantling of their nuclear weapons and to improve safety standards at their nuclear bases and civil nuclear power stations. (**A Fresh Start for Britain: Labour's Strategy for Britain in the Modern World**, June; **Daily Telegraph**, 26/6; **Independent**, 26/6; **Times**, 26/6)

- The **United States** Department of Energy (DoE) has announced that in the context of its study of storage and disposition options for surplus weapons plutonium, it will make an assessment of the related non-proliferation and arms control aspects. The assessment will cover technical and policy benefits and liabilities/vulnerabilities of the storage options and disposition options which it considered earlier. The long-term storage choices are to use multiple DoE sites for plutonium and HEU; concentrate plutonium at one DoE site or collocate plutonium and HEU at a single DoE site. The risk of diversion and of re-use in weapons is to be covered in the study for each of the options for disposition of plutonium that is being considered by DoE (see above). The non-proliferation assessment is due in early October. (**Federal Register**, Vol. 67, No. 127, 1/7; **SpentFUEL**, 8/7, 5/8)

- The **Canberra Commission on the Elimination of Nuclear Weapons**, which was established in November 1995 upon the initiative of (then) Australian Prime Minister Paul J. Keating to develop ideas and proposals for a concrete and realistic programme to achieve a world totally free of nuclear weapons (see **Newsbrief** 32, page 15) has completed its mandate. Its findings are being presented to the UN General Assembly at its current session. The Commission has identified a series of steps 'which can be taken immediately and which would thereupon make the world safer'; the Commission has also described 'the practical measures which can be taken to bring about the verifiable elimination of nuclear weapons and the full safeguarding of militarily useable nuclear material'. The text of the statement issued by the Canberra Commission on 15 November, upon the conclusion of its last formal meeting, in the capital of Australia, and the executive summary of its report are reproduced in section **IV. Documentation**, together with a list of its members. (**Reuters**, 14/8; **Documents of the Canberra Commission on the Elimination of Nuclear Weapons**, 15/8; **Guardian**, 15/8; **Direct Information**)

- On 8 August, the G-21 Group of States submitted in the Conference on Disarmament a **Programme of Action for the Elimination of Nuclear Weapons**. The Programme of Action was submitted by 28 of the 30 members of the G-21, *viz.* Algeria, Bangladesh, Brazil, Cameroon, Colombia, Cuba, the DPRK, Egypt, Ethiopia, India, Indonesia, Iran, Iraq, Kenya, Mexico, Mongolia, Morocco, Myanmar, Nigeria, Pakistan, Peru, Senegal, Sri Lanka, Syrian Arab Republic, Venezuela, Viet Nam, Zaire, Zimbabwe. (**Confence on Disarmament,** CD/1419, 8/8/96 [reproduced in **Section IV. Documentation**])

d. Nuclear Testing

- The adjournment, on 28 June, of the **Conference on Disarmament** (CD) without reaching agreement on the text of a Comprehensive Test Ban Treaty (CTBT) (see **Newsbrief** 34, page 3–4) was followed by intensive consultations intended to break the stalemate before the CD resumed its work as scheduled, on 29 July. **Russia** and the **United States** announced that they would accept the draft as submitted in late June and would press for international acceptance, having apparently settled a disagreement over the procedures for triggering on-site inspections. At that time, however, other states, notably China, still saw this issue as an obstacle to acceptance of the draft. US negotiators were quoted as saying that the provisions as drafted reflected 'their final concessions'. **India** announced it would not agree to the Treaty in its present form, insisting that it should include a requirement for a time-bound elimination of all nuclear weapons and a prohibition of laboratory-scale testing. **France** and the **United Kingdom** joined Russia and the US in expressing support for the draft. Another major issue still not settled at that time was that of entry into force. The draft included the provision that the Treaty would enter into force 180 days after the deposit of instruments of ratification by 44 states listed in Annex 2 of which the criterion was that they were operating nuclear reactors. The previous Annex 2 had included 37 states which provided primary seismic stations or radionuclide analytical services to the international monitoring system referred to in the Treaty; this criterion was changed after India had withdrawn its offer of having seismic stations on its territory.

The day the CD reconvened, 29 July, was marked by **China's** announcement that it had 'successfully' conducted an underground nuclear test at Lop Nor — reportedly its 45th — and that as of 30 July it would observe a moratorium on nuclear testing. China's representative at the Geneva negotiations said he would still seek changes in the draft text of the Treaty; his remark was understood to refer to verification provisions. Subsequently, at China's behest, a change was made in the draft Treaty increasing to 30 the number of members of the Executive Council whose agreement would be required to launch on-site inspection. (The Executive Council is composed of 51 members.) China then announced that it would support the Treaty as drafted.

Reportedly, at that point the entry-into-force provision remained the principal stumbling block on the way to agreement. The version contained in the Chairman's draft made it a condition that among the 44 states with nuclear reactors, whose ratifications would be required for the Treaty to enter into force should be those of the five acknowledged and the three presumed nuclear-weapon states (China, France, Russia, the UK and the US, and India, Israel and Pakistan, respectively) and that, '[i]f this Treaty has not entered into force three years after the anniversary of its opening for signature', a conference shall be convened which would have to decide by consensus what measures consistent with international law might be undertaken to accelerate the ratification process.

On the first day of the resumed session, India reportedly announced that it interpreted the term 'measures' as a threat of sanctions, and said this was not acceptable. India's foreign minister, while underlining that his country had the capability to develop nuclear weapons and that the present government would retain a nuclear option until global disarmament was achieved, said that it had no nuclear weapons programme, did not think it needed nuclear weapons 'for the moment', and was not planning a second test. Since China, Russia and the UK were among states insisting that the Treaty should not enter into force without the ratifications by the three presumed weapon-capable nations, grave doubts arose as to the likelihood that the negotiations could reach a positive result, notwithstanding persistent efforts, especially on the part of the US, to persuade India not to block consensus on the draft. A public statement by India's Prime Minister H.D. Deve Gowda in mid-August showed these efforts to be futile. Mr. Gowda confirmed his country's opposition to the CTBT, and stated that the his country's security needs were his top priority: a statement widely seen as reflecting India's wish to keep its nuclear option open as a deterrence to a Chinese nuclear threat. In the CD, on 20 August, India formally rejected the Treaty as drafted, refusing the US promise that it would not support sanctions against India for not joining the

CTBT, because, India said, this lacked the force of an internationally binding agreement. A similar assurance had also been given by the Chairman of the Ad Hoc Committee, Ambassador Ramaker.

Subsequently, India as well as Iran opposed a proposal to submit the Treaty text to the Assembly as part of a report by the CD that would reflect that body's inability to reach consensus on the text. In that situation, the idea arose to take the text of the Treaty direct to the UN General Assembly for endorsement, and to ask the Secretary-General to open it for signature. On 22 August the Permanent Representative of Australia to the United Nations requested the President of the General Assembly to reconvene the Assembly in plenary session on 9 September, to consider and take action on the Treaty, pursuant to the resolution of 12 December 1995 in which the Assembly had declared its readiness to resume consideration of this item, as necessary, before its fifty-first session in order to endorse the text of a CTBT.

At the time, there was some doubt as to the support this course of action would receive, particularly among non-aligned nations, many of whom clearly felt sympathy for India's view that a CTBT should be associated with a call for a time-bound elimination of nuclear weapons. Some states also could be expected to see the move as likely to lead to an undesirable weakening of the CD. One concern among those considering moving the action to the UN General Assembly was said to be the possibility that states which in the CD had criticised the latest version of the Treaty might call for further changes in the text — thus necessitating new negotiations for which there would now not be an appropriate forum.

These doubts were soon substantially allayed when it became obvious that the Australian initiative would receive wide-spread support. By 9 September, when the General Assembly reconvened, well over 120 delegations had expressed support for the action. The debate was described as 'unexpectedly smooth' and was marked by an absence of procedural hurdles. India once again expressed opposition to the Treaty in its present form, vowed not to sign and to prevent its entry into force; its delegate defended India's right to the nuclear option as long as nuclear-weapon states remained unwilling to accept the obligation to eliminate their nuclear arsenals. Pakistan, which had been expected to sign the Treaty but put off ratifying it until India did so, said it would take its own sovereign decisions regarding the time and conditions for signature and ratification. Israel, the third 'threshold state', subsequently announced its intention to sign the Treaty. A number of delegations criticised the draft as not being a true measure of nuclear disarmament since it did not include a time-bound obligation to eliminate nuclear weapons; some took exception to the scope of the prohibition which did not include non-explosive nuclear tests and computer simulations and thus failed to prevent and, according to several speakers, in fact encouraged, the qualitative improvement of nuclear weapons. There were several delegates who felt that the verification provisions of the Treaty did not adequately distinguish between data generated through international monitoring procedures and information gained by national technical means. The complicated entry-into-force procedure, which was seen as giving veto power to certain states, also came in for criticism, as did the absence from the text of any reference to the objective of concluding an agreement on no-first-use of nuclear weapons. Several delegates expressed concern that the procedure chosen might undermine the competence of the CD and stressed that this should not create a precedent. However, many of the delegates who expressed criticism of the draft text saw it as a step in the right direction and stated that they would support the resolution.

On 10 September, a resolution according to which the General Assembly adopted the Comprehensive Test Ban Treaty; requested the Secretary-General as depository of the Treaty to open it for signature at UN Headquarters at the earliest possible date; called upon all states to sign and ratify it as soon as possible; and requested the Secretary-General to report to the Assembly at its fifty-second session [in 1997 – Ed.] on the status of signature and ratifications, was adopted with 158 votes in favour, three against (Bhutan, India and Libya) and five abstentions (Cuba, Lebanon, Mauritius, Syria and Tanzania). Nineteen UN member states, including the DPRK, were absent or prevented from voting for not having paid their UN assessment.

The CTBT was opened for signature at United Nations Headquarters on 24 September 1996 by the Secretary-General, as depository of the Treaty. The first signatories were US President Clinton and the foreign ministers of the other four recognised nuclear-weapon states, as well as those of Australia, Austria, Canada, Chile, Denmark, Germany, Iceland, Italy, the Netherlands and South Africa. In all, 65 states signed on 24 September and it was expected that by 9 October about 80 nations would have signed the Treaty.

(**IAEA Document INFCIRC/515**, 19/6; **Trust and Verify**, July; **Reuters**, 8/7, 10/8, 9/9; **Parliamentary Statement by External Affairs Minister of India**, 15/7; **New York Times**, 24/7, 30/7, 31/7, 10/8, 15/8, 17/8, 21/8, 23/8, 25/8, 9/9, 10/9, 11/9; **National Public Radio News** (US), 29/7; **Washington Post**, 29/7; **International Herald Tribune**, 8/8; **Nucleonics Week**, 8/8; **EU Declaration**, 9/8; **Independent**, 10/8; **Pakistan TV**, 10/8, in **BBC Monitoring Summary of World Broadcasts**, 12/8; **Financial Times**, 13/8; **Le Monde**, 14/8; **Die Welt**, 14/8; **Economist**, 17/8, 31/8; **UN General Assembly Documents** A/50/1024, 22/8, A/50/1027, 26/8, A/50/L.78, 6/9; **UN Press Releases**, GA/9081, 9/9, GA/9082, 10/9, GA/9083, 10/9; **Frankfurter Allgemeine Zeitung**, 10/9; **UNDPI Daily Highlights**, 24/9; **Times** [London] 25/9; **USIS Geneva Daily Bulletin** on Internet, 25/9)

- Earlier during the summer, a proposal in the **United States** Senate that would have made it possible to resume nuclear testing was defeated by 53 votes to 45. The proposal, ostensibly meant to strengthen the US position in the negotiations on a nuclear test ban, had been strongly opposed by the White House, the Arms Control and Disarmament Agency, and the Department of Energy.

The American firm IBM has been given a contract to build a 'supercomputer' with which to calculate characteristics of nuclear weapons and simulate explosions. The first full-scale version of this device should be delivered to the Livermore National Laboratory in late 1998. The computer is said to be intended to ensure weapons reliability; DoE denies that it will be used for the development of new warheads. (**Energy Daily**, 28/6; **Standard** [London], 4/8; **Daily Telegraph**, 6/8)

e. Nuclear Trade and International Cooperation

- **Australia** is reported to be considering selling uranium to **Taiwan** provided it is submitted to safeguards that would assure that it is used exclusively for peaceful purposes. Taiwan has said it is not planning to develop nuclear weapons. (**Reuters**, 17/8, **Nikkei Weekly**, 19/8, both in **UI News Briefing** 96.33)

- **Canada** and **China** have signed an agreement on the financing and terms of supply of two 740 MW Candu-type reactors at Qinshan. At the time the respective nuclear energy authorities still had to sign the deal. A **South Korean** consortium will act as sub-contractor and supply steam-generators and primary circuit equipment. Total cost of the project is said to be approximately US $3 billion; the Canadian government will reportedly extend a loan of Cdn $1.5 billion, which is fully repayable. (**Reuters**, 14/7; **NucNet News**, 16/7, 18/7; **Nucleonics Week**, 18/7, 25/7)

- One of the 1,000 MW turbines for the nuclear power station at Bushehr, in **Iran**, will be built by a manufacturing enterprise in **Ukraine**. Reportedly, the two countries are also cooperating in the areas of space technology and the construction of rockets. Officials in Bonn have said that Iran is threatening to sue the firm of Siemens A.G. in **Germany** for US $5.4 billion, for failure to supply equipment for the Bushehr power station, which Iran had already paid for, following an earlier verdict in Iran's favour reached by a court of arbitration of the International Chamber of Commerce (ICC). According to a source close to the proceedings, the new case will again be the subject of arbitration under the ICC and the actual sum at issue is much higher than cited above. Reportedly, German officials see Iran's move as motivated by its desire for economic assistance from Germany. Actual work at Bushehr is said to progress very slowly and to be limited so far to engineering studies.

  The IAEA is said to have advised the Atomic Energy Agency of Iran to have a survey made of seismic safety at the Bushehr site and if necessary upgrade it.

  (**Nucleonics Week**, 11/7, 5/9, 19/9, 26/9; **Reuters**, 28/8; **Süddeutsche Zeitung**, 29/8; **Direct Information**, 10/9)

- With regard to the nuclear cooperation agreement between **Japan** and the **United States**, the fifteen-day period during which the US Congress could object to the addition of European MOX fuel fabrication plants to its annex expired in late July — see **Newsbrief** 34, page 5. Consequently Japan may transfer US origin fuel reprocessed in Europe to European MOX fuel fabrication facilities. The Nuclear Control Institute in Washington had raised objections because of concern that Japan might argue that, in contrast to plutonium transports, there is no need for an armed escort for MOX sea transport. During the fifteen-day review period, the Chairman of the House International Relations Committee, Rep. Gilman, reportedly prompted by the NCI's concern, asked and obtained from the State Department an assurance that security for the transport of the material would be as stringent as that required for shipments of bulk plutonium. (**SpentFUEL**, 5/8, 19/8; **NuclearFuel** 12/8)

- Notwithstanding earlier reports that the **United States** would soon resign as a member of the Nuclear Energy Agency (NEA) of the Organization for Economic Cooperation and Development (OECD) in Paris, this does not now seem to be likely. Although considerations of economy had earlier prompted the State Department to plan giving the required one-year notice for leaving the NEA, pressure by the Department of Energy, the Nuclear Regulatory Commission, the Nuclear Energy Institute and representatives of several countries is said to have led to the decision to remain in the organisation for now, but to seek cuts in its budget, ranging from 5 to 20 per cent. While several other member states, including Canada, France and the UK, are said to support a move to reduce the NEA's budget, some, notably Germany and Japan, are understood not to be in favour.

  The OECD Council has approved the membership of the **Czech Republic** and of **Hungary** to the NEA. They are the first countries from the former Warsaw Treaty Organization to join the NEA and the first NEA members whose nuclear power programmes involve only Soviet-designed reactors. (**NEA Information Communiqué**, 27/6; **Nucleonics Week**, 11/7, 5/9)

- At a meeting in July of the so-called Gore-Chernomyrdin Commission, which deals with cooperation between the **Russian Federation** and the **United States** on nuclear matters, agreement is reported to have been reached between the US Secretary of Energy and Russia's Minister for Atomic Energy to expand efforts to improve nuclear material protection, control, and accounting to additional facilities where material from dismantled nuclear weapons is stored. Reportedly, an extension of the current cooperation to facilities engaged in the disassembly of nuclear weapons is under discussion.

  The *New York Times* has reported about a potentially serious conflict of interest facing the United States Enrichment Corporation (USEC), the government company entrusted with the purchase of HEU from Russian weapons and its resale as civilian reactor fuel. The USEC also sells indigenous American uranium fuel on which, it seems, it makes a higher profit than it does on the Russian uranium. For this reason, according to the report, the USEC earlier this year accepted less Russian fuel than Moscow offered for sale, thereby contradicting the purpose of buying as much Russian uranium as possible in the interest of US national security. Under Congressional pressure this decision has now been reversed but there is said to be

concern that the company, which is shortly to go private, will seek to maximize commercial profits at the expense of security considerations. Suggestions are therefore being made that the purchase of Russian uranium should be handled by the US government rather than by private enterprise.

Russia's Minister for Atomic Energy, Viktor Mikhailov, has said that in 1998 he would like to supply 24 MT of blended-down HEU to the US, against the 18 MT to be supplied in 1997. Originally it had been planned to supply the entire 500 MT of HEU in 20 years, but reportedly the US has agreed to the Russian proposal to advance the schedule so that the supply period will be reduced to 15 or possibly 10 years. It seems that the USEC would not be able to deal with greater annual quantities.

(**Arms Control Today**, July; **New York Times**, 28/8; **NuclearFuel**, 9/9)

f. IAEA Developments

I. General Conference

- The 40th Regular Session of the IAEA's General Conference was held in Vienna from 16 to 20 September. It was attended by representatives of 101 member states. President was William G. Padolina, Secretary of the Department of Science and Technology of the Philippines. (**Press Release** PR 96/17, 16/9)

The traditional message from the Secretary-General of the United Nations mentioned the position of the nuclear non-proliferation regime as the cornerstone of the international effort to promote peaceful application of nuclear energy and to curb the spread of nuclear weapons, and underlined the importance of IAEA safeguards. It mentioned, among other things, the nuclear-free zones [*sic*] in Africa and South East Asia and called for a nuclear-free zone in the Middle East. Appealing to states to support the CTBT and to take further substantive measures of nuclear disarmament, the Secretary-General expressed his confidence that the Agency would be prepared to cooperate with the Preparatory Commission for the Comprehensive Test Ban Treaty Organization that will be set up in Vienna after the Treaty has been opened for signature.

The Agency's Director General spoke, *inter alia*, about the changes in the dimension and the direction of the Agency's safeguards activities. The development of the safeguards system pursuant to the 93+2 programme was essential to introduce new cost-effective methods and techniques and to provide confidence that non-proliferation commitments were respected; it would also help to make the safeguards system an adequate instrument that could be used to verify future nuclear arms control and disarmament measures. The Director General reported extensively on the Agency's monitoring and verification activities in Iraq, pursuant to the pertinent UN Security Council resolutions, and on the application of safeguards in the DPRK, as well as the problems encountered in that regard. He announced that the IAEA had become engaged in the assessment of the radiological situation at the former nuclear-weapons test sites at Semipalatinsk, in Kazakhstan, the Bikini Atoll in the Marshall Islands, and the Mururoa and Fangataufa Atolls in French Polynesia. Relevant excerpts of the speech of the Director General are reproduced in **Section IV. Documentation** of this **Newsbrief**.

In his speech Dr. Blix also announced that during the General Conference, he would meet with the US Secretary of Energy and the Minister of Atomic Energy of the Russian Federation to consider practical measures to fulfil statements by the respective heads of states of these countries concerning IAEA verification of weapon-origin fissile materials. That meeting took place on 17 September. According to a trilateral statement to the press, issued after the meeting, this resulted in agreement by the two states to discuss technical methods designed to protect sensitive nuclear-weapons information and to prevent its disclosure and to hold consultations with the IAEA on this matter; to form a joint group to address the various technical, legal and financial issues associated with IAEA verification of relevant fissile materials; and to arrange for a visit, within six weeks, to the Rocky Flats and Hanford sites in the US to examine how IAEA safeguards have been implemented at plutonium facilities there under the existing US voluntary offer. (**Press Release** 96/19, 17/9; **SpentFUEL**, 23/9)

At the start of the General Conference the application by Moldova for membership of the Agency was approved.

The General Conference approved the Agency's regular budget for 1997, which calls for expenditures of US $221,992,000, representing an expenditure increase of $1,923,000, or 0.9 percent. It also approved a target of $68 million for voluntary contributions towards the Agency's Technical Assistance and Cooperation Fund for 1997, compared with $64.5 million for the current year. The safeguards portion of the regular budget amounts to $90.4 million, representing an expenditure increase of $2.9 million (3.9 per cent) over the approved budget for 1996. It is noted that during twelve years of zero real growth in the regular budget allocation to safeguards, there have been major advances in safeguards efficiency reducing unit costs associated with safeguarding nuclear material by more than 50 per cent. There has also been a change in the distribution of safeguards resources particularly with respect to states such as Canada, Germany and Japan which, twelve years ago, accounted for more than 70 per cent of total safeguards effort; that figure is now less than 40 per cent. Implementation of Part 1 of safeguards programme 93+2 is expected to bring some cost savings as a result of anticipated reductions of inspection efforts at some nuclear facilities and the use of advanced safeguards technology, but in the near term a net increase in cost amounting to $4.3 million is expected, primarily resulting from an additional workload in new facilities and the effort of collecting and analysing environmental samples; the increased negotiation effort associated with Part 1 and Part 2 of Programme 93+2 and in the area of improved information analysis are also expected to contribute to this increase. The Agency's Programme and Budget Document for 1997-1998 expresses the expectation that in the

medium to long term the benefits of strengthening the effectiveness and improving the efficiency of the safeguards system should show 'an ample return' for the increase in near-term costs. (**GC(40)/10**)

The General Conference elected 11 new members as the Board of Governors for a two-year term, *viz.* Argentina, Belgium, Columbia, Cuba, Czech Republic, Malaysia, Namibia, New Zealand, Portugal, Tunisia and United Arab Emirates. The other 24 member states of the Board which have either been designated by the Board of Governors or were elected by the General Conference in 1995 are Australia, Brazil, Bulgaria, Canada, Chile, China, Denmark, Egypt, France, Germany, India, Japan, Republic of Korea, Kuwait, Netherlands, Nicaragua, Nigeria, Romania, Russian Federation, Saudi Arabia, South Africa, Switzerland, United Kingdom of Great Britain and Northern Ireland and United States of America. (**IAEA Documents** GC(40)/7, 25/6; GC(40)24, 18/9; **Press Release** 96/20, 19/9)

The following subjects of discussion are singled out as being most relevant in the context of the **Newsbrief**. As the Newsbrief goes to press, final resolution numbers were not available. [General Conference documents reproduced are in **Section IV. Documentation** of this **Newsbrief**.]

The issue of strengthening the effectiveness and improving the efficiency of the safeguards system received much attention in countries' statements. While there was general agreement that the system needed improvement and that the measures included in the first part of the 93+2 programme should be implemented, a number of countries expressed the view that the proposals for an instrument to supplement existing safeguards agreements to give the Agency additional rights of access to information and to nuclear-related locations, would need further consideration, and that particularly the legal and financial consequences of those proposals should be further reviewed. Consensus was reached on a resolution (**GC(40)/31**, 18/9 [reproduced]) of which the main point is that the Committee created by the Board of Governors to draft a model protocol that will give the Agency a greater capacity to detect undeclared nuclear activities should continue its work. In the discussions, some delegations expressed the wish that the Committee complete its work at the meeting called for October but there were others who felt that the Committee's work might well extend into 1997; among the latter were a number who saw the original secretariat proposals as too intrusive and overly ambitious.

The question of illegal trafficking in nuclear materials, on which the Secretariat submitted a progress report (**GC(40)15**) received less prominence in the debates than it did a year ago. The Conference adopted without a vote a resolution calling for the Secretariat's activities in this field to continue (**GC(40)/32**, 18/9 [reproduced]).

Once again the General Conference considered a report by the Director General on the implementation of United Nations Security Council resolutions 687, 707, and 715 (1991) relating to Iraq. It adopted a resolution (**GC(40)/34**, 18/9 [reproduced]) which, among other things, notes with concern that Iraq has withheld information, and urges Iraq to cooperate fully with the Agency's Action Team in achieving the complete and long term implementation of the relevant Security Council resolutions and to resolve remaining ambiguities, inconsistencies and contradictions in the revised draft of its Full, Final and Complete Declaration was adopted in a vote by show of hands, by 69 votes in favour, none against and 11 abstentions. The adoption of the resolution followed an attempt by Iraq to delete, respectively change the elements referred to, which was voted on and defeated separately.

On the implementation of IAEA safeguards in the Democratic People's Republic of Korea the Conference adopted a resolution (**GC(40)33**, 18/9 [reproduced]). China pointed out that since the Agreed Framework between the DPRK and the USA was being duly implemented, a resolution urging the DPRK to take certain actions with respect to the IAEA might not be helpful, and asked for a roll-call vote, which resulted in adoption of the text by 79 votes in favour and 8 abstentions; there were no opposing votes.

The Conference adopted without a vote a resolution (**GC(40)/35**, 18/9 [reproduced]) on an African Nuclear-Weapon-Free Zone that takes note of a report of the Director General on the establishment of an African Nuclear-Weapon-Free Zone (**GC(40)/14**). The resolution twice refers to the desirability of establishing a nuclear-weapon-free zone in the Middle East; in this context, Syria pointed to the example of South Africa's, whose renunciation of nuclear weapons had made the Pelindaba Treaty possible, as a useful precedent for the latter area.

On the issue of the application of IAEA safeguards in the Middle East fourteen Arab states had submitted a draft resolution which among other things would affirm the urgent need for Israel to accede to the NPT; call for the establishment of a nuclear-weapon-free zone in the Middle East; request the Director General to invite experts from the region to attend a workshop to be held as a follow-up on previous work in that context; and ask the Director General to consult with states in the region to facilitate the early application of full-scope Agency safeguards. (**GC(40)/23**, 17/9). After long discussions in the Committee of the Whole and in informal consultations agreement was reached on a text [reproduced]. The text of the resolution was identical to that contained in last year's resolution on the subject, (**GC(39)/Res.24**), suitably updated, which, in turn, had been based on the one adopted the year before (**GC(XXXVIII)/Res.21**). An additional statement was read out by the President and also agreed to by consensus; in this statement the Director General was asked to invite experts from the Middle East and other areas to a technical workshop on safeguards, verification technologies and related experience, and was called on to commence preparations for this event to develop an agenda and modalities that would help ensure a successful workshop.

In 1995, discussions on the question of amending Article VI of the Agency's Statute to extend the membership of the Agency's Board of Governors had ended with a resolution that asked the Board of Governors to continue consultations through the Open-ended Consultative Group and 'to submit its report and recommendations ... for approval by the General Conference at its fortieth regular session'. The Board's report (**GC(40)20** and **GC(40)20/Add.1**, 16/9) was the subject of long debate resulting in the adoption without a vote of a resolution (**GC(40)/42** [reproduced]) in which the matter is referred back to the Board for accelerated action on a method to resolve the issue.

Another aspect of Article VI is the composition of regional groups, on which at the 39th session of the General Conference Israel had called attention to the consequences of the fact that other states of the area do not recognise it as a *bona fide* member of that region, so that it could never be elected to the Board of Governors as a representative of the region. Following the request made by the General Conference in 1995, the Director General had prepared an analysis which the Board of Governors submitted to the Conference as its report (**GC(40)11**, 26/6). At the current session of the General Conference Israel submitted a draft resolution that would endorse that report and would ask the Chairman of the Board to hold consultations on the manner in which Israel as a member of the region could 'fully exercise its sovereign rights'. (**GC(40)COM.5/13**, 18/9).

Six Arab states submitted a resolution (**GC(40)COM.5/18/Rev.1**, 19/9), which said that the relevant provision of the IAEA's Statute does not refer to 'geographical groups' but to 'areas', not all of which are necessarily geographical, and which recalled last year's resolution on the subject which had acknowledged that 'the primary responsibility of deciding upon the composition of regional groups lies with the respective groups themselves', The draft resolution would reaffirm the latter principle and urge Member States 'not currently invited into any group' to continue their consultations with the regional groups with a view to reaching an early agreement. The General Conference resolved the contradiction in a statement read out by the President and adopted by consensus, which takes note of the Director General's report; reiterates the principle of the sovereign equality of all Member States; recalls last year's draft resolution by Israel and the resolution adopted by the Conference in 1995 in which the Director General and the Board were asked to study the matter; and requests the Board to carry out a range of consultations and make specific proposals for the inclusion of all states in appropriate areas. (**Direct Information**)

Israel's position also figured in the usual examination of delegates' credentials, where Arab states expressed reservations about its credentials on the basis of its annexation of Jerusalem and the Golan, as well as part of Lebanon (**GC(40)/25**, 18/9; **GC(40)/40**. 19/9 [reproduced])

It was decided that the next session of the General Conference would be held in Vienna from 29 September to 3 October 1997.

Dr Hans Blix, whose fourth four-year term as Director General of the Agency runs out at the end of 1996, has announced that he will not seek a fifth term.

II. Safeguards

- In June, the IAEA's Board of Governors established a committee to prepare a model for a protocol to supplement existing safeguards agreements between the IAEA and non-nuclear-weapon states, by providing the basis for additional rights for the Agency with respect to access to information and to nuclear-related locations. (See **Newsbrief** 34, page 6). The Committee, which is open to all IAEA members and others that have or are legally obliged to have a comprehensive safeguards agreement (e.g., the DPRK), had its first meeting in Vienna on 2–4 July where it tried, pursuant to its mandate, to find precise language that would strike a balance between concerns that the proposed new measures will prove too cumbersome and costly, and the need to ensure the efficiency and effectiveness of the measures proposed. The meeting was attended by representatives of 65 countries, the European Commission and the Brazil–Argentina Agency for Accounting and Control of Nuclear Material (ABACC). It is recalled that the model protocol, which should be completed by December, would provide complementary legal authority, particularly with regard to unannounced on-site inspections for any nuclear-related installation, and to nuclear and other related technological information; the use of certain sophisticated sensory technologies; and the taking of environmental samples within and outside of declared nuclear sites. The Committee's first meeting does not appear to have resulted in the acceptance by all participating member states of the draft protocol as presented by the Secretariat. A further meeting is scheduled to start on 1 October. (**IAEA Press Releases**, PR 96/10, 14/6, 96/13, 5/8; **IAEA Newsbriefs**, July/August; **NuclearFuel**, 15/7; **Direct Information**)

- The Agency is reported to have discovered a discrepancy of about 2.2 metric tons (MT) in **Norway**'s depleted uranium inventory. Most of the material was used as shielding in shipping containers of radioactive materials. There also seems to be some uncertainty about the amount of plutonium present in the country. There was a report that Norway had 3 kgs of the material instead of the 200 grammes it had declared. Apparently the latter amount was extracted from Norwegian spent fuel reprocessed at the OECD/NEA Eurochemic plant at Mol, in Belgium, and then transferred to Belgonucleaire. (**NuclearFuel**, 29/7)

III.Various

- The Agency's Board of Governors, at its meeting preceding the General Conference, approved new guidelines for air transport of nuclear material. The new standards adopted for packaging plutonium for shipment by air have been criticised by *Greenpeace* and the *Nuclear Control Institute* in Washington who

claim that the containers would not withstand an air crash. IAEA officials have stated that these bodies have no credible supporting technical data to back this claim. It is noted that the new standards do not meet US regulations for the shipment of plutonium by air but, reportedly, the IAEA views that standard as having been dictated by political considerations and to be unnecessarily high. It is also suggested that several countries with civil plutonium programmes, such as Belgium, Germany and Japan, disagree with the US requirements. (**New York Times**, 5/9; **NuclearFuel**, 9/9)

- In July, the Director General of the IAEA, as Depositary of the Convention on Nuclear Safety, had received a total of 25 instruments of ratification, acceptance or approval, including 17 from states having at least one nuclear installation which has achieved criticality in a reactor core. Accordingly, the Convention will officially enter into force on 24 October 1996, ie., three months after receipt of the necessary instrument. The Convention is the first legal instrument that deals directly with the safety of nuclear power plants worldwide. (**IAEA Press Release**, PR 96/15, 29/7)

g. Peaceful Nuclear Developments

- **Bulgaria** is planning to improve the operational and safety reliability of units 5 and 6 of the Kozloduy power station. The European Union will provide 7 million ECUs for the purpose. (**Reuters**, 11/7; **Nucleonics Week**, 25/7)

- In the **Czech Republic** anti-nuclear demonstrations against the completion of the Temelin power station, consisting of two Soviet-designed VVER-1000 reactors, do not seem to have delayed construction work. As in the case of protests against the construction of the Mochovce power plant in the Slovak Republic, the demonstrations at Temelin are said to have received help from Austria. (**Reuters**, 10/7; **Kurier**, 15/7)

- In **France** the government is reported to have endorsed the recommendations of an advisory committee that had concluded that the Superphenix fast reactor should be allowed to continue operations. There still seem to be doubts about the long-term usefulness of the facility, however. The reactor was restarted on 18 July to operate at 60 per cent nominal power, in hopes of going to 90 per cent soon.

  Permission has been given for the start-up of Chooz-B1 PWR, which with its 1,450-MW capacity is supposed to be the world's largest power reactor. The unit, said to be the first of a new generation of advanced reactors, was to be connected to the grid in September.

  (**Nucleonics Week**, 11/7, 25/7; **NucNet News**, 26/7 in **UI Newsbriefing** 96/30)

- **Germany**: On 1 August, ground was formally broken at the future site of the high flux reactor at Garching, near Munich. Plans for the reactor, which will operate on very highly-enriched uranium, have long been criticised by nuclear opponents, and the ceremony was an occasion for boisterous demonstrations, although the mayor of the town of Garching has claimed to journalists that the majority of local citizens are indifferent. (**Süddeutsche Zeitung**, 1/8, 2/8; **Die Welt**, 2/8; **Frankfurter Allgemeine Zeitung**, 2/8; **Salzburger Nachrichten**, 2/8)

- A report by a group of Japanese consultants is said to support plans to build a nuclear plant at the Muria peninsula of Java, in **Indonesia**, where three possible sites have been identified. The study was started in 1991 and is expected to form the basis of the decision whether to launch the project, which would presumably involve two 900 MW reactors or three 600 MW units. Indonesia's Environment Minister has said that the government has not yet decided to go ahead with the construction of a nuclear power plant. This seems to contradict the statement of a senior official of the National Atomic Energy Agency that the plan was to go ahead. Australian sources continue to express opposition to the plan. (**Age** [Melbourne], 14/6; **NucNet News**, 28/6; **Jakarta Post**, in **BBC Monitoring Summary of World Broadcasts**, 9/7)

- **Japan**'s Power Reactor & Nuclear Fuel Development Corp. (PNC), owners of the Monju fast-breeder reactor, have announced that clean-up of contaminated rooms at the facility has been completed, and that 803 kg of sodium oxide has been recovered. It says that there still is sodium oxide left in equipment, panels and ventilating systems and the clean-up is continuing. A report from Japan's Science and Technology Agency has confirmed that the break of the thermometer in the piping of the secondary cooling system that caused the leakage, last December, was due to a design error resulting in high-frequency vibration and metal fatigue. Contradicting an earlier report, PNC has also announced that simulation of the accident produced an unexpectedly high volume of hydrogen, which may have been generated when the leaking sodium came in contact with water in the concrete of the floor beneath the vessel. Reportedly, however, the hydrogen density of 1,700 parts per million was far below that needed for hydrogen to explode.

  A Japanese press report claims that in the first prototype fast breeder reactor, BN-350, in Kazakhstan, there have been 12 reactions between sodium and water in steam generators and 8 sodium leaks since the plant started operating. The Russian BN-600, the largest plant of this type in the world, is said to have experienced 12 sodium-water reactions and 27 sodium leaks since it started up in 1980.

  Local authorities in Japan have called for stricter safety standards and enforcement, and one newspaper in the region where the Monju facility is located reports that a high majority of residents questioned have expressed themselves against additional nuclear power plants in that area. This is seen as relevant particularly because the Kansai Electric Power Co. operates three nuclear power stations there. A potentially serious setback for the country's plans to extend the use of nuclear power for the production of electricity is seen in the results of an official but non-binding referendum in Maki-cho, Niigata Prefecture, 150 miles north of Tokyo, on the proposal to build a nuclear power plant there. Of the roughly 20,000 votes cast (88 per cent of the

electorate), 12,478, or 61 per cent, are reported to have been against the plan, and 7,904, or 39 per cent, in favour. The mayor of the town of Maki has said that the municipality would not sell the land needed for the construction of the facility to the Tohoku power company that had planned to build it. Government and nuclear officials, including the Prime Minister and the chief Cabinet Secretary, have said that the vote would have no effect on their plans to construct a nuclear reactor in the area and the power company has also stated it had no intention of scrapping the project. Five other cities are said to have passed by-laws requiring a referendum to be held on proposals for the construction of nuclear power plants. On the other hand, voters at Suzu City, Ishikawa Prefecture, where the construction of a nuclear plant is also at issue, have elected a new pro-nuclear mayor.

(**Atoms in Japan**, July; **Asahi Shimbun**, 4/7, 19/8; **Nucleonics Week**, 4/7, 8/8; **Japan Atomic Industrial Forum**, 18/7; **Financial Times**, 3/8, 5/8, 6/8; **Süddeutsche Zeitung**, 5/8; **Jiji Press News Wire**, 5/8; **International Herald Tribune**, 5/8, 6/8; **Die Welt**, 5/8; **Neue Zürcher Zeitung**, 5/8; **Washington Post**, 5/8; **New York Times**, 5/8; 6/8; **South China Morning Post**, 6/8; **Economist**, 10/8)

- **Romania**'s first nuclear plant, the 700 MW Candu-type Cernavoda-1, was linked up to the grid on 11 July and was expected to reach full power in September. (**NucNet News**, 12/7)

- The Federal Nuclear and Radiation Safety Authority of the **Russian Federation** has given permission for the construction of a new VVER-type reactor known as V-407. The VVER-640 is said to have improved safety features. Construction is planned close to the existing Leningrad nuclear station with its four 1,000 MW RBMK reactors and near the Kola nuclear station, which has four VVER-440s. The first pilot VVER-640 is planned for completion in 2002. (**NucNet News**, 3/7)

- Construction of the first two units of the Mochovce power station in the **Slovak Republic** is proceeding apace. The fact that Bonn has extended a guarantee of DM 148 million towards the project is said to have thrown a shadow on the official visit to Vienna in July of German Chancellor Kohl. Banks in all the countries that provide services and equipment — Germany, the Czech Republic, France, the Russian Federation — as well as a consortium of financial institutions in the Slovak Republic itself are helping to finance the project. (**Standard** [Vienna], 4/7, 6/7, 18/7, 29/8; **Neue Zürcher Zeitung**, 6/9)

- In connection with plans for the phase-out of nuclear power reactors in **Sweden** (see **Newsbrief** 34, page 8), the Chairman of the Parliamentary Standing Committee on Industry and Commerce has departed from her (Social Democratic) Party's line by expressing opposition to the decommissioning of one reactor before 1998. She has also noted that the phase-out would result in Swedish industry moving production abroad, with a loss of 100,000 jobs. The Executive Director of the International Energy Agency of the OECD has said that it will be difficult to decommission the country's 12 nuclear power reactors by 2010 and the head of Sweden's Metal Workers Union is quoted as saying that he will do everything he can to stop early decommissioning of even one reactor. The Social Democratic Prime Minister has expressed support for the use of natural gas as an alternative source of energy, but this view appears not to be shared by all the members of the group that is charged with the development of a nuclear decommissioning plan, including the group's director. (**Nucleonics Week**, 18/7, 5/9, 12/9)

- During routine maintenance work at Chernobyl unit 1, in **Ukraine**, workers are said to have dropped a small quantity of radioactive graphite dust, contaminating part of the central control room floor. The incident did not cause any injuries. The event was said not to have posed any risk to staff or the environment. Ukraine's Environment Minister Kostenko says that the industrialised countries of the west bear part of the blame for the deteriorating safety standards at the plant because they failed to clarify how they will help in its shut-down.

  The 'Nuclear Safety Account' of the European Bank for Reconstruction and Development has called for bids for a 'Project Management Unit' that would direct the operation of closing the two reactor units still operating at Chernobyl. The timing of any closure and decommissioning of the two reactors still appears to be uncertain, however. Reportedly, Ukrainian officials insist that this will depend largely on the completion of the two VVER-1000 reactors Khmelnitski-2 and Rovno-4, which they say will not be possible without the speedy supply by western countries of substantial funds. Ukraine's foreign minister has also accused the West of not living up to its promise of financial assistance and has said that without financial assistance Chernobyl will not be closed.

  Organisations from Belarus, France, Germany, Russia and Ukraine are supporting a project to study the status of the sarcophagus around reactor block 4, which was destroyed in 1986. Reportedly, France and Germany will bear part of the finances. The work will be done by the International Chernobyl Centre. In late September, there were reports of an abnormal rise in the neutron level at the remains of the reactor, ascribed initially to minor intrusions of rain water. Final conclusions have not been reached; some observers see the sudden spate of news about a phenomenon that appears to have occurred several times before as connected to a campaign to raise money for an earlier replacement of the sarcophagus. Other reports speak of false alarms. Plans are being made to impove radiation detection capabilities at the site.

  A consortium of German firms has agreed to modernise a coal-fired power plant near the city of Charkow and raise its capacity by 20 per cent. The project is said to be a first step in meeting the undertaking of western industrial states to replace the generating capacity of Chernobyl.

  (**Enerpresse**, 28/6; **Reuters**, 1/7; **International Herald Tribune**, 2/7, 20/9; **New York Times**, 2/7; **NucNet News**, 10/7, 26/9; **Frankfurter Allgemeine**

Zeitung, 4/9; **Süddeutsche Zeitung**, 4/9; **Nucleonics Week**, 12/9, 19/9, 26/9; **Die Presse**, 20/9; **Standard** [Vienna], 20/9)

h. Weapons-related Developments in Nuclear-Weapon States

- A new snag seems to have arisen in the **United States** with regard to the production in civilian reactors of tritium for weapons use. Reportedly, purchase contracts for uranium acquired abroad, from Australia, Canada and Euratom, contain clauses forbidding its use for military-related purposes. This means that the utility concerned would have to operate on fuel made exclusively from uranium of American origin. In this connection it may be noted that out of 43.4 million lb U_3O_8 equivalent delivered to utilities in 1995, 21.1 million lb, or just under one half, was of foreign origin. It has been reported that DoE has signed agreements with several utilities that will let them start working on the project pending the conclusion of more formal contracts. Meanwhile it has been proposed to use a research reactor, the fast-flux test facility (FFTF) which had been scheduled for decommissioning and had been shut down in 1992, to produce tritium. A consortium set up for the purpose has advanced the idea of privatising the facility, selling tritium to DoE and also producing medical and industrial isotopes for sale. Reportedly, DoE had rejected an earlier proposal of this kind, in part because of doubt that the FFTF can produce adequate amounts of tritium at reasonable cost. There are also several technical considerations that might make the plant less suitable for tritium production than ordinary light water reactors. The matter remains under study. Meanwhile, DoE has signed agreements with two utilities, Georgia Power Co. and TVA, to start work aimed at determining the viability of using commercial light water reactors for the purpose. (**NuclearFuel**, 1/7, 29/7, 12/8; **FreshFUEL**, 15/7 in **UI News Briefing**, 96.28; **Nucleonics Week**, 1/8)

i. Proliferation-Related Developments

- The International Atomic Energy Agency continues to encounter resistance from the **DPRK** in its attempts to apply safeguards there. Apparently, Pyongyang plans to withhold from the Agency any nuclear information until the new light-water reactors which it stands to receive pursuant to the Agreed Framework with the USA are finished and in operation — i.e. for the next ten years or so. This reportedly will mean that the IAEA will not get information about the fuel taken out of the 25-MW reactor and will lose continuity of safeguards over that installation.

  In early July it appeared that the Republican majority in both Houses of the US Congress would reduce the funds requested by the Administration for the implementation of the Agreed Framework from $25 million to $13 million, so that the US would have to reduce the amount of fuel oil to be supplied to the DPRK. This prompted Pyongyang to announce that if Washington did not stick to its agreement, it might have to reconsider the freeze on its nuclear programme. For a while the Congressional action threatened to jeopardise the entire work of the Korean Peninsula Energy Development Organization (KEDO), a point stressed by Japan's Prime Minister at the meeting of the G-7 in France and subsequently underlined in several official statements from Tokyo, which expressed its 'unhappiness' with the position of the US Congress. Following heavy pressure by the Administration, the Senate in late July decided to remove the spending cap and to fully fund the Administration's request. At the time this issue of the **Newsbrief** was completed, the House of Representatives had reduced funding for energy-related assistance to the DPRK by $1 billion. The Senate's decision came with the adoption of an amendment that requires the President to report on diplomatic developments with North Korea; to certify that steps are being taken to support implementation of the 1992 Joint Declaration on the Denuclearization of the Korean Peninsula; and to report on the DPRK's cooperation in canning and storing the spent fuel removed from its reactor and on its cooperation in returning remains of US military personnel. During a visit to Seoul in July by KEDO's Executive Director, Ambassador Stephen Bosworth, to discuss cost-sharing for the reactors, South Korea reportedly announced that it would not be able to contribute more than 60 per cent of the total cost of the project, which is estimated at $5 billion. Japan is expected to contribute $1 billion, leaving a shortfall of $1 billion. It is hoped that the difference can be borne by the European Union and Asian countries. During a conference of the Association of South-East Asian Nations in Jakarta in July, US Secretary of State Christopher urged states of the region to make financial contributions to KEDO.

  Talks between KEDO and Pyongyang in preparation for the implementation of the power reactor project have continued. In July a geological survey team made a further visit to the proposed reactor site. On 9 and 10 September KEDO held its annual general meeting in New York, involving besides Japan, South Korea, and the US, (the founding members), Australia, Canada, Chile, Finland, Indonesia, New Zealand, and the UK.

  Negotiations on various protocols for the implementation of the Agreed Framework and on the establishment of liaison offices have continued; currently, the latter talks were reported to be deadlocked, but the US side was still hoping to open a liaison office in Pyongyang by the end of 1996. While it had seemed for a while that the DPRK was getting closer to acceptance of the American proposals for talks between China, the DPRK, the RoK, and the US on the conclusion of a formal peace treaty between the two Koreas (see **Newsbrief** 34, page 10), in early September Pyongyang said such talks would be undesirable unless preceded by the withdrawal of US troops from South Korea. On this subject, too, American negotiating efforts are continuing. China, which initially stated that it saw little advantage in such a conference, is reported to have advised US national security advisor Lake that it would be ready to take part after all.

  The economic situation of the DPRK is said to be worsening and food is said to be ever scarcer. Reportedly, China has offered to supply the North with 100,000 tons of grain. South Korea's Red Cross has

made its fifth shipment of flour and powdered milk and is said to plan to continue such shipments. Meanwhile, the DPRK appears to continue to resist offers of the UN World Food Programme to supply aid particularly in flood-stricken areas. The resistance is thought to originate in the suspicion that the efforts of UN officials to monitor the distribution of supplied goods are in fact a disguised form of espionage.

(**Arms Control Today**, July; **New York Times**, 2/7, 12/7, 13/7; **Kyodo News Service**, 2/7, in **BBC Monitoring Summary of World Broadcasts**, 4/7; **International Herald Tribune**, 2/7, 3/7, 5/7, 16/7, 26/7; **Reuters**, 2/7, 3/7; **Die Welt**, 3/7; **Times** [London], 13/7; **Neue Zürcher Zeitung**, 13/7, 23/7; **Die Presse**, 15/7; **Independent**, 16/7, 19/7; **Financial Times**, 16/7, 27/7; **Frankfurter Allgemeine Zeitung**, 19/7; **Yonhap News Agency** [Seoul], 24/7 in **BBC Monitoring Summary of World Broadcasts**, 25/7; **Choson Ilbo** [Seoul], 23/7 in **BBC Monitoring Summary of World Broadcasts**, 25/7; **Washington Post**, 27/7; **Nucleonics Week**, 1/8; **Nautilus Institute**, on Internet, 3/9; **NuclearFuel**, 23/9)

- The American trade journal *NuclearFuel* has reported from Vienna that Iran has refused to allow the IAEA to undertake environmental monitoring at declared nuclear sites, allegedly because data from environmental samples could be passed on to the US or other hostile states. Apparently, however, the Agency hopes that Iran will permit it to take cotton swipe and biological samples and analyse them at its laboratory near Vienna. (**NuclearFuel**, 23/9)

- At the beginning of the period covered by this issue, Iraq was accused once again of planning to use the proceeds of the sale of oil which the Security Council would allow it to make under certain conditions and for clearly stated humanitarian ends, for purposes prohibited under the UN embargo. According to the US Administration, Baghdad sought to use the exemption to buy high-technology items and take control of supplies intended for Kurds in Northern Iraq. Not all members of the Security Council shared the US objections. Subsequent discussions led to the development by the UN Secretary-General of a plan that took account of the US objections and also seemed acceptable to Iraq. After expressing misgivings that the UN would be unable to ensure its strict observance by Iraq, the US delegation accepted the plan in August. This would allow implementation to begin once individual contracts have been approved and monitors are stationed in Iraq.

  In early September, the UN Secretary-General suspended the implementation of the agreement when an incursion of Iraqi armed forces into the Kurdish exclusion zone in northern Iraq led to US military reprisals. US air and naval units launched a total of forty-four cruise missiles at military targets in the southern part of the country, and Washington declared the no-fly zone to be extended to the 33rd parallel.

  Some weeks before, following written assurances from Iraq that it would grant UN inspectors 'immediate, unconditional and unrestricted access' to all relevant sites, a joint IAEA–UNSCOM team seeking to make a multi-disciplinary inspection of a site deemed to have capabilities suitable for conducting work on some aspect of weapons of mass destruction (in this case, a factory building located inside an army camp near Baghdad) was kept waiting for several hours before it was allowed to proceed with the inspection. No indication of prohibited equipment, materials, or activities was found.

  Meanwhile, UNSCOM is continuing its investigations into reports that Iraq is still hiding means of manufacturing weapons of mass destruction, in particular chemical weapons, and their means of delivery. UNSCOM's Executive Director, Amb. Ekéus, said in early September that there were still between 6 and 16 missiles unaccounted for, as well as mobile launchers, stocks of sarin and mustard gas and possibly biological agents. The Iraqi government is also withholding many documents which UNSCOM wishes to examine. In mid-July, an UNSCOM team is said to have been prevented from reaching relevant sites by Iraqi officials who are reported to have kept them from using the only access roads on the basis that they were 'presidential highways'.

  After the withdrawal of the German helicopter unit which has supported UNSCOM for five years an agreement has been concluded with Chile on the provision of five helicopters for the transport of inspection teams and equipment and to provide a platform for aerial inspection work.

  The annual report of the Director General of the IAEA to its General Conference contains, among other things, an account of inspection mission IAEA-30, carried out in May-July to review the draft of the Full, Final, and Complete Declaration provided by Iraq on 1 March, clarify ambiguities, inconsistencies and contradictions found therein; secure the inclusion of additional detail; and obtain documentation to support its correctness and completeness. According to the report, Iraq had made plans for the indigenous construction of four to six power plants. It had made studies for the siting of reactors and fuel cycle installations underground, to protect them from aerial attack, but this had been found to be too expensive. Reportedly, Iraq had worked on solvent extraction methods for uranium enrichment and had been procuring components for a pilot plant. Work had also been done on ion exchange enrichment technology: this had apparently not gone beyond the laboratory stage. Plans had apparently been made in 1988 for the production of nuclear weapons that could be delivered by missiles, but the initial concept was found to have been too heavy. The report supposes that the first nuclear device, containing indigenously produced highly-enriched uranium would not have been available before late 1992.

  The Director General states that since his last report to the General Conference, the IAEA has not seen instances of activities or the presence in Iraq, of equipment or materials proscribed by the relevant Security Council resolutions. In its conclusion the report says, however, that the IAEA is conscious that the expertise and know-how acquired by Iraqi scientists and engineers can provide an adequate base

for re-constituting a nuclear weapons oriented programme. A continuing high level of vigilance is necessary to avert this risk. Apparently, IAEA experts also recognise that Iraq may receive weapons-grade uranium stolen in Russia or elsewhere which they could use in a weapon of indigenous design. The recent disclosure that in Jordan the IAEA has found equipment for the production of gas centrifuges, which is said to have been obtained with the help of former Urenco employee Karl-Heinz Schaab after the Gulf War, has raised concern that Iraq may have moved part of its nuclear infrastructure to other Arab states. Schaab, who is thought to be in hiding abroad, is sought by Germany on a charge of high treason.

The recent increase in tension in the area and the lengths to which Iraq is said to go to cooperate with the IAEA, supposedly in order to obtain an early end to nuclear sanctions, are considered by authoritative observers as a potential threat to international efforts to prevent Iraq from embarking once again on a clandestine nuclear programme. While the first-mentioned factor is seen as weakening the anti-Iraq coalition among the major powers and makes it harder for Agency inspectors to operate in that country, the ostensibly meticulous compliance by Iraq with the IAEA's requirements — in marked contrast with its behaviour in respect of other weapons of mass destruction and delivery vehicles — may defeat arguments to keep the sanctions in place.

(**Arms Control Today**, July; **International Herald Tribune**, 2/7; **New York Times**, 18/7, 19/7, 1/8, 9/8, 1/9, 2/9, 3/9, 4/9, 5/9; **Reuters**, 6/8; **IAEA Document** GC(40)/13, 12/8; **Nucleonics Week**, 19/9; **NuclearFuel**, 23/9)

- In an interview with the American weekly *Defense News* of 29 July–4 August, the former Prime Minister of **Israel**, Shimon Peres is quoted as saying that the country should retain its nuclear deterrent capability and continue in its policy of ambiguity until a comprehensive peace has been achieved in the region. He also said that until 'Egypt or the United States or any other country [could] guarantee that Iran and other high-threat nations do not have this capability, [Israel] should continue to follow [its] current policy regarding the nuclear issue'. While the Washington Administration continues to urge universal adherence to the NPT, including that of Israel, it has stressed that this must come in the context of a comprehensive mid-east peace. US sources are mentioned in the article as saying that they have 'no firm assessment of the extent of Israel's nuclear capability or of the money Israel has invested in its nuclear weapon programme'. In this context mention is made of the availability of 20–30 weapons of which the preferred method of delivery would be by air but it is also said that Israel 'could develop a viable surface-to-surface capability'.

- According to American press reports in late August, US intelligence organisations have concluded that **Pakistan** is secretly constructing a factory for the production of M-11 medium-range missiles with technology and equipment received from China. American officials are said to be uncertain whether the factory is meant to produce complete missiles or components, and what the extent is of China's involvement. Pakistan denies it is building a missile factory. Its foreign minister calling the report 'false and malicious', and China has dismissed it as 'groundless'. The M-11 is said to be capable of delivering nuclear warheads over a distance of approximately 200 miles. The United States Administration previously alleged that China supplied Pakistan with a number of M-11 missiles between 1990 and 1994 which, US intelligence sources say, are stored at an air base near Lahore and could be assembled and launched within forty-eight hours. Both China and Pakistan deny such a transfer has taken place. The press reports note that in 1991 China promised the US that it would abide by the Missile Technology Control Regime, without, however, having joined it. Assistance to Pakistan in obtaining or constructing the missiles would conflict with that promise. The US Administration is said to be trying to avoid another showdown with China on this matter, in the run-up to the Presidential elections. Reputedly, the Administration has approved the sale of nuclear reactor-related technology (including a turbine generator) to the same Chinese company which was earlier accused of having supplied 5,000 ring magnets to Pakistan for use in uranium enrichment. During the General Conference of the IAEA, in September, high-level Chinese and American officials are understood to have discussed a revival of bilateral nuclear cooperation pursuant to their agreement of 1984, which has never been fully implemented.

  An official from the Pakistani High Commission in the United Kingdom was expelled in August on accusations of having masterminded nuclear procurement activities for a nuclear research centre near Islamabad which reputedly is engaged in weapons research.

  (**Arms Control Today**, July; **Washington Post**, 25/8, 26/8; **New York Times**, 26/8, 27/8; **Guardian**, 27/8; **Washington Post National Weekly Edition**, 2-8/9; **Standard** [London], 4/8; **Nucleonics Week**, 19/9)

j. Illicit Nuclear Trafficking

- In **Albania**, three people have been arrested on the suspicion of having smuggled radioactive material for the construction of nuclear weapons. Two ampules containing a total of five grammes of radioactive material was said to have been found in their possession; no details were given about the nature of the material. (**Süddeutsche Zeitung**, 1/7)

- In **Belarus**, six containers with what is described as 'highly radioactive material' have been seized by police. Five persons were arrested for having tried to sell the material abroad. (**Die Presse**, 2/8)

- On 13 July customs officials at the **Cyprus** port of Limassol seized what was described as equipment 'which could be used in nuclear facilities'. The consignment was in trans-shipment to an unknown destination. A report aired on a local TV station that the items were meant to be used in a nuclear weapon was discounted by official sources. The seizure followed by two days the adoption by urgent procedure of a law allowing the government to confiscate goods in the

public interest. The measure was apparently adopted after the arrival of the consignment. (**Reuters**, 13/7; **CyBC TV**, 13/7 in **BBC Monitoring Summary of World Broadcasts**, 15/7)

- Three men have been apprehended in **Italy**, accused of having brought 25 kg of weapon-grade uranium from Zaire (sic). The men are being held for illegal trading in weapons; the material itself has not been found. (**Süddeutsche Zeitung**, 2/7)

- Police in **Romania** have impounded 100 kgs of zirconium in the form of rods which are said to have come from Russia and to have been meant for re-export to an Arab state. (**Die Presse**, 9/8)

- In the **United Kingdom** a man has been charged with an attempt to illegally export 50 kgs of maraging steel to Iran. (**Daily Telegraph**, 13/8)

k. Environmental Issues

- In the beginning of July an international study started at **Mururoa** and **Fangataufa Atolls** in the Pacific region, to determine the radiological situation there, after the French nuclear tests which ended in January. A total of 140 underground tests were made at these sites between 1966 and 1996. The study is being made under the auspices of the IAEA upon the request of France. It is carried out under the guidance and direction of an international advisory committee of scientists from ten countries and a number of international organisations. In the first stage of the study, which was completed by early August, a team of eleven scientists from five countries and staff members of the IAEA collected terrestrial and marine samples, including soil, vegetation, coconuts, coral, sea water, fish, sediment and plankton. These samples were to be shared for analysis at a network of laboratories worldwide, with the results being sent to the IAEA's laboratories in Austria and Monaco. Separately, geological specialists are examining the sites, in particular for structural cracks. An overview of the current radiological situation at the atolls is expected to be completed by the end of the present year. The final report on the combined study is expected to be completed in 1998. (**IAEA Press Release**, PR 96/12, 25/6, 96/16, 6/8; **La Depêche de Tahiti**, 18/7; **Le Monde**, 26/7; **IAEA Newsbriefs**, July/August; **Reuters**, 6/8)

- **Japan** intends to host a regional conference on nuclear safety in Asia, before the end of the current year. In the first instance it will invite China, Indonesia, the Republic of Korea and Thailand, but it may also call on India, Pakistan and Taiwan to participate. The issue of inviting the latter three states is apparently still being discussed because India and Pakistan are not parties to the NPT and in the view of the Beijing government, Taiwan is part of China.

  The environmental organisation *Greenpeace* has denounced the passage through the Panama Canal of the British freighter *Pacific Teal*, carrying 20 tons of spent nuclear fuel from Japanese reactors for processing in France and the UK. In early August the Caribbean Community announced it would try to stop the shipment, but nothing further has been heard of this.

  (**Atoms in Japan**, August; **Reuters**, 6/8; **Guardian**, 8/8)

- After a break of two years, the first trainload of solid radioactive waste from **Russia**'s Pacific Fleet has left Vladivostok for reprocessing at Mayak in the Chelyabinsk plant in the southern Urals. It is said to be the plan during the current year to move about 700 fuel elements from nuclear reactors of submarines, presumably all from the Pacific Fleet.

  Norway's plan to help Russia with funding for the clean-up of radioactive waste in the Kola peninsula, including the construction of a ship and rolling stock to transport spent fuel to Mayak is said to have run into resistance from its four largest opposition parties; the Norwegian environmental organisation Bellona is also said to oppose the plan to take the material there. There are reports that Russian officials are making it increasingly difficult for Norwegian scientists to measure radioactivity in the area. Reports that cooperation between the two countries has become noticeably less cordial have been denied by an official of Norway's Foreign Ministry, which says that on the contrary, relations on nuclear issues have never been more open.

  Alexandr Nikitin, the former USSR naval officer who disclosed information about nuclear waste sites in the Murmansk region to Bellona remains in 'provisional custody', charged with espionage. The current term of his detention has been extended until 6 October.

  (**Interfax News Agency** [Moscow], 10/7; **INESAP Information Bulletin**, August; **BBC Monitoring Summary of World Broadcasts**, 26/7, in **UI News Briefing**, 96.31; **EC Energy Monthly**, 9/8, in **UI News Briefing**, 96.32; **Nucleonics Week**, 15/8, 29/8)

- In the **United States**, a start has been made with the vitrification of high-level radioactive liquid waste at the new DoE plant in West Valley, NY, near Buffalo. The site contains more than 600,000 gallons of waste left there by the only operational US commercial reprocessing plant, which closed in 1972. The waste will be stored in 300 steel canisters and eventually disposed of in a geological repository, possibly Yucca Mountain, in Nevada. The large vitrification plant at the Savannah River site in South Carolina is said to have some problems as a result of the unexpectedly high production of the chemical benzene, during pre-treatment of waste. Here too, processing is continuing.

  A new nuclear waste bill has been adopted by the US Senate notwithstanding considerable resistance on the part of Democratic Senators, particular the two from Nevada. The bill is intended to replace one approved in early 1995 and is designed to accelerate legislation on waste disposal, particularly the establishment of an interim storage site. It would delay construction of an interim storage facility at Yucca Mountain until 31 December 1998 or six months after DoE issues its assessment of the viability of constructing a repository

there. If the President determines on the basis of that assessment that Yucca Mountain is not suitable as a repository, all work there must cease. The President would then have 18 months to designate an alternative site for interim storage. If he fails to do so, or Congress fails to approve a designated site within two years after the President's determination, construction of an interim storage facility at Yucca Mountain is to go ahead. One problem in this connection is that, to be able to defend a site suitability decision, DoE should see the actual area where the nuclear waste will be buried. To do this it would have to construct a 2.5 mile exploratory tunnel both to find out more about hydrology at the site and to see how much waste can be accommodated there. The new bill does not leave DoE time to do this.

The White House has announced that the President will veto the Senate bill in its present form as it selects Nevada as a 'default' interim storage site before DoE knows if Yucca Mountain is suitable for radioactive waste disposal. Also, the Nevada project would take resources away from Yucca Mountain. The Senate vote of 63 in favour falls short of the two-thirds majority needed to override a veto. The President was also said to be ready to veto the budget for the nuclear waste programme but this has since been adopted by such a large majority that a veto would probably be overridden. Reportedly, the cost cuts in the bill could result in work at the Yucca Mountain site having to be suspended, and a further delay in solving the nuclear waste problem. The House bill reduces DoE funding for 1997 by about 25 per cent and the Administration sees it as an attempt to dismantle DoE through the appropriations process. However, the House had taken no decision on its version of the bill before time had run out for action on 23 September. Reportedly, the Senate version is less radical and the matter may eventually be settled in conference.

Legislation on nuclear waste disposal in the US is still a subject of considerable controversy in both Houses of Congress. The matter is widely felt to be very urgent, given utilities' need for interim storage of irradiated fuel. Besides environmental considerations, there are questions about funding and fees for waste disposal services.

A US Federal Court of Appeals has ruled that the government has an obligation to accept spent fuel from nuclear industry starting in 1998, even though a permanent storage site will not by then be available. Interpreting a law of 1982 which requires DoE to dispose of commercial spent fuel as of 1998, the court has rejected DoE's argument that because the law defined 'disposal' and referred to 'a repository', the deadline — which is reflected in its contracts with utilities — was conditional upon completion of an available storage site. Consequently, failure of DoE to meet the deadline could justify utilities not making their annual payments of $600 million to the Nuclear Waste Fund.

Meanwhile, two-thirds of American high-level radioactive waste is said to be concentrated at the Hanford nuclear reservation, where 440 billion gallons of contaminated liquid have been dumped into the soil. Sixty-one million gallons of radioactive waste is held in 177 underground tanks, some of them of huge dimensions. Sixty-eight of the tanks are reported to be leaking. Reportedly, according to most recent estimates, it will take $49 billion and 75 years to clean up the area, although much of the site will never be available for safe human use. In all, about 53 tons of plutonium are said to have been produced at Hanford.

(**SpentFUEL**, 1/7, 15/7, 22/7, 29/7, 5/8, 2/9; **NuclearFuel**, 1/7, 15/7, 29/7, 12/8; **Washington Post National Weekly Edition**, 8-14/7, quoting from Blaine Harden, *A River Lost: The Life and Death of the Columbia*, W.W. Norton, 1996; **New York Times**, 9/7, 24/7, 1/8; **Nucleonics Week**, 18/7, 25/7, 1/8)

I. Miscellaneous

- The government of **Germany** has ended its long-standing policy of secrecy about the national plutonium stockpile, and it reportedly has decided for political and economic reasons to divest itself of the plutonium. The government of Hesse has decided to make that state plutonium-free by the year 2000, and the firm of Siemens AG has announced that it intends to clear the material from its stroage site at Hanau before that date. Siemens will reportedly first have to get a permit to flush out any plutonium that is still in the production line at the idled plutonium fuel fabrication plant. This amount is estimated at 100 kgs. The fissile material storage bunker at Hanau is reported to contain 2.4 metric tons (MT) of plutonium in a variety of forms, including powder, nitrate solution and MOX fuel — the actual composition is still a secret but official date indicate that the average fissile content is 75 per cent. German officials are quoted as saying that none of the plutonium is weapon-grade (93-95 per cent or more), and reject allegations to the contrary by the German nuclear commentator Matthias Küntzel. Much of the plutonium has been in storage at Hanau for more than 30 years; some of it was meant for the fast-breeder reactor that was planned to be constructed at Kalkar but never built. Permission to transport 140 kgs of separated plutonium to La Hague has been granted. (**Süddeutsche Zeitung**, 23/7; **NuclearFuel**, 29/7, 12/8, 26/8; **Nucleonics Week**, 15/8)

- There is a report from the Atomic Energy Organization of **Iran** that about 50 persons were exposed to radiation when on 24 July, an iridium-142 source used for the testing of welds at a combined cycle gas plant in the northern province of Gilan was handled outside its shielding. Earlier media reports, said to have been based on a disclosure by Israeli 'intelligence sources', that the accident involved a nuclear power plant were formally corrected by the German firm of Siemens AG, which has constructed the facility, as well as by the IAEA. (**NucNet News** 375 and 380, 31/7; **Reuters**, 31/7; **New York Times**, 1/8; **Nucleonics Week**, 8/8)

- Reports from the **United Kingdom** allege that in the 1950s and 1960s there were a number of accidents at American air bases in Britain involving US military aircraft carrying nuclear weapons. The documents have so far been kept secret by the UK Ministry of Defence which claims that there have been no nuclear accidents involving the release of radioactive material in the UK.

One event covered in the British press is said to have involved an American B-47 bomber which crashed on a nuclear weapons store, setting fire to several of the weapons. The Campaign for Nuclear Disarmament (CND) insists that at least one of the accidents has led to radioactive contamination.

Pictures were released recently of an accident at the Dounreay reactor facility. Reportedly, in 1977 a 215 foot deep shaft was dug as an access tunnel for construction workers building a waste pipe out of the plant. The bottom end of the pipe appears to have been sealed when the work was completed and the hole was used to dump waste material which eventually blew up.

(**Guardian**, 13/8; **Daily Telegraph**, 13/8; **Enerpresse**, 13/8; **Financial Times**, 14/8; **Observer**, 18/8; **Times** [London], 24/9)

- In the **United States** investigations are being made of a suspected case of sabotage at the St. Lucie nuclear power plant in Florida. During a routine inspection in August, three locks in back-up control rooms were found to have been made inoperable with glue. The locks gave access to switches by which the two reactor units could have been shut down, but according to the company, if necessary other means could also have been used. A month ago, twelve padlocks and door locks in another part of the plant were also found to contain glue. (**NucNet News**, 15/8; **Nucleonics Week**, 22/8)

II. PPNN Activities

- Together with the Monterey Institute of International Studies of the United States and the National Institute for Strategic Studies of the Ukraine, PPNN held a regional seminar for senior officials from NIS states at the Hotel Kyivskaya Rus, Kiev, Ukraine on 28 September 1996. The topic was *Preparing for the 1997 NPT PrepCom.* Ben Sanders and John Simpson made presentations on issues that will confront states at the 1997 PrepCom.

- During September, PPNN published and distributed three Issue Reviews. Issue Review No.6, *A New View of Review* by Ben Sanders and George Bunn addresses itself to the procedural issues likely to be encountered in implementing the revised NPT review process agreed in 1995. Issue Review No.7, *Security Assurances to Non-Nuclear-Weapon States: Possible Options for Change* by George Bunn and Roland Timerbaev examines the further steps that might be considered to meet the desires of many NPT parties for enhanced security assurances, including legally binding ones. Issue Review No.8, *National and International Export Control Systems and Supplier States' Commitments under the NPT* by Harald Müller examines the obligations of NPT supplier states, the nature of export control guidelines and offers proposals for a strategy of dialogue between supplier and recipient states. Copies may be obtained from PPNN's Southampton office.

- PPNN will hold the twentieth semi-annual meeting of its Core Group at the Chauncey Conference Centre near Princeton, New Jersey, United States over the weekend of 25–27 October 1996. This will be combined with a two-day international seminar for Senior Diplomats and Government Officials on *The 1997 Preparatory Committee for the 2000 NPT Review Conference: Issues and Options.*

- The date for the twenty-first semi-annual meeting of the PPNN Core Group has been fixed for 7–9 March 1997 at the Arden House Conference Centre, Harriman, New York. This will be combined with a further international seminar on *The 1997 Preparatory Committee for the 2000 NPT Review Conference: Issues and Options.*

III. Recent Publications

Books

Charles T. Allan, 'Extended Conventional Deterrence: In From The Cold and Out of The Nuclear Fire?' in Roberts, Brad, (ed.), *Weapons Proliferation in The 1990s,* MIT Press, Cambridge, MA, 1995, pp. 213-243.

Graham T. Allison, Owen R. Coté Jr., Richard A. Falkenrath, and Steven E. Miller, *Avoiding Nuclear Anarchy: Containing the Threat of Loose Russian Nuclear Weapons and Fissile Material*, The MIT Press, Cambridge, MA, 295 pp.

Center for Strategic and International Studies, *The Nuclear Black Market*, Center for Strategic and International Studies, Washington, D.C., 49 pp.

P.R. Chari, Pervaiz Iqbal Cheema and Iftekharuzzaman (eds.), *Nuclear Non-Proliferation in India and Pakistan: South Asian Perspectives*, New Delhi: Manohar Publishers, for Regional Centre for Strategic Studies, Colombo, 236 pp. [see also review by Jayantha Dhanapala, *Regional Centre for Strategic Studies Newsletter*, Vol. 2, No. 3, July, pp. 6-8.]

William M. Evan and Ved P. Nanda, *Nuclear Proliferation and the Legality of Nuclear Weapons,* University Press of America, London, 1995, 421 pp.

Harald Müller (ed.), *European Non-Proliferation Policy 1993–1995*, European Interuniversity Press, Brussels, for Peace Research Institute Frankfurt, 315 pp.

Harald Müller and Janusz Prystrom (eds.), *Central Europena Countries and Non-Proliferation Regimes*, Polish Foundation of International Affairs in association with Peace Research Institute Frankfurt.

J. B. Poole and R. Guthrie (eds.), *Verification 1996: Arms Control, Peacekeeping and the Environment*, VERTIC/Westview Press, London/Boulder, CO, 468 pp.

SIPRI Yearbook 1996, Stockholm International Peace Research Institute, Oxford University Press, Oxford, 830 pp.

Articles and other materials

G. Balachandran, 'India's Nuclear Option: Economic Implications', *Strategic Analysis,* Vol. 19, No. 2, May 1996, pp. 143-156.

Praful Bidwai and Achin Vanaik, 'Testing Times: The Global Stake in a Nuclear Test Ban', *Dag Hammerskjöld Foundation*, 71 pp.

Mikhailo Bilousov, 'Ukraine and Disarmament Diplomacy', *Disarmament Diplomacy*, No. 6, June, pp. 9-10.

Stephen Black, 'The UN Special Commission and CBW Verification', *Chemical Weapons Convention Bulletin*, No. 32, June, pp. 1, 7-8.

Bon-Hak Koo (ed.), *The Korea/Canada North Pacific Arms Control Workshop*, Workshop Proceedings Prepared for Non-Proliferation, Arms Control and Disarmament Division, Department of Foreign Affairs and International Trade Canada, 1995, 140 pp.

Oleg Bukharin, 'Analysis of the Size and Quality of Uranium Inventories in Russia', *Science & Global Security,* Vol. 6, No. 1, 1996, pp. 59-77.

George Bunn, 'Expanding Nuclear Options: Is the US Negating Its Non-Use Pledges?', *Arms Control Today*, Vol. 26, No. 4, May/June, pp. 7-10.

George Bunn, 'Inspection for Clandestine Nuclear Activities: Does the Nuclear Non-Proliferation Treaty Provide Legal Authority for the International Atomic Energy Agency's Proposals for Reform?', OECD-Nuclear Energy Agency's *Nuclear Law Bulletin*, No. 57, June, pp. 9-22.

Julio C. Carasales, 'A Surprising About-face: Argentina and the NPT', *Security Dialogue,* Vol. 27, No. 3, September 1996, pp. 325-335.

Avner Cohen, 'Cairo, Dimona, and the June 1967 War', *Middle East Journal*, Vol. 50, No. 2, Spring, pp. 190-210.

Avner Cohen, 'Israel's Nuclear History: The Untold Kennedy-Eshkol Dimona Correspondence', *Journal of Israeli History*, Vol. 16, No. 2, 1995, distributed Summer 1996, pp. 159-194.

Avner Cohen, 'Recently Declassified 1963 Correspondence between President Kennedy and Prime Ministers Ben-Gurion and Eshkol', *Journal of Israeli History*, Vol. 16, No. 2, 1995, distributed Summer 1996, pp. 195-207.

Martine de Becker, Harald Müller and Annette Schaper, 'Essais Nucléaires: Fin de Partie', *Les Publications du Grip*, No. 214,

Jayantha Dhanapala, 'Fulfilling the Promise of the NPT: The CTBT and Beyond', *Arms Control Today*, Vol. 26, No. 4, May/June, pp. 3-6.

André Dumoulin, 'La dissuasion nucléaire européenne: Quel avenir?', *Les Dossiers du GRIP*, No. 211–212, pp. 131.

John Edmonds, 'International Disarmament: The Main Objectives', *Disarmament Diplomacy*, No. 6, June, pp. 2-4.

David Fischer, 'What Can the Europeans Do to Strengthen the IAEA?' in Vicente Garrido, Antonio Marquina, and Harald Müller, (eds.), *The Implications of 1995 NPT Review and Extension Conference: A Spanish Point of View*, Research Unit on Security and International Cooperation, Madrid, 1996, *UNISCI Papers*, No. 7, pp. 23-34.

Lawrence Freedman, 'Balancing Acts: Changing Needs and Concepts in Arms Control', *Disarmament Diplomacy*, No. 6, June, pp. 5-9.

Michael J. Engelhardt, 'Rewarding Nonproliferation: The South and North Korean Cases', *The Nonproliferation Review*, Spring-Summer, Vol. 3, No. 3, pp. 31-37.

Wendy Frieman, 'New Members of the Club: Chinese Participation in Arms Control Regimes 1980-1995', *The Nonproliferation Review*, Spring-Summer, Vol. 3, No. 3, pp. 15-30.

Vicente Garrido, 'What is the Future of the Nuclear Non-Proliferation Regime?' in Vicente Garrido, Antonio Marquina, and Harald Müller, (eds.), *The Implications of 1995 NPT Review and Extension Conference: A Spanish Point of View*, Research Unit on Security and International Cooperation, Madrid, 1996, *UNISCI Papers*, No. 7, pp. 101-110.

Xanthe Hall, 'Preventing Nuclear Confrontation. A Nuclear Weapons Free Zone in Central and Eastern Europe', *INESAP Information Bulletin*, No. 10, August, pp. 13-14.

F. Hussein Hammad, Bahiq Nassar, 'The African Nuclear-Weapon-Free-Zone Treaty: Regional and International Implications', *INESAP Information Bulletin*, No. 10, August, pp. 1, 2-5.

Kevin Hesketh, Massimo Salvatores, Gerhard Schlosser, Enrico Sartori, 'Plutonium Recycling', *NEA Newsletter*, Vol. 14, No. 1, Spring, pp. 10-15.

Pervez Hoodbhoy and Martin Kalinowski, 'The Nuclear Subcontinent: The Tritium Solution', *The Bulletin of the Atomic Scientists*, Vol. 52, No. 4, July/August, pp. 41-44.

Vicente Garrido, 'Nuclear and Dual-Use Export Control: The Spanish Case' in Vicente Garrido, Antonio Marquina, and Harald Müller, (eds.), *The Implications of 1995 NPT Review and Extension Conference: A Spanish Point of View*, Research Unit on Security and International Cooperation, Madrid, 1996, *UNISCI Papers*, No. 7, pp. 59-74.

Darryl Howlett, 'The 1995 NPT Review and Extension Conference: Assessment and Implications' in Vicente Garrido, Antonio Marquina, and Harald Müller, (eds.), *The Implications of 1995 NPT Review and Extension Conference: A Spanish Point of View*, Research Unit on Security and International Cooperation, Madrid, 1996, *UNISCI Papers*, No. 7, pp. 1-18.

Osvaldo Ilari and Edward Lazo, 'The Chernobyl Lessons: An NEA perspective', *NEA Newsletter*, Vol. 14, No. 1, Spring, pp. 5-9.

Ryukichi Imai, 'Can the earth sustain ten billion people? Problems of food, energy and environment in the twenty-first century', *IIPS Policy Paper 163E*, July, 28 pp.

Rebecca Johnson, 'The Comprehensive Test Ban Treaty: Hanging in the Balance', *Arms Control Today*, Vol. 26, No. 5, pp. 3-8.

Martin B. Kalinowski, 'Virtual Nuclear Tests. Can the Comprehensive Test Ban Treaty be Circumvented by Computer Simulations?', *INESAP Information Bulletin*, No. 10, August, pp. 38-40.

Karl-Heinz Kamp, 'An overrated nightmare', *The Bulletin of the Atomic Scientists*, Vol. 52, No. 4, July/August, pp. 30-34.

Igor Khripunov, 'CW Destruction Technologies: A View on their Choices and Implications', *The Monitor: Nonproliferation, Demilitarization and Arms Control*, Vol. 2, No. 3, Summer, pp. 7-8.

Elina Kiritchenko, 'Evolution of the Russian Nonproliferation Export Controls', *The Monitor: Nonproliferation, Demilitarization and Arms Control*, Vol. 2, No. 3, Summer, pp. 8-12.

Andrew Koch, 'Report: Nuclear Testing in South Asia and the CTBT', *The Nonproliferation Review*, Spring-Summer, Vol. 3, No. 3, pp. 98-104.

Myron B. Kratzer, 'Fuel Cycle Centers Revisited: Consolidation of Fuel Cycle Activities in a Few Countries', *Journal of Nuclear Materials Management*, July, pp. 31-35.

Michael Krepon, 'Concrete Measures Toward Nuclear Disarmament', *INESAP Information Bulletin*, No. 10, August, pp. 41-43

Arvind Kumar, 'United States' Nuclear Policy', *Strategic Analysis*, Vol. 19, No. 2, May 1996, pp. 194-207.

Ian O. Lesser and Ashley J. Tellis, *Strategic Exposure — Proliferation Around the Mediterranean,* RAND, Santa Monica, 1996, 107 pp.

Andrew Mack, 'Proliferation in Northeast Asia', The Henry L. Stimson Center Occasional Paper No. 28, July, 60 pp.

George MacLean, 'Atoms for Peace Redux: Prospects for Military Fissile Material Conversion', Occasional Paper, The University of Manitoba, Department of Political Studies,Centre for Defence and Security Studies, Winnipeg, Manitoba, February 1996, No. 32.

Antonio Marquina, 'Proliferation and the Mediterranean Region' in Vicente Garrido, Antonio Marquina, and Harald Müller, (eds.), *The Implications of 1995 NPT Review and Extension Conference: A Spanish Point of View*, Research Unit on Security and International Cooperation, Madrid, 1996, *UNISCI Papers*, No. 7, pp. 83-91.

Luis Masperi, 'Present and Future Nuclear-Weapon-Free Zones', *INESAP Information Bulletin*, No. 10, August, pp. 1, 6-8.

Amitabh Mattoo, 'India's Nuclear Status Quo', *Survival,* Vol. 38, No. 3, Autumn 1996, pp. 5-26.

Zia Mian and A. H. Nayyar, 'The Nuclear Subcontinent: A Time of Testing?', *The Bulletin of the Atomic Scientists*, Vol. 52, No. 4, July/August, pp. 35-40.

Eugene Miasnikov, 'Problems of START-2 Treaty Ratification in Russia. Is START-3 Possible?', *INESAP Information Bulletin*, No. 10, August, pp. 15-17.

Mike Moore, 'World Court says mostly no to nuclear weapons', *Bulletin of the Atomic Scientists*, Vol. 52, No. 5, September/October, pp. 39-42, with comments from Peter Weiss, ['And now, abolition']; Jeremy J. Stone, ['Less than

meets the eye']; Michael Krepon, ['The counter-revolution']; Kathleen Bailey, ['So what?'].

Harald Müller, 'The European Union and the NPT Review and Extension Conference Lessons for the Future' inVicente Garrido, Antonio Marquina, and Harald Müller, (eds.), *The Implications of 1995 NPT Review and Extension Conference: A Spanish Point of View*, Research Unit on Security and International Cooperation, Madrid, 1996, *UNSCI Papers*, No. 7, pp. 93-100.

Harald Müller, Katja Frank, Alexander Kelle, Slyvia Meier and Annette Schaper, 'Nukleare Abrüstung – Mit Welcher Perspektive?', *HSFK-Report 8/1996*, Hessische Stiftung Friedens-und Konflikt-forschung [Peace Research Institute Frankfurt].

Thomas Nilsen, 'The Russian Northern Fleet. Sources of Radioactive Contamination. A short summary of the Bellona report.' *INESAP Information Bulletin*, No. 10, August, pp. 17-20.

Vladimir A. Orlov, 'Report: The Moscow Nuclear Summit and the Status of Russia's Smuggling Threat', *The Nonproliferation Review*, Spring-Summer, Vol. 3, No. 3, pp. 80-85.

Vladimir A. Orlov, 'Moscow Nuclear Safety and Security Summit: Summing Up the Results', *Yaderny Kontrol*, Summer, No. 2, pp. 1, 3-8.

Savita Pande, 'CTBT and India', *Strategic Analysis,* Vol. 19, No. 2, May 1996, pp. 157-182.

Graham S. Pearson, 'Implementing Article X of the BTWC: Avoiding Duplication', *Chemical Weapons Convention Bulletin*, No. 32, June, pp. 1-6.

George Perkovich, 'India's Nuclear Weapons Debate: Unlocking the Door to the CTBT', *Arms Control Today*, Vol. 26, No. 4, May/June, pp. 11-16.

Per F. Peterson, 'Long-Term Safeguards for Plutonium in Geologic Repositories', *Science & Global Security*, Vol. 6, No. 1, pp. 1-29.

Report of the Twenty-Seventh United Nations Issues Conference, Sponsored by The Stanley Foundation, February 23-25, 35 pp.

Annette Schaper, 'Proliferation Risks from the Former Soviet Union and Ways to Address Them' in Vicente Garrido, Antonio Marquina, and Harald Müller, (eds.), *The Implications of 1995 NPT Review and Extension Conference: A Spanish Point of View*, Research Unit on Security and International Cooperation, Madrid, 1996, *UNISCI Papers*, No. 7, pp. 51-58.

Antonio Segura, 'Dual Use Export Control in Spain' in Vicente Garrido, Antonio Marquina, and Harald Müller, (eds.), *The Implications of 1995 NPT Review and Extension Conference: A Spanish Point of View*, Research Unit on Security and International Cooperation, Madrid, 1996, *UNISCI Papers*, No. 7, pp. 75-81.

'South Asia's Nuclear Future', From a Conference on Nuclear Non-Proliferation and the Millennium: Prospects and Initiatives, Nuclear Non-Proliferation Project, Carnegie Endowment for International Peace, February 12-13, 34 pp.

Kory W. Budlong Sylvester and Scott A. Simonson, 'An Assessment of the Use of Diluents in the Vitrification of Weapons-Grade Plutonium', *Science & Global Security,* Vol. 6, No. 1, 1996, pp. 31-58.

Jonathan B. Tucker, 'Monitoring and Verification in a Noncooperative Environment: Lessons from the UN Experience in Iraq', *The Nonproliferation Review*, Spring-Summer, Vol. 3, No. 3, pp. 1-14.

Hiro Umebayashi, 'A Northeast Asia NWFZ. A Realistic and Attainable Goal. An Asia-Pacific Approach to the Nuclear Weapon Free World', *INESAP Information Bulletin*, No. 10, August, pp. 9-12.

Mikhail Ustiugov, 'Kazakh Power Play', *The Bulletin of the Atomic Scientists*, Vol. 52, No. 4, July/August, pp. 45-49.

Astghik Vardanian, 'Armenia's Choice', *The Bulletin of the Atomic Scientists*, Vol. 52, No. 4, July/August, pp. 50-54.

Paulo S. Wrobel, 'Brazil and the NPT: Resistance to Change?', *Security Dialogue,* Vol. 27, No. 3, September 1996, pp. 337-347.

Alexander Yereskovsky, 'The ABM and START Treaties: Keep them Together', *The Nonproliferation Review*, Spring-Summer, Vol. 3, No. 3, pp. 12-14.

Hisham Zerriffi and Arjun Makhijani, 'The stewardship smokescreen', *Bulletin of the Atomic Scientists*, Vol. 52, No. 5, September/October, pp. 22-28.

IV. Documentation

a. The International Court of Justice

Legality of the Use by a State of Nuclear Weapons in Armed Conflict (Request for Advisory Opinion by the World Health Organization)

[Reproduced from Communiqué No. 96/22, 8 July 1996]

Advisory Opinion

The Hague, 8 July 1996. The International Court of Justice found today, by eleven votes to three, that it was not able to give the advisory opinion, requested by the World Health Organization on the question of the *Legality of the Use by a State of Nuclear Weapons in Armed Conflict.*

The Court considered that there are three conditions which must be satisfied in order to found the jurisdiction of the Court when a request for an advisory opinion is submitted to it by a specialized agency: the agency requesting the opinion must be duly authorized, under the Charter, to request opinions from the Court; the opinion requested must be on a legal question, and this question must be one arising within the scope of the activities of the requesting agency.

The first two conditions had been met. With regard to the third, however, the Court found that although according to its Constitution the World Health Organization is authorized to deal with the effects on health of the use of nuclear weapons, or of any other hazardous activity, and to take preventive measures aimed at protecting the health of populations in the event of such weapons being used or such activities engaged in, the question put to the Court in the present case relates *not to the effects* of the use of nuclear weapons on health, but to the *legality* of the use of such weapons *in view of their health and environmental effects.* And the Court pointed out that whatever those effects might be, the competence of the WHO to deal with them is not dependent of the legality of the acts that caused them. The Court further pointed out that international organizations do not, unlike States, possess a general competence, but are governed by the 'principle of speciality', that is to say, they are invested by the States which create them with powers, the limits of which are a function of the common interests whose promotion those States entrust to them. Besides, the World Health Organization is an international organization of a particular kind -- a 'specialized agency' forming part of a system based in the Charter of the United Nations, which is designed to organize international co-operation in a coherent fashion by bringing the United Nations, invested with powers of general scope, into relationship with various autonomous and complementary organizations, invested with sectorial powers. The Court therefore concluded that the responsibilities of the WHO are necessarily restricted to the sphere of public 'health' and cannot encroach on the responsibilities of other parts of the United Nations system. And that there is no doubt that questions concerning the use of force, the regulation of armaments and disarmament are within the competence of the United Nations and lie outside that of the specialized agencies.

The request for an advisory opinion submitted by the WHO thus does not relate to a question which arises 'within the scope of [the] activities' of that Organization.

*

The Court was composed as follows: *President* Bedjaoui, *Vice-President* Schwebel; *Judges* Oda, Guillaume, Shahabuddeen, Weeramantry, Ranjeva, Herczegh, Shi, Fleischhauer, Koroma, Vereshchetin, Ferrari Bravo, Higgins; *Registrar* Valencia-Ospina.

Judges Ranjeva and Ferrari Bravo appended declarations to the Advisory Opinion of the Court; Judge Oda appended a separate opinion; Judges Shahabuddeen, Weeramantry and Koroma appended dissenting opinions.

....

Legality of the Threat or Use by a State of Nuclear Weapons in Armed Conflict (Request for Advisory Opinion by the General Assembly of the United Nations)

[Reproduced from Communiqué No. 96/23, 8 July 1996]

Advisory Opinion

The Hague, July 8 1996. The International Court of Justice today handed down its Advisory Opinion on the request made by the General Assembly of the United Nations in the above case. The final paragraph of the Opinion reads as follows:

'For these reasons,

THE COURT

(1) By thirteen votes to one,
Decides to comply with the request for an advisory opinion:
IN FAVOUR: *President* Bedjaoui; *Vice-President* Schwebel; *Judges* Guillaume, Shahabuddeen, Weeramantry, Ranjeva, Herczegh, Shi, Fleischhauer, Koroma, Vereshchetin, Ferrari Bravo, Higgins;
AGAINST: *Judge* Oda.

(2) *Replies* in the following manner to the question put by the General Assembly:

A. Unanimously,
There is in neither customary nor conventional international law any specific authorization of the threat or use of nuclear weapons;

B. By eleven votes to three,
There is in neither customary nor conventional international law any comprehensive and universal prohibition of the threat or use of nuclear weapons as such,
IN FAVOUR: *President* Bedjaoui; *Vice-President* Schwebel; *Judges* Oda, Guillaume, Ranjeva, Herczegh, Shi, Fleischhauer, Vereshchetin, Ferrari Bravo, Higgins;
AGAINST: *Judges* Shahabuddeen, Weeramantry, Koroma.

C. Unanimously,
A threat or use of force by means of nuclear weapons that is contrary to Article 2, paragraph 4, of the United Nations Charter and that fails to meet all the requirements of Article 51, is unlawful;

D. Unanimously,
A threat or use of nuclear weapons should also be compatible with the requirements of the international law applicable in armed conflict particularly those of the principles and rules of international humanitarian law, as well as with specific obligations under treaties and other undertakings which expressly deal with nuclear weapons;

E. By seven votes to seven [see corrigendum below – ed.],
It follows from the above-mentioned requirements that the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law;
However, in view of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake;
IN FAVOUR: *President* Bedjaoui; *Judges* Ranjeva, Herczegh, Shi, Fleischhauer, Vereshchetin, Ferrari Bravo;
AGAINST: *Vice-President* Schwebel; *Judges* Oda, Guillaume, Shahabuddeen, Weeramantry, Koroma, Higgins.

F. Unanimously,
There exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control'.

*

The Court was composed as follows: *President* Bedjaoui, *Vice-President* Schwebel; *Judges* Oda, Guillaume, Shahabuddeen, Weeramantry, Ranjeva, Herczegh, Shi, Fleischhauer, Koroma, Vereshchetin, Ferrari Bravo, Higgins; *Registrar* Valencia-Ospina.

President Bedjaoui, *Judges* Herczegh, Shi, Vereshchetin and Ferrari Bravo appended declarations to the Advisory Opinion of the Court; *Judges* Guillaume, Ranjeva and Fleischhauer appended separate opinions; *Vice-President* Schwebel, *Judges* Oda, Shahabuddeen, Weeramantry, Koroma and Higgins appended dissenting opinions.

...*

No. 96/23 corr.
8 July 1996

Corrigendum to Press Communiqué No. 96/23

On page 2 of Press Communiqué No. 96/23, the first line of point (2) E. of the final paragraph of the Opinion should read as follows:

E. By seven votes to seven, by the President's casting vote,

*

Annex to Press Communiqué No. 96/23

Declaration of President Bedjaoui

After having pointed out that paragraph E. of the operative part was adopted by seven votes to seven, with his own casting vote, President Bedjaoui began by stressing that the Court had been extremely meticulous and had shown an acute sense of its responsibilities when proceeding to consider all the aspects of the complex question put to it by the General Assembly. He indicated that the Court had, however, had to find that in the current state of international law, the question was one to which it was unfortunately not in a position to give a clear answer. In his view, the Advisory Opinion thus rendered does at least have the merit of pointing to the imperfections of international law and inviting the States to correct them.

President Bedjaoui indicated that the fact that the Court was unable to go any further should not 'in any way be interpreted as leaving the way open to the recognition of the lawfulness of the threat or use of nuclear weapons'. According to him, the Court does no more than place on record the existence of a legal uncertainty. After having observed that the voting of the Members of the Court on paragraph E. of the operative part is not the reflection of any geographical dividing line, he gives the reasons that led him to approve the pronouncement of the Court.

To that end, he began by emphasizing the particularly exacting nature of international law and the way in which it is designed to be applied in all circumstances. More specifically, he concluded that *'the very nature of this blind weapon therefore has a destabilizing effect on humanitarian law which regulates discernment in the type of weapon used. Nuclear weapons, the ultimate evil, destabilize humanitarian law which is the law of the lesser evil. The existence of nuclear weapons is therefore a challenge to the very existence of humanitarian law*, not to mention their long-term effects of damage to the human environment, in respect to which the *right to life* can be exercised'.

President Bedjaoui considered that 'self-defence — if exercised under extreme circumstances in which the very survival of a State is in question — cannot engender a situation in which a State would exonerate itself from compliance with the *'intransgressible'* norms of international humanitarian law'. According to him it would be very rash to accord, without any hesitation, a higher priority to the survival of a State than to the survival of humanity itself.

As the ultimate objective of any action in the field of nuclear weapons is nuclear disarmament, President Bedjaoui concludes by stressing the importance of the obligation to negotiate in good faith for nuclear disarmament — which the Court has moreover recognized. He considers for his part that it is possible to go

beyond the conclusions of the Court in this regard and to assert 'that there in fact exists a twofold *general obligation*, opposable *erga omnes*, to negotiate in good faith and to achieve a specified result'; in other words, given the at least formally unanimous support for that object, that obligation has now — in his view — assumed customary force.

b. The Canberra Commission on the Elimination of Nuclear Weapons

Statement

The destructiveness of nuclear weapons is immense. Any use would be catastrophic.

Nuclear weapons pose an intolerable threat to tall humanity and its habitat, yet tens of thousands remain in arsenals built up at an extraordinary time of deep antagonism. That time has passed, yet assertions of their utility continue.

These facts are obvious but their implications have been blurred. There is no doubt that, if the peoples of the world were more fully aware of the inherent danger of nuclear weapons and the consequences of their use, they would reject them, and not permit their continued possession or acquisition on their behalf by their governments, even for an alleged need for self-defence.

Nuclear weapons are held by a handful of states which insist that these weapons provide unique security benefits, and yet reserve uniquely to themselves the right to own them. This situation is highly discriminatory and thus unstable; it cannot be sustained. The possession of nuclear weapons by any state is a constant stimulus to other states to acquire them.

The world faces threats of nuclear proliferation and nuclear terrorism. These threats are growing. They must be removed.

For these reasons, a central reality is that nuclear weapons diminish the security of all states. Indeed, states which possess them become themselves targets of nuclear weapons.

The opportunity now exists, perhaps without precedent or recurrence, to make a new and clear choice to enable the world to conduct its affairs without nuclear weapons and in accordance with the principles of the Charter of the United Nations.

The members of the Canberra Commission call upon the United States, Russia, the United Kingdom, France and China to give the lead by committing themselves, unequivocally, to the elimination of all nuclear weapons. Such a commitment would propel the process in the most direct and imaginative way. All other governments must join this commitment and contribute to its fulfillment.

The Commission has identified a series of steps which can be taken immediately and which would thereupon make the world safer.

The Commission has also described the practical measures which can be taken to bring about the verifiable elimination of nuclear weapons and the full safeguarding of militarily usable nuclear material.

A nuclear weapon free world can be secured and maintained through political commitment, and anchored in an enduring and binding legal framework.

Executive Summary

The Canberra Commission is persuaded that immediate and determined efforts need to be made to rid the world of nuclear weapons and the threat they pose to it. The destructiveness of nuclear weapons is immense. Any use would be catastrophic.

The proposition that nuclear weapons can be retained in perpetuity and never used — accidentally or by decision — defies credibility. The only complete defence is the elimination of nuclear weapons and assurance that they will never be produced again.

The end of the bipolar confrontation has not removed the danger of nuclear catastrophe. In some respects the risk of use by accident or miscalculation has increased. Political upheaval or the weakening of state authority in a nuclear weapon state could cripple existing systems for ensuring the safe handling and control of nuclear weapons and weapons material, increasing the odds of a calamity. The same fate could befall other states or sub-state groups with a less developed nuclear weapon capability or those that seek to develop such a capability in the future.

Nuclear weapons have long been understood to be too destructive and non-discriminatory to secure discrete objectives on the battlefield. The destructiveness of nuclear weapons is so great that they have no military utility against a comparably equipped opponent, other than the belief that they deter that opponent from using nuclear weapons. Possession of nuclear weapons has not prevented wars, in various regions, which directly or indirectly involve the major powers. They were deemed unsuitable for use even when those powers suffered humiliating military setbacks.

No nuclear weapon state has been or is prepared to declare as a matter of national policy that it would respond to the use of chemical or biological weapons with nuclear weapons. The solution to these concerns lies in the strengthening and effective implementation of and universal adherence to the Chemical Weapons Convention and Biological Weapons Convention, with particular emphasis on early detection of untoward developments. The response to any violation should be a multilateral one.

Thus, the only apparent military utility that remains for nuclear weapons is in deterring their use by others. That utility implies the continued existence of nuclear weapons. It would disappear completely if nuclear weapons were eliminated.

A New Climate For Action

Nuclear weapons are held by a handful of states which insist that these weapons provide unique security benefits, and yet reserve uniquely to themselves the right to own them. This situation is highly discriminatory and thus unstable; it cannot be sustained. The possession of nuclear weapons by any state is a constant stimulus to other states to acquire them.

In the 1960s, the world looked at the prospect of dozens of nuclear weapons states, recoiled and rejected it. The result was the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) of 1968 with its promise of a world free of these weapons. The overall success of the NPT and other nuclear non-proliferation regimes has been gratifying, but it has been hard won, and is by no means guaranteed. The prospects of a renewal of horizontal proliferation have become real.

The proliferation of nuclear weapons is amongst the most immediate security challenges facing the international community. Despite the impact of the international nuclear non-proliferation regime, the disconcerting reality is that several states have made, and some continue to make, clandestine efforts to develop nuclear arsenals. The possible acquisition by terrorist groups of nuclear weapons or material is a growing threat to the international community.

The end of the Cold War has created a new climate for international action to eliminate nuclear weapons, a new opportunity. It must be exploited quickly or it will be lost.

The elimination of nuclear weapons must be a global endeavour involving all states. The process followed must ensure that no state feels, at any stage, that further nuclear disarmament is a threat to its security. To this end nuclear weapon elimination should be conducted as a series of phased verified reductions that allow states to satisfy themselves, at each stage of the process, that further movement toward elimination can be made safely and securely.

Immediate Steps

The first requirement is for the five nuclear weapon states to commit themselves unequivocally to the elimination of nuclear weapons and agree to start work immediately on the practical steps and negotiations required for its achievement. This commitment should be made at the highest political level. Non-nuclear weapon states should support the commitment by the nuclear weapon states and join in cooperative international action to implement it. This commitment would change instantly the tenor of debate, the thrust of war planning, and the timing or indeed the necessity for modernisation programs. It would transform the nuclear weapons paradigm from the indefinite management of a world fraught with the twin risks of the use of nuclear weapons and further proliferation, to one of nuclear weapons elimination.

Negotiation of the commitment should begin immediately, with the aim of first steps in its implementation being taken in 1997.

The commitment by the nuclear weapon states to a nuclear weapon free world must be accompanied by a series of practical, realistic and mutually reinforcing steps. There are a number of such steps that can be taken immediately. They would significantly reduce the risk of nuclear war and thus enhance the security of all states, but particularly that of the nuclear weapon states. Their implementation would provide clear confirmation of the intent of the nuclear weapon states to further reduce the role of nuclear weapons in their security postures. The recommended steps are:

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

Nuclear weapon states should take all nuclear forces off alert status and so reduce dramatically the chance of an accidental or unauthorised nuclear weapons launch. In the first instance, reductions in alert status could be adopted by the nuclear weapon states unilaterally.

The physical separation of warheads from delivery vehicles would strongly reinforce the gains achieved by taking nuclear forces off alert. This measure can be implemented to the extent that nuclear forces can be reconstituted to an alert posture only within known or agreed upon timeframes.

The nuclear weapon states should unilaterally remove all non-strategic nuclear weapons from deployed sites to a limited number of secure storage facilities on their territory.

Pending universal application of the Comprehensive Test Ban Treaty all states should observe at once the moratorium it imposes on nuclear testing.

The United States and Russia must continue to show leadership in reversing the nuclear accumulations of the Cold War. Their purpose should be to move toward nuclear force levels for all the nuclear weapon states which would reflect unambiguously the determination to eliminate these weapons when this step can be verified with adequate confidence.

The nuclear weapon states should agree and state that they would not be the first to use or threaten to use nuclear weapons against each other and that they would not use or threaten to use nuclear weapons in any conflict with a non-nuclear weapon state. Such an agreement should be brought into operation as soon as possible.

Reinforcing Steps

The following steps would build on the solid foundation of commitment, accomplishment and goodwill established through implementation of the steps recommended for immediate action:

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

The problem of nuclear proliferation is inextricably linked to the continued possession of nuclear weapons by a handful of states. A world environment where proliferation is under control will facilitate the disarmament process and movement toward final elimination, and vice versa. The emergence of any new nuclear weapon state during the elimination process would seriously jeopardise the process of eliminating nuclear weapons. Action is needed to ensure effective non-proliferation controls on civil and military nuclear activities, and to press for universal acceptance of non-proliferation obligations.

Effective verification is critical to the achievement and maintenance of a nuclear weapon free world. Before states agree to eliminate nuclear weapons they will require a high level of confidence that verification arrangements would detect promptly any attempt to cheat the disarmament process whether through retention or acquisition of clandestine weapons, weapons components, means of weapons production or undeclared stocks of fissile material. Formal legal undertakings should be accompanied by corresponding legal arrangements for verification. To maintain security in a post-nuclear weapon world the verification system must provide a high level of assurance as to the continued peaceful, non-explosive use of a state's nuclear activity. A political judgement will be needed on whether the levels of assurance possible from the verification regime are sufficient. All existing arms control and disarmament agreements have required political judgements of this nature because no verification system provides absolute certainty.

A key element of non-proliferation arrangements for a nuclear weapon free world will be a highly developed capacity to detect undeclared nuclear activity at both declared and undeclared sites. Progressive extension of safeguards to nuclear activity in the nuclear weapon states, the undeclared weapon states and the threshold states will be needed with the end point being universal application of safeguards in all states. Systems will be needed to verify that nuclear warheads are dismantled and destroyed, and their fissile material content safeguarded to provide maximum confidence that such material cannot be reintroduced to weapons use.

The political commitment to eliminate nuclear weapons must be matched by a willingness to make available the resources needed for nuclear disarmament including effective verification. States must also be confident that any violations detected will be acted upon. In this context, the Security Council should continue its consideration of how it might address, consistent with specific mandates given to it and consistent with the Charter of the United Nations, violations of nuclear disarmament obligations that might be drawn to its attention. This should demonstrate that the collective security system enshrined in the Charter will operate effectively in this field.

Further United States/Russian Strategic Arms Reduction Treaties (START) and nuclear confidence building measures should establish a receptive international climate for negotiations on global reduction of nuclear arms. The United States and Russia could commence a process for bringing the United Kingdom, France and China into the nuclear disarmament process. Further early steps could be for the US and Russia to prepare the ground for verification of nuclear weapon states reductions by sharing information and expertise on START verification, on weapons dismantlement and on verification and control of fissile material from dismantled weapons. US/Russian experience on nuclear confidence building might be extended to the other nuclear weapon states and new measures developed which involve them.

The Future Environment

Concurrent with the central disarmament process, there will be a need for activity supported by all states, but particularly the nuclear weapon states, to build an environment conducive to nuclear disarmament and non-proliferation.

It will be extremely important for the pursuit of the elimination of nuclear weapons to protect fully the integrity of the Anti-Ballistic Missile Treaty.

Nuclear weapon free zones are part of the architecture that can usefully encourage and support a nuclear weapon free world. The spread of nuclear weapon free zones around the globe, with specific mechanisms to answer the security concerns of each region, can progressively codify the transition to a world free of nuclear weapons.

At the level of national action, states have the fundamental obligation, under a variety of treaties, and in moral terms, to ensure that sensitive nuclear material, equipment and technology under their jurisdiction and control do not find their way into the hands of those who would misuse them.

The Commission noted with satisfaction the response of the International Court of Justice made in July 1996 to a request from the General Assembly of the United Nations for an advisory opinion on the legality of the threat or use of nuclear weapons. The Court's statement that there existed an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective

international control is precisely the obligation that the Commission wishes to see implemented.

The Commission considered carefully the merits of setting out a precise timeframe for the elimination of nuclear weapons, but elected not to do so. However, this does not imply that it accepts the extended timelines imposed by such current constraints as limited warhead dismantlement facilities. Those constraints could be relieved by political decisions and the allocation of resources required to advance dismantlement. In addition, another limiting factor may prove to be establishing the necessary confidence in the verification regime which would be required to take the final step to complete elimination. In this context, the Canberra Commission remains convinced of the basic importance of agreed targets and guidelines which would drive the process inexorably toward the ultimate objective of final elimination, at the earliest possible time.

List of Members of the Canberra Commission on the Elimination of Nuclear Weapons

Ambassador Celso Amorim, Permanent Representative of Brazil to the United Nations, N.Y.; General (ret.) Lee Butler, former Commander-in-Chief, U.S. Strategic Air Command; Ambassador Richard Butler, Permanent Representative of Australia to the United Nations, N.Y.; Field Marshall Lord Carver, former Chief of Defence Staff, U.K.; Captain Jacques-Yves Cousteau, France; Ambassador Jayantha Dhanapala, Ambassador of Sri Lanka to the U.S.; Ambassador Rolf Ekeus, Sweden, Executive Chairman, UNSCOM; Ambassador Nabil Elaraby, Permanent Representative of Egypt to the United Nations, N.Y.; Professor Ryukichi Imai, Kyorin University, Japan; Ronald McCoy, President of the Malaysian Medical Association; Robert McNamara, U.S.A., former Secretary of Defense and President of the World Bank; Professor Robert O'Neill, Oxford University, U.K.; Ambassador Qian Jiadong, China; Michel Rocard, former Prime Minister of France; Professor Joseph Rotblat, U.K., President of the Pugwash Conferences on Science and World Affairs; Professor Roald Sagdeev, Russian Federation, University of Maryland; Dr. Maj Britt Theorin, Sweden, President, International Peace Bureau and Parliamentarians for Global Action.

c. Proposal for a programme of action for the elimination of nuclear weapons

[Proposed to the Conference on Disarmament by Algeria, Bangladesh, Brazil, Cameroon, Colombia, Cuba, Democratic People's Republic of Korea, Egypt, Ethiopia, India, Indonesia, Iraq, Islamic Republic of Iran, Kenya, Mexico, Mongolia, Morocco, Myanmar, Nigeria, Pakistan, Peru, Senegal, Sri Lanka, Syrian Aran Republic, Venezuela, Viet Nam, Zaire and Zimbabwe. Text reproduced from CD/1419, 7 August 1966.]

Introduction

Effective measures for nuclear disarmament and the elimination of the threat of nuclear war have been accorded the highest priority by the international community. The post Cold War era provides an unprecedented opportunity to establish a new system of international security based on the immutable principles of the United nations Charter. Rationalisations for the continued possession of nuclear weapons need to be discarded. So long as the role of the nuclear weapons in the context of security is not delegitimised and existing nuclear doctrines not abandoned, there will always be a threat of a resumption of the nuclear arms race the escalation of the nuclear threat.

It is therefore incumbent to ensure that existing favourable circumstances in the international relations are utilised in order to translate the objectives of eliminating all nuclear weapons from a rhetorical goal into a living reality. This requires active multilateral efforts to identify, negotiate and implement specific, step by step measures for the complete elimination of nuclear weapons.

The Advisory Opinion of the International Court of Justice on the legality of the threat or use of nuclear weapons dated 8 July 1966, has established that the unique characteristics of nuclear weapons, and in particular their destructive capacity, their capacity to cause untold human suffering, and their ability to cause damage to generation to come, render them potentially catastrophic. According to the Court, 'The destructive power of nuclear weapons cannot be contained in either space or time. They have the potential to destroy all civilization and the entire ecosystem of the planet'.

The International Court of Justice concluded that the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflicts, and in particular the principles of and rules of humanitarian law and stated that there exists an obligation for all States to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control.

As stated in its declaration of 28 March 1966 to the Plenary of the Conference on Disarmament, the Group of 21 has persistently pressed for commencement of negotiations in the Conference on Disarmament on nuclear disarmament, an objective which has been accorded the highest priority by the international community. It will be recalled that on 14 March 1966 the Group of 21 put a decision before the Conference for adoption (CD/1388), through which the Conference would establish an Ad-hoc Committee on nuclear disarmament 'to commence negotiations on a phased programme for the eventual elimination of nuclear weapons within a specified framework of time', as requested by General Assembly Resolution 50/70 P.

This programme to be carried out by the Ad-hoc Committee could include the following steps and measures, as a basis for its work. The list of measures in each phase is indicative and not exhaustive, and the order in which they are mentioned does not necessarily reflect priority. Nevertheless, it is to be understood that in any programme for nuclear disarmament all measures and steps to be taken are inextricably bound to each other.

Programme of action

First Phase — 1996-2000

A. Measures aimed at reducing the nuclear threat.

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

B. Measures of nuclear disarmament

- Stand down nuclear-weapon systems from a state of operational readiness.
- Preservation of the ABM (Anti-ballistic missiles) Treaty.
- Moratorium and prohibition on testing of outer space weapons systems.
- Ratification and implementation of the START II Treaty.
- Placement under IAEA safeguards of nuclear fissile material transferred from military to peaceful uses by the nuclear weapons States.

- Further negotiations for nuclear disarmament by all nuclear weapon States, including the cessation of production of nuclear warheads.
- Recommendation to the General Assembly to declare the decade 2000-2010 as the 'Decade for nuclear disarmament'.

Second Phase — 2000-2010

Measures to reduce the nuclear arsenals and to promote confidence between States.

- Entry into force of the treaty to eliminate nuclear weapons and establishment of a single integrated multilateral comprehensive verification system to ensure compliance, including measures such as:
  - Separation of nuclear warheads from their delivery vehicles;
  - Placement of nuclear warheads in secure storage under international supervision leading to the removal of special nuclear materials from warheads; and
  - Preparation under international auspices of an inventory of nuclear arsenals, including fissile materials, nuclear warheads and their delivery vehicles.
  - Progressive and balanced reduction of missiles intended for carrying nuclear warheads.
  - Recommendation to the General Assembly to declare the decade 2010-2020 as the 'Decade for the total elimination of nuclear weapons'.

Third Phase — 2010-2020

Consolidation of a Nuclear Weapon Free World

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

d. Statement by Dr. Hans Blix, Director General, to the Fortieth Session of the General Conference of the International Atomic Energy Agency, 16 September 1996 [Extract]

Nuclear test sites

At the request of Member States concerned, the Agency has become engaged in the assessment of the radiological situation at three former nuclear weapons test sites.

An assessment of the *Semipalatinsk* nuclear test site has provided assurance that radiation levels in villages around the site are very low. However, it has also been concluded that lengthy human occupation of the test site itself would lead to unacceptably high radiation doses and the authorities of Kazakstan have been advised to take steps to clean up the site or — more realistically — prevent access to it.

The habitability of the *Bikini Atoll* in the *Republic of the Marshall Islands* was assessed, in particular to determine whether the islanders, who had been evacuated from the atoll before the start of nuclear testing, could safely resume living there. The assessment, which was made by an international, scientific advisory group convoked by the Agency, concluded that if some contaminated soil was removed and if the uptake of radioactive caesium by crops were controlled through the use of special fertilizers, the Bikini Atoll could be re-occupied without restriction.

The third study, now underway, is of the test site at *Mururoa and Fangataufa in French Polynesia.* It is directed by an international advisory committee chaired by Dr. Gail de Planque of the United States. Document GC(40)/INF/4 contains a full description of the status of this study. A final report can be expected by the end of 1997.

As the world is now hopefully putting the era of nuclear weapons testing behind it, I find it appropriate that impartial international assessments are made of whatever radiological hazards may remain from past testing.

Safeguards

The mission of IAEA safeguards to verify that nuclear material, equipment and installations are not used to 'further any military purpose' has been with the IAEA from the outset, but the dimension and direction of the safeguards activities have changed considerably over time. The most dramatic development followed the obligation laid down for States parties to the Non-Proliferation Treaty (NPT) and regional nuclear weapon-free-zone treaties to place all their present and future nuclear activities and material under Agency safeguards. Some 177 States have thus legally committed themselves to conclude comprehensive safeguards agreements and 120 States have actually done so. Those States which have not yet fulfilled their obligation are from time to time reminded by the Secretariat of their duty to do so without further delay. At the present juncture we are particularly anxious that all the States parties to the Tlatelolco Treaty — notably some Caribbean States — should enter into safeguards agreements, as otherwise the full entry into force of that Treaty might be delayed. We have every reason to believe that Cuba, which has signed the Treaty, will proceed with ratification. There have already been contacts on the subject of the safeguards agreement.

With regard to two other nuclear-weapon-free zone treaties — the Pelindaba Treaty for Africa and the Bangkok Treaty for South East Asia — the Agency is preparing for verification and other tasks laid upon it. May I further mention that, as requested by the General Conference, I have continued consultations with States in the Middle East regarding the application of IAEA safeguards in that region.

As you are aware, the IAEA is about to take a major step forward in further developing the safeguards system — a step essential to introduce new cost-effective methods and techniques and to provide vitally needed confidence that non-proliferation commitments are fully respected. This development will also help to make the safeguards system an adequate instrument that can be used to verify future nuclear arms control and disarmament measures — a need recently stressed in the report of the Canberra Commission.

At this point let me note that the traditional 'safeguards statement', contained in this and earlier years' Safeguards Implementation Reports (SIR), that it is reasonable to conclude that 'the nuclear material and other items which were declared and placed under safeguards remained in peaceful nuclear activities or were otherwise adequately accounted for', is based chiefly on nuclear accountancy and inspection. Obviously, the more extensive these accountancy and inspection efforts are, the more confident we can be that the absence of evidence of diversion is due to a real absence of diversion. We believe that had Agency inspectors had access — which they did not — to some activities that took place in the declared nuclear centre at Tuwaitha in Iraq, they would have suspected that safeguards obligations were being violated. The case of Iraq also points to the conclusion that if more comprehensive information had been available about the Iraqi nuclear programme, inconsistencies would, in all likelihood, have been discovered and questions would have been prompted.

It is this experience combined with the vital interest of States in reliable safeguards that has led to the development of 'Programme 93+2' and a protocol additional to comprehensive safeguards agreements, designed to give the IAEA Secretariat much more information — notably, more data from the State and more data through observations by inspectors granted wider access. Only if the available information and inspection access is sufficiently broadly based will the absence of evidence of diversion give confidence that non-proliferation commitments have not been breached. The demand of Members that safeguards must give confidence, not only about non-diversion of declared material but also about the absence of non-declared nuclear

material and installations, makes this access to more information and greater access for inspectors a high priority.

The requirements which are placed on States under the proposed additional protocol are not insignificant, but States which accepted them on a trial basis did not find them overly onerous. In any case Members will have to weigh their interest in effective verification in other States and their interest in demonstrating convincingly their own compliance with non-proliferation commitments against the burden which they may feel they are assuming by accepting such verification for themselves.

It is clear that all parties to comprehensive safeguards must be treated equally. As a result, States with large nuclear programmes will have to supply more information and allow the visit of inspectors to more sites and locations than will States with small programmes. However, the need for follow up will depend somewhat upon the quality — rather than the quantity — of the supplied information.

It is further clear that States with non-comprehensive safeguards may be able to contribute information of value for the operation of the comprehensive safeguards, e.g. regarding exports and imports. They may also help make the Agency's safeguards operations more effective and less costly by accepting in the operation of the safeguards to which they are subjected some new techniques, like environmental sampling and remote data transmission. They may further help by joining others in dispensing with visa requirements or granting multiple entry visas and accepting streamlined inspector designation procedures. However, the central rationale for strengthening safeguards verification in States with comprehensive safeguards, namely to increase confidence about their compliance with their non-proliferation pledge, is not applicable to the States with non-comprehensive safeguards — as they have made no such pledge. This being the case, it would appear appropriate, in my view, to suggest that these States accept international verification of the steps they are taking, or hopefully will be taking, toward nuclear arms control and disarmament, for instance verification to create confidence that nuclear material released through dismantlement of weapons, is irreversibly transferred to the peaceful sector. This matter was explicitly raised in the Moscow Nuclear Summit and I have invited the United States and Russian Ministers present here to discuss with me the possibility of such verification by the IAEA. I should add that, at the invitation of the United States, the Agency has already performed verification of some quantities of such nuclear material.

Iraq

The Agency's ongoing monitoring and verification (OMV) activities in Iraq have, since August 1994, involved more than 600 inspections, the majority of which were conducted without prior notice. No instance of proscribed activities, or of the presence of proscribed materials or equipment have been detected.

The Agency's activities in Iraq during the past year have also involved extensive efforts to analyse the vast amount of documentation which was handed over to the IAEA and the UN Special Commission (UNSCOM) following the departure from Iraq, in August 1995, of the late Lt. General Kamel Hassan Al Majid. Much work has also been devoted to the follow up of procurement transactions and to assess draft versions of Iraq's re-issued 'Full, Final and Complete Declaration' of its former nuclear weapons programme. A few days ago, Iraq formally transmitted its finalized version of the Declaration to the Agency's Nuclear Monitoring Group in Baghdad. As soon as we receive it in Vienna we shall start the work of verifying its completeness and correctness.

Let me add that IAEA inspectors remain in Baghdad and continue their ongoing monitoring and verification activities. In the circumstances now prevailing there, activities take place only in areas with reliable radio communications with our Monitoring and Verification Centre in Baghdad. Those of our activities which should take place away from the Baghdad region will be resumed as soon as conditions permit. Transport to and from Baghdad has been severely affected by the recent events and the situation, with respect to the safety of our personnel in Baghdad, is being closely followed by us and the United Nations.

Democratic People's Republic of Korea (DPRK)

The Safeguards Implementation Report (SIR) for 1995 states that the IAEA remained unable to verify the initial declaration of nuclear material made by the Democratic People's Republic of Korea and that the DPRK was still not in full compliance with its safeguards agreement. This is still the case. A full report on this matter is found in document GC(40)/16.

Most recently, technical discussions between the IAEA and the DPRK took place in late June. These discussions resulted in some progress but the DPRK still did not accept various measures considered important by the Secretariat for verifying the correctness and completeness of the DPRK's initial declaration — in particular measures for the preservation of data and the provision of information about certain facilities. On the positive side, the DPRK did agree to measures to improve Agency communications from the DPRK and to accept the designation of more inspectors. A next round of technical discussions is planned to take place very soon.

Efficiency and Management

I began this statement by stressing the necessity for international organizations to be alert to the changing needs of their Members and I hope I have demonstrated how the IAEA is meeting this requirement. I also stressed the need for continuously improved efficiency in our work. I believe the IAEA has achieved a great deal in this regard. Let me give you examples:

- Despite the limitations on resources, the Agency's programme has expanded over the years to take on new activities, for example to counteract illegal trafficking in nuclear materials. Resources for such new activities have become available both through the phasing out of some programmes and through efficiency gains. This process continues: the budget for 1997 assumes substantial cuts in overhead costs and provides an increase of some US $10 million in programmatic activity;
- Systematic evaluation of programme performance is now in routine use as an important tool for increasing efficiency. In addition, the independent external auditors help to identify shortcomings in efficiency and the internal audit and management services, which work to the same objective, are being strengthened;

...

e. International Atomic Energy Agency General Conference Resolutions

GC(40)/31 — Strengthening the Effectiveness and Improving the Efficiency of the Safeguards System

[adopted on 20 September 1996, without a vote]

The General Conference,

(a) *Recalling* resolutions GC(XXXV)/RES/559, GC(XXXVI)/RES/586, GC(XXXVII)RES/619, GC(XXXVIII)/RES/10 and GC(39)RES/17 on the strengthening of safeguards,

(b) *Convinced* that the Agency's safeguards can promote greater confidence among States and thus contribute to strengthening collective security.

(c) *Considering* the Treaty on the Non-Proliferation of Nuclear Weapons, the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean, the South Pacific Nuclear Free Zone Treaty and the Treaty establishing the African Nuclear-Weapon-Free Zone and the Agency's essential role in applying safeguards in accordance with the relevant articles of these treaties, and *noting* the outcome of the 1995 Review and Extension Conference on the Treaty on the Non-Proliferation of Nuclear Weapons.

(d) *Noting* that decisions adopted by the Board of Governors aimed at further strengthening the effectiveness of Agency safeguards should be supported and implemented and that the Agency's capability to detect undeclared nuclear activities should be increased, and

(e) *Stressing* that the strengthening of the safeguards system should not entail any decrease in the resources available for technical assistance and co-operation and that it should be

compatible with the Agency's function of encouraging and assisting the development and practical application of atomic energy for peaceful uses and with adequate technology transfer.

1. *Stresses* the need for effective safeguards in order to prevent the use of nuclear energy for prohibited purposes in contravention of safeguards agreements entered into by States, and *underlines* the vital importance of effective safeguards for facilitating co-operation in the field of peaceful uses of nuclear energy;
2. *Affirms* that increasing the Agency's capability to detect undeclared nuclear activities in contravention of safeguards agreements will contribute to strengthening the effectiveness of safeguards;
3. *Confirms* its resolve to maintain and strengthen the effectiveness and cost-efficiency of the safeguards system in conformity with the Agency's Statute and calls upon all States to co-operate with the Agency in implementing the decisions taken by the Board of Governors to that end;
4. *Notes* with approval the report of the Director General submitted in document GC(40)/17 pursuant to resolution GC(39)/RES/17 concerning Programme 93+2;
5. *Calls on* the Secretariat to continue the implementation of Part 1 measures as rapidly as time and resources allow and *urges* the States concerned to facilitate this exercise by providing timely responses to the Secretariat's requests for information;
6. *Welcomes* the establishment by the Board of Governors of a Committee which began its work in July 1966 and is tasked with the drafting of a model protocol in order to strengthen the effectiveness and to improve the efficiency of the nuclear safeguards system and thereby reinforce and improve the Agency's capacity to detect any undeclared nuclear activities;
7. *Urges* the Committee to make every effort to advance its work with a view to reporting the outcome to the Board at its December 1996 session; and
8. *Requests* the Director General to report on the implementation of this resolution to the General Conference at its forty-first regular session.

GC(40)/32 — Measures Against Illicit Trafficking in Nuclear Materials and Other Radioactive Sources

[adopted on 20 September 1996, without a vote]

The General Conference,

(a) *Recalling* its resolutions GC(XXXVIII)/RES/15 and GC(39)/RES/18 regarding measures against illicit trafficking in nuclear materials and other radioactive sources, and

(b) *Noting* the programme for preventing and combatting illicit trafficking in nuclear material agreed upon by the participants in the Moscow Nuclear Summit of April 1996 contained in document INFCIRC/509,

1. *Takes note* of the progress report submitted by the Secretariat in document GC(40)/15;
2. *Welcomes* the activities in the fields of prevention, response, training and information exchange undertaken by the Secretariat in support of efforts against illicit trafficking;
3. *Invites* the Director General to continue working during the coming year in accordance with the relevant conclusions of the Board of Governors; and
4. *Requests* the Director General to submit a report to the General Conference at its next regular session on activities undertaken by the Agency in the intervening period.

GC(40)/34 — The Implementation of United Nations Security Council Resolutions Relating to Iraq

[adopted on 20 September 1996 by 64 votes in favour, none against and 11 abstentions]

The General Conference,

(a) *Recalling* United Nations Security Council resolutions 687, 707 and 715,

(b) *Recalling further* the resolutions of the thirty-fifth (1991), thirty-sixth (1992), thirty-seventh (1993), thirty-eighth (1994) and thirty-ninth (1995) General Conferences (GC(XXXV)/RES/568, GC(XXXVI)/RES/579, GC(XXXVII)/RES/626, GC(XXXVIII)/RES/19 and GC(39)/RES/5),

(c) *Taking note* of the Director General's report contained in document GC(40)/13, his oral statement to the fortieth General Conference, his reports on the Agency's twenty-eighth and twenty-ninth on-site inspections in Iraq (GOV/INF/781 and GOV/INF/783) and his other reports to the Board of Governors and the Security Council (GOV/INF/776, GOV/INF/791 and GOV/2846),

(d) *Reaffirming* the need for full implementation by Iraq of Security Council resolutions 687, 707 and 715,

(e) *Noting with concern* that Iraq has withheld information from the Agency's Action Team in violation of its obligations under Security Council resolutions 687, 707 and 715, and

(f) While *noting* that Iraq has adopted over the last twelve months a more constructive approach towards the Agency's Action Team, is *concerned* that Iraq has imposed restrictions on the Action Team's right of access,

1. *Commends* the Director General and the Agency's Action Team for their strenuous efforts to implement Security Council resolutions 687, 707 and 715, and *requests* them to continue their efforts;
2. *Invites* the Director General and the Action Team to continue to pursue vigorously the implementation of the Ongoing Monitoring and Verification Plan;
3. *Welcomes* the establishment of an export/import monitoring mechanism under United Nations Security Council resolution 1051;
4. *Urges* Iraq to co-operate fully with the Action Team in achieving the complete and long-term implementation of the relevant Security Council resolutions;
5. *Urges* Iraq to resolve remaining ambiguities, inconsistencies and contradictions in the revised draft of the Full, Final and Complete Declaration;
6. *Demands* that Iraq hand over to the Action Team without further delay any currently undisclosed nuclear-weapon-related equipment, material and information and allow the Action Team immediate, unconditional and unrestricted rights of access in accordance with Security Council resolution 707;
7. *Stresses* that the Agency's Action Team will continue to exercise its right to investigate further any aspects of Iraq's past nuclear weapons capability, in particular as regards any further relevant information that Iraq may still be withholding from the Agency; and
8. *Requests* the Director General to report the views of the General Conference to the Secretary-General of the United Nations and to report to the Board of Governors and to the forty-first regular session of the General Conference on his efforts to implement Security Council resolutions 687, 707 and 715, and *decides* to remain seized of this issue.

GC(40)/33 — Implementation of the Agreement Between the Agency and the Democratic People's Republic of Korea for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons

[adopted on 20 September 1996]

The General Conference,

(a) *Recalling* the Board of Governors' resolutions GOV/2436 of 25 February 1993, GOV/2639 of 18 March 1993, GOV/2645 of 1 April 1993, GOV/2692 of 23 September 1993, GOV/2711 of 21 March 1994 and GOV/2742 of 10 June 1994 and General Conference resolutions GC(XXXVII)/RES/624 of 1 October 1993, GC(XXXVIII)/RES/16 of 23 September 1994 and GC(39)/RES/3 of 22 September 1995,

(b) *Noting* the Director General's report contained in document GC(40)/16,

(c) *Recalling further* resolutions 825 (1993) adopted by the Security Council of the United Nations on 11 May 1993 and the 31 March 1994, 30 May 1994 and 4 November 1994 statements by the President of the United Nations Security Council, particularly the request to take all steps the Agency

may deem necessary to verify full compliance by the Democratic People's Republic of Korea (DPRK) with its safeguards agreement with the Agency,

(d) *Noting* that the DPRK has decided to remain a party to the Treaty on the Non-Proliferation of Nuclear Weapons and reaffirming that the IAEA-DPRK safeguards agreement (INFCIRC/403) under the Treaty remains binding and in force,

(e) *Noting also* the stated intention of the DPRK to come into full compliance with the safeguards agreement and the continuing IAEA-DPRK discussions of outstanding safeguards issue,

(f) *Noting* with regret that the progress in these discussions has been limited, and

(g) *Regretting* the withdrawal of the DPRK from the Agency and expressing the hope that the DPRK will rejoin,

1. *Strongly endorses* the actions taken by the Board of Governors and commends the Director General and the Secretariat for their impartial efforts to implement the IAEA-DPRK safeguards agreement;
2. *Commends* the Secretariat for its efforts to monitor the freeze of specified facilities in the DPRK as requested by the United Nations Security Council;
3. *Expresses* concern over the continuing non-compliance of the DPRK with the IAEA-DPRK safeguards agreement and *calls upon* the DPRK to comply fully with that safeguards agreement;
4. *Urges* the DPRK to co-operate fully with the Agency in the implementation of the safeguards agreement and to take all steps the Agency may deem necessary to preserve all information relevant to verifying the accuracy and completeness of the DPRK's initial report on the inventory of nuclear material subject to safeguards until the DPRK comes into full compliance with its safeguards agreement; and
5. *Decides* to include in the agenda for its forty-first regular session an item entitled 'Implementation of the agreement between the Agency and the Democratic People's Republic of Korea for the application of safeguards in connection with the Treaty on the Non-Proliferation of Nuclear Weapons'.

GC(40)/35 — An African Nuclear-Weapon-Free-Zone

[adopted on 20 September 1996, without a vote]

The General Conference,

(a) *Recalling*, resolution GC(39)/RES/4 of 1995 and all other relevant resolutions and decisions of the General Conference and the Board of Goernors,

(b) *Noting* resolution CM/Res.1592 (LXII)/Rev.1 adopted at the sixty-second meeting of the Council of Ministers of the OAU, which adopted the Pelindaba Text of the Treaty on an African Nuclear-Weapon-Free Zone on 23 June 1995, and

(c) *Also noting* resolution A/RES/50/78 adopted by the UN General Assembly which, inter alia, 'welcomed with special satisfaction the adoption by the African leaders of the final text of the African-Nuclear-Weapon-Free-Zone Treaty (the Pelindaba Treaty)',

(d) *Noting and welcoming with satisfaction* the successful conclusion of the ceremony that took place in Cairo on 11 April 1996,

(e) *Recalling* the Cairo Declaration adopted on that occasion which emphasized that the establishment of nuclear-weapon-free zones especially in regions of tension such as the Middle East enhances global and regional peace and security,

1. *Takes note* of the report of the Director General on the establishment of an African Nuclear-Weapon-Free Zone contained in document GC(40)/14;
2. *Encourages* African States to make every effort to ratify the Treaty as soon as possible so that the Treaty can enter into force without delay;
3. *Reaffirms* its conviction that the establishment of nuclear-weapon-free zones, especially in the Middle East, would enhance the security of Africa and viability of the African Nuclear-Weapon-Free Zone;
4. *Expresses appreciation* to the international community, and in particular the nuclear-weapon States, for the necessary support to the Pelindaba Treaty, especially through their accession to the Protocols when the Treaty opened for signature; and
5. *Commends* the African States for their concerted efforts directed towards the establishment of an African Nuclear-Weapon-Free Zone and *requests* the Director General to continue to assist them in this regard.

GC(40)/.. — Application of IAEA Safeguards in the Middle East

[adopted on 20 September 1996, without a vote]

The General Conference,

(a) *Recognizing* the importance of the non-proliferation of nuclear weapons — both globally and regionally — in enhancing international peace and security,

(b) *Mindful of* the usefulness of the Agency's safeguards system as a reliable means of verification of the peaceful uses of nuclear energy,

(c) *Concerned* by the grave consequences, endangering peace and security, of the presence in the Middle East region of nuclear activities not wholly devoted to peaceful purposes,

(d) *Welcoming* the initiatives regarding the establishment of a zone free of all weapons of mass destruction, including nuclear weapons, in the Middle East and recent initiatives regarding arms control in the region,

(e) *Recognizing* that full realization of these objectives would be promoted by participation of all States of the region,

(f) *Commending* the efforts of the Agency concerning the application of safeguards in the Middle East and the positive response of some States in concluding a full-scope safeguards agreement, and

(g) *Recalling* its resolution GC(39)/RES/24,

1. *Takes note* of the Director General's report in document GOV/286-GC(40)/6
2. *Affirms* the urgent need for all States in the Middle East to forthwith accept the application of full-scope Agency safeguards to all their nuclear activities as an important confidence-building measure among all States in the region and as a step in enhancing peace and security in the context of the establishment of a nuclear-weapon-free zone (NWFZ);
3. *Calls upon* all parties directly concerned to consider seriously taking the practical and appropriate steps required for the implementation of the proposal to establish a mutually and effectively verifiable NWFZ in the region, and *invites* the countries concerned to adhere to international non-proliferation regimes, including the Treaty on the Non-Proliferation of Nuclear Weapons, as a means of complementing participation in a zone free of all weapons of mass destruction in the Middle East and of strengthening peace and security in the region;
4. *Takes note of* the importance of the ongoing bilateral Middle East peace negotiations and the activities of the multilateral working group on Arms Control and Regional Security in promoting mutual confidence and security in the Middle East, including establishment of a NWFZ, and calls on the Director General, as requested by the participants, to render all necessary assistance to the working group in promoting that objective;
5. *Requests* the Director General to continue consultations with the States of the Middle East to facilitate the early application of full-scope Agency safeguards to all nuclear activities in the region as relevant to the preparation of model agreements, as a necessary step towards the establishment of a NWFZ in the region, referred to in resolution GC(XXXVII)/RES/627;
6. *Calls upon* all States in the region to extend their fullest co-operation to the Director General in the fulfilment of the tasks entrusted to him in the preceding paragraph;
7. *Further calls upon* all States in the region to take measures, including confidence-building and verification measures, aimed at establishing a NWFZ in the Middle East.
8. *Calls upon* all other States, especially those with a special responsibility for the maintenance of international peace and security, to render all assistance to the Director General by facilitating the implementation of this resolution; and

9. *Requests* the Director General to submit to the Board of Governors and to the General Conference at its fortieth regular session a report on the implementation of this resolution and to include in the provisional agenda for that session an item entitled 'Application of IAEA safeguards in the Middle East'.

GC(40)/42 — Article VI of the Statute

[adopted on 20 September 1996, without a vote]

The General Conference,

(a) *Recalling* its resolutions GC(XXI)/RES/353, GC(XXII)/RES/361, GC(XXIII)/RES/370, GC(XXIV)/RES/378 and GC(XXV)/RES/389 concerning the amendment of Article VI.A.2 of the Statute, and also all the other pertinent resolutions aimed at increasing the representation of the areas of Africa and the Middle East and South Asia in the Board of Governors,

(b) *Bearing in mind* the fundamental and structural changes that have taken place in the past two decades in international relations, and particularly in the world nuclear community, in all regions resulting in the under-representation of other areas,

(c) *Noting* the interest of Member States of all regions in reconsidering Board membership in the light of present-day geopolitical and technological realities,

(d) *Convinced of* the urgent need to implement all relevant General Conference resolutions and decisions relating to the amendment of Article VI,

(e) *Taking note* with appreciation of the reports of the Chairpersons of the Open-ended Consultative Group contained in documents GC(39)/21 and GC(40)/20,

(f) *Taking note* with satisfaction of the progress achieved in this regard within the Open-ended Consultative Group, where good prospects exist for a consensus,

(g) *Noting with regret* that the Board of Governors was not in a position to make any recommendation on any proposal for amending Article VI for consideration and approval by the General Conference, as requested in resolution GC(39)/RES/21, and

(h) *Confident* that the General Conference will implement its resolutions and decisions relating to the amendment to Article VI at the latest at its forty-first regular session,

1. *Recognizes* that there is a widely held view that there is a need to expand the size and composition of the Board;
2. *Welcomes* the formal proposal submitted by the Kingdom of Morocco as contained in document GC(40)/20 and recognizes the urgent need to take fully into consideration the momentum it has brought to the consultation process;
3. *Notes* in this regard the sub-amendment submitted by Spain as well as the informal suggestions presented by other member States with a view to facilitating efforts to reach a consensus;
4. *Requests* the Board of Governors to develop within a timetable a process of negotiations among Member States through the existing Open-ended Consultative Group, taking account of the above proposals and of the elements identified by the Chairman of the Open-ended Consultative Group in his report referred to above, and to submit its report on a finalized formula for approval by the General Conference at its forty-first regular session in accordance with Article XVIII of the Statute; and
5. *Invites* the Director General to report to the Board of Governors and to the General Conference at its forty-first session on the result achieved in the implementation of the present resolution.

V. Comments From Readers/Corrections

- Prof. Per F. Peterson, of the College of Engineering, Department of Nuclear Engineering, University of California, Berkeley, refers to the remark in **Newsbrief 34**, p. 15, that 'many environmentalists also resist [Yucca Mountain], both for environmental reasons and because they believe that the use of a single central repository will add to the risks created by shipping dangerous nuclear material all over the country'. He finds this comment interesting because 'the number of repositories containing spent fuel will be one of the primary variables controlling the long-term proliferation risks from this spent fuel.

  'Repositories containing spent fuel will pose qualitatively different proliferation risks in the long term compared to the dedicated production of fissile material, allowing the future production of plutonium at substantially lower costs, and at substantially higher rates than possible with dedicated production reactors. This does not imply that spent-fuel repositories are unacceptable, but does suggest that the number and siting of spent-fuel repositories should be decided after careful consideration of long-term safeguard requirements. It appears that the most practical means of minimizing the long-term burden these repositories will impose will be to minimize the number of repositories and to locate them in areas where future surface activities can be easily restricted (in this regard the relatively desolate Yucca Mountain site could be close to optimal, whereas a safeguards-acceptable European site may be more difficult to find).'

  See also reference under Per F. Peterson, 'Long-Term Safeguards for Plutonium in Geologic Repositories', in **III. Recent Publications, Articles**, page 19.

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.

The **Newsbrief** is published on behalf of PPNN by the Mountbatten Centre for International Studies, Department of Politics, University of Southampton. Communications relating to its content and other editorial matters should be addressed to Ben Sanders at 240 East 27th Street, New York, New York 10016, USA (Tel. 1 (212) 532-3153; Fax. 1 (212) 532 9847). Those relating to production and distribution should be addressed to John Simpson, Mountbatten Centre for International Studies, University of Southampton, Southampton, SO17 1BJ, United Kingdom (Tel. 01703 592522; Fax. 01703 593533; international code +44/1703).

Production by Richard Guthrie. Printed by Autoprint.

ISSN 0965-1667