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THE US CHEMICAL INDUSTRY STAKE IN THE CHEMICAL WEAPONS CONVENTION

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Now that Hungary has deposited the 65th ratification to the Chemical Weapons Convention (CWC), the treaty will enter into force with or without the participation of the United States. And as long as the United States stays outside the international agreement it helped to create, US jobs and businesses will suffer. Early Senate ratification of the treaty must be a high priority for the administration, for Congress, and for industry. Morally and ethically, the CWC's ban on chemical weapons is right.

The Senate set aside consideration of the CWC in September, largely because critics of the CWC mounted an intensive effort to scuttle this historic arms control agreement. Critics said the treaty is bad for business and misrepresented the scope and impact of the treaty. CMA's representation of the industry — and the leadership of other chemical trade associations like the Synthetic Organic Chemical Manufacturers Association (SOCMA) — were challenged.

The impact of US non-ratification of the CWC is so severe that the CMA has written to President Clinton urging him to seek Senate consideration of the treaty at the earliest opportunity next year. In the interim, CMA will be working to debunk the notion that the CWC will have a negative impact on US commercial interests.

The US chemical industry will pay a heavy price if the US does not ratify the Convention. Contrary to what the critics contend, the United States cannot simply ignore this new international non-proliferation regime and expect that commercial interests will remain unaffected. It's easy to see why.

The chemical industry is the United States' largest exporter. US chemical companies have consistently made a positive return to the trade balance, chalking up some \$21 billion in surplus last year alone on export sales of more than \$60 billion. More importantly, US chemical firms are part of a global industry — one third of the industry is foreign-owned, while chemical companies lead US direct investment overseas. To suggest that the Senate can insulate the chemical industry from any impact the CWC might

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TOXIC CHEMICALS: A MULTILATERAL EXPORT-IMPORT SYSTEM

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The world growth in trade in chemicals during the 1960s and 1970s has led to increasing concerns about the risks of using hazardous chemicals and thus to the recognition of the need to exchange and make available information about such chemicals. It is easy for those engaged in the analysis of arms control and proliferation of weapons of mass destruction to see export and import control regimes as evolving from the obligations arising from arms control treaties and for some states to argue that such regimes inhibit international trade despite the absence of evidence to substantiate this.¹ It is important to recognize the growing pressures for a cleaner and healthier environment that are promoting greater controls of chemical (and biological) materials which may present a hazard to human health or the environment.

This article outlines the development of a multilateral export-import system for banned and severely restricted toxic chemicals which has National Authorities in 148 countries administering a voluntary export-import system which is currently at an advanced stage of being negotiated as a legally binding instrument. It is already the subject of a legally binding European Community Regulation. Finally, the possible relationship of this export-import regime for hazardous chemicals to the obligations of states parties under the Chemical Weapons Convention is considered.

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have by failing to ratify the Convention simply ignores the reality of the global marketplace.

There are clearly trade implications to abstaining from participation in the CWC. The Convention forces parties to halt business in Schedule 2 materials with non-parties, effective three years from entry-into-force. The parties will consider a similar requirement for Schedule 3 chemicals within five years of entry-into-force. In the interim, parties must obtain end-user certificates from non-parties. Parties are also free to impose other export control and trade measures if they promote the purpose of the Convention.

CMA estimates that at least \$600 million a year in US export sales will be directly affected once the CWC's trade ban goes into effect. The total may well be higher. Several CMA member companies conduct a significant percentage of trade in organophosphate chemicals, totaling several hundreds of millions of dollars each year. The organophosphates are Schedule 2 chemicals, and are the foundation for many important agricultural chemicals. That sector of the industry exports some \$9.2 billion in goods annually. The US government insisted on the trade sanctions as a means to force rogue nations to the table, yet the United States may be the first to feel the sting and stigma of remaining outside the Convention.

Of more immediate concern is that parties to the CWC will not have to wait for the treaty's trade ban in order to sanction trade in US chemicals. Many countries have a long history of denying US businesses access to their home market. Each year, the Office of the US Trade Representative issues the National Trade Estimate report, detailing the barriers to free trade imposed by other countries. It is very likely that some US trading partners will use the treaty as a means to suspend or otherwise burden trade with the United States in the chemicals regulated under the CWC.

Some critics have argued that the only reason CMA supported the CWC was because we see new market opportunities for dangerous chemicals in countries where we do not now trade. They have said that the US chemical industry supports the CWC because it will do away with the Australia Group, the 30-nation anti-proliferation effort in which the United States has a leading role. The first statement is repugnant. The second is simply wrong. The Australia Group will not be disbanded. The CWC does not lower the bar on US export controls — it helps raise the export control bar for other nations to the high standards set by our govern-

ment, and in the Australia Group. The CWC will be a powerful new tool to aid US non-proliferation policy, and the chemical industry will continue its long-standing support of those policies.

Yet another impact lies in the fact that many of the treaty's most important regulatory details have not yet been decided. If the US does not ratify the CWC by 29 April 1997, the United States will have no voice in deciding the final scope of the treaty, and will not be represented in its executive decision-making body. Details such as the reporting and record-keeping requirements, the composition of the international inspectorate, and the reach of the treaty's inspection protocols remain to be decided. In order to ensure that the treaty's requirements are firm but fair to business, and implemented similarly in every member country, it is imperative that the US government be an active participant in those decisions.

CMA and organizations like SOCMA worked hard to ensure that the treaty imposed reasonable burdens on commercial interests. We supported narrowing the scope of the treaty by advocating the complete exemption of facilities that have nothing to do with chemical weapons. For example, polymer and oligomer producers, refineries, and explosives producers are not subject to the treaty. The threshold limits for declarations and inspections were designed, in part, to avoid impacting small businesses, while focusing on those facilities that could be turned to illegal weapons production. The 1,800 producers (not consumers) of discrete organic chemicals in the United States will need only to complete a page-and-a-half-long form to comply with the CWC. We carefully gauged the potential effect of the CWC on industry, and negotiated a treaty that deters illegal proliferation activity and respects commercial interests.

The debate surrounding US participation in the CWC says a lot about the US chemical industry. It says that the industry is committed to the ethic outlined in our Responsible Care program for continual improvement in health, safety and environmental protection. The debate shows that our industry is committed to product stewardship, and the obligation to ensure the safe use of our products. And regardless of what arguments are launched against the Convention on grounds that industry is adversely affected, the administration and Congress should know one thing — CMA will continue to fight for the Chemical Weapons Convention because it is the right thing to do. □

Forthcoming events

The BWC Ad Hoc Group will reconvene for its sixth session on 3–21 March 1997, its seventh session on 14 July–1 August, and its eighth session on 15 September–3 October, in Geneva.

The Chemical Weapons Convention will enter into force on 29 April 1997.

The first session of the Conference of the States Parties to the CWC currently seems likely to convene in The Hague on 6 May 1997 for a three-week period.

The seventh and eighth workshops of the Pugwash Study Group on Implementation of the CBW Conventions are provisionally scheduled to take place during June and September 1997 in Noordwijk and Geneva.

United Nations Consolidated List

Following the growth in world trade in chemicals in the 1960s and 1970s, the Governing Council of the United Nations Environment Programme (UNEP) in 1977 urged governments to take steps to ensure that potentially harmful chemicals, which are unacceptable for domestic purposes in the exporting country, are not permitted to be exported without the knowledge and consent of appropriate authorities in the importing country.²

Some five years later, the UN General Assembly “aware of the damage to health and the environment that the continued production and export of products that have been banned and/or permanently withdrawn on ground of human health and safety ... is causing in the importing countries” and “considering that many developing countries lack the necessary information and expertise to keep up with developments in this field” requested that the UN Secretary-General prepare and regularly update “a consolidated list of products whose consumption and/or sale have been banned, withdrawn, severely restricted or not approved by Governments.”³ This list is prepared and regularly updated jointly by the UN, the World Health Organization and the UN Environment Programme/International Register of Potentially Toxic Chemicals (UNEP/IRPTC).⁴

This is part of a continuing effort in the United Nations system aimed at disseminating information internationally on products harmful to health and the environment. It provides information on restrictive regulatory decisions taken by governments on pharmaceutical, agricultural and industrial chemicals, and consumer products. The fourth edition covers regulatory actions taken by 92 governments on over 600 products, and its introduction notes that “It is important to realize that all pharmaceutical and chemical products are potentially harmful if not correctly used”, and that “The list does not include many widely used industrial chemicals to which occupational exposure limits have been assigned by national authorities, and on which information is available on ILO [International Labour Organization] and UNEP/IRPTC publications.” In order to ensure that the list focuses on products harmful to health and the environment, criteria for the inclusion of products were developed in 1985 and transmitted to governments for their comments. These criteria, revised in the light of the comments received, are reproduced in an Annex to the Consolidated List. Those for chemical products are “Banned”, “Withdrawn” and “Severely restricted”, defined as:

Banned — A product that has been prohibited for all uses nationally in one or more countries by final government regulatory action because of health or environmental reasons.

Withdrawn — A product formerly in commerce that has been withdrawn for all uses nationally in one or more countries by final voluntary action of the manufacturer because of health or environmental reasons.

Severely restricted — A product for which virtually all uses have been prohibited nationally in one or more countries by final government regulatory action because of health or environmental reasons, but for which certain specific uses remain authorized.

The London Guidelines

UNEP in 1987 adopted⁵ the London Guidelines for the Exchange of Information on Chemicals in International Trade⁶ which were aimed at enhancing the sound management of chemicals through the exchange of scientific, technical, economic and legal information. Special provisions were included regarding “the exchange of information on banned and severely restricted chemicals in international trade, which call for cooperation between exporting and importing countries, in the light of their joint responsibility for the protection of human health and the environment at the global level.” In adopting these guidelines, UNEP also identified additional measures required to enable importing countries to give or withhold their consent to particular exports following receipt of adequate information from exporting countries and that such measures, based on the principle of Prior Informed Consent (PIC) should be incorporated into the London Guidelines as expeditiously as possible, which was done in 1989.⁷

The amended London Guidelines provide a mechanism for importing countries to formally record and disseminate their decisions regarding the future importation of chemicals which have been banned or severely restricted in the exporting countries and outlines the shared responsibilities of importing and exporting countries and industries in ensuring that these decisions are heeded. The introduction states that “Although these Guidelines have not been prepared specifically to address the situation of developing countries, they nevertheless provide a framework for the establishment of procedures for the effective use of chemicals in these countries. Implementation of the Guidelines should thus help them to avoid serious and costly health and environmental problems due to ignorance about the risks associated with the use of chemicals, particularly those that have been banned or severely restricted in other States.”

The PIC procedure is being implemented jointly by the Food and Agriculture Organization (FAO) of the UN which leads for pesticides and UNEP through the IRPTC (International Register of Potentially Toxic Chemicals) which leads for chemicals. Each participating country — of which, as of 30 June 1996, there are 148 — nominates a Designated National Authority (DNA) to serve as a focal point for the operation of the PIC procedure. Some countries have designated one authority for all chemicals while others have designated two, one with responsibility for pesticides and the second for other chemicals. The DNA is generally a government department or office responsible for broad policy decisions with the authority to decide which chemicals may be used in the country. In the UK, it is the Chemicals and Biotechnology Division of the Department of the Environment while in the USA it is the Assistant Administrator, Prevention, Pesticides and Toxic Substances of the Environmental Protection Agency.⁸

The functions of the DNA in respect of the import of banned or severely restricted chemicals are to receive information on exports from exporting states, to transmit requests for further information as required to exporting states, to advise and assist import control authorities, to strengthen national decision-making procedures and import control mechanisms, to ensure that decisions apply uniformly to all import sources and to domestic production of

chemicals for domestic use, and to encourage that chemicals subject to PIC be purchased only from sources in exporting countries which are participants in that procedure. Insofar as exports of banned or severely restricted chemicals are concerned, the function of the DNA is to ensure the provision or transmittal of information on exports, to respond to requests for information from other states, especially as regards sources of precautionary information on the safe use and handling of the chemicals concerned, to communicate PIC decisions to their export industry, and to implement appropriate procedures, within their authority, designed to ensure that exports do not occur contrary to the PIC decisions of participating importing countries.

Participating countries provide information on control actions they have taken to ban or severely restrict chemicals by completing a Notification of Control Action form which gives competent authorities in other states the opportunity to assess the risks associated with the chemical and to make timely and informed decisions thereon having regard to local environmental, public health, economic and administrative conditions. The minimum information to be provided is the chemical identification/specification of the chemical, a summary of the control action taken and the reasons for it and whether additional information is available. The reasons supporting the control action should be based on a national review of scientific data, information or analysis which indicate whether use under expected conditions within the country may give rise to an unacceptable risk to human health or the environment. Any chemical banned or severely restricted in at least one country after 1 January 1992 is eligible for inclusion in the PIC procedure; any chemicals banned or severely restricted prior to that date which have been the subject of control actions taken in five or more countries may also be eligible.

Once a chemical has been identified for inclusion in the PIC procedure, a Decision Guidance Document (DGD) is prepared by FAO/UNEP and sent to each participating country (through the DNAs) together with an Importing Country Response form. The DGD provides a summary of toxicological and environmental characteristics, known usage, possible exposure routes, measures to reduce exposure and regulatory actions taken by some countries to ban or severely restrict the chemical, with corresponding reasons for their actions. The DGD is intended to help governments assess the risks connected with the handling and use of the chemical and to make more informed decisions about future import and use taking into account local conditions. The DNA then completes the Importing Country Response form indicating whether to accept import, refuse import or allow import under certain conditions. The response is sent to the FAO/UNEP Secretariat who summarize the import decisions and circulate these to DNAs every six months. Governments of exporting countries shall, upon receipt of importing countries decisions, transmit them to their industry. In addition, this information is also included in the regular updates of the Consolidated List of Products whose Consumption and/or Sale have been Banned, Withdrawn or Severely Restricted.

The aim of the PIC procedure is to ensure that a banned or severely restricted chemical is not exported without the consent of the importing country. The guidelines require

that if an export is planned of a chemical banned or severely restricted in the exporting state, then the exporting state should ensure that the DNA of the importing state is provided with relevant information to remind the importing state of the original notification by the exporting state of control action and to alert it to the fact that an export is planned. The minimum information to be provided is a copy of the information provided at the time of notification of the control action, the indication that an export of the chemical will occur and an estimate of the quantity to be exported annually as well as any shipment-specific information that might be available. Such information is to be provided to the state of final destination and to UNEP/IRPTC. It is also clear that the PIC procedure is applied to chemicals that have multiple use. For example, the six-monthly PIC circular of import decisions for some chemicals has in the column headed "Final Decision on Import" the words "Prohibit for plant protection use" and then in the column headed "Conditions for Import" has the words "For uses other than plant protection, written authorization is required for import".⁹ The banned and severely restricted chemicals thus far subject to the PIC procedure are pesticides and industrial chemicals; some 17 groups are already the subject of DGDs and a further 17 are currently having DGDs prepared for them.¹⁰ In some cases, a specific chemical is the subject of a DGD such as fluoroacetamide, parathion or ethylene oxide, whilst other DGDs apply to a group of chemicals such as mercury compounds and polychlorinated biphenyls (PCB), except mono- and dichlorinated.

EU regulation

In the member states of the European Union (EU), Council Regulation (EEC) No 2455/92, which was adopted in 1992, requires exporters of chemicals which are banned or severely restricted in the EU to provide information to importing countries about these chemicals.¹¹ This regulation implements the UNEP/FAO PIC scheme in the EU. Consequently it is a legal requirement for an exporter to provide the Designated National Authority of the member state in which it is located with information about the export from an EU member state to a third country for the first time of a chemical subject to the regulation no later than 30 days before the export is due to take place. The Designated National Authority has then to ensure that the appropriate authorities of the country of designation receive notification at least 15 days before export; copies of the notification are to be copied to the Commission which shall forward it to the designated national authorities of the other member states and to UNEP/IRPTC. The notification provides information about the identity of the chemical, information on precautions to be taken, summary of the regulatory restrictions and the reasons for them, the expected date of first export, country of designation, use category (whether plant protection product, industrial chemical or consumer chemical) and the estimated amount of the chemical to be exported to the destination country in the next year. The regulation requires the exporter to comply with the decision of the country of destination participating in the PIC procedure.

The Rio Summit

The United Nations Conference on Environment and Development held in Rio de Janeiro from 3 to 14 June 1992 (the Earth Summit) reaffirmed the Declaration of the United Nations Conference on the Human Environment adopted at Stockholm on 16 June 1972, and “working towards international agreements which respect the interests of all and protect the integrity of the global environmental and developmental system, recognizing the integral and interdependent nature of the Earth, our home” proclaimed a set of principles, several of which related to the protection of the environment.¹²

Principle 4. In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

Principle 10. Environmental issues are best handled with the participation of all citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by the public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in the decision-making process.....

Principle 11. States shall enact effective environmental legislation. Environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries.

Principle 15. In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Principle 25. Peace, development and environmental protection are interdependent and indivisible.

These principles are amplified in a series of chapters and programme areas; for each the bases for action, objectives, activities and means of implementation are addressed. These include:

Chapter 6. Protecting and promoting human health

Chapter 8. Integrating environment and development in decision making

Chapter 15. Conservation of biological diversity

Chapter 16. Environmentally sound management of biotechnology

Chapter 19. Environmentally sound management of toxic chemicals, including prevention of illegal international traffic in toxic and dangerous products.

Within these chapters there are areas addressing the protection of people and the environment such as:

Reducing health risks from environmental pollution and hazards (Chapter 6 Section F)

Enhancing protection of the environment (Chapter 16, Section C)

Enhancing safety and developing international mechanisms for cooperation (Chapter 16, Section D)

Expanding and accelerating international assessment of chemical risks (Chapter 19, Section A)

Information exchange on toxic chemicals and chemical risks (Chapter 19, Section C)

Prevention of illegal international traffic in toxic and dangerous products (Chapter 19, Section F)

Of particular interest, are various sections of Chapter 19 (Prevention of illegal international traffic in toxic and dangerous products). Thus Section C on information exchange has the objectives of promoting intensified exchange of information on chemical safety, use and emissions among all involved parties and of achieving “by the year 2000, as feasible, full participation in and implementation of the PIC procedure, including possible mandatory applications through legally binding instruments”. Section F notes that there is currently no global international agreement on traffic in toxic and dangerous products. However, it is noted that there was international concern that illegal international traffic in these products is detrimental to public health and the environment, particularly in developing countries as acknowledged by the UN General Assembly in resolutions 42/183 and 44/226.¹³ It goes on to say that further strengthening of international and regional coöperation is needed to prevent illegal transboundary movement of toxic and dangerous products. The following activities are detailed:

Governments, according to their capacities and available resources and with the cooperation of the United Nations and other relevant organizations, as appropriate should:

a. Adopt, where necessary, and implement legislation to prevent the illegal import and export of toxic and dangerous products

b. Develop appropriate national enforcement programmes to monitor compliance with such legislation, and detect and deter violations through appropriate penalties.

A legally binding PIC procedure

The UNEP Governing Council at its meeting in May 1991 adopted Decision 16/35 on Toxic Chemicals requesting further urgent action be taken to strengthen the legal basis of the amended London Guidelines, taking into consideration experience gained in the implementation of the Guidelines and the PIC procedure.¹⁴ At the UNEP meeting in May 1995, decision 18/12 was adopted to develop an internationally legally binding instrument for the application of the PIC procedure.¹⁵ This resolution followed consideration of a report by the Executive Director of UNEP which noted that one of the objectives of Section C of Chapter 19 of Agenda 21 was to achieve by 2000 full participation in and implementation of the PIC procedure, including possible mandatory applications through legally binding instruments.¹⁶ Decision 18/12 authorized UNEP in conjunction with FAO to convene “an intergovernmental negotiating committee with a mandate to prepare a legally binding instrument for the application of the prior informed consent procedure for certain hazardous chemicals in international trade.” The resolution also called for the convening of “a

diplomatic conference for the purpose of adopting and signing an internationally legally binding instrument for the application of the prior informed consent procedure for certain hazardous chemicals in international trade, preferably not later than early 1997." The first meeting of the intergovernmental negotiating committee was held in Brussels in March 1996 under the chairmanship of Ms Rodriguez of Brazil.¹⁷ This session made rapid progress, agreed quickly on the rules of procedure, and completed a preliminary review of a draft outline of the future agreement. A working group chaired by Mr Rawal of India was established to further clarify which groups of chemicals might be included in the future agreement. The second meeting was held in September 1996 in Nairobi, Kenya which made further progress producing 24 pages of draft convention text with most of the articles having been extensively discussed. Whilst substantial progress was made, further detailed consideration is needed of various aspects of the instrument. A third meeting is envisaged early in 1997 with the final meeting and the diplomatic conference to be held later in 1997 in Rotterdam, hosted by the Government of the Netherlands.

Further measures

UNEP Governing Council decision 18/12 also required the convening of a government-designated group of experts to consider what further measures are needed to reduce the risks from a limited number of hazardous chemicals. This expert group met in April 1996 in Copenhagen and identified a number of health and environmental problems that might require global action: risks of persistent organic pollutants (POPs); occupational risks in handling chemicals or pesticides; lack of training and education; lack of national legislation governing hazardous chemicals and pesticides; pollution of the environment by hazardous chemicals; dumping of hazardous chemicals; stocks of obsolete pesticides, including those received in the form of aid; lack of health- and safety-related information on chemicals and pesticides; risks of mixtures containing hazardous chemicals; access to confidential information concerning chemicals, products and mixtures; ease of trade and internal distribution of chemicals and pesticides; inability of small-scale industry to implement agreed procedures and regulations; lack of capacities to monitor and address problems identified and to ensure adequate implementation of agreements and procedures; need for technical and financial assistance; and technology transfer.¹⁸ Four broad headings were used to focus the discussion: inadequate capacity of developing countries to handle issues of hazardous chemicals and pesticides; disposal of unwanted stocks of pesticides and other chemicals; insufficient information for chemical management decision-making and action; possible need to ban and phase out certain chemicals; recommendations were adopted by the Group of Experts under each of these headings for the UNEP Governing Council to consider at their next meeting early in 1997.

Framework convention on chemicals

At the Group of Experts meeting, a proposal was made by Belgium and the Netherlands, which received broad support, concerning possible benefits from a framework con-

vention on chemicals which would provide an integrated international legal mechanism concerning the management of hazardous chemicals. The concept of a framework convention stemmed from recognition of the ongoing negotiations not only towards an internationally legally binding instrument for the implementation of the PIC procedure but also that the UNEP Governing Council had,¹⁹ in decision 18/32, set in train consideration which might lead to an appropriate legal mechanism on persistent organic pollutants.²⁰ Further, the mandate for the Group of Experts was to consider what other measures might be needed within or beyond the PIC procedure and which might lead to additional requirements for legally binding instruments. Consequently a framework convention could be helpful. The Group of Experts invited UNEP, FAO and the Intergovernmental Forum on Chemical Safety (IFCS)²¹ to seek the views of governments on this issue for consideration at the next meeting in January 1997 of the UNEP Governing Council. The IFCS, which is the international body that is pursuing the achievement of the objectives of Chapter 19 of Agenda 21 of the Rio Summit, is currently seeking views from governments which it will receive by 20 December 1996. The Group of Experts also expressed the view that consideration of such a framework convention on chemicals should not impede progress of current or possible future negotiations to manage hazardous chemicals. There would appear to be benefits from such a framework convention in chemicals as it could obviate the need for separate secretariats for each legally binding instrument. There could be administrative efficiencies and improved coördination as, for example, some of the PIC chemicals are also persistent organic pollutants (POPs). As a Special Session of the the UN General Assembly will be held in June 1997 to consider developments five years on from the Rio Summit, there could be political and presentational pressures to move towards a framework convention on chemicals.

Recapitulation

There is thus a regularly updated Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or not Approved by Governments which provides information on the restrictive regulatory decisions regarding over 600 products. This is complemented by a multilateral export-import system for hazardous chemicals in international trade currently involving some 148 countries; countries which have not yet agreed to participate have been invited to do so. The system requires that information be provided to an importing country prior to an export of a potentially hazardous chemical so that the importing country can decide whether to accept, refuse or allow under certain conditions the import of the chemical. The decision of the importing country is communicated to the UNEP/FAO Secretariat who in turn informs the other participating countries by means of six-monthly updates. Consequently, there is considerable transparency in the operation of the export-import system, which has been successfully applied to multi-use chemicals for which one use may be banned. The system functions through Designated National Authorities in each of the 148 countries. The current system is voluntary although it is legally binding in the European Union and work is well advanced in

drafting an international legally binding instrument which should be adopted in 1997. Consideration is being given internationally to whether to draw up a framework convention on chemicals under which the various internationally legally binding instruments would sit. This is planned to be considered by the UNEP Governing Council at their meeting in January 1997.

The Chemical Weapons Convention

The Chemical Weapons Convention in Article I requires states parties to undertake never under any circumstances to "transfer, directly or indirectly, chemical weapons to anyone". This is amplified in Article VI which requires States Parties to "adopt the necessary measures to ensure that toxic chemicals and their precursors are only developed, produced, otherwise acquired, retained, transferred, or used...for purposes not prohibited under this Convention".

As the entry into force of the CWC will be on 29 April 1997, it is timely to give some thought to what measures might be appropriate to implement these obligations. Currently, 30 states participate in the Australia Group which was founded in 1985 and informally coordinates the measures taken by these states to constrain trade in chemicals, equipment and technologies that may be misused for chemical (and biological) weapons purposes. The countries participating in the Australia Group have undertaken to review their national export controls in the chemical-weapons field in the light of the implementation of the CWC.

In considering how the obligations of the Convention may be met, it needs to be recognized that legally-binding instruments are likely to be agreed in the coming 12 months which will address the export and import of banned or severely restricted chemicals. It is noted with interest that the UNEP/IRPTC Legal File which has become a repository for regulatory information relating to banned and severely restricted chemicals has in its 1994 publication²² included the CWC as one of the global conventions concerning chemical substances. As the chemicals which may be misused as chemical warfare agents are both banned and potentially hazardous chemicals there would appear to be a logic in considering the extent to which the Prior Informed Consent procedure might be utilized to meet the obligations under the CWC. It will be recalled that hazardous chemicals which have been banned or severely restricted in 5 or more countries may be eligible for inclusion in the PIC procedure. This procedure involves the Designated National Authorities in the participating countries and thereby provides considerable transparency both in the exporting and the importing country as well as internationally through the UNEP/IRPTC Secretariat.

The chemical warfare agents and precursors would appear to meet the banned or severely restricted criteria and the former are certainly chemicals that present dangers to human health and the environment. These dangers were recognized by the UNEP Governing Council in 1991 when they considered a report²³ on the effects of chemical weapons on human health and the environment and adopted a resolution²⁴ which considered that "chemical warfare not only represents a most serious threat to human health and life but also has an anti-environmental dimension, which could attain the level of mass or even total destruction of

ecosystems." There would seem to be no difficulty in providing the summary of toxicological and environmental characteristics and other information required to generate the Decision Guidance Document required under the PIC procedure. One of the pesticides for which a Decision Guidance Document is currently being prepared is parathion which is chemically closely similar to the G nerve-agents. However, hazardous chemicals for which Designated National Authorities have indicated no current use or manufacture are not given a high priority for inclusion in the PIC procedure and a list of chemicals is included in the regular updates for which Decision Guidance Documents will not, for the time being, be prepared; should use or production of any of them be resumed in future, then their inclusion in the PIC procedure would be reconsidered. It might therefore be appropriate to include chemical warfare agents for which there is no commercial use or production in this list of chemicals. Other CW agents and precursors for which there is commercial use and production could be considered for inclusion in the PIC procedure.

As there are likely to be an increasing number of international conventions or internationally legally binding instruments relating to chemicals such as the PIC procedure, the POPs, the Montreal Protocol on chlorofluorocarbons and the UN Basel Convention on the control of transboundary movements of hazardous wastes and their disposal as well as the CWC, there would be advantage in the UNEP Governing Council considering a framework convention on chemicals to envisage one that could embrace all the current and future conventions and legally binding instruments. It is possible that some governments in responding to the IFCS might wish to suggest that consideration be given to the inclusion of the Chemical Weapons Convention as one of the conventions under the proposed framework convention. This should lead to improved transparency and increased confidence internationally about potentially hazardous and toxic chemicals. There might in due course be benefit in a single national authority being responsible for the implementation of the various conventions and legally-binding instruments on chemicals.

Notes

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2. United Nations Environment Programme, Governing Council decision 85(V), 25 May 1977.
3. United Nations General Assembly, Resolution 37/137, *Protection against Products Harmful to Health and the Environment*, 109th Plenary Meeting, 17 December 1982.
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5. United Nations Environment Programme, Proceedings of the Governing Council at its Fourteenth Session, UNEP/GC.14/26, 10 July 1987. Decision 14/27 of 17 June 1987.
6. United Nations Environment Programme, Programme Matters, UNEP/GC.14/17, 2 April 1987, Annex IV: London Guidelines for the Exchange of Information on Chemicals in International Trade.

CWC Non-Signatory States

Angola
Botswana
Egypt
Eritrea
Libya
Mozambique
Sao Tome & Principe
Somalia
Sudan

Bhutan
Iraq
Jordan
Kiribati
Lebanon
Niue
North Korea
Palau
Solomon Islands
Syria
Taiwan
Tonga
Tuvalu
Vanuatu

Bosnia-Herzegovina
Macedonia, FYR of
Yugoslavia

Antigua & Barbuda
Barbados
Belize
Grenada
Jamaica
Suriname
Trinidad & Tobago

Andorra

As of 22 November, 160 states have signed the CWC, 66 of which have deposited instruments of ratification

7. United Nations Environment Programme, Governing Council Decision 15/30 of 25 May 1989.
8. UNEP/FAO Register of Designated National Authorities for the Implementation of the Information Exchange and PIC Procedures of the London Guidelines and the International Code of Conduct, Geneva and Rome, August 1996.
9. FAO/UNEP Joint Programme for the Operation of Prior Informed Consent (PIC), Import Decisions from participating countries as of 30 June 1996, PL 32/23, 31 July 1996.

10. FAO/UNEP Joint Programme for the Operation of Prior Informed Consent, Update on Implementation as of 30 June 1996.
11. Council Regulation (EEC) No 2455/92 of 23 July 1992 concerning the import and export of certain dangerous chemicals, Official Journal of the European Communities, L251, Volume 35, 29 August 1992, pp 13-22. See also European Chemicals Bureau, Informing the Importer, Guide to Council Regulation (EEC) No 2455/92 concerning the import and export of certain dangerous chemicals, 1996.
12. The United Nations Conference on Environment and Development, Rio de Janeiro 1992, *Earth Summit '92*, The Regency Press Corporation, London, 1992.
13. United Nations General Assembly, *Traffic in and disposal, control and transboundary movements of toxic and dangerous products and wastes*, resolution 44/226, 85th Plenary Meeting, 22 December 1989.
14. United Nations Environment Programme, Proceedings of the Governing Council at its Sixteenth Session, UNEP/GC.16/27, 30 June 1991. Decision 16/35 of 31 May 1991.
15. United Nations Environment Programme, Proceedings of the Governing Council at its Eighteenth Session, UNEP/GC.18/40, 13 June 1995. Decision 18/12 of 26 May 1995.
16. United Nations Environment Programme, Policy Issues, UNEP/GC.18/7, 27 February 1995.
17. United Nations Environment Programme/Food and Agriculture Organization of the United Nations, Report of the Intergovernmental Negotiating Committee for an Internationally Legally Binding Instrument for the Application of the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade on the Work of its First Session, UNEP/FAO/PIC/INC.1/10, 21 March 1996.
18. United Nations Environment Programme, Report of the Government-Designated Group of Experts on Further Measures to Reduce the Risks from a Limited Number of Hazardous Chemicals on its Work, UNEP/PIC/EG/1/3, 8 July 1996.
19. United Nations Environment Programme, Proceedings of the Governing Council at its Eighteenth Session, UNEP/GC.18/40, 13 June 1995. Decision 18/32 of 25 May 1995.
20. The persistent organic pollutants (POPs) are: PCBs, dioxins and furans, aldrin, dieldrin, DDT, endrin, chlordane, hexachlorobenzene, mirex, toxaphene, and heptachlor. The meeting of the Intergovernmental Forum on Chemical Safety in Manila in June 1996 recommended that the UNEP Governing Committee invite UNEP to convene an international negotiating committee with a mandate to prepare an internationally legally binding instrument for implementing international action to reduce the risks to human health and the environment arising from the release of initially the 12 specified POPs.
21. The IFCS Secretariat address is IFCS Secretariat, c/o WHO, 20 Avenue Appia, CH-1211 Geneva 27, Switzerland.
22. United Nations Environment Programme/International Register of Potentially Toxic Chemicals, *IRPTC Legal File 1994, International Environmental Guidelines and Global Conventions Concerning Chemical Substances*, United Nations, New York and Geneva, 1995.
23. United Nations Environment Programme, Effects of Chemical Weapons on Human Health and the Environment, UNEP/GC.16/6, 10 January 1991.
24. United Nations Environment Programme, Proceedings of the Governing Council at its Sixteenth Session, UNEP/GC.16/27, 30 June 1991. Decision 16/12 of 31 May 1991.

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Building the Organization for the Prohibition of Chemical Weapons

The Chemical Weapons Convention will enter into force on 29 April 1997, 180 days after the deposit by Hungary on 31 October 1996 of the 65th instrument of ratification. Disappointingly the two declared chemical weapons possessor states, the Russian Federation and the United States, have yet to ratify the Convention, but it is widely hoped that they will do so, if not before entry into force then shortly afterwards. Both countries have repeatedly affirmed their intention to be among the original states parties.

In any event, with the deposit by Hungary, the Preparatory Commission entered the second and final phase of its work in the Hague. Now, in addition to completing the tasks already assigned to it, it must deal with a range of logistical and practical matters leading up to entry into force. One particularly urgent project will be to start training the inspector trainees; accordingly prospective trainees and training centres were immediately advised that training will start in January. Another immediate task will be to complete arrangements for the First Session of the Conference of the States Parties, which has to be convened not later than 30 days after entry into force of the Convention. There seems to be a widely shared view, although no formal decision has yet been taken, that the First Session will start on 6 May 1997. The session could run for approximately three weeks, although that question, too, remains open.

The next plenary session of the Commission is scheduled for 16–20 December. Hopefully, the imminence of entry into force will spur member states not only to decide on practical arrangements during the session but also to resolve outstanding issues, particularly in areas such as industry declarations and challenge inspections.

Actions by the Secretariat

On 18 September, the Executive Secretary, Ian Kenyon, addressed the Centre for European Policy Studies in Brussels on progress of ratification and entry into force of the Convention. He visited Japan during 14–19 October, where he delivered the keynote address at the regional seminar on industrial verification, and met with government and chemical industry officials. Later in the same month, Mr Kenyon visited the Netherlands Antilles to address participants of the National Authority training course and met with government officials. On 24 October, the Executive Secretary addressed the First Committee of the United Nations General Assembly in New York, expressing concern in the course of his speech about the continuing uncertainty as to when the United States and the Russian Federation will ratify the Convention. The President of the Republic of Kenya received him in the Hague on 17 November 1996 to discuss the forthcoming entry into force of the Convention. The President confirmed that the Convention would soon be discussed in the Cabinet which will accelerate the internal rat-

ification process. Mr Kenyon visited the Russian Federation during 19–22 November 1996. Other senior officials of the secretariat visited various member states.

Training Courses for Personnel of National Authorities

With the assistance of the Government of the Netherlands, the Secretariat conducted a five-day training course in the Netherlands Antilles for personnel of National Authorities from 28 October to 1 November 1996. This course followed the approved syllabus for a five-day training course (Annex 2 to PC-XII/B/WP.4). A three-week course for personnel of National Authorities, funded by the Government of Ireland, is currently being conducted (18 November to 6 December) in Tanzania. The Harvard Sussex Program made a series of presentations on Legal Rights and Obligations under the Chemical Weapons Convention.

Inspector Recruitment Process An offer of training was sent to the trainees selected for Training Group A on 7 November 1996. So far, 134 trainees have accepted the offer of training and none have declined. At the time of sending out the offers, 52 out of 159 trainees were from 20 non-ratifying states. 107 trainees came from 38 ratifying states. 31 percent came from the Western European and Others Group, 27 percent from Asia, 20 percent from Eastern Europe, 13 percent from the Latin American & Caribbean Group and 9 percent from Africa. These figures are subject to change should some trainees decline the offer of training, in which case, the subsequent vacancies will be filled either by candidates on the reserve list for Training Group A, or alternatively candidates from Training Group B, for which recruitment is continuing.

Training As mandated by the Commission at its fourteenth session, a combined meeting of Working Groups A and B has decided when inspector training is to start. In the week 6–13 January (“week zero”), trainees will undergo pre-training induction activities in the Netherlands. On 13 January trainees will start courses in Module 1 of the General Training Scheme the Netherlands, moving to other training centres to complete their Module 1 training from 20 January to 28 February 1997. Module 1 training will be conducted at four training centres. A total of forty trainees will be trained at the centres in France (French Training Centre for the Prohibition of Chemical Weapons, Paris) and India (Defence Research and Development Establishment, Gwalior). Eighty students will be trained in the Netherlands at the Air Force Royal Training Institute at Woensdrecht, and forty students will be trained at the US Army Chemical School, Ft. McClellan, Alabama.

Module 2 training will be conducted from 3 March to 9 May with Module 3 training starting on 12 May and finishing on 30 May. This is one month after entry into force and one day after the 30-day deadline imposed by the CWC for

the Secretariat to notify states parties of the names, nationalities and ranks of the inspectors and inspection assistants proposed for designation.

In the course of the intersessional period, the Secretariat continued with its preparations for training. In particular, a Workshop on Trainee Performance Evaluation was held on 29 October, attended by representatives and training-centre staff of France, Germany, India, Netherlands, Switzerland, UK and USA. The participants discussed performance evaluation by the training centres and the Secretariat for Modules 1 and 2. Module 1 students will be evaluated by means of a combination of multi-choice questions and final examinations. For Module 2, no final decisions have been made as regards evaluation but the Secretariat stressed the importance of a final examination or a final report so that there will be a written record of the trainee's acquired level of course knowledge.

The Secretariat is now working on logistical arrangements for the training courses, such as ensuring that visas are issued by those member states providing training, arranging travel for the trainees, finalizing contracts with the training centres, completing the procurement of equipment for training and transporting it to the centres. A formal opening ceremony of the training scheme will be held at Woensdrecht in the week commencing 13 January 1997.

Third Communications Workshop The Secretariat held a Third Communications Workshop during 7–8 October 1996 to update member states on developments since the Second Communications Workshop held in November 1995. The workshop focused on methods of communication between the OPCW and states parties, in particular on how electronic methods of communication can be used in conjunction with other methods. The Secretariat provided participants with an update on the current status of implementing the information management system necessary to receive and process data after entry into force. Plans have been developed for a verification information system as well as an electronic document management system and bids for these have been solicited by the Secretariat. The first version of a draft *Notification Handbook*, which will be a compilation of notification forms to be used in inspection-related communications between the Secretariat and the National Authorities, was distributed to participants. Participants expressed interest in a Trial Communications Exercise to test communication links, declaration and notification formats, and operating procedures at both the Secretariat and National Authorities.

Actions in Brussels

On 18 September the Executive Secretary briefed delegations in Brussels on progress with ratifications and in particular those of the United States and the Russian Federation. On 20 November the Deputy Executive Secretary, Mr Umer, met with the Minister of Cooperation and Integration of Niger to discuss the Convention and was assured of an early ratification by Niger. Mr Umer met with the Prime Minister of Mali the following day and was advised that Mali intends to ratify the Convention in the near future. On the same day Mr Umer briefed delegations from the ACP

Group and the Latin American and Caribbean Group on the work of the Committee on Preparations for the First Session of the Conference of the States Parties. Following trigger point on 31 October, a press conference was arranged by the Secretariat on 4 November in Brussels, in coöperation with the Belgian Ministry of Foreign Affairs. Finally, on 25 November the Executive Secretary briefed participants on the Convention at a meeting in NATO for its members and representatives of the Partnership for Peace. As is usual, the Secretariat plans to hold a briefing in Brussels on the intersessional activity of the Preparatory Commission prior to the fifteenth session of the Commission which is scheduled to commence on 16 December.

Actions by member states

Asian Seminar on National Implementation of the Chemical Weapons Convention for Industrial Verification This was held during 16–17 October in Makuhari, Japan, organized by the Ministry of International Trade and Industry of Japan, the Japan Chemical Industries Association and the Provisional Technical Secretariat. The seminar focused on reviewing declarations and inspection procedures for industry, as well as general preparations by industry for implementing the Convention.

Schedule 1 facility trial inspection Sweden conducted a trial inspection at its Schedule 1 facility during 19–20 November. The trial was part of the on-going coöperation project between Denmark, Finland, Norway, Sweden and the United Kingdom. The purpose of the trial was to test the inspection procedures which have been developed for Single Small Scale Facilities and other Schedule 1 facilities as well as the draft model agreement. Secretariat staff and representatives of other member states were invited to participate and a report on the trial will be made available.

Actions by subsidiary bodies of the Commission

Committee on Preparations for the First Session of the Conference of the States Parties The committee held five formal meetings during this reporting period, on 10 and 12 September, 15 October, 8 and 13 November 1996, in addition to a number of informal consultations. There is not yet final agreement on the invitation list, one issue being the observer status of signatory states and non-signatory states. Another issue is attendance by international organizations and non-governmental organizations but there does seem to be general consensus that a limited number of organizations, which have a demonstrated interest in the Convention or related fields should be permitted to attend the plenary sessions of the First Session but with no right to address the meeting. Invitations will be sent by the Secretary-General of the United Nations, the depositary of the Convention. The committee has also been working on the Draft Provisional Rules of Procedure for the Conference and the Executive Council. Another issue which remains to be resolved is the precise timing and duration of the session although there does seem to be support from most delegations to start the session on 6 May 1997 for a

three week period. The committee will meet again before the fifteenth plenary and, if it has not completed all its work in that time, it will request authorization by the Commission to continue its work during the period prior to the first session of the Conference of the States Parties.

Committee on Relations with the Host Country The committee held two formal meetings during the reporting period, in addition to a number of informal consultations. At its first meeting, on 13 September, the committee was updated on progress with the OPCW building and problems with the implementation of some of the privileges and immunities provided for in the Headquarters Agreement between the Preparatory Commission and the host country. The committee was also apprised of the recent opening of the Laboratory and Equipment Store. The second formal meeting of the committee was convened on 22 November during which it was reported that work on the OPCW building is within budget and on target. The need to secure interim accommodation was discussed with a general consensus emerging that to rent the Aegon building opposite the Netherlands Congress Centre is the best option. Administrative, practical and logistical preparations for the First Session of the Conference of the States Parties is the new item on the committee's agenda. The committee considered the Conference space requirements for delegations, media and non-governmental organizations as well as other media requirements. An information handbook is being prepared.

Combined Meetings of Working Groups A and B Working Groups A and B held several combined meetings during this reporting period, in the course of which reports were made on the work of the various expert groups. At its meeting on 13 November, in accordance with the authority delegated to the combined meeting by the Commission at the fourteenth plenary session, it was agreed that training of inspectors should start on 13 January 1997. The working method of the Commission was also discussed at this meeting, in particular whether any adjustments should be made now that the Commission is in the final stage of its work. The meeting decided to continue this discussion at its next meeting, scheduled for 29 November, and in the meantime the chairman of the Commission is to continue consultations with member states. The chairman reported that consultations with member states on the need to convene a meeting of the Commission in connection with trigger point indicated that since the trigger point had occurred later than expected in the intersessional period, such a meeting would now be too close to the fifteenth session.

Working Group A

Finance Group This group met on 23–27 September 1996 and elected Mr Cals of the Netherlands to chair the group following the resignation of Mr Lal of India. The group considered proposals and procedures for the transfer of funds in Parts I and II of the 1996 Budget and recommended that the proposed transfers be approved. The group undertook an extensive review of the 1997 draft Budget of the Commission and the 1997 draft OPCW Programme of

Work and Budget. The group observed that, given the uncertain circumstances, a review focusing on general principles and the overall structure was most appropriate as far as the OPCW draft budget was concerned.

The group considered a United Kingdom paper on accounting procedures and an Austrian paper on the methodology for the budgeting and accounting of staff costs. The draft *OPCW Financial Rules* were reviewed again by the group, and some amendments were recommended. The group also considered a draft protocol regarding the transfer of assets, liabilities, records and functions from the Commission to the OPCW.

Expert Group on Programme of Work and Budget

This group held two meetings during the reporting period. Its first meeting was on 25 September during which the group considered the proposed transfer of funds between Parts I and II of the 1996 Budget. The group recommended that Working Group A, with some exceptions, approve the transfers. The group's second meeting was held on the following dates: 9, 10, 14, 15, 17, 18, 21–24, 30 October, and 1, 6 and 8 November 1996. The group elected Mr Casás of Uruguay as its new chairman and devoted much of its time to the 1997 Programme of Work and Budget of the Commission. Following extensive negotiations, the group finally approved a much-amended draft *ad referendum*, that is, it was agreed that in the event no objection to the budget was received by the Secretariat by 15 November, Working Group A should recommend to the Commission at its fifteenth session that the budget be approved. (No such objection was received and it is therefore anticipated that the budget will be duly approved at the forthcoming plenary session.)

The total annual 1997 Part I Budget is Dfl 27.3 million — compared to Dfl 24.8 million for 1996. However, because the Convention will enter into force on 29 April 1997, the Commission will not operate for the full twelve months of 1997. As the Budget had been prepared for an entire financial year, most items are prorated on a five-twelfths basis. (Four months prior to entry into force and one month for the period after entry into force during the First Session of the Conference of the States Parties.) The entire budget cannot be prorated because some items are not divisible, such as purchase of equipment and costs directly related to sessions of the Commission. The prorated Part I Commission Budget for 1997 is Dfl 13.2 million. This amount is in addition to the already agreed 1996 Part II budget amounting to Dfl 30.4 million to cover additional activities such as training and expansion of Secretariat staff between trigger point and entry into force of the Convention (i.e., 31 October 1996 to 29 April 1997).

In the course of its meetings, the group also received the draft 1997 Budget for the OPCW and agreed that Working Group A should consider it as a matter of priority. A particular problem is the concern about the basic assumptions adopted by the Commission in 1994, *inter alia*, that (1) both the United States and the Russian Federation would be among the first 65 states to deposit their instruments of ratification and that (2) the 1990 chemical-weapons Bilateral Destruction Agreement between the two countries, covering the verification of their chemical-weapons-related sites

would be operational, thereby enabling the Executive Council to decide to limit verification at these sites to complementary monitoring. Although these are still the formal assumptions of the Commission, some delegations have expressed concern that they may have already been overtaken by events or might not be borne out. The lack of certainty makes planning for verification activities and resource requirements extremely difficult.

Addressing these concerns, the Secretariat issued a discussion paper entitled *Verification Resource Requirements: Variations on a Theme*, stating that whilst the Commission has yet to change any of the planning assumptions previously adopted, prudence dictates contingency planning because of the implications for the budget of the OPCW on any changes to the assumptions. The Secretariat paper sets out in detail the likely impact of two different scenarios: on the one hand, if the United States and the Russian Federation are states parties at entry into force but there is no bilateral agreement in force, and on the other hand, if neither country is a state party to the Convention at entry into force or for the first year thereafter. In the first scenario, 210 inspectors will be needed for the inspections required to be undertaken in the first six months after entry into force. In the second scenario, the number required is 88. It is not possible to predict at this stage which of the two scenarios is the most likely. The Secretariat has estimated that an additional Dfl 30 million will be needed for the increased number of inspectors and inspection equipment but these estimates will need to be discussed depending on the circumstances. The group requested that the necessary time be allocated during this intersessional period as well as during the plenary session. It may be recalled that so far, the Secretariat has planned on the assumption that the Russian Federation and the United States will ratify the Convention before entry into force, and the bilateral agreement between the two countries will be in place, requiring 140 inspectors at entry into force and an additional 71 inspectors, six months later.

As well as dealing with the budgets, the group received and reviewed an updated Secretariat background paper on the budgetary and financial issues related to the transition from the Preparatory Commission to the OPCW, but no agreement was reached.

Expert Group on Data Systems The group held informal consultations on 18 and 25 September 1996. The Task Force on Data Systems met during 2–3 October and a formal meeting of the expert group was convened on 4 October. However, the group did not issue a report on its work.

Expert Group on OPCW Headquarters and other Agreements This group met on 7–9 October and continued to work on the draft *OPCW Headquarters Agreement*. Although there is consensus on most provisions in the draft agreement, some differences remain to be resolved. The group agreed to meet again on 4 December with the aim of completing work on the draft. The group also discussed the draft agreement between the United Nations and the OPCW (for example, Article XIV.5 requires a relationship between the OPCW and the United Nations) as well as the draft bilateral Agreements on Privileges and Immunities of the

OPCW (required between each State Party to the Convention and the OPCW pursuant to Article VIII.51).

Consultations on Visa Matters These were held on 12 September 1996 for the fifth time. Agreement was reached on the form which will be used to provide visa information in advance about inspector trainees to those countries providing training courses. The aim of this form is to expedite the collection of visas within the limited time available. The type of travel document to be used by OPCW officials, inspectors and inspection assistants has still to be determined, although there does seem to be a convergence of views towards acquiring the United Nations Laissez Passer (UNLP) as opposed to a tailor-made OPCW travel document. In the course of the consultations it was agreed that the travel document, whatever its nature, will be for official use only, and used in conjunction with a national passport. Further, the document should be recognizable to all states parties and the OPCW should guarantee the security of any such travel documents. The Secretariat has made informal contact with the United Nations Secretariat to clarify the legal and financial conditions under which the OPCW could acquire, purchase and use the UNLP for its officials in the event that the Commission opts for this choice. The Secretariat was requested to continue this contact.

Working Group B

Expert Group 1 on Chemical Weapons Issues This group met on 9–10 September, 26 September and 28–29 October. At its first meeting, the group agreed to elect Per Runn of Sweden as chairman of the group and then adjourned the meeting for informal consultations which concentrated on the draft model agreement for Chemical Weapons Destruction Facilities. At the meeting on 26 September, the group discussed the installation of continuous monitoring instruments on the basis of a chairman's discussion paper dated 23 September 1996. The group also discussed chemical weapons buried after 1 January 1977 or dumped at sea after 1 January 1985, again assisted by a chairman's paper on the issue. When the group met for its October meeting, it continued these discussions but no formal agreement was concluded.

Expert Group 2 on Chemical Weapons Issues This group met on 23–24 September and elected Graham Cooper of the UK as its chairman. The group held an initial discussion on criteria to determine the acceptability of a converted chemical weapons production facility for the production of highly toxic chemicals on the basis of a non-paper issued by the chairman. The group agreed to return to the issue at its next meeting. The group also briefly considered a discussion paper entitled *Quantification of the Destruction End-Point for Chemical Weapons* as well as non-papers on procedures for non-continuous chemical weapons destruction operations. The group also met on 31 October to continue its work, but did not issue a report.

Expert Group on Old and Abandoned Chemical Weapons This met twice during the reporting period. The first meeting was held from 30 September to 1 October

and the second on 4–5 November 1996. Usability of chemical weapons produced between 1925 and 1946 was on the group's agenda once again, but still no agreement has been reached. Costs of verification of old chemical weapons and their destruction and a regime to govern abandoned chemical weapons also need to be agreed on, but despite further discussions the group made no progress.

Expert Group on Chemical Industry Issues This met twice during the reporting period, for the first time on 16, 17 and 19 September and for the second time on 11, 12 and 14 November 1996. At both meetings, the group worked on the Model Agreement for Schedule 1 Facilities, considering a revised "Initial Chairman's Version of a Draft Model for Facility Agreements for Schedule 1 Facilities" which had been updated since the group's meeting in May. The group reached no further agreement on the draft despite other proposed amendments and additions.

The Verification Annex of the Convention stipulates that the number, intensity, duration, timing and mode of inspections for Schedule 1 facilities will be based on the risk to the object and purpose of the Convention. Accordingly, the group's chairman has prepared a non-paper which discusses the risk factors required to be taken into account by the Convention. These include the types and quantities of chemicals involved, the characteristics of the facility in question (i.e., engineering layout: multi-purpose, dedicated or research laboratory) and the nature of the activities carried out at the facility. The group discussed the non-paper in detail, and a revised version incorporating the comments of the group will be circulated to member states for further consideration.

The group has yet to agree on a number of matters relating to industry declarations. These include: what thresholds should be applied to industry for declarations relating to mixtures containing Schedule 2 or 3 chemicals in low concentrations; how to report aggregate national data; how to define discrete organic chemicals; and how to deal with biological/biologically mediated processes. The group once again reviewed some of these issues in the course of its meetings, but no further agreement could be reached. This is a matter of substantial concern because if there continues to be no consensus in the Commission, states will have to decide unilaterally on what basis to prepare their declarations.

The group reviewed some proposed adjustments to the industry sections of the draft *Declaration Handbook*, now in its sixth draft. Although the draft handbook has not yet been formally approved, and some issues still require agreement, member states may nonetheless find the draft a valuable support in preparing initial declarations.

Lastly, the group received a Secretariat background paper on identifying scheduled chemicals for statistical and regulatory purposes. This paper describes the World Customs Organisation's recommendation that the Harmonised

Coding Convention be amended to include the substances covered by the Chemical Weapons Convention. This recommendation was discussed at the September meeting of the WCO Review Subcommittee but no decision was made. The next possible date for an amendment is not until the year 2002. The paper goes on to explain that the Secretariat intends to issue a listing of the Convention's Schedules 2 and 3 with the addition to each chemical or family of chemicals of the appropriate 6-digit HS Code Subheading as well as the 8-digit Combined Nomenclature Code. These codes will facilitate future states parties in compiling statistical data on exports and imports as well as implementation of trade regulations required under the Convention.

Expert Group on Technical Cooperation and Assistance This met on 5, 7, 18 and 19 November 1996. The group received a draft chairman's paper describing the outstanding issues before the group and setting out some proposals for dealing with those issues. The areas considered in the paper relate to trade regulations, international coöperation, information on national programmes for chemical weapons protective purposes and the stockpiling of protective equipment for assistance purposes. Although the group discussed all of these issues, it was unable to agree on a report.

Expert Group on Confidentiality This met on 1 and 3 October 1996 and elected Mr Belaid of Algeria to serve as chairman. Prior to this meeting, the group had not met since June 1995 when work on the draft *OPCW Policy on Confidentiality* was completed. At the October meeting, work was resumed on the remaining tasks which include, *inter alia*, how and by whom jurisdiction should be exercised in cases of breach of confidentiality as well as compensation for losses caused by a breach. A chairman's non-paper, setting out practical steps for implementing the draft Confidentiality Policy, was prepared for the meeting and discussed by the group. The non-paper is to be revised by the chairman on the basis of comments made in the course of the meeting.

Expert Group on Challenge Inspection This met on 20–21 November 1996 but did not issue a report. Four agenda items remain for discussion: operational requirements for challenge inspection equipment; cost aspects in case of abuse of the right to request a challenge inspection; timing of the notification of challenge inspections and developing illustrative lists of activities in challenge inspection; and illustrative elements of the document on the preliminary factual findings as well as inspection reports.

This review was written by Treasa Dunworth, the HSP researcher in The Hague.

What follows is taken from the CBW Events data-base of the Sussex Harvard Information Bank, which provides a fuller chronology and more detailed identification of sources. See Progress in The Hague (above) for coverage of OPCW-related developments. The intervals covered in successive Bulletins have a one-month overlap in order to accommodate late-received information. For access to the data-base, apply to its compiler, Julian Perry Robinson.

1 August North Korean production of chemical weapons [see 22 Mar 95, 9 Feb and 18 Mar] is the subject of a long article in *Jane's Intelligence Review* "based on recently available material and interviews with defectors". By Joseph Bermudez, the article describes North Korean infrastructure for chemical-weapons acquisition, cautioning, however, that, although the description "suggests a very clear link between doctrine, requirements and production, with distinct lines of communication and chains of command, this is probably not the case". On current capabilities-in-being, the article says: "At present, it is extremely difficult to arrive at accurate estimates of annual DPRK chemical-agent production or CW stockpiles. There are two basic arguments. One view suggests low levels while the other takes the opposite tack. Both, however, generally agree that the DPRK's potential for chemical-agent production is significant." The article then describes the two views and concludes: "Taking into account all the arguments, current unclassified estimates suggest an annual production potential of 4,500 tons in peacetime and 12,000 tons in wartime (although it is unclear whether this is weapons or agent tons). Concerning CW stockpile levels, it was believed in 1989 that the KPA had stockpiled '180–250 tons of chemical weapons of several kinds'. Current estimates suggest the KPA has now stockpiled 1,000–5,000 tons of CW: the majority of these weapons are believed to be filled with mustard, phosgene, sarin and V-agents."

1 August In Geneva, at the Conference on Disarmament in plenary session, the head of the Iranian delegation, Ambassador Nasseri, states that the Chemical Weapons Convention "is at serious risk of turning into a chemical weapons non-proliferation treaty" because the two major players "are still staying on the sidelines playing only the role of cheerleaders" {CD/PV.743}. He submits as a CD working paper the Iranian paper (PC-XIV/12) for the recent plenary session of the OPCW Preparatory Commission, *The consequences of an entry into force of the Chemical Weapons Convention without the United States of America and the Russian Federation*, which had proposed a special high-level conference to examine, among other things, "issues related to preparations and implementation under various scenarios" {CD/1414}.

3–13 August In Iraq, UNSCOM conducts its 29th chemical-weapons inspection, UNSCOM 140. The purpose is to begin verification of the latest "full, final and complete disclosure" submitted by Iraq on its past chemical-weapons programme, doing so in accordance with the joint programme of action agreed by UNSCOM and Iraq some six weeks previously [see 19–22 Jun]. However, UNSCOM subsequently reports that Iraq had refused to "undertake a serious review of the Commission's concerns during UNSCOM 140", thus contravening the joint programme of action.

The UNSCOM report includes the following: "The issues chosen for this first verification mission were for the most part based on documents retrieved from Iraq. The Commission has evidence that chemical warfare agents and munitions were produced in 1989. Iraq has consistently denied this. In addition, the Commission believes that production of different types of chemical weapons was also carried out in the first half of 1990. These findings have a serious impact on the material balance of these weapons. Furthermore, the Commission has concerns related to undeclared facilities where equipment from Muthanna was evacuated before January 1991 and the unilateral destruction conducted secretly by Iraq in the summer of 1991, when, among other items, chemical warheads for Al-Hussein missiles and nerve agent VX precursors were allegedly destroyed." {S/1996/848}

4 August In Israel, *Yediot Aharonot* reports, according to Agence France Presse {4 Aug}, that a British publication will tomorrow be reporting that "Israel has produced nerve gas and has prepared the means to obtain chemical and bacteriological weapons". The British publication referred to is a *Jane's* defence review, and is presumably the impending *Jane's Sentinel* security assessment of the Eastern Mediterranean. [Note: If so, the original reporting is misleading, for what is in fact published on the subject by *Jane's Sentinel* is a summary of past reports of Israeli CBW-weapons capability, none of them either self-evidently authoritative or non-speculative or previously unpublished. The summary itself presents no opinion one way or the other.]

5 August President Clinton, during what has been billed as a major foreign-policy address at George Washington University, urges the US Senate to advise and consent to US ratification of the Chemical Weapons Convention, noting that the treaty requires elimination of stockpiled chemical weapons that could otherwise become available to terrorists. {DPA 5 Aug}

6 August President Clinton's Advisory Committee on Gulf War Veterans' Illnesses [see 9 Jul], meeting in Denver, hears testimony from more than a dozen Gulf veterans. The committee is told by the Defense Department's Persian Gulf Veterans' Illness Investigation Team that there is still no "positive evidence" that US forces were exposed to CW agents during the war. {*Denver Post* and *Rocky Mountain News* 7 Aug} A paper which the team has just posted on the Internet (at the GulfLink website [see 9 Feb], <http://www.dtic.dla.mil/gulflink>), *Coalition Chemical Detections and Health of Coalition Troops in Detection Area*, reviews information on the seven reported in-theatre detections of CW agents by Czechoslovak and French units, all of them during the period 19–25 January 1991 [see 1 May]. It describes two of the detections as "credible"; the other five it says were "not as thoroughly substantiated" but "cannot be dis-

counted". The paper notes that there were no impacts of Scud missiles in the area until after the period of the detections. {*New York Times* 22 Aug} [See also 4 Jun, UK]

7 August The US Arms Control & Disarmament Agency releases the administration's latest annual report to Congress on arms control treaty compliance [see 13 Jul 95]. The report says that "it is highly probable that Syria is developing an offensive biological warfare capability", and that it "remains likely that the Egyptian capability to conduct biological warfare continues to exist". Iranian, Iraqi and Libyan biological-weapons programmes are noted. The report also says that China "remains noncompliant" with the Biological Weapons Convention, and that Russian biological research facilities engaged in legitimate work "may be maintaining the capability to produce biological warfare agents". Russian compliance with the 1989 Wyoming Memorandum of Understanding on chemical weapons is again [see 13 Dec 95] stated to be incomplete, and the "incomplete and misleading" Russian declaration of 1992 under the BWC confidence-building measures [see 31 Aug 92] is said still to remain uncorrected. {*Washington Times* 8 Aug, *Jane's Defence Weekly* 21 Aug}

7 August USACDA Director John Holum addresses the anti-terrorism benefits of the Chemical Weapons Convention [see also 5 Aug] in his opening remarks at a news conference. He goes on to tell reporters that there are "several offices on the Hill that are engaged in a vigorous campaign to generate opposition to the treaty and, unfortunately, they're doing it in a way that doesn't give due regard to the facts". He continues: "For example, they're claiming that 8,000 or 10,000 or very large numbers of companies are affected, and they're going state by state putting out press releases saying that breweries and cosmetics companies and dry cleaning establishments are all going to be subject to a huge new regulatory burden. That's total nonsense, and they know it. We've made clear to the committee that something around 140 companies nationally are likely to have some significant implication in the Chemical Weapons Convention, including routine declarations and inspections, because they deal in significant quantities of controlled chemicals." {Federal News Service transcript}

Director Holum is here reacting to what has become, over the past two months, an increasingly active behind-the-scenes campaign led by Senators Helms, Kyl and Lott to rally votes against Senate ratification of the treaty [see 13 and 28 Jun]. *Chemical & Engineering News* {5 Aug} has just reported hearing from an unidentified Senate staffer that "as many as 28 senators" are now likely to vote against ratification; but it also quotes an unidentified administration official as describing that estimate as "highly inaccurate. There are only 5 votes on record against the treaty." That official reckons the likely nay votes as 10–15 — well short of the 34 votes needed to defeat ratification.

8 August In Uganda, the rebellious Lord's Resistance Army issues a statement in Nairobi saying that the Ugandan Army has imported a number of self-piloting military aircraft from a western country with which it intends bombarding the northern region with chemical weapons [see also 19 Mar]. {AFP 8 Aug}

8 August In Germany and Belgium, police seize papers in raids on 14 premises, and arrest the managing directors of two German companies, after a two-year German investigation into illegal export to Libya during 1990–93 of \$2.1 millions-worth of

equipment said to have been adapted for the manufacture of nerve gases [see also 31 May and 4 Jun]. An international arrest warrant has been issued for a Lebanese-born German, Berge Balanian, who is known to be a purchasing agent for the Libyan government and who is believed to have organized and coordinated the transaction. None of this becomes public knowledge until a Südwestfunk television report ten days after the raids {*Frankfurter Rundschau* 19 Aug}, whereupon the various German authorities involved announce details. {*Frankfurter Rundschau* 20, 21 and 22 Aug, *Stern* and *New York Times* 22 Aug 96, AFP 25 Aug} The two people under arrest are Detlef Crusius and Udo Buczkowski, managers of companies in the Mönchengladbach area. The adapted equipment is said to have been assembled there and then shipped to Libya via Antwerp by the state-run Libyan maritime shipping agency. It soon transpires that Balanian had had dealings with the Federal German intelligence service, the BND. *Spiegel* reports a Syrian connection, too. The chairman of the Parliamentary Control Commission, Wilfried Penner, announces an investigation. There is talk, later, of a Swiss connection: of a Swiss lawyer acting for the Brussels front-company E.C.S. that had organized the transportation of the goods, identified as Siemens computerized control equipment, from Antwerp to Libya. {*Frankfurter Rundschau* 7 Oct}

8 August The US Defense Department Persian Gulf Veterans' Illness Investigation Team posts a short paper on the Internet [see also 6 Aug] reviewing literature on health consequences of exposure to low levels of organophosphorus CW agents [see 1 May, 8 May UK, 25 Jun US Senate and 25 Jun US House]. The paper concludes "that there is no credible evidence for chronic illnesses caused by exposure to organophosphate nerve agents at concentrations too low to produce signs or symptoms of acute anticholinesterase poisoning and that such a process cannot be reasonably advanced as having a role in Gulf War illnesses". {<http://www.dtic.dla.mil/gulfink/finalagt.htm>}

9 August Saudi Arabia deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention [see 9 Aug 93], becoming the 61st signatory state to do so.

9 August Libya calls for an urgent meeting of the Arab League ministerial council "following information that the Israeli enemy possesses chemical and bacteriological weapons, including toxic gases, developed in a factory in the Negev desert". {AFP 9 Aug} The convening of such a meeting requires that it be requested by at least two of the League's 22 member-states and that at least two-thirds then give their approval for it. Iraq later backs Libya's call. Egypt, reaffirming that it will not sign the Chemical Weapons Convention until Israel joins the nuclear-weapons Non Proliferation Treaty {MENA 15 Aug in BBC-SWB 17 Aug, Cairo *Al-Akhbar* 16 Aug}, asks that the issue be placed on the agenda of the League's regular ministerial council meeting on 14 September, a proposal which is said in Cairo to have wide support within the League. {AFP 18 Aug}

9 August In Moscow, USACDA director John Holum arrives for the first session of the special joint Russo-US group which the Chernomyrdin-Gore Commission established in July as a new channel for high-level talks on chemical-weapons issues [see 15–16 Jul]. ACDA tells reporters that he will be visiting Volgograd "to address issues of chemical weapons production

facilities" [see 8 Jun 95]. Among the senior Russian officials participating in the talks is Yuri Baturin in his capacity as head of the Interdepartmental Commission on Chemical Disarmament. {*Washington Post* and Reuter 9 Aug}

US State Department spokesman Nicholas Burns explains the visit to reporters in terms of the Chemical Weapons Convention: "Holum's trip is an attempt by us to try to once again get the attention of the senior levels of the Russian leadership, both in the Foreign Ministry as well as in the Defense Ministry, as well as in the Kremlin, and to see if we can't have a better and faster route towards...mutual ratification of this very important treaty". Spokesman Burns appears to exclude the possibility that the US government will be furnishing any extra funding for the Russian chemdemil programme: "I think at this point we're confident that with the infusion of Nunn-Lugar funds [see 21 May] over a multi-year basis that the Russian government does have the capability to deal with this problem and to meet the commitments that it will undertake once this treaty is ratified". {Federal News Service transcript}

9 August The New York company Commodore Applied Technologies {PR Newswire 28 Jun} announces that its proprietary Solvated Electron Technology process has successfully destroyed pound quantities of all CW agents in the US stockpile, and that it is embarking on a mutually owned joint venture with Teledyne Inc to pursue chemdemil on a worldwide basis. The two companies have estimated that the international market for chemical-weapons disposal and related services is in excess of \$80 billion over the next 10–20 years [see also 12 Jun, BICC]. {Business Wire 9 Aug}

10–15 August In Aspen, Colorado, the Aspen Strategy Group meets to examine post-Cold-War threats posed by proliferation of weapons of mass destruction. Participating are several senior US officials, including Defense Secretary William Perry, under the chairmanship of Senator Sam Nunn and Ken Dam. Points of consensus subsequently reported by the group include: "The ASG believes that the proliferation of weapons of mass destruction constitutes one of the greatest threats the United States faces in the post-Cold War era. Accordingly, controlling WMD proliferation is among our top national security policy priorities." Among the "variety of steps that should be taken to lessen risks" the report includes ratification of the Chemicals Weapons Convention, on which it says: "Congressional ratification of the CWC is long overdue. While this treaty will not eliminate all CW threats, it does provide significant benefits — not least the assurance that foreign governments will be obligated to monitor terrorist threats. Some complain about the treaty's enforcement provisions. But the CWC will soon achieve the ratification by the 65 governments that are required for it to go into effect. The ability of the United States to propose modifications and qualifications to the enforcement provisions depends on its being one of the countries ratifying its adoption. Staying out of the treaty, moreover, could place our chemical firms at a commercial disadvantage. Others are concerned that the CWC will not cover the most critical cases, i.e., those in which national governments are determined to develop chemical weapons and seek to evade controls. This may be true, but dealing with these cases will require the effort of international coalitions, and the cooperative process of enacting the CWC will facilitate the establishment of such coalitions. The treaty would also establish international norms for compliance and monitoring, providing objective goals for these coalitions. In light of these benefits, the ASG urges the Congress expedi-

tiously to ratify the CWC." The report goes on to recommend further measures for dealing with chemical and biological WMD. {*Congressional Record* 3 Oct pp S12284-5}

11 August In Tabriz, Iran maintains for biological-weapons purposes [see also 10 May] stocks of the causative agents of anthrax and botulism, and it also maintains capacity for producing more stocks quickly, according to unidentified Israeli sources quoted in the London *Sunday Times* {11 Aug}. The newspaper continues: "Both the CIA and the Israelis believe that military scientists working for the Islamic regime in Tehran have developed a deadly BW aerosol that can be carried by a terrorist. Although they will not be able to put biological weapons on long-range ballistic missiles before the end of the decade, they can deliver them with Scud missiles, according to Israeli sources, and they have a system for dropping them from Soviet-era Sukhoi attack aircraft." Israeli sources are subsequently reported in Jerusalem as regarding terrorist use of CBW weapons as a remote danger in comparison with other forms of terrorist attack {Israeli Channel 2 television 12 Aug in BBC-SWB 14 Aug}.

11 August The US Defense Department, in its investigation of the 'Gulf War Syndrome', is preparing to mail a questionnaire to all members of the Army's 37th Engineer battalion who had been in the vicinity of Khamisayah in southern Iraq when the battalion destroyed weapons-bunkers there in March 1991 [see 21 Jun, see also 9 Jul], so the *New York Times* {11 Aug} reports, stating that the questionnaire will inquire into the health of the veterans since the war. The *Times* has in the meanwhile interviewed 37 of the battalion veterans, and reports that 27 of them say they have suffered serious but unexplained health problems since the war.

12 August Bougainville Revolutionary Army commander Sam Kauona issues a statement charging the Papua New Guinea Defence Force with "using chemical bombs against the people of Bougainville" [see also 27 Mar 93], characterizing this as "genocide and biological warfare" {AFP 12 Aug}. The charge is denied by the PNGDF Chief of Staff, Colonel Jack Tuat, who suggests in a radio interview that the accusation may have been provoked by his force's use of screening or signalling smoke: "It is dangerous if it is set off and you are close to it, yes, it can then endanger people. I think it might have been used...but chemical bombs..., even white phosphorus, we don't use at all." {Radio Australia external service 14 Aug in BBC-SWB 17 Aug}

Some two months later, a spokesman for the Bougainville Revolutionary Army, Moses Havini, repeats the allegation that the PNGDF has been dropping chemical bombs on Bougainville civilians. Speaking in Sydney, he says that the effects of the bombs, some dropped by helicopter, "have been irritation and also serious burning". He says that the bombs have been supplied by Israel under cover of assisting PNG authorities with fisheries surveillance. The Israeli embassy in Wellington strongly denies his assertion. {Radio New Zealand International 30 Oct in BBC-SWB}

13 August In Salt Lake City, Utah, US District Court Judge Tena Campbell denies the injunction sought by the Chemical Weapons Working Group and others against start-up of the chemdemil incinerator at Tooele Chemical Agent Disposal Facility [see 22 July–2 Aug]. Her ruling states that the plaintiffs had not shown that the projected incineration would endanger

people living near the facility. It also says that “for individuals living closest to TOCDF, the risks resulting from continued storage are 100 times greater than the risks resulting from disposal operations”. {Greenwire and Department of Defense news release 14 Aug, Reuter 20 Aug}

14 August In Australia, the report of the multinational Canberra Commission for the Elimination of Nuclear Weapons [see 26 Nov 95] is presented to Prime Minister John Howard. Australia is expected to submit it to the imminent new session of the UN General Assembly. {London *Guardian* 15 Aug} Considered at some length in the report, and rejected, is the proposition that nuclear weapons can have value in deterring the use of CBW weapons. The report says that the solution to concerns about CBW weapons lies instead in “the strengthening and effective implementation of and universal adherence to the Chemical Weapons Convention and the Biological Weapons Convention, with particular emphasis on early detection of untoward developments”, adding that the “response to any violation should be a multilateral one”.

14 August In Japan, a petition by ten Chinese citizens is presented to the Prime Minister’s Office seeking compensation from the Japanese government for sufferings from exposure to chemical weapons abandoned in China by Japanese troops after World War II [see 24 Jul]. The petition also seeks an apology. The ten Chinese citizens announce, through the head of their legal team, that they will file a damage suit if their demand — for Yen 2 million (about \$18,500) for each of them — is not met. Their head lawyer, Susumu Hyodo, tells reporters: “It is said that the number of Chinese victims of chemical weapons left in China exceeds 2000. The Japanese government should compensate them and provide medication for them but also dispose of the weapons quickly.” {Kyodo 14 Aug} [See also 1 Jul, Tokyo]

14 August India, within the Ad Hoc Committee on a Nuclear Test Ban of the 61-nation Conference on Disarmament in Geneva, declines to join a consensus that would enable the Conference to transmit to the UN General Assembly an agreed text for the projected Comprehensive Test Ban Treaty {CD/1425}. The latest and most consensual draft of the treaty {CD/NTB/WP.330/Rev.2} is subsequently distributed as a plenary document of the CD at the request of Belgium {CD/1427} and later as a UN General Assembly document at the request of Australia {A/50/1027}.

14 August In the United States, the Secret Service is consulting with the Army’s Chemical/Biological Anti-Terrorism Team on how to protect the president from CB terrorism, so *Jane’s Defence Weekly* {14 Aug} reports.

16 August In Tokyo, a Foreign Ministry official tells reporters that Japan plans to start a 10-year project in 1998 to dispose of the chemical weapons abandoned in China by the Imperial Army [see 24 Jul and 14 Aug]. Japanese officials hope to discuss details of the project with Chinese counterparts during a planned working-level meeting later in the year [see 23 Jul]. The site of disposal plants remains undecided. {AFP and Xinhua 16 Aug}

19 August NATO officials have nearly completed a study, *Minimizing Collateral Damage in Peace Support Operations*, of technologies available for cheap weapons that will minimize or

eliminate long-term effects on civilians, according to *Aviation Week & Space Technology* {19 Aug}, whose report continues: “Promising ideas include dispensing riot control chemical agents from crop dusters”. The report does not indicate whether the NATO study is paying due regard to the Chemical Weapons Convention [see also 13 Jun, Brussels].

20 August In the Philippines, the Senate votes unanimously in favour of ratifying the Chemical Weapons Convention {UPI 20 Aug}.

20 August The US Defense Department has launched a \$3.5 million study of the possibility that illness can result from low-level nerve-gas exposure [see 8 Aug], so *Long Island Newsday* {20 Aug} reports, saying also that the study was initiated after the disclosure that the Iraqi weapons bunkers demolished by US forces at Khamisiyah in March 1991 contained nerve-gas rockets [see 21 Jun and 9 Jul].

21 August In South Africa, the chief of the National Defence Force, General Georg Meiring, again declines to disclose certain particulars of “Project B” to a parliamentary commission, the Public Accounts Committee, which is investigating improprieties associated with the project [see 15 May]. Despite the recent lifting of the project’s secrecy authorized by the Cabinet for the purposes of the investigation by the Office for Serious Economic Offences [see 10 Jun], General Meiring says that divulging key details of Project B would be a “serious breach of security”. {Reuter 21 Aug} He is reportedly supported in this by President Mandela and his deputy Thabo Mbeki, a circumstance which stimulates speculation that Project B falls within the scope of an agreement reached within the Government of National Unity that, in the interests of South Africa, details of certain past covert operations should remain undisclosed {Africa News 26 Aug}. The Johannesburg *Sunday Independent* subsequently reports that, during the final years of apartheid, Iran and possibly Iraq as well had received chemical weapons from South Africa, and that senior military personnel from the South African chemical-weapons programme had visited Libya several times [see also 27 Feb 95] {AFP 25 Aug}. General Meiring had previously said that the military had, under the title Project Coast (another designation for Project B), established “a defensive chemical-warfare ability through a series of front companies” during those years {Xinhua 18 Aug}.

Asked by the committee about a foreign agent who had disappeared with \$1.6 million in state funds, General Meiring says that the agent had been used to buy “very sensitive chemicals” for Project B from an eastern European country, but the deal had gone sour and the agent and the money vanished [see also 15 May] {Reuter 21 Aug}.

21 August UK Home Secretary Michael Howard authorizes a general issue of CS-spray devices to police forces in England and Wales. His action follows a report by the Association of Chief Police Officers on the results of six months of street-trials of the weapon [see 18 Jan]. During the trials, CS spray had been used 582 times. Each person sprayed had been examined by a police surgeon. The large majority had recovered within 15 minutes. Five had been taken to hospital but none had suffered serious injury. There had been one fatality [see 1 Mar]. An inquest on the fatality has yet to be held, but Secretary Howard says: “All the scientific evidence shows that CS presents no serious risk to human health. I am satisfied that this is a safe substance. There is no evidence that I have seen to jus-

tify the proposition that it was the use of CS spray which resulted in the unfortunate death of that man". {London *Times* and *Daily Telegraph* 22 Aug} A number of police forces nevertheless decide against the weapon, at least for the time being, on health grounds {London *Guardian* 28 Aug, London *Sunday Telegraph* 8 Sep}. There is concern, too, about the potential of CS spray for abuse, and about the absence of proper Parliamentary scrutiny of the trial results {London *Independent* 18 Sep}. Hong Kong police are turning to an altogether different type of chemical weapon: a canister that ejects, not an irritant spray whose inhalation might bring about pulmonary ill-effects, but an irritant foam using the active ingredient of pepper {*South China Morning Post* 29 Sep}.

22 August In Cairo, officials of the Arab League say that, in a report which will be submitted to the League foreign ministers' meeting on 14 September [see 9 Aug], a commission of the League will urge member-states to shun the Chemical Weapons Convention until Israel joins the NPT. The commission has just concluded a two-day meeting. {UPI 22 Aug}

22 August In Moscow, Russian Foreign Ministry spokesman Mikhail Demurin says: "Russia has confirmed its intention to join the group of the first 65 states [to ratify the Chemical Weapons Convention] as a country which has made a considerable contribution to the drawing up of the convention, and intends to orientate itself in the field of chemical disarmament exclusively on its clauses and the mechanism of control envisaged by this document". TASS {22 Aug} also reports him as saying: "Russia is ready for all-round cooperation with other participants in the Preparatory Commission...with the aim of searching for decisions on procedures of control, conversion and other aspects of the practical application of the convention banning chemical weapons, which are now being elaborated in The Hague... The solution to these problems would promote the process of ratification of this document by Russia." [See also 22 July, Russian Federation]

22 August In Utah, at the Tooele Chemical Agent Disposal Facility [see 13 Aug], large-scale chemdemil operations commence in the continental United States with the incineration, in a trial burn, of an M55 rocket containing sarin nerve-gas. More than 13,600 tons of CW agent held in more than a million munitions or other containers — 44 percent of the US stockpile — are stored at Tooele, and all are scheduled to enter the incinerator between now and 2003. The chemdemil facilities due to come on line next are the incinerators on which work is now getting under way at Anniston, Pine Bluff and Umatilla [see 3 May]. {Federal News Service transcript}

There is a plant shut-down three days and 205 rockets later, when traces of airborne nerve-gas are detected within a sealed-off area of the facility. Operations resume on 30 August, plant officials saying that the leak had endangered neither the public nor the workforce. {AFP 26 Aug, *New York Times* 1 Sep}

23–24 August In Amsterdam, during the INES conference on *Challenges of Sustainable Development*, a workshop on *Chemical and Biological Disarmament* is convened by Professor Jiri Matousek of the Czech Republic, with Dr Ralf Trapp of the OPCW Provisional Technical Secretariat as local organizer.

24 August In Turkey, detectives of the Financial Department arrest Emin Ekinçi who, according to *Hurriyet* {27 Aug in FBIS-WEU 27 Aug}, had been offering for sale small containers of

mustard gas and sarin nerve-gas. The newspaper quotes unidentified "experts" suggesting that the containers had been ransacked from chemical depots of the former Soviet Union and smuggled in, through Igdir, from Nakhichevan, the Azerbaijani enclave in Armenia.

26 August The United Nations Secretariat distributes to states parties to the Biological Weapons Convention a second compilation of declarations received during 1996 in accordance with the voluntary confidence-building measures {CDA/11-96/BW-III/Add.1}. In contrast to the 1995 total of 51, only 49 states parties have made declarations this year, but they include, for the first time, Bangladesh, Chile, Kuwait, Papua New Guinea and Uganda. Of the 139 states that are now parties to the BWC, 72 have never participated in the confidence-building measures. {BWC/CONF.IV/2}

26 August The United States discloses further particulars of its former biological-weapons programme in an addendum to the 1996 US declaration under the BWC confidence-building measures [see 26 Aug, UN]. The disclosure is the most detailed official account of the former programme yet to have appeared in an open publication. It makes reference to such events such as the joint UK/US releases of anthrax, brucellosis and tularemia bacteria in sea trials in the Caribbean during 1948–49, and the releases of Q-fever rickettsiae, tularemia bacteria and staphylococcal enterotoxin in the Marshall Islands during the mid-1960s. The disclosure states that the BW agents for which production capacity was developed during the offensive programme included the five just mentioned plus VEE virus, *Clostridium botulinum* (presumably for its toxin), *Aedes aegypti* mosquitoes and the moulds causing stem rust of wheat, stem rot of rye and rice blast. Work on anti-animal BW agents (notably rinderpest, hog cholera and Newcastle disease) had ceased in 1954. A major technical advance noted, but not detailed, in the disclosure is the development during the mid-1960s of "stabilizing additives which significantly reduced biological decay rates for liquid agents in low humidity environments".

Some elements of the programme, however, escape mention in the disclosure. There is no explicit reference, for example, to the long-range balloon BW weapon system for the Strategic Air Command which by 1954 "represented about one-sixth of all development effort that had been expended on biological warfare munitions", according to an internal US Air Force historical study.

26–28 August In Baghdad, UNSCOM Executive Chairman Rolf Ekéus, accompanied by Nikita Smidovich [see 10–16 Jun and 15–22 Jul], conducts a new round of high-level talks with Iraqi officials. The UN Security Council had issued a statement just before his departure reminding Iraq of its obligation to give UN inspectors "immediate, unconditional and unrestricted access to any and all areas, facilities, equipment, records and means of transportation which they wish to inspect, and Iraqi officials whom they wish to interview" {S/PRST/1996/36}. According to UN officials, Iraq had been continuing to obstruct UN inspectors, most recently on 17 August {UPI 23 Aug, *International Herald Tribune* 27 Aug}. Ambassador Ekéus tells reporters at the end of the talks that he had received "important assurances" about access, and had in turn pledged that UNSCOM would, as agreed, respect Iraq's sovereignty and security concerns: "That means that we're not going to inspect sites where we do not suspect something". He says: "My report to

the Security Council will not be totally favourable, but at least we will avoid the crisis". {AFP 28 Aug} The Deputy Prime Minister of Iraq, Tariq Aziz, tells the official Iraqi News Agency that he had had "useful talks" with Ambassador Ekéus {UPI 28 Aug}.

UNSCOM later discloses that, during the talks, Ambassador Ekéus had produced documentary evidence showing that Iraq, contrary to its earlier statements, had manufactured chemical agents during 1989 {S/1996/848}.

27 August A Sudan Airways flight from Khartoum to Jordan is hijacked to London where the hijackers — seven Iraqi nationals travelling with their families — request political asylum. At least one of the hijackers is believed to have been a technician working in what a subsequent report in the London *Sudan Democratic Gazette* describes as an Iraqi project to establish a chemical weapons production facility on the site of a disused ammunition factory near Khartoum, at Shajara. The report, which cites no source for its information, states that Iraqi advisors on military matters and chemical weapons production have worked in Sudan for the past five years [see also 15 Apr 91, 20 Nov 95 and 12 Apr]. {Africa News 17 Oct}

28 August The OPCW Provisional Technical Secretariat distributes an initial version of the *Handbook on Chemicals*, which is to be Appendix 2 of the *Declaration Handbook*. This draft handbook notes "the most common chemical substances that are covered under the three Schedules", the aim being to assist member states in identifying declarable activities. The draft lists 400 chemicals by empirical formula and CAS number, assigning to each one a chemical name (typically the CAS index name) for indexing purposes, and specifying synonyms, including common names. A Version 2 will be issued in due course.

28 August The *New York Times* reports that an intelligence information report widely circulated to US government departments and agencies in November 1991 had stated that the stocks of Iraqi munitions at Kamisiyah Ammunition Storage Facility in southern Iraq which the US Army's 37th Engineer Battalion had blown up in March 1991 had contained chemical munitions. The Defense Department had publicized this possible exposure of US troops to chemical warfare agents two months previously [see 21 Jun], but had said when doing so that it had learnt of the episode only recently.

The document reported by the *Times* had been among those which, in redacted form, the Department had posted on its GulfLink website and then withdrawn [see 9 Feb]. Officials of the American Legion and the Veterans of Foreign Wars accuse the Department of a cover-up which they say reinforces their claims that CW agents could be responsible for Gulf War Syndrome: "We're just extremely sceptical of anything they say now. This situation is outrageous." {New York *Daily News* 29 Aug} Pentagon spokesman Michael Doubleday states: "The Department flatly denies that there was ever an attempt to withhold information from either the troops or the public regarding this matter". He adds: "The full relevance of the report, because there was no such thing as Gulf War illness [yet being reported], was not...recognised at the time". {Washington Post 29 Aug}

29 August Cyprus, specifically the Greek Cypriot port of Limassol, serves the Syrian chemical-weapons programme as a transit point for imports of essential materials from Russia and Cuba, according to unidentified "intelligence sources and officials" in Nicosia quoted by the *Jerusalem Post* {30 Aug}. Reportedly responding to pressure on this and related scores from

the United States, Parliament had passed emergency legislation in July empowering authorities to seize shipments of goods, with subsequent compensation of ship-owners, even if the goods were not formally subject to export control. Cypriot authorities are reported to have been cooperating with Western intelligence services in attempts, these past two years, to block the use of ports such as Limassol and Larnaca as transit points for importation of materials into the nuclear and CBW programmes of Syria and other countries, such as Iran. {Defense News 4–10 Nov}

29 August In the German Bundestag, the Parliamentary Control Commission takes evidence from the president of the Federal Intelligence Service (BND), Hans-Jörg Geiger, during its investigation of the claim by Berge Balanian, wanted in connection with illegal exports of CW-related equipment to Libya [see 8 Aug], that his deals with Libya had been known to the BND. That Balanian had been a BND informer on Libyan affairs has already been acknowledged by the BND, but it has denied knowledge of his export deals. It is later reported that the Commission considers further clarification of the BND role to be necessary, but that it has no proof of BND complicity in the smuggling of poison-gas technology to Libya. {Focus 2 Sep in FBIS-WEU 2 Sep, Frankfurter Rundschau 16 Oct in FBIS-WEU 16 Oct}

29 August In the United States, 53 top executives from the country's largest chemical corporations address a letter to members of the US Senate urging ratification of the Chemical Weapons Convention. The letter includes the following: "The chemical industry has long supported the CWC. Our industry participated in negotiating the agreement, and in US and international implementation efforts. The treaty contains substantial protections for confidential business information (CBI). We know, because industry helped to draft the CBI provisions. Chemical companies also help test the draft CWC reporting system, and we tested the on-site inspection procedures that will help verify compliance with the treaty. In short, our industry has thoroughly examined and tested this Convention. We have concluded that the benefits of the CWC far outweigh the costs. Indeed, the real price to pay would come from not ratifying the CWC. The treaty calls for strict restrictions on trade with nations which are not party to the Convention. The chemical industry is America's largest export industry, posting \$60 billion in export sales last year. But our industry's status as the world's preferred supplier of chemical products may be jeopardized if the US does not ratify the Convention. If the Senate does not vote in favor of the CWC, we stand to lose hundreds of millions of dollars in overseas sales, putting at risk thousands of good-paying American jobs." {Congressional Record 5 Sep p S9959}

31 August In Japan, on Okushima island [see 5 Dec 94], a symposium entitled *From the Toxic Gas Island* is attended by some 200 historians and citizens. {Kyodo 31 Aug}

31 August In Iraq, government forces enter the UN-protected Kurdish area north of the 36th parallel and occupy Irbil. Deputy Prime Minister Tariq Aziz states that the forces had been "invited to come to the assistance of the Kurdish Democratic Party" in its conflict with the Patriotic Union of Kurdistan. Responding to this violation of the UN safe haven, the United States declares an extension of the southern no-fly-zone in Iraq; Britain and France join it in patrolling the extended zone. And during 3–4 September, the United States launches 44

cruise missiles from naval vessels and bomber aircraft in attacks on 15 Iraqi air-defense sites and communications installations in southern Iraq. {London *Daily Telegraph* 5 Sep, *International Herald Tribune* 9 Sep} UNSCOM temporarily grounds its air operations {UN Secretariat press briefing 4 Sep}. There is a run on civilian gas-masks in Israel {*International Herald Tribune* 4 Sep}

UN Secretary-General Boutros Boutros-Ghali announces that he is delaying the deployment to Iraq of the UN personnel needed there to implement the oil-for-food partial lifting of the oil embargo agreed under Security Council resolution 986 (1995) [see 20 May]. {UN press release 3 Sep}

2 September In Japan, a Tokyo court issues its ruling in the first of a series of civil suits [see 14 Dec 95] filed against Aum Shinrikyo cultists by 38 victims of the March 1995 nerve-gas attack in the Tokyo subway. Cult leader Shoko Asahara [see 24 Apr], Masami Tsuchiya [see 22 Apr 95] and Ikuo Hayashi are ordered to pay \$7.45 million in damages. {*Boston Globe* 3 Sep}

3 September India [see 14 Aug] deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 62nd signatory state to do so.

3 September In Pakistan, an unidentified "official source" tells the *Islamabad News* that the government is at an advanced stage in establishing the National Authority required under the CWC. The authority is to be located within the Foreign Office and probably headed by a senior military officer. General Headquarters has already deputed some of its officers to the Foreign Office where they have started work collecting chemical-industry data. {*Islamabad News* 4 Sep in FBIS-NES}

3 September The UN Security Council conducts its 33rd 60-day review of the sanctions imposed on Iraq [see 5 Jul], leaving them in place. {*Reuter* 3 Sep}

5 September President Clinton's Advisory Committee on Gulf War Veterans' Illnesses [see 6 Aug] conducts an open hearing in Washington. It receives a staff report setting out investigation findings and proposing recommendations for inclusion in the Committee's final report, which is due later in the year. The staff report recommends that the Defense Department investigation of Gulf War illness be turned over to an independent group: "DOD has conducted a superficial investigation of possible chemical and biological agent exposures which is unlikely to provide credible answers to veterans' questions". In reference to the US Army's March 1991 demolition of an Iraqi ammunition dump containing chemical munitions [see 28 Aug], the report says that evidence for CW-agent release at Khamisiyah is "overwhelming" and that troop exposure within 25 kilometres of the demolition-site "should be presumed"; all personnel who had been within that area at the time in question — estimated to be some 1100 US troops — should therefore be urged to enroll either in the Persian Gulf Health Registry of the Department of Veterans' Affairs [see 14 Dec 94] or in the Comprehensive Clinical Evaluation Program [see 2 Apr] of the Department of Defense. The report also observes that troops may have been exposed to low levels of CW agents at other sites, and is critical of the relatively slight attention given by the Defense Department investigators to evidence about such releases (such as agent-detection reports in combat logs, and veterans' oral history).

The Advisory Committee also hears from the Defense Department's senior health officer, Dr Stephen Joseph, who defends his investigation against the fierce criticism that is now being directed against it and asks the committee to recognise his department's "complete commitment to investigating the possible causes of Persian Gulf illnesses in the context of its support for all Gulf War veterans". {*Gannett* 5 Sep, *New York Times* and *Dallas Morning News* 6 Sep, *Chemical & Engineering News* 23 Sep}

The Committee is told that the Defense Department and the Central Intelligence Agency are working on a computer model that will estimate the possible dispersion of any CW agents that might have occurred during the Khamisiyah demolition activities. {Defense Department news release 18 Sep}

5 September President Clinton's Assistant for National Security Affairs, Anthony Lake, writes to the ranking minority member of the Senate Foreign Relations Committee, Senator Claiborne Pell, to keep him informed of the administration responses to concerns raised by committee chairman Senator Helms.

On Russian chemdemil [see 21 Mar], the letter says: "The Russians have clearly stated that the central problem they face regarding the CWC is financing the cost of their CW destruction program. While requesting international assistance, the Russians have also made it clear, most recently in their plenary statement in The Hague [see 22 Jul], that the program will be financed primarily by Russia itself. We and other countries have indicated our willingness to address this outstanding concern on an expedited basis, but we have continued to underscore to the Russians that CW destruction is primarily their responsibility and that any US assistance is contingent upon approval by the US Congress."

On the 1990 Bilateral Destruction Agreement [see 22 Jul], the letter says: "The Russian Federation...has long expressed concerns about certain aspects of this agreement and has not agreed to detailed implementing procedures and updated provisions to finalize the BDA. We continue to press the Russians at the highest levels on the need to resolve the outstanding CW issues, and they agreed to a meeting with ACDA Director Holum, which was held on August 10 [see 9 Aug]. They also agreed to host a visit to Volgograd later this fall to address specifically the issue of conversion of production facilities. While the Russians have stated that they believe that the bilateral agreements between Russia and the United States have fulfilled their useful role, they have also stated that they will not renege on the agreements they have made."

On the 1989 Wyoming Memorandum of Understanding [see 7 Aug], the letter says: "While Russia has met its obligations to participate in implementation activities...questions remain regarding certain aspects of the Russian data [provided under the agreed information exchange]. We are continuing to press the Russians at the highest levels on the need to resolve these outstanding CW issues." {*Congressional Record* 5 Sep p S9958}

5 September In the US Senate, which had reconvened two days previously after its summer recess and which is due to vote on ratification of the Chemical Weapons Convention within the next ten days [see 28 Jun], Senator Claiborne Pell makes public two letters concerning the treaty. {*Congressional Record* 5 Sep pp S9958-9} One [see 5 Sep] is from the President's Assistant for National Security Affairs, Anthony Lake. It addresses points made about Russian intentions by opponents of ratification, and, in a classified enclosure, provides detailed answers to questions raised by Senator Helms. The other letter, sent to all

senators, is from senior executives of more than 50 major US chemical corporations [see 29 Aug]. It urges Senate support of the Chemical Weapons Convention and quick action on legislation to implement it.

7 September President Clinton devotes most of his weekly radio address to the Chemical Weapons Convention, pressing for Senate ratification. He says: "I urge the leaders of both parties in Congress to pull together and pass this treaty. It will make life tougher for rogue states like Iraq. Those few nations that refuse to sign will find themselves increasingly isolated. Tough new trade controls will prohibit anyone from selling them ingredients for chemical weapons, making it more difficult for them to build the weapons. The treaty will increase the safety of our citizens at home as well as our troops in the field. The destruction of current stockpiles, including at least 40,000 tons of poison gas in Russia alone, will put the largest potential sources of chemical weapons out of the reach of terrorists. And the trade controls will deny terrorists easy access to the ingredients they seek." {US Newswire 9 Sep}

8 September The Pugwash Council, meeting in Lahti, Finland, adopts a statement for the impending Fourth Review Conference of States Parties to the 1972 Biological Weapons Convention. The statement recommends a nine-point action plan, including the establishment of a deadline — "no later than 1998" — for completion by the Ad Hoc Group [see 15–26 Jul] of a text for the projected "legally binding instrument" for strengthening the BWC.

8 September Russia has "quietly informed [President] Clinton that unless America pays for the destruction of [its] 40,000-ton stockpile of chemical weapons, Moscow will refuse to ratify" the Chemical Weapons Convention [see also 5 Sep], so the London *Sunday Times* {8 Sep} informs its readers. The report, which cites no sources, continues: "The Americans think that the latest attempt at blackmail by Moscow has two purposes. First, the huge sum ["\$12 billion in subsidies"] being demanded would be used, in part, to line the pockets of the many senior officials who have grown rich from various defence projects over the years. At the same time, the Russians hope that the threat of non-ratification will encourage the [US] Senate, which is due to vote on ratification of the convention on Friday, to oppose it."

9 September Russian Prime Minister Viktor Chernomyrdin and US Vice President Albert Gore conduct a lengthy telephone conversation during which they discuss progress in the special joint group established for high-level talks on chemical-weapons issues [see 9 Aug]. Attributing sources in the Prime Minister's office, Itar-Tass {9 Sep in FBIS-SOV 9 Sep} further reports that the discussion had included "joint projects in the conversion of Russian defence chemical factories, supported by American technologies and capital".

9 September In the US Senate, Majority Leader Trent Lott [see 7 Aug] announces that he has received a letter from Richard Cheney and some 50 other Bush and Reagan administration officials opposing ratification of the Chemical Weapons Convention "unless and until it is made genuinely global, effective, and verifiable". Cheney had been US Secretary of Defense when the United States agreed the text of the Convention, in 1992. Senator Lott also announces receipt of a letter from the National Federation of Independent Businesses

expressing concern that its small-business members may become excessively burdened by the Convention. {*Congressional Record* 9 Sep pp S10069-72} The remarkable misinformation about the Convention contained in both letters had evidently not been noticed by their signatories.

Attracting wide attention outside the Senate as well as within it, these letters represent the latest manoeuvres in the political campaign against Senate ratification of the Convention. The campaign is being conducted by a group of former Reagan-administration officials — Frank Gaffney, Douglas Feith and Kathleen Bailey — working in support of Senators Helms, Kyl, Lott and their staffs {*CQ Weekly Report* 14 Sep, *Chemical & Engineering News* 30 Sep, John Isaacs in *Bulletin of the Atomic Scientists* Nov–Dec}. Hitherto poorly regarded and little heeded by supporters of the Convention, the campaign is now displaying startling reach and subtlety. As it enters its climactic week, it is said to have mustered at least 25 (or between 10 and 28, on another account) of the 34 votes needed to block ratification [see also 7 Aug]. {*Chemical & Engineering News* 9 Sep, *Los Angeles Times* 13 Sep}

9–27 September In the Netherlands, a course for CWC National Authority personnel is held at the Netherlands Defence College, Ypenburg, with funding from the Netherlands government and course-instructors from the OPCW Provisional Technical Secretariat, the Netherlands, Swedish and Swiss governments, the TNO and the Harvard Sussex Program.

10 September In Tokyo, an exhibition on the use of chemical weapons in China by the Japanese Imperial Army during the period 1937–45 opens in Shinjuku Ward Citizens' Gallery. The exhibition is organised by a civic group led by Noboru Watanabe, and will later tour the country. {Kyodo 10 Sep}

10 September Portugal deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 63rd signatory state to do so.

10 September The UN General Assembly votes on an Australian resolution to adopt the comprehensive nuclear-test-ban treaty which India had blocked in the Conference on Disarmament [see 14 Aug]. The vote is 158–3 with 5 abstentions. Bhutan, India and Libya are the opposing states; Cuba, Lebanon, Mauritius, Syria and Tanzania are the abstaining states. Article XIV of the treaty specifies, however, that the treaty cannot enter into force without the participation of 44 specified countries (ones currently identified by the IAEA as possessors of nuclear research or power reactors and which were members of the CD on 18 June), including India. {*Trust & Verify* Sep}

10 September In Cambridge, Massachusetts, a conference on *Chemical Demilitarization: The Risks of Inaction* is convened by the Defense and Arms Control Studies Program at the Massachusetts Institute of Technology with the support of ICF Kaiser International Inc. The keynote speech is by the US Army's Program Manager for chemdemil, Major General Robert Orton.

10 September In the US Senate, the Judiciary Subcommittee on Constitution, Federalism and Property Rights holds a hearing on constitutional implications of the Chemical Weapons Convention. A professor of law from California, John Yoo, testifies that "the implementation provisions of the Convention's verification procedures, as currently written, would violate the Constitution and would be struck down by the Supreme Court

because they represent an impermissible transfer of sovereignty from our national government to an international organization". A witness from the Cato Institute promoted by Senator Kyl, Roger Pilon, addresses the Fourth Amendment aspects of the treaty and argues that the Convention poses "insurmountable constitutional problems". These and associated contentions, all of which had been considered at length during negotiation of the treaty, are refuted in detail by Professor Barry Kellman of the DePaul College of Law and by Richard Shiffrin from the Department of Justice. Also testifying is the Department of the Army, which has been invited to describe the US chemdemil programme. {FDCH Congressional Testimony 10 Sep}

10–20 September In Egypt, the main branches of the armed forces take part in *Badr 96*, large-scale military manoeuvres described as a "strategic military exercise" and including a crossing of the Suez Canal. Defence Minister Mohammad Hussein Tantawi, speaking to reporters as the manoeuvres end, draws attention to the participation of chemical-warfare units: "Chemical warfare had a key role in these exercises because of the danger represented by the use of weapons of mass destruction... As long as there is a neighbouring country which has weapons of mass destruction, we must carry out defensive training aimed at facing up to the use of these weapons to reduce their dangerous effect". {MENA 10 Sep in BBC-SWB 11 Sep, AFP 20 and 21 Sep}

11 September In the Netherlands, at Rijswijk, the OPCW Laboratory and Equipment Store, now fitted up and staffed, is formally inaugurated. The facility will not itself be used for sample analyses, but will instead coordinate analyses of inspection samples within a network of Designated Laboratories around the world. The facility will also house, maintain, calibrate, issue and track the equipment that will be used during inspections and for the training of inspectors who will be specialists in analytical chemistry. Data links have been installed between the Secretariat and the facility. Preparations are underway for evaluating the GC–MS instrumentation, which is planned to start operation on 16 September, and for the Second Official Proficiency Test to start on 14 October. {OPCW/PTS press release 12 Sep}

11 September US presidential candidate Robert Dole states a position on the Chemical Weapons Convention. He does so in a letter addressed to Senate Majority Leader Trent Lott on the eve of the Senate ratification debate. The letter asks three questions: "First, effective verification: do we have high confidence that our intelligence will detect violations? Second, real reductions, in this case down to zero: will the treaty eliminate chemical weapons? Third, stability: will the treaty be truly global or will countries like Iraq, Iran, Syria, Libya and North Korea still be able to destabilize others with the threat of chemical weapons?" The letter then expresses concern that the treaty safeguard US constitutional protections against unwarranted searches [see 10 Sep, US Senate], and goes on to say: "It is my understanding that the Senate will have the opportunity to address these matters in debate and, perhaps, in amending the Resolution of Ratification [see 25 Apr]. It is my hope that President Clinton will assist you in resolving them. If we can work together, we can achieve a treaty which truly enhances American security." This action by their presidential candidate stimulates many previously uncommitted Republican senators — 20–25 of them, according to a subsequent account — to join

the ranks of those opposing ratification [see 9 Sep, US Senate]. {*Chemical & Engineering News* 30 Sep}

A *New York Times* {15 Sep} editorial comments: "Imperiling the Chemical Weapons Convention is trifling with the national interest. It is a measure of his desperation that Mr Dole would seek to stir his becalmed campaign by blocking such an important and beneficial treaty."

12 September In the US Senate, the majority and the minority cooperate to vitiate the unanimous-consent agreement under which the Senate would have considered ratification of the Chemical Weapons Convention prior to 14 September [see 28 Jun].

Opponents of ratification had told Senate Minority Leader Thomas Daschle that they would accept the treaty only if the resolution of ratification were amended along the lines suggested in the Dole letter [see 11 Sep]. A form of words to that effect had been put forward. It would prohibit the President from depositing the US instrument of ratification unless (a) the Director of Central Intelligence had certified that the treaty could be verified with "high confidence" and (b) Iran, Iraq, Libya, North Korea and Syria had all signed and ratified the treaty; killer amendments, clearly. Observing the increased strength of the opposition, and being certain of only 54 of the 67 votes needed for ratification, the Administration had decided, after a round of high-level consultations, to try to have the vote called off. White House Chief of Staff Leon Panetta requested Senator Daschle to seek the Senate Majority Leader's agreement to this course of action. Even though the opponents were now reportedly confident of between 34 and 46 votes, Senator Lott duly concurred, apparently in order to minimize political fallout for the Dole presidential campaign — or perhaps because he was not in fact sure he had at least 34 votes. {*Washington Post* and *Washington Times* 13 Sep, John Isaacs in *Bulletin of the Atomic Scientists* Nov-Dec}

Earlier in the day, former Secretary of State James Baker had spoken in support of ratification during testimony before the Senate Armed Services Committee: "The Bush administration had never expected a treaty to be completely verifiable and had always expected there would be rogue states that would not participate... When you have a lot of countries that have signed on to a treaty like that to eliminate these weapons, you have a much stronger political mass that you can bring to the table in any form, whatever it is, to talk about restraints and restrictions and sanctions.... The more countries we can get behind responsible behavior around the world and that we can lead toward responsible behavior, the better it is for us." {*New York Times* 13 Sep}

The US Chemical Manufacturers Association issues a statement deploring the Senate decision to delay voting on the Convention, but observing that the "delay will give treaty supporters a chance to set the record straight, to demonstrate why this treaty is in the national interest" [see also 29 Aug]. CMA spokesman Owen Kean later tells reporters that, if the United States does not join the Convention, its exports of chemicals regulated by the treaty to countries that have joined would be barred, thereby cutting off up to \$600 million in exports. {*Washington Post* 14 Sep}

Senator Sam Nunn says: "I don't think that enough high-ranking people had come up from the administration to create momentum [for ratification]. There was a pretty well-organized effort...by the Republican right wing, and there was no counter to it." {*CQ Weekly Report* 14 Sep} In a subsequent speech from the floor of the Senate, he sets out in detail his strong support

for ratification, ending with the following question: "Is the United States more likely to reduce the dangers of the proliferation of chemical weapons by joining the 63 countries that have already ratified the CWC and the many others that will join after the 65th ratification occurs, or is America's security better served by remaining on the outside, by joining rogue regimes like Libya and North Korea in ignoring this pathbreaking effort by 161 nations to bring these terrible weapons under some degree of control?" {*Congressional Record* 26 Sep}

There is little likelihood of the Senate rescheduling a vote on the Convention in the immediate future. Unless a vote is taken before the end of the present Congress in January 1997, the treaty will be returned to the Foreign Relations Committee. How easily it will thereafter reemerge onto the Senate floor [see 7 Dec 95] will be conditioned by the outcome of the impending Presidential and Congressional elections. {John Isaacs in *Bulletin of the Atomic Scientists* Nov-Dec}

13-20 September In Iraq, UNSCOM conducts its 40th biological-weapons inspection, UNSCOM 157. The purpose, as envisaged in the joint programme of action [see 19-22 Jun], is to interview Iraqi personnel who had been involved in the weaponization of BW agents and in the reported destruction of BW munitions. Such interviews have been conceived as part of the effort to verify the latest Iraqi biological "full, final and complete disclosure" and had been planned for two previous UNSCOM inspections. Iraq, however, had blocked them. Now, following the visit of the Executive Chairman [see 26-28 Aug], the interviews take place, UNSCOM later reporting that the information gained "proved valuable, though not always in agreement with statements contained in the FFCD". {S/1996/848}

14 September President Clinton speaks of the Chemical Weapons Convention once again [see 7 Sep] during his weekly radio address. He observes that "the treaty seems to have gotten caught up in election-year politicking" [see 12 Sep]. He notes the bipartisan support that nevertheless exists for the treaty, and says: "I want the American people to know that I will work with the Senate to pass the Chemical Weapons Convention when a calmer political climate prevails".

14 September In Uruguay, officials announce that the army has bought ten Czech armoured personnel carriers adapted for use under conditions of chemical or biological warfare. {CTK 16 Sep in BBC-SWB 19 Sep}

16 September Cameroon deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 64th signatory state to do so.

16 September In the United Kingdom, the provisions of Chemical Weapons Act 1996 [see 18 Mar], which implements the Chemical Weapons Convention in domestic UK law, are brought into force {SI 1996/2054}. The immediate effect is to make all and any production, possession or use of Schedule 1 chemicals illegal, whether in medicine, academia, industry or anywhere else, unless authorized by government permit. The CWC National Authority accordingly establishes an Interim Open General Licence, valid until 31 December 1996, at which point a definitive licensing regime will be introduced.

16-20 September In Nairobi, officials of some 87 governments meet for a second negotiating session on the projected international treaty to regulate the import and export of hazard-

ous chemicals. The treaty would strengthen and make obligatory the present Prior Informed Consent (PIC) procedure, a voluntary arrangement introduced by UNEP and FAO in 1989 whereby countries can learn about the characteristics of hazardous chemicals that may be shipped into their territories; 145 countries currently participate. The session is chaired by Maria Celina de Azevedo Rodrigues of Brazil. The initial session had been held in Brussels some six months previously. A final text for the projected PIC treaty is expected to be adopted at a third session, probably in Rotterdam early in 1997. {London *Financial Times* 16 Sep, UN press release 20 Sep}

16-27 September In Geneva, the Ad Hoc Group of states parties to the Biological Weapons Convention reconvenes [see 15-26 Jul] under the continuing chairmanship of Ambassador Tibor Tóth of Hungary. Participating in this fifth session are Malta, the Philippines and all except Bangladesh and Sierra Leone of the 51 states parties that participated in the fourth session. Three signatory states (Burma, Egypt and Morocco) participate as well. Presentations or written submissions are made by five international organizations: WHO, UNIDO, OIE, ICGEB and UNESCO. There are 21 new working papers. The same four Friends of the Chair continue to promote consultations and negotiation: Dr Ali Mohammadi of Iran (on definitions of terms and objective criteria), Ambassador Tóth (on confidence-building and transparency measures), Stephen Pattison of the UK (on measures to promote compliance) and Ambassador Berguño of Chile (on measures related to Article X). Recorded in papers by the Friends of the Chair are results of the discussions they had brokered. These papers are annexed to the procedural report on the session which the Ad Hoc Group formally adopts. Included in the report is the text of a brief account of progress thus far with which the Ad Hoc Group decides to inform the impending Fourth BWC Review Conference. This text contains the statement that the Group "has decided to intensify its work with a view to completing it as soon as possible before the commencement of the Fifth Review Conference and submit its report, which shall be adopted by consensus, to the States Parties, to be considered at a Special Conference". Further sessions of the Group are to be held during 3-21 March, 14 July-1 August and 15 September-3 October 1997. {BWC/AD HOC GROUP/32}

Ambassador Tóth tells reporters at the close of the session that disagreements remain to be resolved over the contents of the projected legally binding instrument to strengthen the BWC but that, "politically", he is "optimistic". {AFP 27 Sep}

17-28 September In China, a team of Japanese experts led by senior Foreign Ministry official Shigekazu Sato visits four locations in Heilongjiang province and one in Inner Mongolia Autonomous Region as part of the inquiry into chemical weapons abandoned by the former Japanese Imperial Army [see 16 Aug]. It is the seventh such Japanese mission to China [see 14 May-3 Jun]. In Beijing afterwards, Mr Sato tells a press conference that, in October, Tokyo will be sending missions to Germany, the United Kingdom and the United States to study the disposal of chemical weapons. {Jiji 30 Sep}

In Japan, government sources are being quoted about a plan to build an offshore chemdemil facility to dispose of the recovered abandoned chemical weapons. An unidentified Foreign Ministry source says that this may be the only available option because the Chinese government is insisting that Japan dispose of the weapons outside China, and no local government within Japan will permit disposal within its jurisdiction.

The plan would locate the facility in Japanese territorial waters close to a port in northeastern China. It is said to envisage a total construction and operating cost on the order of Yen 600 billion (about \$5.5 billion). The Foreign Ministry and the National Defence Agency are reportedly discussing the matter unofficially with a number of Japanese companies, including Mitsubishi Jukogyo. {Kyodo 22 Sep}

In the United States, M4 Environmental announces that it has reached an agreement with Mitsubishi on the use of its Catalytic Extraction Processing (CEP) technology for destroying chemical weapons. The M4 announcement refers, however, to utilization of "a CEP-based system to destroy bulk agent and select weapons located at small weapons burial sites". M4 Environmental is a limited partnership established by Molten Metal Technology Inc and Lockheed Martin Corporation in 1994 to exploit CEP technology. The partnership's publicity cites a recent report by the US Army Materiel Systems Analysis Activity, *Technical and Economic Analysis Comparing Alternative Chemical Demilitarization Technologies to the Baseline*, which the publicity portrays as concluding that CEP is the most mature alternative technology available for disposing of the US chemical-weapons stocks held at Newport Chemical Depot in Indiana. {Business Wire 25 Sep, PR Newswire 30 Sep} The Newport stocks comprise bulk-stored VX.

An M4 Environmental vice-president, Kevin Welch, later tells *Defense News* {28 Oct} that the CEP-based cleanup effort will focus on two main sites in China, one where vesicant is bulk-stored in two 35-ton underground containers, the other a repository for about 700,000 agent-filled munitions.

18 September The US Defense Department announces that it is notifying some 5,000 armed-services personnel that they might have been exposed to low levels of CW agent following demolitions of Iraqi weapons stocks in southern Iraq in March 1991. The number of Gulf War veterans now being so notified is thus considerably larger than had been contemplated two weeks previously [see 5 Sep]. Those notified will be told about the government's medical examination programmes for veterans who believe themselves afflicted by illnesses resulting from service during the Gulf War. The Department's press release states that Deputy Defense Secretary John White had ordered the expanded notification "because information currently being evaluated suggests low level exposures may have taken place out to 25 km from the Khamisayah complex on March 10, 1991, when a small group of US forces detonated a still unknown number of 122 mm chemical rockets in a pit area a few kilometres away from Bunker 73, which was destroyed on March 4". A similar notification had already been made to personnel within 5 kilometres of Bunker 73 [see 21 Jun and 11 Aug]. The extension of the notification area out to 25 km apparently reflects new and still-unfinished dosage-distribution and other estimates being made by the CIA and the Defense Department. It also reflects the Department's belated discovery of the 10 March "pit area" demolition; the press release states that information about the destruction of chemical weapons in the pit area "has been developed" since the Department's announcement three months previously about possible CW-agent release during the Bunker 73 destruction [see 21 Jun]. {*Washington Post* and *New York Times* 19 Sep} Reference to the pit area demolition had been made by investigators for President Clinton's Advisory Committee on Gulf War Veterans' Illnesses during its 5 September [q.v.] hearing {*Dallas Morning News* 6 Sep}

18 September OPCW Preparatory Commission Executive Secretary Ian Kenyon, addressing the Centre for European Policy Studies in Brussels, speaks of the progress being made in bringing the Chemical Weapons Convention into force, noting achievements but also commenting on outstanding problems and responding to concerns about the Convention that are currently finding expression. He observes that the recent failure of the US Senate to give its advice and consent for ratification [see 12 Sep] had created "a prospect of the United States not being among the original Parties to this Convention", but he goes on to quote President Clinton's recent reaffirmation of commitment [see 14 Sep] and says that the matter of US ratification "must await more propitious times, possibly until early 1997, after elections for the Presidency and Congress are over". He speaks, too, of the problems confronting Russian ratification posed by the large financial burden of the chemical-weapons destruction programme. He calls attention to the fact that the Preparatory Commission has revised neither of two key planning assumptions which, accordingly, must continue to dictate the size and shape of the preparations for implementation: the assumptions that Russia and the United States — possessors of the largest declared stocks of chemical weapons — will be among the first 65 ratifiers, and that their 1990 Bilateral Destruction Agreement [see 5 Sep] will be in the process of implementation at entry into force of the Convention. Major changes will clearly be necessitated by departure from these assumptions. He states that preliminary proposals by the Provisional Technical Secretariat regarding the budget for the first full year of OPCW operations, a matter which the Commission will shortly be considering, envisage costs in the region of \$100-125 million.

18-22 September In Iraq, UNSCOM conducts its 30th chemical-weapons inspection, UNSCOM 161. The purpose is to continue verification of Iraq's latest "full, final and complete disclosure" of its past chemical-weapons programme [see 3-13 Aug], to which end the UNSCOM team produces further documentary evidence regarding the production issues raised during the recent visit of the UNSCOM Executive Chairman [see 26-28 Aug]. Iraq acknowledges the issues and later (on 1 October) furnishes seven letters that it wants considered as integral parts of the chemical FFCD. UNSCOM later reports that the letters do not fully address its concerns. {S/1996/848}

19 September In the US House of Representatives, the fourth in a series of hearings on *The Status of Efforts to Identify Persian Gulf War Syndrome* is held by the Subcommittee on Human Resources & Intergovernmental Relations of the Committee on Governmental Reform and Oversight [see 25 Jun]. Testifying from outside Congress are four chronically sick Gulf veterans, two of them with their wives; a panel of administration witnesses comprising Frances Murphy of the Department of Veterans' Affairs, Sylvia Copeland, chief of the CIA's Gulf War Illnesses Task Force, and Stephanie Padilla, a neurotoxicologist with the Environmental Protection Agency; and a panel of non-governmental activists and others, including James Tuite [see 26-27 Jun 95, 16 Apr], director of the Gulf War Research Foundation, and Claudia Miller of the University of Texas, a specialist in chemical causation of chronic illness. In contrast to the earlier sessions, this one is crowded with media correspondents and cameras, for important federal officials stand accused of dissembling or cover-up in connection with the possible exposure of US troops to nerve gas from the demolition of Iraqi weapons at Khamisayah in March 1991 [see 28 Aug, 5 Sep and 18 Sep].

Congressman Steve Buyer urges the committee not to ignore alternative explanations: "Please do not let the glitz and glamour of chemical warfare overtake the fact that Gulf War illnesses are multifaceted". {Gannett 19 and 20 Sep, *Los Angeles Times* and *Hartford Courant* 20 Sep}

Dr Murphy, describing what the interdepartmental Persian Gulf Veterans Coordinating Board [see 14 Aug 95, 1 May] has been doing, says that the Khamisiyah announcements have spurred the Veterans' Administration to focus more attention on possible adverse health consequences of very-low-level exposure to CW agents [see 20 Aug]. Dr Padilla and Professor Miller both provide reviews of existing knowledge bearing on this topic. {FDCH Congressional Testimony 19 Sep}

20 September In the United Kingdom, lawyers acting for the Special Intelligence Service obtain a High Court injunction to prevent a former SIS officer from talking about his work. Unidentified sources later quoted by the London *Sunday Times* {22 Sep} say that the officer, who had taken part in "top-secret operations in Europe and the Middle East", had "worked on the front line from 1991 until 1995, one of his tasks being "to infiltrate a Middle Eastern weapons procurement network [in order to] locate and disable a chemical weapons facility". The newspaper goes on to say: "A senior cabinet minister approved a plan to intercept a shipment of machinery and interfere with its extractor fan equipment despite being warned of the possible risk to the lives of civilian workers at the plant". The officer had been dismissed from the SIS in 1995 and has since been approached with offers of employment, possibly, so the newspaper suggests, from the Russian or Israeli intelligence services.

20 September The *New York Times* continues its detailed attention to Gulf War syndrome with a special report on what veterans of the 24th Naval Mobile Construction Battalion say might have been an Iraqi CW attack delivered by Scud missile against northern Saudi Arabia on 19 January 1991. The report draws attention to similarities between the illnesses from which many of these veterans suffer and those described by veterans of the Khamisiyah demolition unit, the army's 37th Engineer Battalion [see 11 Aug].

21–22 September In Geneva, the Pugwash Study Group on Implementation of the CBW Conventions holds its fifth workshop [see 2–3 Dec 95], once again on *Strengthening the Biological Weapons Convention*. Participating are 43 people from 17 countries. {DPA and AFP 23 Sep}

23 September In Kraków Military District, the joint Polish-Ukrainian armoured battalion now being formed for peacekeeping duties begins its training. District spokesman Andrzej Stegienko says that the 10-day activity, mostly devoted to learning peacekeeping procedures, will include training in sanitation, engineering and chemical-weapons protection. {PAP 23 Sep in BBC-SWB 25 Sep}

23 September In the UK, assessments made by the intelligence community of the CBW weapons programmes of the former USSR and of the Russian Federation are described in *UK Eyes Alpha*, an interview-based book by journalist Mark Urban published today by Messrs Faber & Faber. New information on Biopreparat [see 27 Mar 94 and 13 May 95] is presented, and also an account of the emergence (and apparent demise) of the oft-publicized estimate that the USSR possessed 300,000 tons of nerve gas [see 23 Jan 89].

On the matter of Prime Minister Margaret Thatcher's belief that President Gorbachev had been deceived by the Soviet military into believing that Soviet CBW weapons development had ceased, the book describes how the Chairman of the Joint Intelligence Committee, Percy Cradock, had tried to persuade her that in fact the Kremlin was party to continuing development of the weapons. The author had interviewed Gorbachev during 1995, and writes: "I asked him whether he felt he had been deceived by his generals on the issue of chemical weapons. He said that while such men had been 'in no great hurry to introduce conversion, rather they preferred to preserve their military industrial complex', they had ultimately followed his lead in agreeing to a whole variety of arms-control agreements. It seems likely that the Soviet leader was aware that certain research was still being conducted (and in this sense he was not telling Thatcher everything that he knew), but he did accept that there was foot-dragging among certain elements of the military... On the issue of biological agents, even people in the institutes working on the preparations appear to have succumbed to the delusion that the absence of 'weaponized' plague or anthrax (agent stored in shells or bombs) meant their programme accorded with the 1972 Convention. So while the Prime Minister did place too much trust in Gorbachev's assurances, the frequent suggestions by intelligence analysts in Whitehall that he was telling lies over such matters were an over-simplification."

23 September The US Defense Advanced Research Projects Agency is reported by *Defense News* to have started its Integrated Proliferation Prevention and Open Source Monitoring Program, an activity which "focuses on monitoring the traffic of information on weapons of mass destruction through publicly available materials, such as the Internet and newspapers".

23 September President Clinton signs into law the FY 1997 Defense Authorization Act. Its provisions include establishment of the "Nunn-Lugar II" programme [see 25 Jun] which authorizes the Defense Department to assist civilian law enforcement agencies in responding to emergencies involving CBW, nuclear or other weapons of mass destruction and provides funding to improve the security of US and international borders. {White House press release 24 Sep} The administration now has until 31 January 1997 to report to Congress on the capabilities, and how they could be improved, of individual federal agencies "to prevent and respond to terrorist incidents involving weapons of mass destruction and to support State and local prevention and response efforts". {House of Representatives report 104-724}

The Act includes the following definition: "The term 'weapon of mass destruction' means any weapon or device that is intended, or has the capability, to cause death or serious bodily injury to a significant number of people through the release, dissemination, or impact of (a) toxic or poisonous chemicals or their precursors; (b) a disease organism; or (c) radiation or radioactivity."

The Act authorizes spending of \$759.8 million during FY97 on the chemdemil programme, to include \$233.6 million for procurement, \$477.9 million for operation and maintenance, and \$48.3 million for research and development. It requires the Secretary of Defense and the National Research Council to make an assessment of alternative technologies applicable to weaponized as well as bulk lethal CW agents, and to report the assessment to Congress by 31 December 1997. The Act makes \$25 million of the chemdemil authorization available for a pilot programme if the Defense Secretary decides to develop an alternative chemdemil technology for weaponized agent.

This provision is less stringent than the Senate bill, which had incorporated a strengthening amendment by Senators Hank Brown and Wendell Ford [see 28 Jun], but the latter has recently received an assurance from President Clinton that the alternatives study will be completed within six months and that it will be done by an agency not involved in the Army's incineration programme. {*Courier-Journal* 19 Sep}

The provisions of the Act for the Nunn–Lugar (Cooperative Threat Reduction) Program in FY97 authorize further expenditure in support for Russian chemdemil and related work [see 15 May]. The new authorizations include \$78.5 million for a chemdemil facility in Russia [see 21 May] and \$15 million for dismantlement of Russian chemical and biological weapons facilities in the former Soviet Union.

24 September In Russia, the Foreign Ministry states that the Soviet Union had not, as had once again been alleged, used American prisoners of war to test the effects of CBW agents or radiation. A witness appearing before a Congressional committee in the United States a week previously had testified to personal involvement in the transfer of Vietnam-War PoWs, not only American ones, to Moscow for such purposes, testifying also that the process had begun with Korean-War PoWs. The witness was Jan Sejna [see 3 Jul 92], a former Czechoslovak major-general and high official in Prague prior to his defection to the United States in 1968. {FDCH Congressional Testimony 17 Sep} The Russian Foreign-Ministry spokesman, Mikhail Demurin, states that a Russo–US commission had examined hundreds of Korean-War PoW cases and found no evidence that prisoners were ever in the Soviet Union. He also says that Vietnam-War documents “do not suggest that American PoWs were taken out of Vietnam”. {*Chicago Tribune* 25 Sep}

24 September President Clinton, addressing the UN General Assembly shortly after participating in the signing ceremony for the nuclear-weapons Comprehensive Test Ban Treaty [see 10 Sep] (during which representatives of more than 50 states, including all five declared possessors of nuclear weapons, sign the treaty), says that the United States has six priority goals for further lifting the threat of weapons of mass destruction. The first of these is bringing the Chemical Weapons Convention into force. He says: “I deeply regret that the United States Senate has not yet voted on the Chemical Weapons Convention, and I want the world to know I will not let this treaty die” [see also 14 Sep]. {UN press release 24 Sep}

He says that another priority goal is “giving the Biological Weapons Convention the means to strengthen compliance, including on-site investigations when we believe such weapons may have been used, or when suspicious outbreaks of disease occur. We should aim to complete this task by 1998.” {White House press release 24 Sep} [See also 8 Sep, Pugwash]

He reiterates his call to the assembled nations to commit to zero tolerance for aggression, terrorism and lawless behaviour. He proposes an international convention that would create a legal framework for international coöperation against terrorist bombing. A subsequent White House fact sheet {24 Sep} states that a draft for such a treaty is currently “being developed by the US to share with its G-7/P-8 partners”. The draft would obligate states parties “to prosecute or extradite perpetrators of large bomb attacks intended to cause large casualties”.

24 September In the US Congress, a House–Senate conference reports on the FY 1997 Intelligence Authorization Act [see 13 Jun]. The legislation agreed would, under its Title VII, estab-

lish the ‘Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction’ envisaged in the Senate bill. It would also require the Director of Central Intelligence to report to the Congress every six months on the “acquisition by foreign countries during the preceding 6 months of dual-use and other technology useful for the development or production of weapons of mass destruction (including nuclear weapons, chemical weapons, and biological weapons) and advanced conventional munitions”. The legislation is duly adopted and signed into law soon afterwards by President Clinton. {House of Representatives report 104-832, *Jane's Defence Weekly* 23 Oct}

24 September The US National Research Council announces completion of its panel report on *Review and Evaluation of Alternative Chemical Disposal Technologies* [see 3 May and 4 Jun]. For the demilitarization of lethal CW agents stored in bulk, the NRC panel recommends, subject to further independent evaluation and to site-specific risk assessment, pilot-plant development of neutralization methods as potential alternatives to incineration. For the 1625 tons of mustard gas at Aberdeen Proving Ground, the panel favours hot-water neutralization followed by biodegradation offsite at a hazardous waste treatment facility; for the 1269 tons of VX at Newport Chemical Depot, neutralization with sodium hydroxide followed by secondary treatment offsite. The panel had evaluated three other technologies as well: molten metal [see 17–28 Sep], electrochemical oxidation [see 12 May 94 and high-temperature hydrogenation [see 13 Nov 95]. {*Baltimore Sun* and *Chicago Tribune* 25 Sep, *Chemical & Engineering News* 30 Sep}

25 September From Italy, the diplomat who guided the final year of the negotiation of the Chemical Weapons Convention, Ambassador Adolf Ritter von Wagner of Germany [see 21 Jan 92], writes about the treaty in a letter published in the *International Herald Tribune* {25 Sep} taking issue with an American columnist's article, as follows: “Mr Krauthammer argues that the [CWC] is unverifiable because some so-called rogue states might violate it. It is true that dictators with criminal intentions might endeavour to develop chemical weapons secretly. However, with the Chemical Weapons Convention in place, the risk of being detected is so high that most who might be tempted will most probably be dissuaded... Mr Krauthammer says that verification of the Chemical Weapons Convention will be overseen by the United Nations bureaucracy. He is mistaken. A highly professional organization in The Hague is to be established to verify compliance. However, American scientists and experts will not take part in the inspections as long as the US Senate does not agree to join the convention. Moreover, if the United States together with some Arab states and North Korea — strange bedfellows, indeed — does not become a [party], it will not enjoy the privileges of the more liberal global chemical market that is envisaged in the convention. This is one reason the US chemical industry is endorsing the convention [see 29 Aug] despite the intrusive inspections involved.”

25 September In Rome, RAI Radio Uno reports from Naples as follows: “The judiciary believe that there exists an international market in toxic gases intended for military purposes, with distribution centers in Italy, where European Union regulations on trade in such substances will only come into force in the year 2008. This hypothesis is supported by the seizure of two more loads of [Phlugene 12] in La Spezia.” The report describes the seized chemical as “a gas used in the manufacture of aerosols

but also used for military purposes". Two containers with more than 2000 cylinders of the gas, manufactured in Italy, had been seized in Naples following their reimportation from Tunis with false labels and forged transit papers. They had been "exported legally" to Tunis, according to the report. {RAI 25 Sep in FBIS-WEU 25 Sep}

25 September In the US Senate, the Committee on Veterans' Affairs and the Select Committee on Intelligence conduct a joint hearing on the reported exposure of US troops to low levels of CW agents during and immediately after the Gulf War [see also 19 Sep, House]. Senators express strong bipartisan criticism of the administration. {*Washington Post* 26 Sep} The administration witnesses are the Acting Director of the National Intelligence Council, John McLaughlin; another expert from the CIA, Sylvia Copeland [see 19 Sep]; the Assistant Defense Secretary for Health Affairs, Dr Stephen Joseph; and the Department of Veterans' Affairs Under Secretary for Health, Dr Kenneth Kizer.

John McLaughlin describes what the CIA investigation of available intelligence information has shown about exposure of US troops to Iraqi CBW agents. On the Khamisiyah demolitions [see 19 Sep] his prepared statement says: "Modeling of the potential hazard caused by destruction of Bunker 73 [by US troops on 4 March 1991] indicates that an area around the bunker at least 2 km in all directions and 4 km downwind could have been contaminated at or above the level for causing acute symptoms including runny nose, headache, and miosis... An area up to 25 km downwind could have been contaminated at the much lower general population dosage limit [0.013 mg-min/m³ for a 72-hour exposure]." As for the "pit area" there, "we assess that up to 550 [122 mm nerve agent] rockets could have been destroyed [by US troops on 10 March 1991... We are now modeling the actual hazard area and plan to finish our analysis on the pit in the near future." His statement summarizes what is in a more detailed paper, dated 2 August, *CIA Report on Intelligence Related to Gulf War Illnesses*, posted on the Defense Department Internet website GulfLink [see 6 Aug].

Dr Joseph says to the committees: "Khamisiyah has changed the paradigm of our approach to Persian Gulf illnesses. Previously, we had a number of Gulf War veterans who were ill and we sought explanations for those illnesses. Now, we have evidence of possible chemical warfare agent exposures. It is imperative that we now attempt to find clinical evidence that might be linked to those exposures of our troops who were in the exposure zone."

Testimony is also submitted to the Senate committees on behalf of the American Legion, whose just-elected new national commander, Joseph Frank, soon afterwards calls upon the federal government to begin collecting blood and tissue samples from Gulf War veterans. He says that, although technical means do not yet exist for demonstrating prior exposure to CW agents from such samples, that may become possible in the future. He adds: "By collecting those tissue samples now, we will be preserving evidence that may not be in the body by the time we can read the bio-markers. Had similar samples been taken after the Vietnam War, it would have improved our understanding of the impact of Agent Orange upon individual veterans." {US Newswire 2 Oct}

Shortly before the hearing, Deputy Defense Secretary John White had announced, in a letter to the chairman of the Senate Armed Services Committee, several measures to strengthen and extend his department's investigation, including the establishment of a DoD Action Team that will reassess all aspects of the current investigation and report to him directly. Other mea-

asures include a \$5 million research effort into the possible effects of low-level chemical exposure [see also 19 Sep] and an inquiry into the Khamisiyah demolitions by the Army Inspector General. {Defense Department news release 25 Sep} Secretary White later names Bernard Rostker, Assistant Secretary of the Navy (Manpower & Reserve Affairs), to head the Action Team. {Defense Department release 2 Oct}

26 September In Tokyo District Court, prosecutors produce a written confession by Aum Shinrikyo cultist Masami Tsuchiya [see 2 Sep] that his team of chemists had synthesized 3.6 kg of sarin in November 1993 and 30 kg in February 1994. {Kyodo 26 Sep}

27 September The US General Accounting Office publishes a detailed status report on the Defense Department's Cooperative Threat Reduction (Nunn-Lugar) Program. Of the \$1502 million provided for the programme by the Congress in Fiscal Years 1992-96, some \$68 million (5 percent) had been allocated for the destruction of former Soviet chemical weapons. The current focus in the chemdemil part of the programme was on providing Russia with assistance for a pilot facility at Shchuch'ye for destroying nerve-gas artillery shell, a 500 agent-tonne/yr plant which Russia would eventually expand into a full-scale 1200 agent-tonne/yr facility. A tentative 1995 US estimate had costed construction of the pilot facility at around \$900 million. The FY96 budget for the CTR chemdemil project had been \$73 million, but \$60 million had to be forgone because the FY96 Defense Authorization Act had conditioned it upon the President certifying that Russia was in compliance with the Biological Weapons Convention [see 13 Dec 95], which he could not do. Moreover, CTR Program officials had been unable to obligate all of the remaining \$13 million because, so the GAO report says, Russia had been late in signing the implementing arrangement. The report quotes a CTR official as saying that Russia had delayed "in an unsuccessful attempt to obtain a US commitment to fully fund the entire facility and provide greater intellectual property rights over the destruction process". For FY 1997, another \$78.5 million has been sought (and authorized [see 23 Sep]) for the CTR chemdemil project. It is to be used for the further development of processing equipment and systems and for initial designing of the pilot facility. The GAO report observes that the project is small in relation to Russia's needs: additional chemdemil facilities of comparable capacity will need to be built at six other locations in time to meet the destruction schedule laid down in the Chemical Weapons Convention. Other countries are providing assistance, but that too is relatively small; the report records the \$17 million German assistance through 1996, the Dutch pledge of about \$16 million [see 20 May], and the Swedish assistance which it values at around \$0.45 million. {GAO/NSIAD-96-222}

The US executive agency for the CTR chemdemil project is now the Army's Program Manager for Chemical Demilitarization, which is overseeing the US chemdemil programme. {*Jane's Defence Weekly* 16 Oct}

27-29 September In England, at Wiston House, there is a Wilton Park conference on *Deterring Biological Warfare: What Needs to be Done?*, convened in cooperation with the Chemical and Biological Arms Control Institute (CBACI) in the United States. There are 42 participants, from 11 countries (Australia, Belgium, France, Germany, Hungary, Israel, Russia, Sweden, Switzerland, the UK and the USA).

29 September–3 October In Baghdad, visiting UNSCOM Deputy Executive Chairman Charles Duelfer conducts talks with senior Iraqi officials, including Oil Minister Lt-Gen Amer Rashid, in preparation for UNSCOM's six-monthly progress report to the UN Security Council, which is due on 11 October. He presents an initial UNSCOM assessment of the first round of missions to verify the recently submitted FFCs [see 13–20 Sep and 18–22 Sep], subsequently telling reporters that doubts still exist. He receives nine “explanatory letters” from the Iraqi side, of which seven address chemical matters [see 18–22 Sep] and one addresses biological matters. {AFP, Reuter and Xinhua 3 Oct} UNSCOM later comments as follows on the talks: “Much of the discourse on the Iraqi side amounted to personal attacks on the Deputy Executive Chairman and did not address the matters at hand... Such attacks are counterproductive and inconsistent with Iraq's statements that it would cooperate in overcoming the remaining tasks.” {S/1996/848}

30 September In Tokyo, the leaders meeting together for the Fifth EU–Japan Summit, namely Japanese Prime Minister Ryutaro Hashimoto, European Council President John Bruton of Ireland, and European Commission President Jacques Santer, issue a final statement which confirms “their intention to increase efforts...in promoting an early entry into force of the Chemical Weapons Convention with ratification by a large number of states”. Their statement also confirms “the necessity to strengthen the effectiveness and improve the implementation of the Biological Weapons Convention”. {European Commission press release 30 Sep}

30 September–17 October In Viskov in southern Moravia, chemical defence specialists from the armed forces of NATO Partnership for Peace countries conduct joint exercises. Quoting the Czech Defence Ministry, Itar-Tass {1 Oct} reports that the exercises “are to drill cooperative actions during possible joint operations to neutralize chemical weapons, eliminate breakdowns at industrial enterprises, etc” [see also 23 Sep]. The countries participating are Austria, Belgium, Czech Republic, Finland, Germany, Hungary, Italy, Lithuania, Netherlands, Poland, Portugal, Romania, Slovakia, Turkey, Ukraine and the UK.

1 October In Turkmenistan, the Khalkmaslakhty (People's Council) issues a decision amending fundamental provisions of the country's military doctrine. The document states: “Turkmenistan does not regard any state as its enemy, does not participate in any military blocs and alliances, inter-state coalitions with rigid obligations or contemplating collective responsibility of participants. Turkmenistan does not deploy military bases of foreign states in its territory, pledges not to have them, not to produce and proliferate nuclear, chemical, bacteriological and other kinds of weapons of mass destruction.” {Itar-Tass 1 Oct}

1 October In Germany, the Land Superior Court in Stuttgart sentences Hans-Joachim Rose, the managing director of Rose GmbH [see 4 Jun], to prison for 4 years and 3 months. The court had found that, in 1994, Rose had illegally exported to Libya components for the construction of a chemical-weapons factory. {*Süddeutsche Zeitung* 2–3 Oct}

1 October The UN export/import monitoring mechanism for Iraq [see 27 May] comes into effect. The system is operated jointly by UNSCOM and IAEA. It requires Iraq to provide noti-

fication of all imports of items on lists of ‘dual use’ goods that have been drawn up by UNSCOM and IAEA. The system will also require governments to provide notification of all exports to Iraq of those same “notifiable goods”. {S/1996/848}

1 October The US Defense Department announces that the National Academy of Sciences and its Institute of Medicine have agreed in principle to evaluate the department's “overall approach to the Gulf War illness — both its treatment patterns as well as the way we're assembling information” [see also 25 Sep, US Senate].

During the same news briefing, Defense Department spokesman Kenneth Bacon tells reporters that at least three times as many US troops as the 5000 previously estimated [see 18 Sep] may perhaps have been exposed to Iraqi CW agents in the vicinity of Khamisiyah during March 1991. His explanation of this startling news refers to information about “wind patterns” and to the possibility that the “pit area” contained more chemical munitions than had previously been supposed. He says that the CIA is still working on the computer simulation [see 25 Sep] from which a new exposure estimate will be derived. {DefenseLink transcript 1 Oct}

The CIA model is delivered to the Defense Department on 4 October. Kenneth Bacon announces some days later that CIA Director John Deutch and Deputy Defense Secretary John White “are in the process of appointing a panel of experts who will review not only the model itself but the whole challenge of how you analyze dispersion patterns of an event that happened five years ago”. There would therefore be an indefinite delay in producing the new official exposure estimate. {AFP 10 Oct, UPI 11 Oct}

Meanwhile, the *New York Times* and other organs of the US news media continue their detailed review of other episodes during the Gulf War that might have involved either releases of CW agent, as in the Coalition bombing of Iraqi facilities [see 28 Jun 94, UK] or during the suppression of the Shi'ite rebellion [see 6 Mar 91, 7 Mar 91 and 7–20 Mar 91], or genuine field-detections of CW agent, as by the Czechoslovak chemical defence unit [see 6 Aug]. {*New York Times* 3 and 19 Oct, *Birmingham News* 5 Oct}

2 October In Seoul, a Foreign Ministry spokesman announces that South Korea is joining the Australia Group, having been invited to participate in the general session scheduled for 14 October. {Reuter 2 Oct, Itar-Tass 3 Oct}

2 October US Defense Secretary William Perry tells reporters that he will be making a prompt decision on the proposal that all US troops be inoculated against anthrax which he expects to be receiving shortly from the Joint Chiefs of Staff {Reuter 2 Oct, *Los Angeles Times* 3 Oct}. Anthrax is the disease that heads the current list of BW threat agents. The *Washington Post* has today reported that the service chiefs are now in favour of the immunization programme, having previously opposed it. Shortage of vaccine had meant that only about 30 percent of the half-million-plus US troops serving during the Gulf War had been inoculated against anthrax; about 5000 US military personnel are currently kept immunized because of their assignments. Cost estimates reportedly stand at about \$120 million for vaccinating 1.5 million US military personnel against this one disease.

3 October The US Army Program Manager for Chemical Demilitarization releases its *Alternative Technology Program Eval-*

uation Report on chemdemil options alternative to incineration that might be used for the bulk-stored CW agent at Aberdeen Proving Ground, Maryland, and Newport Chemical Depot, Indiana. The report favours neutralization followed by biodegradation at Aberdeen and neutralization followed by offsite shipment at Newport. The report will now enter the Defense Department decision-making process alongside independent evaluations conducted by the National Research Council [see 24 Sep] and the Army Materiel Systems Analysis Activity [see 17–28 Sep], a hazard analysis by Mitretek, a report from the PMCD Public Affairs Office, and input from the Indiana and Maryland Citizens Advisory Commissions and the Army Product Manager for Chemical Stockpile Disposal.

4 October The UK Defence Ministry announces that organophosphate pesticides had been used more widely in the Gulf War theatre of operations during 1990–91 than it had previously told Parliament [see 27 Jun 94]. In a letter to the Chairman of the House of Commons Defence Committee, Armed Forces Minister Nicholas Soames says that the ministry had become aware of this only recently, implying that this was because some of the pesticides needed to keep insect-borne disease in check among British forces in the Gulf had been procured locally. Besides malathion, three other organophosphate pesticides, named by the minister as “dimethyl phosphorothionate, diazinon and azamathiphos”, had been used to an extent that was now being urgently investigated. In relation to the ministry’s Medical Assessment Programme [see 19 Dec 95], through which some 750 Gulf War veterans had now passed, he describes the pesticide information as “a new factor which must be examined thoroughly”, observing that the “use of some OPs may possibly be a clue to the conditions that some Gulf War veterans have suffered from”. He goes on to say: “We wish to know whether any of the Gulf veterans may be ill as a result of exposure to OPs so that we can then ensure that they are receiving the most appropriate treatment”. {Defence Ministry release 4 Oct} Subsequent press coverage includes accounts of how veterans remember the pesticides being used; many individuals might well, it seems, have taken up large doses of OP. {London *Daily Telegraph* and *Independent* 5 Oct, *Independent on Sunday* 6 Oct, *Independent* 14 Oct}

Minister Soames is later asked in Parliament about the quality control applied during procurement of the pesticides. He writes: “The organophosphate pesticides, malathion and fenitrothion, were approved for use at the time of Operation Granby under the Control of Pesticides Regulations 1986. Alfacon, containing the organophosphate azamathiphos, and purchased locally in the Gulf, was also approved for use under these regulations. SNIP, a similar product purchased locally containing azamathiphos, was licensed for use in the United States, but it is understood that no application has been made for approval in the UK. A further organophosphate pesticide purchased locally, neocidal, is understood to have been supplied in error in response to an order for a non-organophosphate pesticide.” {*Hansard (Commons)* written answers 16 Oct}

5 October In Bosnia-Herzegovina, an I-FOR unit conducts an inspection at the Zica factory in Sarajevo, where weapons had been produced during the war. The Zagreb *Globus* subsequently publishes an article alleging that “poison gases and chemical weapons” are produced in the factory. The article and its accompanying photographs are dismissed as crude Croatian fabrications by the Sarajevo *Ljiljan* {6 Nov in FBIS-EEU 6 Nov}, which berates I-FOR for gullibility in having taken such stories

seriously enough to have inspected the factory as offensively as it did.

5 October The US Army brings a new CBW defence unit, the 310th Chemical Company, on line during ceremonies at Fort McClellan, Alabama. The commander of Fort McClellan, Maj-Gen Ralph Wooten, describes the unit as “the very first biological detection company in our country”. If activated, it will be equipped with 35 Humvee-mounted Biological Integrated Detection Systems [see 27 Mar 93], said to be capable of detecting within 35–40 minutes the presence of any of four types of BW agent in sampled air. During peacetime, the 310th will consist of one active-duty platoon (designated the 20th Chemical Detachment, and attached to the 84th Chemical Battalion), four reserve platoons and a headquarters reserve platoon. {*Atlanta Journal & Constitution* 3 Oct, *Chicago Tribune* 7 Oct, *Chemical & Engineering News* 21 Oct}

7 October In South Korea, during a parliamentary inspection of Army Headquarters, opposition Representative Chon Yongtaek says that North Korea may attack with CW Scud missiles in the retaliation it has threatened for the deaths of its armed commandoes who had infiltrated into the South via submarine on 18 September. {*Seoul Korea Herald* 8 Oct}

Independently, unidentified analysts are said to be speculating that North Korea may intend using the Unmanned Aerial Vehicles which it has recently been purchasing from Europe as delivery means for CBW or radiological agents. {*Aviation Week & Space Technology* 14 Oct}

7 October In Brussels, Russian security chief General Alexander Lebed suggests to reporters, after his meeting with NATO Secretary-General Javier Solana, that the Russian State Duma may decline to ratify arms agreements, including the Chemical Weapons Convention, if NATO moves too quickly in admitting new member-states from central Europe. {*Reuter* 7 Oct, Brussels *De Standaard* and London *Guardian* and *Independent* 8 Oct}

7 October In Afghanistan, the Taleban militia has been using poison gas, according to the Vice Minister for Foreign Affairs of the now-deposed government, Abdul Rahim Ghafoorzai, addressing the UN General Assembly in New York. Having quoted eye-witness accounts of corpses of government troops bleeding from the nose and ears but without other visible signs of injury, he says: “It is the strong conviction of the Islamic State of Afghanistan that the foreign sponsors of the Taleban have provided them with some type of internationally banned gas or chemical weapons, used in the onslaught for the capture of Kabul.” He cites as additional evidence a reference to gas weapons in a radio message between Taleban commanders intercepted on 11 September. {*Reuter* and UPI 7 Oct, *Daily Yomiuri* 9 Oct} He later tells reporters that he will be producing further evidence for the UN Security Council {*Peshawar Frontier Post* 16 Oct}. Former Defence Minister Ahmad Shah Masud says during a subsequent interview: “There is no doubt that some of our units were subjected to an attack in the Sarab area in which chemical weapons were used. It is not the first time Pakistan has used this type of weapon in the Afghan civil war. Our representative in the United Nations has raised this question in the Security Council.” {London *Al-Sharq al-Awsat* 22 Oct}

7 October Chilean Defence Minister Edmundo Perez Yoma speaks of the “concrete actions” being taken by his government

that show its commitment to the “non-proliferation of weapons, and the disarmament of nuclear, chemical and biological weapons”. He is addressing the the second meeting of defence ministers of the Americas in Bariloche, Argentina, in which 32 countries are participating. {EFE 7 Oct in BBC-SWB 9 Oct}

7–9 October In Beijing, Chinese and US officials conduct talks on arms proliferation and disarmament. USACDA Director John Holum, heading the US team, subsequently tells reporters that there had been promising movement in several controversial areas during his meetings with Vice Foreign Ministers Liu Huaqiu and Li Zhaoxing. He says that he is hopeful for expert-level talks on the establishment of an “effective export control regime” for China. He praises China’s cooperation since 1992 on international nonproliferation issues, including Chinese participation in the Chemical Weapons Convention. {Kyodo 9 Oct}

8 October In Japan, the recovery begins of 26 bombs containing mustard-lewisite mix, apparently dumped after the end of World War II in Lake Kussharo in Teshikaga, eastern Hokkaido. The bombs are subsequently encased in ferroconcrete and buried in nearby ground. {Kyodo 19 Oct}

8 October Former USSR President Mikhail Gorbachev speaks as president of Green Cross International to an audience in Indianapolis about the legacy of the Cold War. His principal topic is the burden which Cold War armament has placed upon the environment. He talks of the currently controversial efforts within both the United States and Russia to destroy their great stockpiles of chemical weapons, saying that the successful outcome of these efforts may depend on the consensus-building work of organizations such as Green Cross International. GCI has already sponsored two conferences on chemdemil this year [see 14–16 May and 23–24 Jul], one in Russia and one in America, each seeking common ground between disputatious factions and between government and non-government. A third GCI conference is scheduled for 11–12 December, in Indianapolis, where what is to be done with the stockpile of bulk-stored VX at Newport Chemical Depot [see 3 Oct] is a local State and community issue. {*Indianapolis Star* 9 Oct}

8 October In Tampa, Florida, board members of the National Gulf War Resource Center, which represents 19 veterans’ groups, decide to launch a major campaign in Congress next year to better the plight of victims of ‘Gulf War Syndrome’, taking advantage of the heightened public awareness resulting from the Khamisiyah disclosures [see 1 Oct]. The legislative agenda they approve would (1) require the Departments of Defense and Veterans’ Affairs to presume that all chronic neurological and immunological illnesses suffered by Gulf-War veterans were service-connected, no matter how long after the war they occurred, and to provide full treatment and compensation; (2) finance independent research by private medical organizations into the causes and consequences of illnesses related to exposure of US troops to chemical weapons during the war, along with a large-scale epidemiological study on general Gulf-War-related illnesses; and (3) establish an independent commission to review the Defense Department’s overall CBW programmes to uncover any pitfalls and recommend ways to improve the military’s ability to detect CBW agents and to protect troops from them. {*Los Angeles Times* 9 Oct}

9 October President Clinton’s Advisory Committee on Gulf War Veterans’ Illnesses [see 5 Sep] conducts an open hearing in Tampa. It considers a staff report which portrays the Defense Department as having provided information to sick veterans that is “patronizing or dismissive” of concerns about their possible exposure to Iraqi CBW agents during the war. The staff report also notes that the department has a “growing lack of credibility” with Gulf War veterans. {*Dallas Morning News* 9 Oct, *New York Times* 10 Oct}

9 October The US Institute of Medicine publishes the “study of studies” of ‘Gulf War Syndrome’ which the Congress had required the Defense and Veterans’ Affairs Departments to commission three years previously [see 28 Feb 94], and from which three reports have already resulted [see 4 Jan 95, 14 Aug 95 and 4 Jan]. The 140-page final report, *Health Consequences of Service during the Persian Gulf War: Recommendations for Research and Information Systems*, has been produced by an 18-member panel chaired by Dr John C Bailar III, head of the Department of Health Studies, University of Chicago. As mandated, it reviews research into Gulf War illness and suggests ways in which the military could improve data-collection in the future. One of its general findings is that the military failed to keep adequate medical records for troops in the Gulf, which is one of the reasons why the administration is now having such difficulty in explaining the chronic illness of some veterans.

The panel has also offered observations on the possible causes of the illness: “The committee has not identified scientific evidence to date demonstrating adverse health consequences specifically of [Gulf War] service other than the documented incidents of leishmaniasis, combat-related or injury-related mortality or morbidity, and increased risk of psychiatric sequelae of deployment”. The panel also says: “Puzzling reactions and symptoms seen during and after prior conflicts may have been incorrectly attributed to battle casualties and infectious diseases that were considered unavoidable and even relatively acceptable outcomes of war. Thus, the lower prevalence of battle injuries and infections in the Gulf theater may have unmasked psychophysiological symptoms that were present in earlier conflicts but attributed to injury and casualty.”

As for the Khamisiyah revelations [see 8 Oct], which emerged after the panel had done most of its work, Chairman Bailar tells reporters that they would not change the report because no link had yet been made between nerve-gas exposure and symptoms in soldiers. It is still not known whether troops who were in the vicinity of Khamisiyah at the times in question do or do not have an unusual number of chronic physical complaints. He continues: “If that link is demonstrated by further research, then the situation changes dramatically”. {*Washington Post*, *Austin American-Statesman*, *New York Times* and *Los Angeles Times* 10 Oct}

9–10 October In Rio de Janeiro, a conference on *The Transfer of Sensitive Technologies and the Future of Control Regimes* is organized by the UN Institute for Disarmament Research (UNIDIR) and the Brazilian Intelligence Service. Presentations addressing CBW technology are given by Graham Pearson, the last Director-General of the old UK Chemical & Biological Defense Establishment at Porton Down, and Michael Moodie, president of the US-based Chemical and Biological Arms Control Institute. {UNIDIR/96/44}

11 October Hong Kong police reportedly receive phone calls purporting to come from Aum Shinrikyo threatening a release of

poison gas in the underground railway to Kowloon in five days time as retaliation for a recent incident in which people from Hong Kong and Taiwan had planted Chinese flags on disputed islands controlled by Japan in the east China Sea. Security on the railway is subsequently increased, but no release of poison gas is reported. {UPI, Reuter and AFP 14 Oct}

11 October The UN Security Council receives its second six-monthly consolidated report on the work of UNSCOM in Iraq under resolutions 699 (1991) and 715 (1991) [see 11 Apr and 29 Sep–3 Oct]. The report {S/1996/848} covers the period 11 April to 11 October 1996. It also reviews accomplishments of the past five years. It describes what previous reports had little more than suggested, namely that Iraq had long been conducting an active deception campaign against UNSCOM. Such “policies and actions of concealment practised by the Iraqi authorities” had been investigated by special UNSCOM teams sent in during May, July and August 1996 [see 14 May, 19–22 Jun, 15–22 Jul and 26–28 Aug].

One consequence of Iraqi deception efforts is displayed in the main conclusion of the report: “The Commission has therefore not yet reached the stage where it can state with confidence that everything that is proscribed to Iraq has been identified and disposed of. It continues to believe that limited, but highly significant quantities may remain, as Iraq has not been able to account for a number of proscribed missiles and certain high-quality chemical and biological warfare agents and related capabilities which it had acquired. The Commission’s information indicates that Iraq has still not told the full story of its weapons programmes and handed over all its proscribed weapons materials and capabilities for final disposal.”

The report indicates that Iraq’s CW activities were more ambitious than had previously been disclosed: “Iraq’s chemical weapons programme spanned a long time period, where different priorities and objectives were followed, and accordingly different needs were involved. Viewed from this perspective, Iraq’s efforts should be understood as comprising three different levels of ambition. Iraq has stated that the initial programme was designed to create a massive number of tactical chemical weapons. The next stage, after 1988 [i.e. after the war with Iran], aimed at self-sufficiency, integration of the programme into Iraq’s chemical industry and production of more stable and storable chemical agents. In its last stage, the programme was aimed at the design and production of strategic chemical weapons. The Commission’s understanding of the first and oldest phase of the programme is considerably greater than the understanding of the two more recent periods. Details of the later phases have not been disclosed in the FFCD. The Commission believes that a full understanding of the latter two phases of the programme is absolutely necessary before it has completed its task and is able to verify that nothing remains.”

On BW: “The current assessment is that the biological FFCD as written [see 8 Mar and 29 Sep–3 Oct] is not credible. Major sections are incomplete, inaccurate or unsubstantiated. Materials acquired for proscribed activities are understated. Biological warfare agent production figures are unsupported for the years 1987, 1988 and 1989. Expert estimates of production quantities of biological weapons agents, either by equipment capacity or by consumption of growth media, would far exceed declared amounts. Data on weapons field trials are inaccurate. Weapons and agent destruction is undocumented. A lack of documentation to substantiate declarations on the critical areas of biological warfare agent and munitions production, weaponization and destruction is difficult to accept. Until Iraq is

able to provide a full accounting of biological weapons produced and destroyed unilaterally, the Commission cannot report that such weapons and their components do not remain.”

The report states that UNSCOM has spent “close to \$120 million” from its various sources of funding, and that the monetary value of the assistance in kind which it has also received would “amount to approximately twice” that sum. The report also observes that the staff of UNSCOM is now three times larger than it was initially and that the UN Secretariat has nevertheless provided it with no additional space in the Headquarters building.

11–13 October In Noordwijk, the Pugwash Study Group on Implementation of the CBW Conventions holds its sixth workshop [see 21–22 Sep], on *The Chemical Weapons Convention in its North-South Context*. Participating are 38 people from 20 countries.

12–13 October In Fredericksburg, Texas, the Admiral Nimitz Foundation sponsors a retrospective symposium on the Tokyo war-crimes trials, *Justice in the Aftermath*. The Army Center for Military History is among the co-sponsors.

13 October Iran will be capable of industrial-scale production of nerve-gases such as sarin and VX within 12 months, according to the London *Sunday Telegraph* {13 Oct} reporting “an exhaustive intelligence gathering operation by a number of Western agencies”. The newspaper says that President Hashemi Rafsanjani has been personally supervising the chemical-weapons programme for the past six years, and that hundreds of millions of dollars have been spent acquiring materials and technological expertise for it; so far, only cyanide and mustard gases have been produced. The newspaper goes on to give information, attributed to the National Council of Resistance of Iran, about the structure of the programme, its staffing, and its various facilities.

14 October In Beirut airport, Berge Balanian, wanted by German authorities for smuggling CW-related equipment to Libya [see 29 Aug], is arrested by the Judicial Police branch of the Lebanese Internal Security Forces in the presence of officials from the German Federal Office of Criminal Investigation. Balanian, whose business operations were based near Malmédy in the German-speaking part of Belgium, was reportedly returning from Paris. German officials begin extradition proceedings. {DPA 15 Oct, Radio Lebanon 15 Oct in BBC-SWB 17 Oct, *Frankfurter Rundschau* and Brussels *De Morgen* 16 Oct, AFP 28 Oct}

Further particulars of the transaction with Libya, said to have involved the export of twelve Siemens AS 235 units through Antwerp, are given in a German television documentary broadcast this same day on ARD *Monitor*. The documentary states that Belgian authorities approved the shipments in 1992. {DPA 14 and 15 Oct} The Belgian Ministry of Foreign Trade, however, denies this report {*Franfurter Rundschau* 15 Oct}.

14 October In London, Amnesty International launches an appeal for the establishment of a permanent international criminal court. {Reuter 14 Oct}

14 October Angola [see 16 Feb] accedes to the nuclear-weapons Non-Proliferation Treaty.

14–17 October In Paris, the Australia Group meets. South Korea participates for the first time [see 2 Oct], bringing the number of participating states to 30. The press release issued at the close of the meeting seems to say little about the proceedings. It does, however, allude to the undertaking which the Australia Group gave during negotiation of the CWC, namely that participants would review their export-control measures “with the aim of removing such measures for the benefit of States parties to the convention acting in full compliance with their obligations under the convention” [see 6 Aug 92].

The allusion to the undertaking is expressed as follows: “Participants maintain a strong belief that full adherence to the [CWC] and to the [BWC] will be the best way to eliminate these types of particularly inhumane weapons from the world’s arsenals. In this context, the maintenance of effective export controls will remain an essential practical means of fulfilling obligations under the CWC and the BTWC.” And, later in the press release: “Experts from participating countries discussed national export licensing systems aimed at preventing inadvertent assistance to the production of CBW. They confirmed [*sic*] that participants administered export controls in a streamlined and effective manner which allows trade and the exchange of technology for peaceful purposes to flourish. They agreed to continue working to focus these national measures efficiently and solely on preventing any contribution to chemical and biological weapons programs. Participants noted that the value of these measures in inhibiting CBW proliferation benefited not only the countries participating in the Australia Group, but the whole international community.”

The Group also issues a statement welcoming the prospective entry into force of the CWC. The statement notes that 24 of the 30 countries participating in the Australia Group have already ratified the treaty, and reaffirms participants’ prior declarations of intent to become original parties. [Note: the six laggard countries at the time of the meeting were Belgium, Hungary, Iceland, Luxembourg, South Korea and the United States.] The statement reiterates much of what the press release says concerning the August 1992 undertaking.

15 October The UK Defence Ministry, asked in Parliament for its assessment of the biological weapons capacity of Iran, responds as follows: “Iran has a developed biotechnology industry which would be capable of sustaining a biological warfare research programme. For this reason, it is cause for concern that Iran, though a state party to the biological and toxin weapons convention since 1973, has not offered to [*sic*] submit to the UN centre for disarmament affairs any confidence-building and transparency declarations.” {*Hansard (Commons)* written answers 15 Oct}

15 October In the United States, Raytheon Company announces that one of its units has received a \$500 million contract to continue operating JACADS, the US chemdemil facility on Johnston Atoll. Its two previous contracts had totalled \$660 million. The company statement says that JACADS has now destroyed more than a thousand tons of nerve gas and blister agent, as well as more than 72,000 rockets, 5000 bombs and 45,000 projectiles carrying these agents [see also 22 Jan]. The statement continues: “This facility had stocked approximately seven percent of the world’s [*sic*] supply of chemical weapons. Through our outstanding demilitarization team, we have achieved safe, systematic destruction of more than 25 percent of the island’s inventory and are scheduled to finish this work and decommission the facility by 2001.” {*Business Wire* 15 Oct}

[Note: When work on JACADS got going in the late 1980s, the United States had some 31,500 short tons of CW agents in storage, 6.6 percent in overseas stockpiles. By 1991, the overseas holdings had all been concentrated onto Johnston Atoll.]

16 October The US Supreme Court rules that execution by lethal gas does not amount to cruel and unusual punishment and therefore is not unconstitutional. {*London Daily Telegraph* 17 Oct}

16–17 October In Japan, a regional seminar on *National Implementation of the Chemical Weapons Convention for Industrial Verification* is hosted in Makuhari by the government in coöperation with the OPCW Provisional Technical Secretariat. It is the seventeenth such regional seminar. Representatives of 15 Asian countries — Burma, India, Iran, Japan, Mongolia, Oman, Pakistan, Philippines, Russia, Saudi Arabia, South Korea, Sri Lanka, Thailand, UAE and Uzbekistan — participate, as well as people from the PTS and from Japanese nongovernmental organizations. The seminar addresses different aspects of the industry-verification regime, chemical-industry outreach, routine verification processes, protection of confidential business information, and health and safety considerations during routine inspections. {OPCW/PTS press release 22 Oct}

17 October In Kambarka, Russia, fire breaks out in a warehouse adjacent to a stockpile of chemical weapons [see 25 Feb 93 and 26 Sep 94]. Firefighters take five hours to bring the blaze under control, during which time fire had spread to within ten metres of the stockpile. {*Itar-Tass* 17 Oct}

18 October In Sudan, the Military Industries Corporation in Khartoum North is experimenting with chemical weapons [see also 12 Apr] because the government fears a UN arms embargo, so *Africa Confidential* reports. With help from Iraqi experts, the Corporation is testing mustard-gas production [see also 27 Aug]. The report continues: “Earlier reports of chemical bombing in the Nuba Mountains [see 20 Nov 95] are reliably said to be false: the mustard gas appears to be primarily for use in urban protests, expected as part of opposition attempts to overthrow the government”. {*Africa Confidential*, 18 Oct 96, p 8, “Pointers: Sudan: Arming for trouble”}

19–21 October In Baghdad, UNSCOM Executive Chairman Rolf Ekéus conducts another of the bimonthly rounds of talks with senior Iraqi officials [see 26–28 Aug] that had been agreed during his June visit [see 19–22 June]. He is accompanied by a team of experts, including Nikita Smidovich of Russia, and meets with Deputy Prime Minister Tareq Aziz, Oil Minister Amer Mohammad Rashid, Foreign Minister Mohammad Said al-Sahhaf, MIO chief Daif Abdel Majid and Presidential Adviser General Saadi Tu’ma Abbas. At the end of his visit, Ambassador Ekéus tells reporters: “We have not cleared up any more issues than what has been reported in our [11 October] report to the Security Council”, including the issue of the 6–16 unaccounted-for ballistic missiles. But he also says that “we have narrowed our disagreement” on how to tackle outstanding issues. {AFP and Reuter 20 Oct, AFP 21 Oct}

20 October In Iran, Vice-President Mohajerani is visited by OPCW Preparatory Commission Deputy Executive Secretary Shaukat Umer. According to the official news agency IRNA (20 Oct in FBIS-NES 20 Oct), the vice president “voiced Iran’s readiness to contribute to the ratification of the Chemical Weapons

Convention but noted that the Convention will not be so effective if not endorsed by some countries like the United States and the Russian Federation which are among major producers of such weapons and which have voiced their opposition to the Convention”.

21 October In South Africa, the Truth and Reconciliation Commission receives an 81-page submission from the now-defunct South African Defence Force on its activities during 1960–93. Commissioners express dismay at its tone and its seeming omissions. Lt-Gen Deon Mortimer, who had been tasked by the South African National Defence Force to present the submission, responds in the same way when asked about different apparent gaps, among them the use of chemical weapons or biological warfare as an offensive strategy: on the information available to the facilitators, the SADF had not acted illegally. {SAPA 21 Oct in FBIS-AFR 21 Oct}

21 October In Peru, the Congress approves legislation implementing the Chemical Weapons Convention. As the CWC National Authority, the new law establishes and empowers a National Council for the Prohibition of Chemical Weapons (CONAPAQ). This new body will be headed by an official of the Foreign Ministry. It will include representatives from the Industry, Interior, Defence, Justice and Health Ministries and from the National Customs Superintendency and the National Industrial Association. {EFE 21 Oct in BBC-SWB 25 Oct}

21–22 October In Bucharest, the Romanian government hosts a seminar on CBW export controls for central and eastern European countries and for the Commonwealth of Independent States. {Australia Group media release 17 Oct}

22 October In Iraq, the government has concealed 30 missiles carrying BW warheads on the outskirts of Baghdad, according to two reports, one broadcast by a clandestine radio station, Voice of Iraqi Islamic Revolution {22 Oct in FBIS-NES 22 Oct}, the other released by the Information Bureau of the Supreme Assembly of the Islamic Revolution in Iraq and broadcast by another clandestine radio station, Voice of Rebellious Iraq {22 Oct in FBIS-NES 22 Oct}. Quoting eye-witnesses, the SAIRI report states that the missiles are inside pipes buried underground.

22 October Czech Deputy Defence Minister Vladimír Suman, after meeting in Prague with the senior US CBW defence official, Dr Theodor Prociw, announces that their two countries are preparing to sign a bilateral technical coöperation and information-sharing agreement in the field of CBW defence. He tells a press conference that the US Defense Department is interested in joint production of a newly developed Czech CW agent detection system. Dr Prociw tells reporters that his department has just selected a new British CW-agent detector for its ground troops [see 18 Jul, Graseby], but he also speaks of follow-on systems. {Defense News 4 Nov}

Dr Prociw’s visit to Prague has attracted media notice {Reuter 22 Oct} because of renewed attention, particularly in the United States, to the Czechoslovakian detections of nerve and mustard gases within the Gulf war theatre [see 1 Oct]. Some months previously, the Defense Department had pronounced these detections to be “credible” [see 6 Aug], but since then reporters have found that the CW log maintained at US Central Command headquarters in Riyadh had recorded that US personnel had been advised to “disregard any reports [of CW-

agent detections] coming from the Czechs”. {Dallas Morning News 11 Oct, New York Times 19 Oct}

Minister Suman announces also that his ministry is beginning an investigation to “refute doubts” about the present health of the Czech troops that had served with the 200-strong Czechoslovak CW defence unit in the Gulf {CTK 22 Oct}. An earlier investigation [see 29 Jul 93] had found no evidence of service-related illness, but there are now reports that many of them are afflicted by Gulf War illness {New York Times 26 Oct, Prague Post 30 Oct}. Later, Defence Minister Miloslav Vyborný states that his government ought to have been doing more for the sick veterans. He orders an inquiry into the reasons for the neglect. {DPA 2 Nov, Prague Post 6 Nov}

22 October In Washington, the Council on Foreign Relations and the Nixon Center for Peace and Freedom release the report of their joint task force on *Arms Control and the US–Russian Relationship*. The task force is chaired by Robert Blackwill, a former presidential special assistant now at Harvard University in the Kennedy School of Government. The report advocates among other things that the United States should ratify the Chemical Weapons Convention. This recommendation is endorsed by 19 of the 21 task-force members. {Federal News Service transcript 22 Oct}

22 October The US Defense Department announces that it is now notifying 20,867 US Gulf War veterans that they could have been exposed to CW agents following the Khamisiyah demolitions in 1991. As the department three weeks previously [see 1 Oct] had warned might happen, the notifiable exposure area has thus been substantially extended beyond the previous estimate [see 18 Sep], apparently because of new evidence that a third demolition involving chemical munitions might possibly have occurred at Khamisiyah, no-one seems to know precisely where, on 12 March. The new estimate is not derived from the CIA model, which is still undergoing review. The people now being notified are those reckoned to have been within, not 25 km, but 50 km of the demolition sites during, not 4–10, but 4–15 March. This area is larger, the department’s release states, than that within which “there were likely to have been immediate effects from any nerve gas exposure”. The department also announces that it is allocating up to \$15 million in new research into the possible effects of low-level exposure to chemical agents. {Defenselink transcript of background news briefing 22 Oct, Washington Post and New York Times 23 Oct}

22–26 October The World Medical Association, which is an independent confederation of professional national medical associations from more than 60 countries (thus representing several million doctors), convenes in Somerset West, South Africa, for its 48th General Assembly. It has before it a proposed *Statement on Weapons and their Relation to Life and Health* from the British Medical Association. This it adopts on 25 October, thereby in effect calling upon the world medical profession to treat the effects of weapons as a global and preventable health issue. {WMA press release 25 Oct}

The WMA statement draws attention to the “potential for scientific and medical knowledge to contribute to the development of new weapons systems, targeted against specific individuals, specific populations or against body systems”, observing that physicians involved in research into the effects of such weapons, “whether as agents for weapons development companies or for control agencies, will face extraordinary ethical challenges as their work could be used by those who pay no

regard to international law or accepted standards". The allusion here to ethnic weapons is developed in an editorial in *Lancet* {2 Nov} which says: "What we are talking about here is an abuse of scientific knowledge: if the military and terrorist groups are showing an interest [in biological weapons] public health had better be on its guard. The biomedical community may resist the implication that genome work needs an outside watchdog but the time for self-regulation is running out."

The author of the original BMA proposal, Dr Vivienne Nathanson, had dwelt on genetic weapons during a newspaper interview about the proposal a month before the WMA Assembly. On whether genetic weapons fell under the aegis of CBW agreements, she had told the London *Daily Telegraph* {30 Sep} that this should not be taken for granted. "We have to make sure that [ethnic CBW] can't happen by having the right international legislation to prevent those weapons from being developed."

24 October OPCW Preparatory Commission Executive Secretary Ian Kenyon, during his statement on the Chemical Weapons Convention to the UN General Assembly First Committee {UN press release 24 Oct}, refers to the "continuing uncertainty regarding the ratification timetable in the United States and the Russian Federation", both of which he describes as "ardent supporters of the Convention both during the negotiating phase as well as the preparatory phase" while noting, however, that there "is now a real prospect of the entry into force of the Convention without these two states". He urges, nevertheless, that "every effort should be made to maintain the political momentum towards the early entry into force of the Convention, its full implementation, and early achievement of universal membership".

He also speaks of the analysis which his secretariat has undertaken of additional resources needed if, when the CWC comes into force, Russia and the United States are both parties but their Bilateral Destruction Agreement is not in force. Such an eventuality would require the OPCW inspectorate to assume the primary, not a complementary, role in verifying most of the CW disarmament of the two countries. The analysis indicates, he says, that "the probable additional costs of employing up to 70 additional inspectors, procurement of additional inspection equipment and costs of conducting inspections on a larger scale would be of the order of \$18 million" for the first full year of operations. That would be over and above the approximately \$100 million needed for the other OPCW operations [see also 18 Sep].

24 October In the United States, the period within which former USSR defence scientists may petition the Immigration and Naturalization Service for immigration under the *Soviet Scientists Immigration Act of 1992* comes to an end.

25 October In Seoul, at a conference co-sponsored by the Institute for Far Eastern Studies of Kyungnam University and the Washington-based Council on Korea-US Security Studies, a paper presented by Bruce Bennett of the Rand Corporation describes the vulnerability of South Korea and Japan to North Korean use of CBW weapons. The paper concludes that North Korea's embrace of CBW [see 24 Feb 93 and 1 Aug] marks a fundamental change in its military strategy, and represents the only chance that North Korea stands of confronting the US/South-Korean Combined Forces Command and winning. {*Defense News* 4 Nov}

25 October The US National Research Council releases its report on *Public Involvement and the Army Chemical Stockpile Disposal Program*, prepared by its Committee on the Review and Evaluation of the Army Chemical Stockpile Disposal Program [see 24 Sep]. The committee had in the past put forward several specific recommendations for involving affected local communities and the general public in the US chemdemil effort, and is now reporting its monitoring of the Army's efforts in this regard. Its report concludes that "the Army's current public affairs program does not adequately involve citizens in the affected communities in the CSDP decision-making process or oversight of the program". It advises: "The Army must now extend the PMCD public affairs program to increase substantially and institutionalize public involvement. Public relations and public outreach by themselves will not be enough to facilitate the safe and timely destruction of the stockpile." The report develops this advice into a set of focussed recommendations. One such recommendation is that the Program Manager for Chemical Demilitarization should "provide independent technical assistance to the citizens advisory commissions [see 1 Oct 92 and 3 Oct] as requested", the assistance coming from "individuals or organizations that are without bias and have no conflicts of interest concerning the Chemical Stockpile Disposal Program". {NRC letter report, *Hazardous Waste News* 4 Nov}

28 October–1 November In Curacao in the Netherlands Antilles, a course for personnel of CWC National Authorities is held at Willemstad. It is attended by 20 participants, mainly from the region, with OPCW Preparatory Commission Executive Secretary Ian Kenyon delivering the closing address. {*OPCW Synthesis* Nov}

29 October In Tokyo, during Japan-China bilateral talks, Japanese Deputy Foreign Minister Shunji Yanai and Chinese Vice Foreign Minister Tang Jiaxuan agree to hold intergovernmental consultations in Beijing in early December on the disposal of the Japanese abandoned chemical weapons in China [see 17-28 Sep]. {*Kyodo* 31 Oct}

30 October The US Central Intelligence Agency possesses classified documents showing that tens of thousands of Americans may have been exposed to Iraqi chemical weapons in 1991 during the Gulf War, according to the front page of the *New York Times* reporting at length allegations made by two former CIA analysts, Patrick and Robin Eddington, husband and wife. The 59 documents are reportedly evidence of numerous incidents in which CW agents were released in the vicinity of US troops. The *Times* says they include cable traffic which "confirmed that the Iraqis had indeed moved chemical weapons into southern Iraq just before the war and that American military commanders had received warnings during the war that chemical weapons had been released near their troops". The documents, which are classified, had been retrieved by Patrick Eddington from CIA data-bases after he had read one of the early Senate Banking Committee staff reports resulting from the inquiry which James Tuite, for whom his wife was then working, was directing for committee chairman Senator Riegle [see 9 Sep 93 and 26–27 Jun 95]. What he understood the documents to show had led him to write a letter (reacting to a column by Frank Gaffney) published in the 7 December 1994 issue of *Washington Times*. In it, Eddington had accused senior administration officials of covering up what could have been the origin of 'Gulf War Syndrome': "Our forces were exposed to Iraqi chemical and possibly biological warfare agents. These expo-

tures were both direct (through fallout from the bombings of chemical and biological facilities in Iraq) and direct (through Scud or Frog missiles or artillery attack).” The letter had subsequently stimulated requests for briefings from CIA officials, but thereafter he felt that he was experiencing hostility and obstruction from his colleagues. He had now just resigned from the CIA, having spent his final months writing a book on the affair, *Gassed in the Gulf*.

The *Times* report states that the CIA does not question the “honesty, competence and emotional stability” of the Eddingtons but says that they “were trying to portray an honest disagreement among intelligence analysts as something sinister”. The report also states that copies of all 59 documents were among the CIA papers that had been opened to the President’s Advisory Committee on Gulf War Veterans’ Illnesses, which is due to report by the end of the year [see 9 Oct]. A spokesman for the committee, Gary Caruso, later tells reporters that Patrick Eddington had presented documents and his interpretation of the data to the committee in October 1995. He also says that the data did not show evidence of chemical exposure: “There would have to be more information to back up that claim”. {*Reuters* 30 Oct, *Washington Post* 2 Nov}

One of the allegedly covered-up incidents which Patrick Eddington later mentions to reporters involved an Iraqi warplane penetrating Coalition positions at al-Jubayl in January 1991. {*Los Angeles Times* 2 Nov}

31 October Hungary deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 65th signatory state to do so. It thereby triggers the 180-day process for entry of the Convention into force, which will now happen on 29 April 1997.

The Chairman of the OPCW Preparatory Commission, currently Ambassador Marin Buhoara of Romania, says during a press conference in The Hague next day: “Despite its achievements, the Preparatory Commission faces a number of unfinished tasks in the short amount of time now available, and must roll up its sleeves to ensure that all relevant procedures are in place before the OPCW starts functioning at the entry into force of the Convention. I would like to call on all countries to exercise greater political will and urgency to resolve all the outstanding issues which have been discussed so far as quickly as possible now that the trigger point has been reached. There is now no turning back.”

The Presidency of the European Union issues a declaration welcoming Hungary’s action. EU-associated countries in eastern Europe and elsewhere align themselves with the declaration. It states that, in the OPCW Preparatory Commission, the EU “will continue to prepare for the entry into force and full and effective implementation of the Convention”. The declaration goes on to urge all states that have not yet done so to sign and/or ratify the Convention, saying that it is “important that all possessor states, particularly the two declared possessor states, the United States and the Russian Federation, as well as other states with significant chemical industries and states in areas of tension be among the original states parties at entry into force”. {EU Common Foreign and Security Policy press release 7 Nov}

OPCW-inspector training can now be initiated. It will commence on 13 January in the Netherlands (with ‘week zero’ starting on 6 January) and on 20 January in other training centres (in China, Czech Republic, Finland, France, Germany, India, Italy, Japan, Romania, Russia, Slovakia, Switzerland, the UK and the USA). It will end on 30 May 1997. {*OPCW Synthesis* Nov}

31 October In Washington, the 308 documents that were removed from the Defense Department Internet website GulfLink in February on security grounds [see 9 Feb], including the 226 that were not subsequently restored to the website, are re-posted by a small publishing company on its own website {*New York Times* 31 Oct}. The company, Insignia Publishing, is shortly to publish *Gassed in the Gulf*, the book by former CIA analyst Patrick Eddington detailing his allegations of government cover-up [see 30 Oct]. The website is trashed next day by an unknown hacker {*Newsbytes* 5 Nov}, but is later restored.

Among the re-posted documents are ones indicating (a) that Iraq may have moved CBW and nuclear materials into Iran for safekeeping before and during the 1991 Gulf War; (b) that Russian experts may have helped Iraq and North Korea to obtain expertise and equipment for production of anthrax and smallpox organisms; {*Atlanta Journal & Constitution* 1 Nov} and (c) that in September 1990 US intelligence had ‘dusty mustard’ (D-HD), capable of penetrating protective clothing by virtue of “its small droplet size (1-5 microns)”, listed as a “known Iraqi chemical fill” {<http://www.insigniausa.com/950719dx.txt>}.

1 November In Japan, Aum Shinrikyo vacates its compound on the slopes of Mount Fuji [see 23 Mar 95 and 22 Apr 95]. The compound is handed over to the official receivers, who are liquidating the cult’s assets in order to pay compensation [see 2 Sep] to the cult’s victims. {*London Daily Telegraph* 2 Nov}

1 November The OPCW Provisional Technical Secretariat in The Hague now has a staff of 126 people from 47 states working on fixed-term contracts [see also 1 Jul]. Places on training courses have now been offered to 159 inspector-candidates from 58 countries for Training Group A. {*OPCW Synthesis* Nov}

1 November In Canada, the National Council of Veteran Associations urges the government to pay a basic minimum pension to all Canadian military personnel who served in the Gulf War (about 4,500 people) and who have medical problems [see 21 Feb 95]. The NCVA quotes the report on Gulf War illness which the Department of National Defence had commissioned from an epidemiologist at the University of Toronto, Dr A B Miller. This report, submitted to DND on 31 January 1996, had found that no unique ‘Gulf War Syndrome’ could yet be characterized, but had recommended that the Canadian government should not delay action pending the results of further studies, such as those being undertaken in the United States. NCVA chairman Cliff Chadderton states: “It was the conclusion of the National Council that our country could gain considerable international recognition by awarding a basic pension to Gulf War veterans and, in so doing, acknowledge that the unusual circumstances of military service in the Gulf were such that normal standards of adjudication in pension applications could not be applied”. {*Canada NewsWire* 1 Nov}

1 November University of Washington researchers report in *Nature Genetics* {vol 14 pp 334–6} that ability to withstand exposure to the nerve-gas sarin is genetically controlled. Chemist Charles Furlong and his team have found that the enzyme paraoxonase, which everyone has in their blood (apparently for purposes of cholesterol metabolism), can protect test animals against the lethal effects of sarin, but the form of the enzyme which some people make has no such protective effect; the trait is genetic. Populations may thus contain individuals who are genetically more vulnerable to sarin than are other people. {*Newsday* 1 Nov}

1 November In Langley, Virginia, CIA Executive Director Nora Slatkin conducts an on-the-record televised news briefing in reaction to the Eddington allegations that the CIA is hiding cables and logs indicating exposure of US troops to Iraqi CW agents during the Gulf War [see 30 and 31 Oct]. She announces that the Director of Central Intelligence has asked the CIA Inspector General to investigate the allegation, which she denounces in some detail. She also announces that the documents which the Eddingtons cited — 58, rather than the 59 stated by the *New York Times* — will, all but one of them (which “belongs to another government”), be released on GulfLink; so will all the documents that had earlier been withdrawn from GulfLink [see 31 Oct].

As for the CIA’s own inquiry into Gulf War illnesses [see 25 Sep and 1 Oct], Director Slatkin says that she has 20 people devoted to it from the Office of Scientific and Weapons Research in the Directorate of Intelligence, plus contract assistance on computer-modelling from Science Applications International Corporation. The modelling of the Khamisiyah episodes continues. {Federal News Service transcript 1 Nov}

4 November President Clinton, as required under the FY 1997 Defense Authorization Act [see 23 Sep], reports to the Congress on the capability of the United States for preventing the illegal importation of nuclear and CBW weapons into the United States and its possessions. {US Newswire 6 Nov}

5 November In Beijing, the visiting US Under Secretary of State for Arms Control and International Security Issues, Dr Lynn Davis, concludes two days of talks with Chinese officials [see also 7–9 Oct]. {*International Herald Tribune* 6 Nov}

5 November Iran proposes, in a plenary-level paper for the OPCW Preparatory Commission, a means for reconciling the export-control regime implicit in the Chemical Weapons Convention with the regime applied by countries of the Australia Group [see 14–17 Oct]. The paper includes the following:

“4. The CWC has not envisaged any export restriction in chemical trade between States Parties. The Convention has established a system with equal duties and responsibilities for all States Parties based on the principle of equal treatment of all States Parties.

“5. Some developed countries, however, have argued for a necessity of keeping some kind of export control regulations against the States Party to the Convention. This is clearly contrary to the letter and spirit of the Convention. By the entry into force of the Convention, the States Parties should abide by the provisions of the CWC and abolish existing export control regimes against States Parties in order to render their national regulations in the field of trade in chemicals consistent with the obligations undertaken under the Convention.

“6. In order to promote transparency in the chemical trade, the States Parties may agree on arrangement for exchanging the end-user certificate related to chemical exports in a manner that will entail no restrictions or impediments on access to chemicals, equipment or technological information by all States Parties. This would replace all existing regulations in the chemical trade at the time of entry into force of the Convention for the States Parties.

“7. An end-user certificate may be required from the recipients, stating in relation to the transferred chemicals or chemical manufacturing facilities and equipment (as stated in the attached Annex) the following: (a) That they will only be used for purposes not prohibited under this Convention (for the States

not party to the Convention). (b) That they will not be re-transferred without receiving the authorisation from the supplier(s). (c) Their types and quantities. (d) Their end-use(s) and (e) The name and address(es) of the end-user(s). The States Parties should resolve suspicions arising from such transfers through the process of consultation and clarification in accordance with Article IX of the Convention...”

The annex of the paper lists certain types of chemical processing equipment, types that are also identified in the Australia Group chemical-equipment control list. And it lists the 20 chemicals on the AG Precursor Control List that are not also on the CWC schedules. {PC-XV/B/WP.6}

5 November President Clinton is reelected president of the United States. Republicans remain in the majority in both houses of Congress.

7 November In Arizona, a dog with immune-mediated thrombocytopenia and “bizarre neurologic signs”, and which had been in Saudi Arabia during Operation Desert Storm, has been diagnosed with “possible Gulf War Syndrome”, so a posting on ProMED-mail records.

8 November At the US State Department, ACDA Director John Holum gives a press briefing on the Chemical Weapons Convention. He urges US ratification before 29 April 1997, the date on which the treaty enters into force [see 31 Oct, Hungary], saying: “If we do not become an original party, US leadership in nonproliferation could be undermined. Our chemical industry could suffer as a result of restrictions on trade with non-member countries. United States citizens would not be eligible to serve in either leadership or implementing capacities with the international organization that will be set up to implement the treaty, and US citizens who are now working there would be dismissed, and we would not be a member of the Executive Council and would have to live with decisions, should we subsequently ratify, that the Executive Council made in our absence. And there are many decisions by the council still to be made that will determine the effectiveness of the treaty.” He says that he will push for ratification “immediately”, adding: “This will be — this is a top legislative priority of the administration. It’s something that needs to be done quickly so we need action early in the year.”

On Russian ratification of the CWC, he says that the United States and Russia are in somewhat comparable positions “in the sense that both have made determinations that we’re going to eliminate our chemical weapons stockpiles”. He says that Russia has not linked ratification to any other issues, including NATO extension [see 7 Oct].

On the BWC, he speaks of US and EU agreement that a “verification protocol” should be completed by 1998. He says that he will be participating in the imminent Fourth Review Conference and is hopeful that one of its decisions will be “to regularize the negotiations [on strengthening the treaty] and to spend considerably more time next year in dealing with this”.

At the close of the briefing, he reiterates his remarks about leadership for US ratification of the CWC: “It will have to involve all of us, and I think from very early on. And we’ve had some discussions at senior levels. We’ll have more in order to lay out the specifics of the strategy. But I think the president has sent the signal in his UN speech [see 24 Sep], and again right after the election, that this is something we’ll all be heavily engaged in in the first part of next year.” {Federal News Service transcript 8 Nov}

8–10 November In Germany, the Bonn International Center for Conversion (BICC) convenes an international conference, *Destruction of Chemical Weapons in Russia: Arms Control, Economic and Environmental Aspects*, at the Gustav Stresemann Institute in Bonn with funding from the Volkswagen Foundation and with the co-sponsorship of the Stockholm International Peace Research Institute (SIPRI). The press statement subsequently released by the co-sponsors says: "The outcome of the discussions revealed that the challenge to destroying the CW stockpiles which are located in seven different sites in Russia is a complex and multifaceted problem that requires transparency in decision making processes, coordination of approaches by different groups who are involved in the plans for destruction (State Duma, Ministry of Defense, environmental agencies, local communities, non-governmental organizations, external donors, etc.) and improvements to public education and general awareness of the problem among policymakers and those residing in areas situated close to the CW stockpiles." The proceedings of the conference are to be published in 1997, in both English and Russian. {PR Newswire 13 Nov}

11 November In Russia, the chief of the Ministry of Defence RKhB Troops, Col Gen Stanislav Petrov, speaks to Itar-Tass about requirements for Western financial aid in destroying Russian chemical weapons. He says that Russia's failure to ratify the Chemical Weapons Convention could discourage more aid. {Itar-Tass 11 Nov in Jamestown Foundation *Monitor* 12 Nov}

11 November In New York, at the 51st UN General Assembly, the First Committee (Disarmament and International Security) adopts by consensus a draft resolution (L.2) on the Biological Weapons Convention. Initiated by Hungary, the draft resolution would, among other things, have the Assembly provide such services as may be required for implementation of Review Conference decisions.

The committee also adopts, by a vote of 132–0–10, a draft resolution (L.41) on measures to uphold the authority of the 1925 Geneva Protocol. Initiated by Colombia on behalf of the Non Aligned Movement, the draft resolution would have the Assembly call upon those states that continue to maintain reservations to the Protocol to withdraw them. It would also require a report from the Secretary-General on its implementation in time for the 1998 General Assembly. {UN press release 11 Nov}

12 November In the UK, a complaint of maladministration is lodged with the Parliamentary Ombudsman against the Ministry of Defence over its exposure of servicemen to organophosphate (OP) pesticides during the Gulf War [see 4 Oct]. The complaint is made by Liberal-Democrat Member of Parliament Paul Tyler, chairman of the all-party House of Commons group on OPs. His claim is that the ministry failed to heed warnings from other government departments about the dangers of using OPs. {London *Financial Times* 13 Nov}

More than a thousand UK Gulf War veterans have now registered with the ministry's Medical Assessment Programme investigating service-related illness. The lawyer acting on behalf of some of them, Hilary Meredith, says that the first writs against the ministry claiming compensation [see 27 Jul 95] are expected to be issued early in the new year. {London *Daily Telegraph* 13 Nov}

12 November US Deputy Defense Secretary John White announces that he is increasing the size of his department's Persian Gulf Illnesses Investigative Team from 12 to 110 people.

Recently Deposited CWC Ratifications

since 1 January 1996

Czech Republic — 6 March
Brazil — 13 March
Papua New Guinea — 17 April
United Kingdom — 13 May
Ethiopia — 13 May
Costa Rica — 31 May
Ireland — 24 June
Republic of Moldova — 8 July
Belarus — 11 July
Chile — 11 July
New Zealand — 15 July
Latvia — 23 July
Uzbekistan — 23 July
Saudi Arabia — 9 August
India — 3 September
Portugal — 10 September
Camerroon — 16 September
Hungary — 31 October
Swaziland — 20 November

As of 22 November 1996, 66 of the 160 signatory states had deposited instruments of ratification.

Earlier deposited ratifications are (in date order):

Fiji, Mauritius, Seychelles, Sweden, Norway, Australia, Albania, Maldives, Cook Islands, Spain, Bulgaria, Germany, Sri Lanka, Mexico, Turkmenistan, Uruguay, Paraguay, Lesotho, Greece, Tajikistan, Mongolia, Armenia, Finland, Oman, Romania, France, Switzerland, Croatia, Monaco, Netherlands, Denmark, Peru, Algeria, Austria, Poland, Ecuador, South Africa, Japan, Canada, Argentina, Slovak Republic, El Salvador, Georgia, Namibia, Italy, Côte d'Ivoire and Morocco

He says that the expanded team, comprising "representative elements of critical DoD components" and now headed by Assistant Navy Secretary Bernard Rostker [see 25 Sep] who he names as Special Assistant for Gulf War Illnesses, will "aggressively increase our outreach to those who served in the Gulf War and...ensure they are aware of and receive appropriate medical care". {Defense Department news release 12 Nov}

13 November President Clinton's Advisory Committee on Gulf War Veterans' Illnesses [see 9 Oct] meets in Washington to consider a draft of its final report, due in December. The draft reportedly still states [see 5 Sep] that the Defense Department has now lost so much credibility in its investigation of Gulf illnesses [see 12 Nov] that the investigation should be taken away from it. The draft is also quoted as concluding from the current scientific evidence that "it is unlikely the health effects

reported by Gulf War veterans today are the result of exposure” to CW agents. {*New York Times* and *Los Angeles Times* 8 Nov}

The committee has already seen the two large government studies published next day in the *New England Journal of Medicine* which show that rates of mortality and hospitalization among US Gulf War veterans are no different from those of US veterans of the same era who did not serve in the Gulf War. {*International Herald Tribune* 15 Nov}

13 November In Washington, a roundtable on *Chemical Weapons Destruction* is organized for Congressional staff by Global Green USA, the non-governmental organization that is the US affiliate of Green Cross International [see 8 Oct]. There are presentations from the teams that have recently published studies of non-incinerative options for destruction of the bulk-stored CW agent at Aberdeen and Newport: the National Research Council committee [see 24 Sep and 25 Oct], the US Army Materiel Systems Analysis Activity [see 17–28 Sep] and the US Army Program Manager for Chemical Demilitarization [see 3 Oct]. There are also presentations on the chemdemil incinerator operations at Tooele [see 22 Aug] and from developers of alternative technologies. A Defense Department decision on the Aberdeen and Newport options is due in early December.

17 November In Israel, Defence Minister Yitzhak Mordechai says on the radio that Syria has been developing VX nerve-gas and other chemical weapons with Russian assistance. He had said the same in an interview published in today’s *London Sunday Times*. {AP 17 Nov, *London Times* 18 Nov} He says that Syria could use Scud missiles, of which it has several hundred, “to carry the nerve gas in specially adapted warheads to centres of Israeli population”.

17–19 November In Moscow there is a NATO research workshop on *Destroying Chemical Weapons: Technical Responses to Safety, Health and Environmental Concerns* {ASA Newsletter 11 Oct}.

18 November In Tanzania, a three-week training course for personnel of CWC National Authorities begins in Dar es Salaam supported by the government of Ireland. The course is organized by the OPCW Provisional Technical Secretariat which, together with Sweden, Switzerland and the Harvard Sussex Program, provides course instructors.

18 November In New York, at the 51st UN General Assembly, the First Committee succeeds (after failing to do so in previous years) in adopting a draft resolution (L.48/Rev.1) on the Chemical Weapons Convention. Iran had agreed to join a compromise in place of its own draft (L.49) after revised language about the OPCW Preparatory Commission — urging it to intensify efforts to complete its remaining work — had been negotiated. The compromise draft is adopted by consensus, but with Egypt indicating that it had not joined the consensus. Egypt reiterates its position that it would not sign the CWC until Israel joins the NPT. {UN press release 18 Nov}

19–22 November At Aberdeen Proving Ground, the US Army Edgewood Research, Development and Engineering Center hosts the annual *Scientific Conference on Chemical and Biological Defense Research* [see 14–17 Nov 95].

20 November Swaziland deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 66th signatory state to do so.

22 November In Russia, the State Duma is scheduled to give the chemdemil legislation its second reading.

25 November Iraq communicates to the UN Secretary-General its acceptance of all the conditions set out in the draft memorandum of understanding that will enable the UN to implement Security Council resolution 986 (1995), thereby allowing Iraq to export limited quantities of oil to fund purchases of food [see 31 Aug]. {*London Independent* 26 Nov}

25 November In Brussels, representatives of member-states of NATO and its Partnership for Peace are briefed on the Chemical Weapons Convention by the Chairman and the Executive Secretary of the OPCW Preparatory Commission. Secretary Kenyon, in his presentation, welcomes the recent decision by the authorities of the Former Yugoslav Republic of Macedonia to “join our family”. FYROM is the only one of the 43 NATO/PfP members that has yet to sign the Convention.

25 November In Geneva, states parties to the Biological Weapons Convention begin their fourth review conference on the operation of the treaty. The conference is scheduled to end on 6 December. Ambassador Michael Weston of the UK is appointed president and Sola Ogunbanwo of the UN Centre for Disarmament Affairs is confirmed as Secretary General. Algeria, Israel, Kazakhstan and Macedonia/FYROM are granted observer status.

France announces its intention of withdrawing its reservations to the 1925 Geneva Protocol. {UN press release 25 Nov}

Opening-session speakers also include the representative of the International Committee of the Red Cross, Peter Herby. Other non-governmental organizations address the conference on 27 November, the speakers then being: Barbara Rosenberg (Federation of American Scientists), Martin Kaplan (Pugwash), Graham Pearson (University of Bradford), Oliver Thränert (Friedrich-Ebert Stiftung), Kathryn Nixdorff (INES), Erhard Geissler, Jean Pascal Zanders (SIPRI), David Atwood (Friends World Committee for Consultation), W J Appleyard (British Medical Association [see 22–26 Oct]), Gillian Woollett (Pharmaceutical Research & Manufacturers of America) and, again, Graham Pearson (CBACI).

26 November Russia has “never developed, produced, accumulated, or stored biological weapons”, so the Fourth BWC Review Conference [see 25 Nov] is told by the leader of the Russian delegation, Ambassador Grigori Berdennikov. Earlier, USACDA Director John Holum [see 8 Nov] had told the conference that his government suspected 12 countries of having biological weapons programmes, and that Russia (like Iraq and China) was one of them. {*OMRI Daily Digest* 27 Nov}

CBW Events data-base is compiled from news reports and other documentation furnished to the Sussex Harvard Information Bank by correspondents and scanners, including: Joachim Badelt in Germany, Treasa Dunworth in the Netherlands, Mitslral Kifleyesus in Belgium, Rayissa Manning in Germany, Tony Randle in England, Sandy Ropper in the United States, Guy Stevens in the United States, Henrietta Wilson in England, and Jean Pascal Zanders in Sweden.

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