

# CHEMICAL WEAPONS CONVENTION BULLETIN

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## ASIA PACIFIC SEMINAR ON THE NATIONAL IMPLEMENTATION OF THE CHEMICAL WEAPONS CONVENTION

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The Asia-Pacific Regional Seminar took place in Jakarta, Indonesia during 28–30 November. Attending were representatives of 20 countries of the region. There were more than 100 participants in all. Some countries outside the region were represented, as were a number of non-governmental organizations. The OPCW Provisional Technical Secretariat was present with five members headed by the Deputy Executive Secretary. Also very fortunate was the participation of the chairmen of Working Groups A and B, respectively Ambassador Morales Pedroza and Sylwin Gizowski. This proved of considerable help when the discussions turned to matters currently being considered in the Hague.

The seminar was opened by Indonesian Foreign Minister Ali Alatas. He called for attention to be given to the right of developing countries to have full access to chemicals and chemical technology, observing that certain control measures on trade in chemicals in the name of disarmament might have a detrimental effect. He noted that the verification provisions of the CWC, if implemented in good faith, will strike a good balance between the demand for effective verification of compliance and the need for legitimate confidentiality.

Responding, Deputy Executive Secretary Li Chang-he said he foresaw the Convention entering into force before the end of 1995. He gave an overview of the problems that the negotiators face in the Preparatory Commission. He encouraged delegates to begin thinking, even now, about preparations for the first Conference of States Parties and the election of the first Executive Council.

The main topic of the first day's discussion was the National Authority (NA), the point of contact between a State Party and the OPCW. Statements were made by representatives of the Republic of Korea, Thailand, Indonesia, Myanmar, Japan and New Zealand on the progress they were making in forming their Authorities. It became very clear that differences in political, legal and economic struc-

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## STRENGTHENING THE BIOLOGICAL AND TOXIN WEAPONS CONVENTION: THE OUTCOME OF THE SPECIAL CONFERENCE<sup>†</sup>

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Michael Moodie in the last issue of the *Bulletin* set out the prospects for the Special Conference held in Geneva during 19–30 September 1994. There is a clear need for a verification protocol for the Biological and Toxin Weapons Convention (BTWC), which was signed in 1972 and entered into force in 1975, and has 133 States Parties and 18 signatories who have yet to ratify or accede to the Convention. Following the Third Review Conference in 1991, an Ad Hoc Group of Governmental Experts (VEREX) met to consider and evaluate potential verification measures from a scientific and technical viewpoint. Its report was circulated to States Parties in late September 1993 and the requisite majority of States Parties requested that a Special Conference be held to consider the results of VEREX and decide on further action.

The Special Conference was attended by 79 States Parties; two signatories, Egypt and Morocco, and one non-signatory, Israel, attended as observers. The Special Conference, despite disagreements on the nature and content of any further work, managed to agree in the early hours of Saturday 1 October 1994, a mandate for a new Ad Hoc Group, open to all States Parties, to consider appropriate measures and to draft proposals to strengthen the Convention to be included in a legally binding instrument.

Although the BTWC has no provision for a verification regime, Article V obliges States Parties to consult one

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tures in the different countries make a standardized structure for National Authorities virtually impossible. Edward Tanzman of the Argonne National Laboratory (USA) showed this in his paper comparing national implementing legislation in states that have already ratified the Convention. Australia expressly establishes its NA in the form of a "Chemical Weapons Convention Office", whereas Norway omits any specification of its NA in its national legislation.

A paper by John Makhubalo of the PTS summed up the functions of the NA. He informed the participants about the international training course for NAs held in the Netherlands during July–August 1994, which had been very favourably received. However, some questioned whether that course had been held too early, as many states had not at that time decided which agencies would participate in the NA. Sometimes, to be on the safe side, diplomats had been sent whereas participants with a different background might have been useful. Nevertheless, hope was expressed that another such course could be provided in 1995.

The second day was completely devoted to issues concerning the chemical industry. Donald Clagett and John Makhubalo of the PTS introduced the *Declaration Handbook* which was presented to all delegations in electronic format. Hiroshi Fukushima of the Japanese Chemical Weapons Control Policy Office described the handbook which was being prepared for the very large chemical industry of his country.

A strong appeal was made by Prashant Yajnik of United Phosphorus Ltd in India to abolish trade restrictions on Schedule 2 and 3 chemicals between States Parties when the Convention comes into force. He cited three cases in which orders for chemicals placed with the Indian chemical industry had to be withdrawn, and chemicals supplied taken back, after strong political pressure by members of the Australia Group on the Indian government. Some of these orders subsequently went to Western chemical industries. These events had led to a considerable loss for Indian chemical industry. This paper gave rise to lively debate on the contents of Article XI of the Convention. The Legal Adviser of the Preparatory Commission advised a study to establish if the GATT and the CWC were in agreement. Australia responded with the well known arguments regarding the gradual lifting of any trade restrictions between State Parties.

The second part of the day was reserved for the verification and inspection regimes in the chemical industry. Donald Clagett, in a number of papers, gave an insight into what the industry could expect from the verification regime. In general, the chemical industry representatives were rather relieved with the answers they obtained. Much attention was focused on the issue of maintaining confidentiality of proprietary information. Michael Moodie, former deputy director of the US Arms Control and Disarmament Agency, and now representing an NGO, stressed the consideration that National Authorities should give to this issue

and the prominent place that it should take in the training curricula of future inspectors.

The third day started with a visit to a chemical plant site, PT Pupuk Kujang in West Java, which produces urea as a fertilizer and formic acid. This visit proved to be very important as many of the participants had never visited a chemical plant before. The plant management, who had organized the visit well, also seemed to benefit, as it increased their familiarity with the inspection procedures laid out in the Verification Annex of the CWC. Since neither product of the plant was a scheduled chemical, the visit was conducted as though urea were on Schedule 3. In addition, as formic acid is made from carbon monoxide, the other object of the mock-inspection was to confirm that no carbon monoxide was being withdrawn to make phosgene. The group was too large (around 90 participants) for anything like a real inspection to be practical. During the lively discussions before, during and after the visit, it became clear that this event was highly appreciated by all participants.

The second part of the day was devoted to old and abandoned chemical weapons. Thomas Stock of SIPRI presented a paper indicating that many countries of the region might well be faced with the problem of old and/or abandoned stocks as the chemical weapons deployed to forward areas by World War II belligerents had not always been withdrawn or destroyed.

The present author gave a presentation on Project Obong, the joint Indonesian–Netherlands operation to destroy some 40 tons of mustard gas abandoned in Java. On the one side, this brings the message to the countries that destruction of chemical weapons does not necessarily have to be carried out in a JACADS-type of operation which gives some countries the impression that they simply cannot afford to become party to the Convention. On the other side, it illustrates how coöperation between states can be of great benefit to all of them.

The closing session was led by the Director General Political Affairs of the Indonesian Foreign Ministry, Izhar Ibrahim. He particularly mentioned that inspections should be carried out in such a way as not to give rise to misunderstanding and suspicion. He therefore pleaded for use of the CWC clarification mechanisms to the maximum extent possible rather than immediate resort to challenge inspection. On the other hand, he stated that States Parties should also be prepared to accept the worst scenario in which challenge inspections are unavoidable.

This seminar may be viewed as very successful. It was of particular importance that many delegations had included representatives of the chemical industry. For the majority of States Parties the effects will be felt mostly on the side of the industry. The lively debates both during the formal sessions and during the many informal discussions proved that there is a growing awareness that now is the time to prepare for entry into force. The results of establishing national legislation in a growing number of countries in the region is certainly encouraging. □

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another and to cooperate in solving any problems which may arise in relation to the objective of, or in the application of, the provisions of this Convention. Article VI enables States Parties to take a complaint of possible non-compliance to the UN Security Council. The Third Review Conference in 1991 recognized that effective verification could reinforce the Convention. It established VEREX.

### **VEREX**

This group met four times in Geneva during 1992 and 1993 and concluded that some verification measures would “contribute to strengthen the effectiveness and improve the implementation of the Convention, also recognising that appropriate and effective verification could reinforce the Convention”. The final report also recognised that any single measure by itself could not determine whether a State Party was compliant with the Convention. Some measures in combination could provide enhanced capabilities by, for example, increasing the focus and improving the quality of information, thereby improving the possibility of differentiating between prohibited and permitted activities and of resolving ambiguities.

The final report of VEREX was circulated to States Parties and the required majority requested that a Special Conference be held in Geneva to consider the VEREX report and to address how best to take this forward.

### **Special Conference**

The Special Conference had essentially four phases: it opened with a day and a half for plenary considerations, then transformed itself into a Committee of the Whole for the remainder of the first week prior to a further transformation into a Drafting Committee for the first two days of the second week. This was followed by formal and informal plenary sessions which culminated in the agreement of the mandate for an Ad Hoc Group to draft proposals for a legally binding instrument to strengthen the BTWC. In addition there were meetings of the three regional groups (Western, Eastern and Non Aligned), informal consultations with the Conference President involving the co-ordinators of these groups, office holders such as the Chairman of the Committee of the Whole and other informal meetings. These all played an important part in ensuring a successful outcome.

The importance of strengthening the BTWC was emphasised by all the States Parties who made statements to the opening plenary session. Thus Germany speaking on behalf of the European Union said that:

... It is not acceptable to leave the Convention without effective mechanisms for ensuring compliance. ... Some approaches regarded by the European Union as particularly promising [are]:

- Mandatory national declarations covering a broad range of relevant activities will be a key measure

- On-site measures such as information visits, but particularly short notice inspections mandatory for States Parties, will be of primary importance.
- One area not dealt with by VEREX is the alleged use of biological weapons. Any verification protocol must contain rules for such an eventuality

The VEREX results have convinced the European Union that verification of the BTWC is possible ... Only a legally binding obligation for all States Parties can guarantee the measures decided upon are actually implemented.

These ideas were subsequently presented by the EU in a draft mandate tabled during the deliberations of the Committee of the Whole (BWC/SPCONF/WP.1 of 20 September 1994). The United States said that:

We strongly support preparation of a protocol containing a regime to strengthen the Convention. Second, we believe that all measures included in the protocol should be mandatory and legally binding. ... A combination of mandatory declarations, facility visits and on-site measures could be mutually reinforcing, providing a solid foundation for the regime. ... In conclusion, the United States supports strengthening the BWC through the negotiation of a legally binding regime that provides for a reasonable, effective and mutually reinforcing set of mandatory measures.

All States recognised the importance of strengthening the BTWC whilst protecting international cooperation and trade (Article X). Some States, notably China, Indonesia, Iran and India emphasized the importance of this Article. China stated that it was their view that:

at the present stage pending further study and research on verification measures, the strengthening of confidence-building measures may well be the only practical approach to strengthen the effectiveness of the Convention. ... China persistently holds the view that full implementation of the relevant Articles of the Convention on the strengthening of international cooperation and exchanging peaceful uses of biotechnology would be helpful to the economic and social development of all States Parties and beneficial as well for the enhancement of the universality and authority of the Convention.

Indonesia said that they would wish to point out some areas which they believed needed in-depth analysis:

in trying to form a verification system which is cost-effective, reliable and least intrusive. Firstly, it should not hamper the use, research and development of biological/toxin agents for peaceful purposes, particularly in addressing the diseases which normally occur in the tropical countries ... Secondly this verification system should be trustworthy, therefore it should eliminate any possibility of disclosing commercial proprietary information liable to damage the interest in national industries of States Parties. Thirdly, it should not hamper technical cooperation among the States Parties and create a barrier to access to advance technology, rather it should promote international cooperation in the development of bio-technology for peaceful purposes.

Iran noted that:

The question of peaceful use, in the meantime as described in Article X of the Convention has proved an unaccessible idealistic mirage. Expansion of the list of the Australia

Group and inclusion of 65 biological substances and related equipment in a short span of two to three years is an indication of what lies on the horizon. This list is in contravention to the text of the Convention. The restriction needs to be lifted. ... Strengthening of the Convention through verification mechanisms and enhancing its effectiveness presupposes universality and requires unqualified support of all members. ... This cannot find support except if coupled with removal of existing arbitrary export control regimes. ... We shall continue to render our support and increase our efforts to promote the objectives of this conference with a constant view on developments for peaceful use.

A similar view was expressed by India who were concerned that it was too early to say whether particular measures could be agreed and that there should be no immediate commitment to negotiation of binding measures.

### ***Feasibility of a verification regime***

The United Kingdom introduced a Working Paper (BWC/SPCONF/WP.2 of 20 September 1994) on the outcome of four practice inspections which addressed the feasibility of a verification regime in the biotechnology, pharmaceutical and vaccine industries. The objectives of these inspections were:

To test the effectiveness of verifying compliance with the BTWC by means of inspection of biotechnology, research and development, pharmaceutical and vaccine plants, especially those that are large, multipurpose, flexible, compatible with pathogen work and where there are substantial concerns about commercial confidentiality.

To examine the issues that arise for industry, for the government of the State Party receiving the inspection, and for the administration of such verification measures under the BTWC.

To test whether sufficient access within the plant and to documentation could be given to demonstrate compliance with the BTWC, without unacceptable compromise to commercial confidentiality.

The four main issues in the practice inspections — access, compliance assessment, commercial confidentiality and logistics — were considered and, as a result of these inspections it was possible to conclude that:

In-depth inspections are practicable: auditing, interviewing and visual inspection of key equipment are all essential and mutually reinforcing. Any measure on its own is of little or no value.

The risks to commercially sensitive information can be reduced by prior preparation and managed access. On many occasions the amount of access that can be granted without unduly risking proprietary data can be extensive.

The standards of evidence for an effective inspection are high. This is a qualitative problem as unambiguous evidence of non-compliance is difficult to acquire, but indicators of such activity can be identified. Given the potential dual-use nature of biological agents and much related equipment, inspection teams need evidence from all aspects of the site under investigation if they are to form a judgement on its compliance.

Availability of portable candidate BW agent identification kits would be of immense value.

The main burden on industry is largely one of diversion of management time to hosting the inspection; there should be no need to disrupt plant operations or enter sterile areas provided alternative means can be found to satisfy inspector concerns.

Many of the access problems encountered in the PCI programme were site specific, and the managed access solutions were equally specific. This is probably a general conclusion which might apply to most sites.

The UK has thus demonstrated that inspections are feasible and practicable and could provide an effective strengthening of the BTWC without jeopardising commercially sensitive information.

During the Special Conference, on 21 September 1994, the Federation of American Scientists (FAS) organised a seminar entitled “Beyond VEREX: Issues for Consideration at the Special Conference” which was attended by many delegates. One of the presentations focused on industrial aspects when Dr Wilderbeek, President of the Intervet Corporation who had been involved in the Dutch/Canadian bilateral trial inspection of a commercial facility in the Netherlands said that he foresaw no difficulty in making declarations under a future BTWC verification regime. Insofar as visits to facilities were concerned, his concern was that facilities such as Intervet Corporation in the Netherlands are subject already to a range of national and international inspections such as by the US Food and Drug Administration, the US Department of Agriculture and the UK Ministry of Agriculture, Fisheries and Food, which inspected their facilities and their compliance with Good Manufacturing Practice (GMP) in production and Good Laboratory Practice (GLP) in research. He therefore proposed that inspections under a BTWC verification regime should be focused on those organisations not subject to regular inspections. He concluded that there was overall support from the vaccine industry for strengthening the BTWC and said that there would be a lot of cooperation from industry in implementing a regime on condition that a practicable and workable regime was imposed.

### ***Key Issues***

There were several issues that were keenly debated at the Special Conference. These have been reflected in the agreed mandate for the new Ad Hoc Group: definitions; confidence building measures; a system of measures to promote compliance with the Convention; sensitive information relating to civil industry and national security; and impact on scientific research and industrial development (Article X measures). Each of these is considered in turn.

***Definitions*** Some States Parties argued for the definition of terms and objective criteria such as lists of agents, their threshold quantities, equipment and types of activities. Others considered that definitions could weaken the Convention as the prohibition in Article I stating:

Each State Party ... undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or

retain:

- (1) Microbial or other biological agent, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes;
- (2) Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

has stood the test of time well and has been reinforced by successive Review Conferences which have confirmed that subsequent advances in biotechnology are included within Article I. Any attempt to open up the Convention for a definition of terms could be used to exploit ambiguities and narrow the scope, or lead to alternative interpretations which might thereby inadvertently facilitate proliferation. Lists of agents might, however, be helpful in targeting declarations — and are certainly more helpful than containment standards — as it is agents and toxins that present a threat to the Convention. Threshold quantities only have possible application for toxins, but even here the increasing use of toxins for medical and pharmaceutical purposes make even this problematic. Moreover, the greater ability to produce toxins as a result of developments in biotechnology make quantitative limits a debatable proposition. For biological agents, they are meaningless because the agents are living microorganisms which can be rapidly replicated. Definitions of equipment and types of activities also present difficulties because of the dual purpose nature of virtually all equipment and activities. The agreed mandate requires consideration of definition and objective criteria where relevant for specific measures designed to strengthen the Convention.

**Confidence Building Measures (CBMs)** Some States were keen to create a regime based on CBMs; others recognised that the response to the CBMs agreed at the Second Review Conference and extended and strengthened at the Third Review Conference had been minimal. Less than half the States Parties had made one or more declarations since 1987 and only a handful have provided the required annual response. A regime based on such 'politically binding' measures would be ineffective. However, the provision of information voluntarily by States Parties will be a useful adjunct to a legally binding regime. The mandate requires consideration of the incorporation of existing and further enhanced confidence building and transparency measures, as appropriate into the regime.

**A System of Measures** The heart of a verification regime will be the identification of appropriate measures applicable to all relevant facilities and activities. Many States Parties such as Australia, Argentina, Canada and Poland supported the draft mandate put forward by the European Union which proposed a mandatory regime that provides openness and transparency of all activities relevant to the BTWC. The EU mandate proposed in particular that the regime should include the following basic elements:

- Off-site measures, including national declarations covering a broad range of activities, such as BW defence programmes, vaccines, relevant pharmaceutical and bio-

technology activities, and facilities handling specific organisms and toxins, and

- On-site measures such as information visits to declared facilities, short-notice inspections, and investigations of allegations of use.

and that the regime should also include a provision for multilateral information sharing, on a voluntary basis, to contribute to the efficacy of verifying compliance with the Convention. Other States were keen to see consideration of all the measures identified and evaluated by VEREX together with other possible measures. The mandate requires consideration of a system of measures including, as appropriate, measures identified, examined and evaluated by VEREX. Such measures should apply to all relevant facilities and activities, be reliable, cost-effective nondiscriminatory and as non-intrusive as possible, consistent with the effective implementation of the system. The mandate also requires that the regime include measures for the investigation of alleged use.

**Article X measures** This was the most contentious issue throughout the Conference and the last to be resolved. There was much debate about how to strengthen the BTWC whilst not impairing the provisions under Article X to facilitate the fullest possible exchange of equipment, materials and information for peaceful purposes which require that:

(1) The States Party to this Convention undertake to facilitate and have the right to participate in the fullest possible exchange of equipment, materials and scientific and technological information for the use of bacteriological (biological) agents and toxins for peaceful purposes. Parties to this Convention in a position to do so shall also cooperate in contributing individually or together with other States or international organisations to the further development and application of scientific discoveries in the field of bacteriology (biology) for the prevention of disease, or for other peaceful purposes.

(2) This Convention shall be implemented in a manner designed to avoid hampering the economic or technological development of States Parties to the Convention or international cooperation in the field of peaceful bacteriological (biological) activities including the international exchange of bacteriological (biological) agents and toxins and equipment for the processing, use or production of bacteriological (biological) agents and toxins for peaceful purposes in accordance with the provisions of this Convention.

A particular point of contention related to export controls with a few states seeking their removal whilst most states argued that such removal would be inconsistent with the obligations under Article III not in any way to aid proliferation. Article III requires that:

Each State Party to this Convention undertakes not to transfer to any recipient whatsoever, directly or indirectly, and not in any way to assist, encourage, or induce any State, group of States or international organisations to manufacture or otherwise acquire any of the agents, toxin, weapons, equipment or means of delivery specified in Article I of the Convention.

There was however a fair measure of agreement that States Parties should encourage the transfer of information relevant to the implementation of a verification regime of the BTWC and to improvement of biosafety standards as proposed by Brazil (BW/SPCONF/WP.4 of 21 September 1994). The mandate requires consideration of specific measures designed to ensure effective and full implementation of Article X, which also avoid any restrictions incompatible with the obligations undertaken under the Convention.

**Sensitive information** There was broad agreement that any regime should be constructed so that sensitive commercial proprietary information and legitimate national security information should be protected; this requirement is included in the mandate.

**Scientific research and industrial development** There was also a broad measure of agreement that any regime should be formulated and implemented in such a way as to avoid any negative impact on scientific research, international cooperation and industrial development; this requirement is included in the mandate.

### **The Way Ahead**

The mandate specifies that the first meeting of the Ad Hoc Group will take place in Geneva on 4–6 January 1995 and be devoted to procedural matters; it will also decide the Group's method of work. Additional meetings will be held as appropriate. It is agreed that the Group will complete its work as soon as possible and submit its report, which shall be adopted by consensus, to the States Parties, to be considered at the Fourth Review Conference in 1996, or later at a Special Conference.

In considering the approach to be adopted by the Ad Hoc Group there is a compelling logic that attention should be focused first on developing an appropriate system of measures; effort on definitions and objective criteria where relevant for specific measures requires prior identification of the measures. A parallel argument applies to the consid-

eration of CBMs as appropriate into the regime; the regime must first be identified and then the relevance of politically binding or legally binding CBMs addressed. Finally, Article X considerations are premature until the regime has been drafted and its potential impact on the exchange of equipment, materials and information for peaceful purposes has been evaluated. Specific measures to implement Article X consistent with the obligations of the rest of the Convention including Article III should then be considered.

In developing a verification protocol it is necessary to select measures that strengthen both the assurance that States are compliant and the deterrent effect against non compliance. The essential measures needed for a protocol include mandatory declarations and on-site inspections allowing both for visits to validate declarations and short notice inspections of both declared and undeclared facilities and activities including sites of alleged use. These can be illustrated graphically as shown below.

A balance will need to be struck between national costs, such as those incurred in preparing mandatory declarations and hosting inspections, and international costs such as those for an inspectorate. Whilst other measures identified by VEREX should be considered, careful attention needs to be given to whether the added value merits the additional costs. Care must be taken to avoid the temptation of gaining a false sense of security through collection of information of marginal benefit.

It is important to maintain the momentum already generated following the Third Review Conference in September 1991, the four meetings of VEREX in 1992 and 1993 and the Special Conference in September 1994. The risks to national and international security from biological weapons proliferation will not reduce until such time as such would-be proliferator states judge that their activities will not be militarily effective, that they are likely to be detected by a mandatory legally binding verification protocol and hence that such BW capabilities are not worth acquiring.

## Building the Organization for the Prohibition of Chemical Weapons

### Actions by the PrepCom

The Preparatory Commission for the Organization for the Prohibition of Chemical Weapons (OPCW) held two plenary sessions in The Hague, its Eighth and Ninth, since Quarterly Review no 7 (CWCB 25, pp 7–13). The Eighth Session occurred from 26 to 29 September; the Ninth, from 5 to 9 December. In both cases, the session took only four days of the five originally allocated. (Indeed, two weeks had originally been allocated for the Ninth Session, based on projections that the sixty-fifth instrument of ratification would be deposited in early 1995.) Once again, the Preparatory Commission took action on a range of matters that had been deliberated upon by its subsidiary bodies, which include the Committee on Relations with the Host Country, three Expert Groups reporting to Working Group A (on Administrative and Organizational Matters) and nine Expert Groups reporting to Working Group B (on Verification and Technical Cooperation and Assistance). Important decisions at the Eighth Session included:

- Approval of the Programme of Work and Budget for 1995, with a budget totalling about \$15.6 million (27.25 million guilders), plus an additional \$16.9 million (29.57 million guilders) available upon deposit of the 65th instrument of ratification. This was supplemented by a Special Account of some \$4.3 million (7.59 million guilders) earmarked for the purchase of inspection equipment.
- Acceptance of the Finnish national offer of a computer system and analytical database as a stand-alone component of the future Information Management System.
- Approval of a set of procedures for the inspection by inspected states of equipment carried by inspection teams, and of a set of principles on the use of approved equipment during on-site inspections.
- Approval of the report of an External Auditor reviewing the accounts of the Commission.

Those at the Ninth Plenary included:

- Provisional agreement (subject to the “silence procedure” described below) on a developer and design for the new OPCW Building.
- Tentative agreement on certain features of the OPCW’s Information Management System.
- Final adoption of a range of understandings on chemical industry issues.
- Agreement on procedures for proficiency testing of designated laboratories.
- Approval of a revised curriculum for a training course for National Authority personnel.

The foundation for decisions taken at the eighth plenary is described in the previous Quarterly Review; the decisions taken at the ninth are described in full below. The Ninth Session saw two especially important events in the development of the infrastructure of the OPCW: the completion of a provisional decision on the OPCW Building and an important step forward on the information management system of the future OPCW. Agreement on both issues occurred shortly before the Ninth Session, and both decisions merit some description here.

The OPCW Building will be constructed at the Catsheuvel site, near the Netherlands Congress Center, by a consortium headed by a Dutch development firm, Provast, one of three groups that had submitted proposals. The building, designed by an American firm, will accommodate some 500 persons and will include a wide range of facilities, including meeting space for the Executive Council. It will not be ready for occupancy until, at the earliest, 1997; after an initial three-year period in which rent on the building will be paid by the Netherlands, the rent will not exceed approximately \$3.3 million (5.7 million guilders) per annum, indexed to 1997 prices. (The OPCW will also retain the option to purchase the building, if it so chooses.) Resolution of the building issue became possible after an agreement with the Netherlands on a set of understandings which meant that the OPCW would not pay a separate amount for the use of the land at the site, settling an issue that had previously been controversial enough to block progress. The four-page list of understandings also clarified a number of other aspects of the Dutch bid to host the OPCW. (This included, for instance, details on the arrangements for the meetings of the Conference of States Parties.)

Because the negotiations on some aspects of this decision were not complete in time for the three-week notice period required for plenary decisions having financial implications, the decision was taken through a “silence procedure”, under which the Commission endorsed the draft decision and decided to adopt it unless any state deposited a formal objection with the Executive Secretary by 13 January 1995 (slightly over one month later). The Commission emphasized that this unusual procedure would not set a precedent for its future decisions.

The second important step was the apparent achievement of significant progress towards the resolution of the question of the security arrangements for the OPCW’s Information Management System (IMS). Briefly, the Expert Group on Data Systems had been deadlocked by a disagreement between delegations asserting that an E2/C2 security level (in the standard terminology of the European Union and the United States) would suffice for the OPCW’s IMS, and delegations that argued that a (higher) E3/B1 security level was required. The security arrangements are so fundamental that, for as long as they remain unresolved, a wide range of IMS-related activities are effectively at a standstill,

including, *inter alia*, decisions on national offers for the IMS, software development and hardware purchases. Indeed, at the Eighth Session, the Commission had frozen all expenditures from the 1995 IMS budget pending resolution of the security question.

It is not clear to what extent the new agreement settles the underlying dispute on the IMS security level and to what extent it merely represents a political commitment to reach agreement. In any case, there was enough confidence that the security question would be settled for much of the spending freeze to be lifted at the Ninth Session and authority to lift the remainder to be devolved to Working Group A (with, once again, the admonition that the latter procedure did not set a precedent for the future work of the Commission). These steps will allow progress on the development of the IMS to continue after resolution of the details of the agreement. Although the devil is said to reside in the details, this tentative agreement is nevertheless very good news.

Still, there remained some dissatisfaction among the member states of the Commission with the Commission's pace in elaborating the details of the substance of the Convention. It was noted, for instance, that virtually the only verification-related decision taken at the Ninth Session was the decision to add the item "reusable boots" to the list of approved inspection equipment. This dissatisfaction is not entirely justified, as some Expert Groups have made significant progress on certain issues, and as the intersessional period between the Eighth and Ninth Sessions was an unusually short one (two months as against the usual three). Even so, it remains true that the slower-than-hoped-for movement of the Convention towards entry into force has reduced the urgency with which negotiators press for agreements.

*Pace of Ratification* The announcement on the last day of the Ninth Session of the simultaneous signature and ratification of Lesotho, and the announcement of impending ratifications or deposits of instruments of ratification by a number of states, helped to boost confidence that the present steady influx of ratifications of the Convention would continue. Projections from a number of sources suggest that there could be as many as 40 ratifications by late spring or early summer. Of course, a rapid pace of ratification, although encouraging, is not as meaningful as it would be with the ratifications of the major possessors of chemical weapons, the United States and Russia; suggestions during the Ninth Session that it would be valuable for these states to report regularly to the Preparatory Commission on the progress of their ratification processes acknowledged this fact. A particularly dramatic illustration of the importance of rapid entry into force of the Convention was the observation at the Ninth Session by the representative of a Balkan state that four of the states of the region had ratified, the highest ratification rate of any area of the world. Implicit in this statement was the probable reason for the high rate, the awareness of states in the region that CS gas has already been used in the Bosnian conflict and that escalation to the use of other chemical weapons is a possibility.

*Article XI Issues* At both the Eighth and the Ninth Sessions, controversy continued over Article XI issues. At the Eighth Session, Mexico made a statement noting that, after significant efforts on all sides, a political compromise had almost been reached in the deliberations of the Technical Cooperation and Assistance Expert Group on the review of national export control legislation to conform with the Convention. At the Ninth Session, Australia made a statement expressing the belief that this compromise could still be agreed upon. At both sessions, a number of important states in Africa, Asia and Latin America spoke in favour of the view that Article XI of the Convention was inconsistent with the export control activities of the Australia Group; China also noted, somewhat ominously, that proper resolution of this question might affect the universality of membership of the Convention. The Asian Group made a statement on Article XI issues on both occasions, both times with dissents from South Korea (which emphasized that regional group statements should reflect full consensus in the group) and from Japan (which disagreed with the practice of regional groups making statements on controversial questions at all). A number of states also made statements asserting that the activities of the Australia Group were consistent with Article XI of the Convention.

*Representation in the Secretariat* At the Ninth Session, the Asian and African Groups made what has become a customary appeal to widen the scope of geographic representation in the Secretariat; one state also suggested that there was an under-representation of Spanish-speakers at the Secretariat. It was observed that, since most of the Secretariat's recruitment had been completed, it would be necessary to focus on these issues in Phase Two (the expansion of the Secretariat scheduled to occur after the deposit of the sixty-fifth instrument of ratification). The suggestion was also made that an Expert Group be tasked with monitoring these issues.

*Challenge Inspections* The Asian Group statement, in addition to addressing Article XI issues, renewed the Group's call for caution in the use of challenge inspections; China also made a similar statement separately.

*Methods of Work of the Commission* The Ninth Session saw a renewed effort to improve the methods of work of the Preparatory Commission. A report by the Chairman of the Commission and the Executive Secretary made a number of recommendations to this end, which were discussed at the Ninth Session. It was also widely noted that, although some modifications in the Commission's methods of work might be helpful, they could not substitute for the political commitment and sense of urgency that are essential to successful negotiations and that seem to have faded somewhat in recent months. Despite this reservation, two suggestions — that Expert Groups be given more time for meetings and that meetings on Friday afternoons be avoided — were reflected to some extent in the new schedule of meetings. Certain other suggestions, including one that would convert the present Expert Groups into "Working Groups" and the present Working Groups into "Committees of the Whole", were not adopted at this Session.



Another suggestion, by Iran, would have devoted more of the time of the Commission's plenary sessions to negotiations, with the hope of allowing linkages and tradeoffs between issues. (Iran had made a similar suggestion at previous plenaries, presenting it along with a catalogue of issues yet to be resolved by the Commission.) At Iran's suggestion, a paragraph in the Commission's report stated that the Commission would consider devoting some time to discussion of substantive issues at the next plenary. Revision of the methods of work of the Commission remains on the agenda for the Tenth Session.

It is noteworthy that the Commission's methods of work have already improved significantly in some respects. Progress on both the building issue and the IMS issue was assisted by having a small group (in the latter case, embodied in a task force) work on the issue virtually continuously. The task force device is also useful for isolating technical questions from political considerations and allowing delegates with technical backgrounds to resolve them. For instance, the task forces reporting to the Expert Group on Inspection Procedures have been notably effective. Finally, progress on the IMS issue was hastened through bilateral consultations between the concerned parties, often a very useful device.

**Attendance and Officers** The Eighth Session continued the trend of low attendance set by previous Sessions, with participation of 79 Member States, exactly the number required for a quorum. The Ninth Session saw considerably higher participation, with 90 Member States attending; thus, although the number required for a quorum rose to 80 with the signatures of two new states, this number was comfortably achieved. The high attendance level was partly attributable to a new Secretariat initiative, under which the Secretariat made extensive outreach efforts, especially to states with representatives only in Brussels, and assisted them in transporting delegates to The Hague. (This initiative led to a suggestion that the Secretariat might similarly assist states in attending meetings of Expert Groups.) The Eighth and Ninth Sessions were chaired by Ambassador Miguel Marin Bosch of Mexico. In keeping with the principle of chair rotation among the five regional groups, Mr. Finn K. Fostervoll of Norway was elected Chairman for the six-month period commencing 8 February 1995 as representative of the Group of Western European and Other States. The newly elected Vice-Chairs are the representatives of South Africa, Pakistan, the Czech Republic, Ecuador, and, once again, the United States of America. The Commission also renewed the contract of the Executive Secretary, Mr. Ian Kenyon, for a further one-year period.

### **Actions by the Member States**

**Signature and Ratification** During the period under review here, two new States signed the Chemical Weapons Convention, Chad and Lesotho. Four additional states ratified the Convention, Turkmenistan, Uruguay, Paraguay, and Lesotho. In addition, Greece and Romania have announced that they have ratified the Convention and are in the process of arranging for the deposit of their instruments of ratification; Mongolia is apparently in a similar situation.

Switzerland has announced that it has completed the parliamentary ratification process and that it will deposit its instrument of ratification after waiting for a prescribed period in which a referendum may be demanded on the issue (said to be an unlikely prospect). France announced at the Ninth Session that it expects to complete its parliamentary processes by the end of the year. A number of other states are said to be near ratification. The Executive Secretary's Report at the Ninth Session noted that "one third of the required number" of states, or around twenty-two, are expected to have deposited their instruments of ratification "by the early New Year"; as already noted, informal projections are that as many as forty states may have ratified by late spring or early summer 1995.

**Meetings and Seminars** Three well attended regional seminars were held during the period reported here, one in Lima, Peru (1-3 September), one in Pretoria, South Africa (12-14 September), and one in Jakarta, Indonesia (28-30 November). Particularly noteworthy was the high level of participation by African states at the Pretoria seminar; participants included three non-signatory states, Angola, Chad (which subsequently signed the Convention) and Sudan. A seminar on national implementation was held in The Hague on 30 September immediately after the Eighth Session of the Commission. A regional seminar that had been planned for Kuwait in early November was regrettably cancelled, apparently because of difficulties in arranging for full participation in the region. Future regional seminars are planned in Belarus in mid-January, Cameroon in mid-February, Cuba in March, and South Korea in May or June; others are also in the planning stages. At the Ninth Session, the Executive Secretary announced the establishment of a Regional Seminar Trust Fund, which will receive voluntary contributions by States towards the travel and other expenses associated with the regional seminars. States that have already made contributions for this purpose (or committed to do so) include Norway, Sweden, and Switzerland; a number of non-governmental organizations, including the International Support Center and the Harvard Sussex Program, have also provided such support.

During 15-16 November, Argentina held a seminar for the Latin American region on nonproliferation of chemical and bacteriological weapons. A statement subsequently issued by Argentina noted that the meeting provided general information to participants on the CWC, as well as more detailed information on the Australia Group and on the implementation of export control policies. The statement noted that statistics presented at the seminar demonstrated that export controls have no effect on ordinary trade flows, and so are not inconsistent with economic development.

**Other Activities** The Government of India's offer to train 20 inspectors and inspection assistants under Module 1 (the general module) of the training program was officially certified by the Secretariat, and the six-week pilot training course will occur in early 1995. Switzerland transmitted a copy of its national implementing legislation to the Secretariat. The Slovak Republic has submitted a national offer for the OPCW's Information Management System, which will be evaluated in the near future. In December, both the

Slovak Republic and Poland began, like the Czech Republic, to participate in the Australia Group. In October, Romania held a seminar on the Convention for its chemical industry, which was attended by, among others, the Executive Secretary of the Preparatory Commission.

### ***Progress in the Provisional Technical Secretariat***

***Staff and Budget*** The Secretariat now has 110 staff members of 44 nationalities. In the professional category, some 15 percent of the employees are women, an increase over the previous level of 10 percent. A total of 1,118 applications have been received for inspector positions. Although this is an encouragingly high application level, there remain shortages of qualified applicants in certain categories, and it remains the case that few applicants are women (8 percent) and that 80 percent of the applicants are from states in two regional groups (the Asian and WEOS Groups).

***Internal Policies*** The Secretariat's Staff Association has been active in addressing staff policy issues, as has the Joint Advisory Board, a body composed of staff members and Secretariat officials specifically charged with advising the Secretariat on staff policy matters. The Secretariat is in the process of developing a draft set of OPCW Staff and Financial Regulations and Rules, for consideration by the Expert Group on Administrative, Financial and Personnel Matters; to do so, it has researched the staff policies of other international organizations.

***Implementation Activities*** At the request of the Expert Group on Chemical Industry Issues, the Secretariat has completed a draft of the industry section of the Declaration Handbook and circulated it to the Member States of the Preparatory Commission for comments. The chemical weapons portions of the Declaration Handbook (with the exception of those related to production facilities) are also to be circulated in the near future. Some 75 companies in 14 Member States have responded to the Executive Secretary's request for information from firms that might wish to bid for contracts to supply inspection equipment to the Secretariat. Requests for proposals for the supply of this equipment are to be issued in early 1995. The Secretariat also completed work on a first round of inter-laboratory comparison tests, involving 20 laboratories; the next round of tests, to involve 9 additional laboratories from a total of 25 states, will begin in January 1995. The Secretariat hopes to conduct a set of trial declaration exercises, directed at testing declaration procedures, in early 1995. Because an important part of these exercises is to be the testing of the data handling capabilities of the future OPCW Information Management System, they have been delayed somewhat pending the resolution of the question of the security arrangements for the IMS. Finally, the Report of the Executive Secretary presented to the Ninth Session contains a detailed retrospective for 1994, which provides a useful overview of the Commission's work during that period and demonstrates the extensive progress that the Commission has made on its mandate to prepare for the Convention's

entry into force (while noting some areas in which work has been slower than might be wished).

***Outreach Activities*** Secretariat staff have been active in visiting Member States, making extensive efforts to discuss ratification with appropriate officials and to meet with chemical industry representatives. Secretariat staff have also conducted a number of visits to states interested in providing inspector training in order to discuss the details of training arrangements. Staff have continued their contacts with multilateral organizations; particularly noteworthy were an address by the Executive Secretary to the First Committee of the United Nations General Assembly and addresses by senior Secretariat staff to the WEU Assembly and a sub-committee of the European Parliament.

The Secretariat has been involved in arranging a number of meetings and seminars. These included a seminar on the CWC held in mid-November in Amsterdam by the European Institute for Foreign Affairs and a colloquium for international lawyers held in The Hague by the Hague Academy of International Law in late November. The Secretariat also received a number of visits, including one by a group of Czech parliamentarians and one by a five-member delegation of staff members from the United States Senate, who discussed a number of issues related to United States ratification.

***Publications*** The PTS continued publication of the *OPCW Synthesis*, and also issued a new document, *OPCW Synthesis: Supplement*, which provides a detailed review of the work of the Commission's Expert Groups and other subsidiary bodies. The latter document, which is primarily intended to inform States that are not able to participate in the work of all of these bodies about their activities, was prepared with the cooperation of the Harvard Sussex Program. The PTS also issued two *Occasional Papers*, no. 5 and no. 6, which respectively summarize the proceedings of the Brno Regional Seminar (held in June 1994) and of the National Implementation Seminar in the Hague (held in September 1994).

### ***Progress in Other PrepCom Structures***

***Committee on Relations with the Host Country*** The Committee on Relations with the Host Country met frequently during the period under review, and made significant progress in its work on the future accommodation of the Commission and OPCW. Most importantly, the Committee decided that it would recommend that the Commission accept the proposal of the property developer Provast for the construction of the OPCW Building. This decision became possible when, in response to a letter from the Chairman of the Commission and the Executive Secretary on the controversial question of the price of the land at the proposed site (at Catsheuvel) for the OPCW Building, the Minister for Foreign Affairs of the Netherlands indicated that a "comprehensive package" would be proposed which would result in a "payment/rent for the building that includes no payment for the land". After intensive negotiations between the Commission and the Host Country, the two sides agreed on a set of "Understandings" that will con-

stitute this package and that set forth details of the interpretation of the Netherlands' original bid to host the OPCW. These understandings, which state, *inter alia*, that the OPCW will never have to pay any compensation to anyone for the use of the land at the Catsheuvel site, were provisionally approved by the Commission at its Ninth Session (subject to the "silence procedure" discussed above).

Among the other aspects of the Netherlands' bid clarified by the understandings were the arrangements for the first and subsequent Conferences of States Parties. These meetings are expected to occur at the Netherlands Congress Center, the facility presently used for the meetings of the Preparatory Commission. The understandings set forth logistical details for these meetings, an important task given the likelihood that the meetings of the Conference of States Parties, especially its first session, will be much larger than those of the Preparatory Commission. The understandings also outline the details of the inspector training program to be provided by the Netherlands, which will be a Module 1 (general) training program for 135 inspector trainees, and of the Netherlands' payment arrangements for the lease of the OPCW's laboratory and equipment storage facilities.

In its other work, the Committee continued its negotiations on rental terms with the owner of the agreed site for the OPCW Laboratory and Equipment Store; these negotiations have been delayed somewhat by a change in the ownership of the site.

### **Working Group A**

**Programme of Work and Budget** This Expert Group met during 2–4 November 1994. It recommended that the Commission adopt the proposal of the Expert Group on Inspection Procedures that the item "reusable boots" be added to the equipment list adopted by the Commission for budgetary purposes. The Expert Group also recommended the unfreezing of all of the Information Management Systems Branch's personnel appropriations; as the account above indicates, this recommendation was subsequently expanded at the Ninth Session.

The Group also identified and discussed a range of issues that will have implications for the OPCW Budget, including the OPCW's structure, staffing and staff policies, the frequency of the meetings of its principal and subsidiary bodies, and policy on translation and interpretation. The Group discussed and forwarded to Working Group A for its consideration and approval a number of recommendations of the Finance Group, including, *inter alia*: recommendations that the draft OPCW Budget follow the basic structure of the Commission's 1995 Budget; that the initial budget cycles of the OPCW be annual and eventually shift to a biennial budget cycle, possibly after two annual budget cycles; that the initial budget of the OPCW be denominated entirely in Dutch guilders; and that certain restrictions be placed on the Executive Secretary's ability to transfer funds within a particular programme (and restrictions on inter-programme transfers within the same line item be removed). The Group decided to defer consideration of issues related to the implementation of the training budget until its next meeting. The Group also deferred consideration of the budgetary impact of the security model to be

adopted for the IMS, as the Expert Group on Data Systems was not able to reach agreement on this matter.

**Finance Group** This body met during 10–14 October 1994. The Group devoted considerable attention to considering the likely form and content of the first OPCW budget. It noted that it would be difficult to prepare such a budget before the Commission had decided on a number of important matters relating to the Organization's structure, staff policy, operations and programme of work. Issues included the frequency and duration of the meetings of the OPCW's governing bodies (Conference of the States Parties and Executive Council) and subsidiary bodies, the pay level of the Director-General, and the number and pay levels of Deputy Directors-General. The Group forwarded to the Expert Group on Programme of Work and Budget its recommendations that the first OPCW Budget follow the format of the Commission's 1995 approved Budget, that the OPCW (after the first two years) adopt a biennial budget cycle, and that the initial budget be denominated in guilders.

The Group also noted that certain provisions of the Convention might have important implications for the OPCW Budget, including the Convention's requirement that the Budget separately list verification and administrative and other costs and its provisions on assistance under Article X, and requested that the Secretariat study these issues. The Group made a number of suggestions for the operations of the future OPCW, including the proposal that the OPCW should consider establishing a Committee on Administrative, Budgetary and Financial Matters that would carry on the work of the Expert Group on Programme of Work and Budget and an Advisory Committee on Administrative, Budgetary and Financial Matters that would carry on the work of the Finance Group.

In other business, the Group received the comments of the Executive Secretary on the implementation of the recommendations of the External Auditor and on the ongoing work of the Internal Auditor recently loaned to the Secretariat by Germany; recommended that Working Group A request the Commission to authorize a pay increase of some 3.41 per cent for General Service staff; and noted the continuing question of the extent to which the OPCW was to adhere to the UN common system.

**Data Systems** The attainment of partial agreement on the security arrangements for the OPCW's Information Management System, discussed above, promises to considerably simplify this Expert Group's work, much of which had been blocked by the Group's inability to reach agreement on the security question. In its report of meetings on 31 October and 1 and 9 November, the Expert Group had stated that it "continued to be unable to resolve" the differences between delegations regarding the level of security to be required for the IMS. The Expert Group had recommended the lifting of a small portion of the general freeze on expenditures from the Information Management Systems Branch's budget; this "unfreezing" was expanded substantially at the Ninth Session, thanks to the new tentative agreement. Indeed, even more of the frozen funds would have been unfrozen had it not been for concerns on the part

of some delegations about the implications for their national offers for the OPCW's IMS.

Independently, the Expert Group had stated that it could not make a recommendation on the US offer for the IMS. The Expert Group did not explicitly link this issue with the need to resolve the security question, but it appeared very likely that the two were related. It therefore would be reasonable to anticipate more rapid progress on the evaluation of this and other national offers at future meetings of this Expert Group.

**Administrative, Financial and Personnel Matters** This Expert Group met for preliminary consultations on 14 and 15 November. The Group discussed the future staff policy of the OPCW; it requested the Executive Secretary to prepare an initial draft of the OPCW Staff Regulations and Rules, taking into account the views on the future staff policy expressed during these consultations, for consideration at its next meeting.

**Consultations on Media & Public Affairs Policy** These consultations took place on 16 November 1994, and considered the draft *OPCW Media and Public Affairs Policy*, which includes, among other materials, a "draft indicative list of general information which may be routinely provided to the media and general public". The group made comments on the draft and requested the Secretariat to update it for future consultations.

### **Working Group B**

**Chemical Weapons Issues** This Group met during 5–9 September and again on 21, 22, 24 and 25 November. Although these meetings led to some progress, neither produced final agreement on any of the issues on the Group's agenda. The Group did succeed in reaching agreement on significant portions of the draft model facility agreement for chemical weapons storage facilities (CWSFs). Work on some portions was deferred until the Confidentiality Expert Group had resolved certain confidentiality-related questions and the Inspection Procedures Expert Group had resolved other issues; disagreement on other portions continued. Discussion of this model facility agreement will not resume until the outstanding areas are resolved by other Expert Groups. The model CWSF facility agreement is especially significant because, being the first of its kind, it may be used as a point of departure in drafting other model facility agreements (although the Expert Group's Report states explicitly that it should not be read as setting a precedent for those agreements).

At both meetings, the Group also discussed the question of the appropriate allocation between the OPCW and the inspected state party of the costs of verification activities at production, storage and destruction facilities, although without making great progress on this question. Finally, at the November meeting, the Group received an initial draft of the section of the Declaration Handbook related to chemical weapons destruction facilities.

**Old and Abandoned Chemical Weapons** This Group met on 12 and 13 September, and discussed four general is-

ssues; it made progress in some areas but reached agreement in none of them. The issues were: the "usability" of old chemical weapons produced between 1925 and 1946; the regime to be applied to abandoned chemical weapons; the allocation of the costs of verification of old and abandoned chemical weapons between the inspected state party and the OPCW; and the implications for challenge inspection purposes of chemical weapons dumped in a state party's waters after 1984 or buried after 1976 (a particular concern of countries like Iran, given the large number of chemical weapons that may remain to be discovered on its territory in the wake of the Iran–Iraq war). The Expert Group was tasked to consider the last of these issues by the Ninth Session, and so will revisit it in future.

The Group met again, for informal consultations, on 23 November. At this session, the Group discussed two of the issues it had addressed at its previous meeting. On the first of these, the "usability" question, the Group distinguished and discussed two general approaches, one styled as "technical" criteria for usability and the other as "circumstantial" criteria for usability. On the second, the regime for abandoned chemical weapons, the Group discussed a draft Chairman's Paper on the topic. The Group also discussed the matter of initial inspections of small quantities of old or abandoned chemical weapons, and considered two approaches, one requiring that all declared finds receive an initial inspection but allowing some flexibility as to its timing, and the other permitting the Technical Secretariat some discretion in determining whether to conduct an initial inspection of a declared find.

**Safety Procedures** This Group met for informal consultations during 17–18 November. The Group discussed the draft *OPCW Health and Safety Regulations*, and made a large number of editing suggestions. The Group also recommended the establishment of a Task Force on Medical Treatment to address technical issues related to the medical treatment of persons exposed to chemical agents. The Task Force, which will hold its first meeting in February 1995, will attempt to reconcile the different types of treatment, including antidotes and prophylaxis, considered appropriate by different states.

**Chemical Industry Issues** At a meeting held on 14 September the Group developed understandings on how to calculate declarable amounts of scheduled chemicals that are consumed and regenerated in production processes ("recycled chemicals"). The Group also developed an understanding that Schedule 1 chemicals acquired by extraction from natural sources (for example, ricin extracted from castor beans) should be declared. For procedural reasons, these understandings could not be considered at the Eighth Session of the Preparatory Commission; they were considered and approved at the Ninth Session. Another understanding that had apparently been reached at this meeting, on the meaning of "production" in the context of Schedule 1 production facilities, broke down after one of the interested parties withdrew its support at the Eighth Session, and so was not approved. The view was also expressed in this meeting that the Secretariat should approach the Customs Cooperation Council with the suggestion that the Harmo-

nized Commodity Description and Coding System, a system used for tracking customs records, be modified to take account of the Convention's record-keeping requirements for imports and exports of scheduled chemicals. This suggestion did not, however, meet with the unanimous approval of the Expert Group, and an attempt to revive it at the Eighth Session similarly failed to meet with unanimous approval.

The Expert Group met again on 13 and 14 October. It considered and commented on a draft of the Industry sections of the *Declaration Handbook*. The updated version will form the basis of a trial declaration exercise to be conducted in 1995. The Expert Group also provided comments on a proposed structure presented by the Secretariat for model facility agreements for single small-scale facilities, Schedule 2 facilities, and Schedule 3 facilities.

The Expert Group addressed a range of important questions on the correct interpretation of specific provisions of the Convention. Although it made some progress on certain of these questions, it was not able to reach final agreement on them. These questions included: the declarability of facilities that produce mixtures of discrete organic chemicals; whether the term "production" in paragraph 2(a) of Article II should be read to include production by biochemical and biologically mediated processes; to what extent the reference to production "by synthesis" in paragraph 1 of Part IX of the Verification Annex should be read to include biochemical and biologically mediated processes; the status for declarations purposes of products containing low concentrations of Schedule 2 or 3 chemicals; methodologies for collecting aggregate national data on Schedule 3 chemicals; and the status of castor bean processing plants under the Convention.

*Technical Cooperation and Assistance* This Expert Group met on 8 and 9 November. It reviewed the curriculum for the National Authorities training course in the light of the experience of the previous course in July and August, and referred a proposed revised curriculum to the Commission. The Group also tentatively endorsed the idea of establishing "a database to facilitate the exchange of information relating to economic and technological development in the field of chemicals" as a step to implement Article XI of the Convention. The Group discussed the possible content and structure of such a database, and noted that it would need to be developed over a period of time and that it would need to take into account confidentiality and copyright considerations. The Group identified certain categories of information that a study on these issues should address. The Group also continued discussions of other issues arising from Article XI, without reaching any final agreement on these issues. (Note, however, the discussion of the earlier apparent near-agreement on Article XI issues at the beginning of this report.) Finally, the Group continued to be deadlocked on the draft list of mandatory information to be provided by states parties under Article X on national programmes related to CW protection: once again, it was able to agree neither on the adequacy of that list nor on any further expansion of it.

*Inspection Procedures* This Expert Group had two meetings during the period covered by this report. At its first meeting, on 20 September the Group received reports of five Task Force meetings, which covered analytical databases, data formats for GC-MS and IR spectrometry, GC-MS data sets, health and safety inspection equipment, and sampling and sample preparation. The Group approved the report of the Specialist Task Force on the GC-MS Dataset, which set forth proposed mixtures for use in the benchmark testing of the data analysis system for the GC-MS equipment. The Group also approved two documents, one setting forth technical specifications for 13 items of health and safety equipment, and the other an equipment list and specifications for sampling and sample preparation, drafted by the Specialist Task Force on Inspection Equipment Issues. The Group noted that the Specialist Task Force on Analytical Databases, which had not finished its work, continued to make good progress.

The Group also met from 20 to 25 October. At this meeting, the Group agreed on a paper presenting a methodology for performance testing of designated laboratories, and recommended it for adoption by the Commission. The Group provisionally approved three documents, without recommending them for adoption. The first two, generated by the Group's Specialist Task Force on Inspection Equipment Issues (Protective and Safety), were a set of general requirements for health and safety equipment and a set of technical specifications for 15 items of health and safety equipment. The third was a paper on sampling and analysis during investigations of alleged use of chemical weapons, which the Group agreed would be without prejudice to any procedures which might be followed in case an investigation of alleged use of chemical weapons was initiated pursuant to Article IX.

The Expert Group encountered significant difficulties in reconciling confidentiality concerns with concerns about effectiveness of inspections and safety of the inspection team (very recent developments in the Confidentiality Expert Group may help resolve this). The Group was not able to agree on whether to include equipment for occupational safety monitoring in the list of approved equipment, and requested more information from the Secretariat on the major risks to inspectors that would justify this item, and on approaches to minimizing these risks. The Group also could not agree to add "lockable briefcases" to the list of approved equipment, but did agree that the list could include the (somewhat notorious) item "reusable boots". The Group continued its work on the rights of the inspected state with respect to inspection equipment after an inspection, without reaching final agreement on this issue. The Group also discussed the issue of to what extent the manner in which particular types of equipment may be used in particular kinds of inspections were to be specified in advance, but deferred work on this matter.

The Laboratory of the Government Chemist of the United Kingdom, which was requested by Working Group B to prepare a report on the implementation of a quality assurance/quality control regime for the Verification Division, Inspectorate, and designated laboratories, presented a summary of its work to this Expert Group. The proposal identifies a suitable quality control scheme and estimates

the cost and staff time that will be required to implement it. The Group will consider this proposal further at a future meeting.

*Expert Group on Confidentiality* This Expert Group met on 10 and 11 November. It focused its efforts on the issue of general principles for the handling and protection of confidential information. The Group made progress on this issue, but noted that it required more time to complete its work, and requested its Chairman to continue informal consultations “with a view to ensuring completion of the issue at its next meeting.”

*Expert Group on Training* This Expert Group met on 17 and 18 October. It noted the continued shortages in offers to provide inspector training, including some skills under Module 2 (the module of specialized courses) and some on-

site activities under Module 3 (the module of on-site facility training), and discussed ways of addressing these shortages. The Group discussed ways of reducing the anticipated cost of the training program. These included ways of reducing travel costs; such costs are relatively high under the present approach of training at widely dispersed sites provided by Member States. The Group also requested that Member States provide meals or accommodations at low cost or no cost in their training offers. Finally, the Secretariat presented a preliminary assessment of inspector candidate applications suggesting that the present application pool does not contain enough qualified candidates for many categories of inspector.

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*This review was written by R Justin Smith, the HSP researcher in The Hague.*

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## News Chronology

## August through November 1994

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*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 (pp. 7–14) for further 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.*

**August** In China, the People's Liberation Army journal *Jiefangjun Shenghuo* carries an article criticizing what it reports as the refusal of Japan to disclose information about chemical weapons left in China by the former Japanese Imperial Army [see 25 Feb 93]. The article states that some 2 million poison gas shells had been abandoned and that, since the founding of the People's Republic, they have caused harm to more than three thousand Chinese people. The article also states that it will cost some 10 billion yuan and take 6-8 years to eliminate all the abandoned weapons. {Kyodo 24 Aug}

**August** The US Army Edgewood Research, Development & Engineering Center newsletter, now on distribution-unlimited public release, describes the Center's 600 square metre Process Engineering Facility as “dedicated to process studies and scale-up production of chemical and cellular products” and notes its state-of-the-art features. It adds: “Antibody process laboratories are currently operational with bioreactor capacities up to 30 litres. Fermentation capability up to 1,500 liters and downstream processing will be on-line by February 1995.” {*Edgewood Research, Development & Engineering Center Quarterly* Aug}

**1 August** In China, a scientist at the Army's Anti-Chemical Warfare Institute in Guangxi Zhuang autonomous region, Professor Pan Xinfu, has developed a herbal remedy for drug addiction that reportedly enables addicts to become deaddicted without pain or side-effects within 2–7 days of injection. The remedy, known as HT, has been patented, and is said to have been tested successfully on 5000 subjects. {Xinhua 1 Aug in BBC-SWB 2 Aug}

**1 August** In Iraq, the director of the new UN Baghdad Monitoring and Verification Centre [see 12 July], Rear Admiral (retired) Goran Wallen of Sweden, formally assumes responsibility for UNSCOM operations in Baghdad. {S/1994/1138}

**1 August** In Bosnia-Herzegovina, four NATO aircraft drop poisonous chemicals on Serb positions on the Mostar–Nevesinje sector of the front, according to a statement issued by the command of the Bosnian Serb Herzegovina Corps. {Tanjug 2 Aug in BBC-SWB Aug}

**1 August** The OPCW Executive Secretary issues a request for expressions of interest by companies in member states that might bid for contracts to supply items of inspection equipment for evaluation and for use in the training of candidate OPCW inspectors. A questionnaire is issued for interested companies, to be completed and returned, in confidence, by 1 October. {PC-VIII/B/1}

**1 August** US Assistant Defense Secretary for Atomic Affairs, Dr Harold Smith, speaks in a published interview of the projected BW-vaccine factory [see 13 May]. Asked if what he is trying to do is convince private industry to build a government-owned contractor-operated facility, he says: “No, contractor-owned, contractor-operated. They would build vaccines in exactly the same way contractors build airplanes. We would expect them to build the plant and amortize it over a proper lifetime; we, on the other hand, would be committed to possible indemnification and certainly long-term contracting.” {*Defense News* 1 Aug}

**3 August** The former Imperial Japanese Army produced about 7.46 million poison-gas shells during 1931–45, according to a US Army document recently found in the US National Archives by a Chuo University historian, Yoshiaki Yoshimi. {*Reuter* 3 Aug} [See also 10 Jul 93, 28 Nov 93 and Aug]

**3 August** Spain deposits its instrument of ratification of the Chemical Weapons Convention, becoming the tenth signatory state to do so. {*OPCW Synthesis* 30 Aug}

**3 August** In the United States, the Administration announces that it has imposed sanctions under Section 81 of the Arms Export Control Act against two foreign firms determined to have been engaged in “chemical weapons proliferation activities” [see also 2 Jun]. The nature of the activities are not disclosed. The firms are identified as Mana International Investments and Europol Holding Ltd, both owned/managed by Nahum Manbar. {*Federal Register* 10 Aug}

**3 August** In the US House of Representatives, the Foreign Affairs Committee conducts a hearing on the proposed Chemical Weapons Convention Implementation Act of 1994 [see 27 May]. It receives testimony from Congressman Martin Lancaster, from the head of the US delegation to the OPCW Preparatory Commission, Donald Mahley, from Dr Will Carpenter on behalf of the Chemical Manufacturers Association, and from the president of the Chemical and Biological Arms Control Institute, Michael Moodie.

**4 August** The US military considered using chemical weapons rather than an atomic bomb in the attack on Hiroshima at the end of World War II, according to the newspaper *Deseret News*, which cites an Army document obtained through the Freedom of Information Act. {*Rocky Mountain News* 5 Aug} It subsequently transpires that the document was part of the contingency planning for the invasion of the Japanese home islands [see further, F J Brown, *Chemical Warfare: A Study in Restraints*, Princeton, 1968] and included the observation that “the timely development of the atomic bomb obviated any further consideration of all-out gas warfare”.

**5 August** In the UK, a conference on Gulf War illness and the putative ‘Desert Storm Syndrome’ [see 27 Jun and 21 Jul] hears that the Trauma After Care Trust, which provides advice to sufferers, knows of more than a thousand cases in which people who had served during the war had subsequently reported debilitating symptoms; about half of those seeking advice were still in the armed services. *The Independent* reports that 350 sufferers may seek legal redress from the Ministry of Defence for inadequate after-care [see also 18 Apr]. {*Independent* 6 Aug}

**5 August** In the US Senate, the Veterans Affairs Committee conducts a hearing on Reproductive Hazards and Military Service: What are the Risks of Radiation, Agent Orange, and Gulf War Exposures? {*Guardian* 6 Aug} Chairman John D Rockefeller has received from the General Accounting Office an evaluation, with recommendations, of the recent reports [see 22 Dec 93, 9 Feb and 18 Apr] of increased incidence of birth defects among the offspring of Gulf War veterans. {GAO/PEMD-94-30}

**8 August** The Secretary-General of the United Nations, as Depositary of the Chemical Weapons Convention, announces

that the original of the Convention has now been rectified to remove the textual errors identified by the OPCW Preparatory Commission [see 11–15 Apr]. {PC-VIII/3}

**9 August** The US House of Representatives adopts by voice vote HR 4386 [see 21 Jul], a bill authorizing disability compensation to veterans suffering from the so-called ‘Gulf War Syndrome’. The bill is sent for further action to the Senate, where another bill, S 2330, with the same objective had been submitted two weeks previously by Senator Rockefeller [see 5 Aug]. {*New York Times* 9 Aug; *CQ Weekly Report* 13 Aug}

**9 August** The US Arms Control and Disarmament Agency, in a fact sheet on the forthcoming Biological Weapons Convention Special Conference [see 11–15 Apr], announces that “the US objective for the Special Conference is a mandate to establish an Ad Hoc Committee to draft a legally binding protocol specifying a set of mutually reinforcing off-site and on-site measures. The United States would like the draft protocol to be completed in time for consideration and adoption at the Fourth Review Conference of the BWC, scheduled for 1996.” [See also 21 Jul, UK]

**ca 9–19 August** In Iraq the eighth UN biological inspection team, led by David Kelly of the United Kingdom and numbering 13 people, continues to lay the groundwork for the ongoing monitoring and verification of sites where BW weapons might possibly be made [see 12 Jul]. The visit is the second of a series of three which the team, UNSCOM 87, initiated on 25 July, its purpose being to draw up comprehensive monitoring and verification protocols for 55 sites identified by UNSCOM as requiring such OMV. The team works on the guidelines, questionnaires and detailed instructions to be followed by monitoring inspectors based at the Baghdad Monitoring and Verification Centre [see 1 Aug]. The team surveys numerous sites around the country, including Iraq’s six breweries. It returns to Iraq on 29 August. {S/1994/1138}

**10 August** Bulgaria deposits its instrument of ratification of the CWC. {*OPCW Synthesis* 30 Aug}

**10 August** In the US Congress, House and Senate conferees finish their work on the Fiscal Year 1995 Defence Authorization legislation. They authorize about \$522 million for CBW defence programmes, which is some \$17 million more than the President had requested [see 7 Feb]. The Joint Biological Defense Program [see 7 Feb], however, is denied, following the lead of the Senate Armed Services Committee. For the chemdemil programme, \$599.5 million is authorized, \$24 million more than requested. The conference agrees to the \$400 million requested for the FY95 Nunn–Lugar programme. {*Arms Control Today* Sep; *Arms Control Reporter* 704.E-1.34; *Inside the Army* 29 Aug; *Defense Daily* 26 Aug}

**10–23 August** In Iraq the 19th UN chemical inspection team, led by Cees Wolterbeek of the Netherlands and numbering 12 people, visits 22 chemical facilities around the country associated with the oil and petrochemicals industry to collect information needed in the drawing-up of comprehensive monitoring and verification protocols for each of the sites [see also ca 9–19 Aug]. The sites had been designated “because of the potential presence of either equipment or raw chemicals that could be used in the production of chemical warfare agents or equipment that could be used to store such chemicals”. The team is

reported also to have been seeking additional information about Iraq's past chemical weapons programmes. {S/1994/1138}

**11 August** In Russia, the Interdepartment Commission for the Problems of Elimination of Chemical Weapons [see also 9 Aug 93], chaired by Colonel-General Mikhail Kolesnikov, head of the General Staff, meets to discuss chemdemil matters and decides in favour of boosting Russian-US contacts in the field of chemical disarmament. It receives a report from Colonel-General Stanislav Petrov, Chief of the Radiation, Chemical and Biological Protection Forces. {ITAR-TASS 12 Aug; *Krasnaya Zvezda* 13 Aug in *Arms Control Reporter* 704.E-2.117}

**11 August** In the US Senate, the Armed Services Committee conducts a hearing on the military implications of the Chemical Weapons Convention. It has recently held three briefings for members and staff, including one by the intelligence community two days previously. The Committee receives testimony from Deputy Secretary of Defense John Deutch and from the Chairman of the Joint Chiefs of Staff, General John Shalikashvili. Dr Deutch testifies strongly on the theme "we are better off with it than without it". General Shalikashvili speaks of the "integral part" played by the Joint Staff in negotiating the Convention and says that "from a military perspective, the Chemical Weapons Convention is clearly in our national interest". He also states that US forces had not had chemical weapons with them during the Gulf War [see also 23 Jun, US Senate]. Both witnesses are questioned closely on the verifiability of the Convention. Senator Nunn engages General Shalikashvili in a prolonged exchange on the military leadership's support for the Administration's recently stated interpretation of the language on riot-control agents in Article I.5 of the CWC [see 23 Jun, President Clinton]. The general states that all the service chiefs both understand the interpretation and support the changes it will necessitate in the existing Executive Order on military employment of riot-control agents. {Federal News Service 11 Aug; *Washington Post* 12 Aug}

**11 August** The US Senate passes FY95 Defense Appropriations legislation [see 29 Jul] that follows rather closely the President's budget request, including the \$400 million sought for the Nunn-Lugar programme. The bill adds \$14.8 million to the \$575.3 million requested for the chemdemil programme, but deletes the \$52.9 million sought for the Joint Biological Defense Program [see 10 Aug]. In contrast, the bill which the House of Representatives passed in June had reduced the chemdemil request by \$12.4 million, had fully supported the JBDP, and had deleted the Nunn-Lugar request altogether. {*CQ Weekly Report* 13 Aug; *Inside the Army* 29 Aug; *Arms Control Today* Sep}

**12 August** The Iranian UN Mission issues a statement denying charges by US senators that Iran is developing chemical weapons. The statement notes that Iran is contributing to efforts to implement the Chemical Weapons Convention and continues to renounce the use of such weapons. The statement adds: "Nevertheless, the United States, which was remarkably mute about Iraq's use of these horrendous weapons, continues to accuse Iran of harboring an intention to develop a clandestine chemical weapons program". {Reuters 13 Aug}

**12 August** Germany deposits its instrument of ratification of the Chemical Weapons Convention. {DPA 13 Aug}

**14 August** Johnston Island in mid-Pacific, location of JACADS and part of the US chemical-weapons stockpile, is in the path of Hurricane John; evacuation measures begin. These include the airlifting away of about 1100 military and civilian employees, and the shutting-down of the chemdemil plant. {*Honolulu Advertiser* 15 Aug} The hurricane strikes ten days later, but causes no really serious damage. The weapons-storage igloos and bunkers are undisturbed, and no trace of escaped chemical agent is found. {*Honolulu Advertiser* 28 Aug; *Chemical & Engineering News* 5 Sep}

**15-25 August** In The Hague, the OPCW Preparatory Commission Expert Group on Programme of Work and Budget reconvenes under the continuing chairmanship of Ambassador Morales of Cuba. The Group reaches agreement on a 1995 programme of work and budget, revising the draft which the Secretariat had prepared [see 15 Jul], and recommending that the Executive Secretary be authorized to spend no more than Dfl 27.3 million in 1995 Part I and Dfl 29.6 million in 1995 Part II. This envisages an establishment upon entry of the Convention into force totalling 231 Secretariat members and 140 inspectors. {PC-VIII/A/WP.7} In the heavy cuts made in the PTS draft budget by the Expert Group, it is the Verification Division that is the most affected.

**16 August** In Poland, the Cabinet approves a draft law on ratification of the Chemical Weapons Convention. The draft must now be submitted to the Sejm for approval, after which the President will be able to ratify the Convention. {PAP 16 Aug in JPRS-TND 8 Sep}

**17 August** The OPCW Provisional Technical Secretariat distributes a paper on the inspection workload to be anticipated in the first three years after the CWC enters into force. The paper reflects data provided by the 22 member states that responded to the PTS request for information about the numbers of facilities they are likely to declare [see 23 Jun]. In the absence of anything better, the paper posits the rule of thumb that, for every facility producing a Schedule-2 chemical, approximately five facilities will process or consume the chemical. As regards old and abandoned chemical weapons sites, the paper states the existing planning assumption that about 40 such sites will be declared but also observes that, given the way discussions are currently proceeding in the Expert Groups, old chemical weapons produced between 1925 and 1946 may, for verification purposes, have to be treated as chemical weapons, in which case the added inspection burden will require 70 inspectors for whom no budget allocation has yet been made. {PC-VIII/B/2}

**18 August** In the US Senate, the Armed Services Committee conducts a further hearing on the Chemical Weapons Convention [see 11 Aug], taking testimony from four private individuals: Michael Moodie, Frank Gaffney, Kathleen Bailey and Amy Smithson [see 9 Jun]. {Federal News Service 18 Aug; *Inside the Army* 22 Aug}

**19 August** Sri Lanka deposits its instrument of ratification of the CWC. {*OPCW Synthesis* 30 Aug}

**19 August** In Washington, comments are due in to the Office of the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict on the draft Defense Department Directive on non-lethal weapons. The draft sets out "policies and



procedures governing the role of non-lethal weapons in US national security, their acquisition, and employment". It specifies that, as regards acquisition, top priority should go to weapons that can "neutralize combatants intermingled with non-combatants". Lower down on the priority list are systems that can "disable or destroy weapons or weapon development/production processes, including suspected weapons of mass destruction". Further, "non-lethal weapons that show significant promise of dual-use by US law enforcement agencies as well as by the military Services will receive higher priority than those that do not", all other things being equal. A Non-Lethal Weapons Steering Committee would be given "oversight authority over all non-lethal weapon development and acquisition programs". Among the criteria to be applied by the Steering Committee in order for a particular acquisition programme to be funded is the criterion that the weapon be "consistent with established US policies including arms control agreements or other international legal commitments that the US is committed to observe".

**20 August** In the UK it is reported that the Chemical & Biological Defence Establishment at Porton Down is to be incorporated into the newly established Defence Science & Technology Agency (DSTA) trading fund by April 1995. CBDE, which is anticipating a decline in UK Defence Ministry funding of its work and is looking for outside business, expects the DSTA to take the form of a "loose federation of individual business units". The other units will be the Directorate General of Test and Evaluation, the Defence Operational Analysis Centre, and the giant Defence Research Agency. *{Jane's Defence Weekly 20 Aug}*

**20-22 August** In Erice, Sicily, at the Ettore Majorana centre, the NATO Scientific and Environmental Affairs Division sponsors a conference to "explore how science and technology can support disarmament and help prevent proliferation of weapons of mass destruction". Scientists from 22 NACC countries and also from Russia and Ukraine participate. *{Defense News 29 Aug; Atlantic News 1 Sep}*

**20-25 August** In Iraq, the ninth UN biological inspection team, UNSCOM 88, visits five biological facilities in order "to perform a feasibility study of remote monitoring in the biological area and, for the sites where this was deemed feasible, to establish the scope, foundations and requirements for the installation of remote monitors". The team concludes that "remote monitoring equipment could constitute an effective means of supplementary on-site inspections" at the five sites it visited. *{S/1994/1138}*

**22 August** In Cambodia, Khmer Rouge radio urges people to join with the National Army of Democratic Kampuchea in implementing "guerrilla and people's warfare" against the "two-headed government" in a more widespread and effective manner. To this end, it says, the Provisional Government of National Union and National Salvation continues to "encourage the people to use all types of weapons, especially simple ones such as...poison-tipped sticks...and poison-tipped arrows". *{Radio of the National Union and National Salvation of Cambodia 22 Aug in BBC-SWB 26 Aug}*

**22 August** In Germany, *Der Spiegel*, purportedly quoting from a confidential BND report of May 1994, states that Iran, Syria and Pakistan are on the point of establishing their own

production of biological weapons. Iran, the BND report says, "began its research for biological weapons" at the end of the 1980s, and can be assumed already to have "minor amounts of biological combat agents". *Spiegel* also quotes a senior official in the Federal Office of Criminal Investigations, Peter Kroemer, as saying that there are as yet "no police findings indicating that BW agents are being offered on the illegal market". *{Der Spiegel 22 Aug in JPRS-TND 8 Sep}*

**22 August** South African President Nelson Mandela, addressing Parliament, promises a statement soon on arms policy, noting that his government has inherited a sophisticated weapons industry with nuclear capability. He refers to the problem presented by "the scientists and technicians previously involved in the nuclear and biological weapons industries". *{Reuter 22 Aug}*

**22 August** In the United States, the Administration announces that it has imposed sanctions under Section 81 of the Arms Export Control Act against an Italian national, identified as Alberto Di Salle, determined to have been engaged in "chemical weapons proliferation activity" [see also 3 Aug]. The nature of the activity is not disclosed. *{Federal Register 26 Aug}*

**22-26 August** In Romania, in response to an invitation from the Minister of Defence [see 30 Jun], a visiting team of US military experts inspects documents, research laboratories, chemical industry units and several military units in order to verify that the country has not and does not produce chemical weapons. Samples are taken for testing in the United States. The US Embassy in Bucharest confirms the fact of the inspection, which has been publicized by the Romanian Armed Forces press office, but declines to make any immediate further comment. *{Rompres 27 Aug in BBC-SWB 30 Aug; Reuter 29 Aug}*

**24 August** In Israel, at the high-security prison in Ashqelon, the convicted Soviet spy Marcus Klingberg, 76 years old and once deputy director of the Israel Institute for Biological Research at Ness-Ziona, is now two-thirds of the way through his 18-year jail sentence [see 3 Aug 93]: newly widowed, a sick man, and a three-times attempted suicide. An account of him given by a recently released Lebanese prisoner is published in a London newspaper. *{Independent 24 Aug}*

**24 August** In Bosnia-Herzegovina, the Bosnian Serb army claims that Muslim forces have yet again been using war gases against its defences on the Ozren front [see 18 Jun]. *{Tanjug 24 Aug in BBC-SWB 26 Aug}* These allegations continue over the next few days. *{Tanjug 25 Aug in BBC-SWB 27 Aug; Tanjug 29 Aug in FBIS-EEU 30 Aug 94 and in BBC-SWB 31 Aug}*

**24 August** The European Union proposes that an item on chemical and bacteriological weapons be included, as usual, on the agenda of the 49th session, soon to commence, of the UN General Assembly. In a letter to the UN Secretary-General on behalf of the EU, the German UN ambassador, Detlev Graf zu Rantzau, speaks of the need to stimulate ratifications of the CWC and to discuss strengthening the BWC. *{Washington Times 27 Aug}*

**24-27 August** In Russia a team of 15 US inspectors led by Dee Morris and carrying nearly two tons of equipment conducts a trial challenge inspection at the CW storage facility in Pochep [see 2 Jul]. This is the first of the five inspections allowed to

each side under Phase II of the bilateral Wyoming Memorandum of Understanding [see 15 Feb and 23 Jun, Russia]. {*Arms Control Reporter* 704.B.584}

**25 August** The US Congress passes (by Senate vote on a conference report) the Violent Crime Control and Law Enforcement Act of 1994. Among its provisions is the creation of several new federal death-penalty crimes. One such crime is causing death by use of weapons of mass destruction, including biological weapons and poison gas. {CNN television news 25 Aug}

**26 August** The US Defense Department issues its third progress report on the Cooperative Threat Reduction programme in the newly independent states of the former Soviet Union (the Nunn–Lugar Program) [see 11 Aug]. The only CW-related projects of the programme are with Russia, on which the report says the following: “[Under the joint US–Russian work plan signed on 10 January 1994], a US contractor will assist the Russian Federation in preparing a comprehensive chemical weapons destruction implementation plan. The contractor, Bechtel National Inc, was awarded a \$7.43 million contract May 19, 1994. Bechtel, working for the [US] Defense Nuclear Agency through the US Chemical Weapons Destruction Support Office in Moscow, will assist in developing process and facility design criteria, perform destruction site characterization studies and help prepare an emergency response preparedness program. The United States will also provide \$30 million in assistance for equipping a centrally located chemical weapons destruction analytical laboratory in Russia.”

**28 August** On US television, the Channel 32 programme *America's Defense Monitor* produced by the Centre for Defense Information in Washington is devoted to the Chemical Weapons Convention. Entitled ‘Ridding the World of Chemical Weapons?’, the documentary includes discussion of the treaty and associated issues by USACDA Director John Holum, Center for Security Policy Director Frank Gaffney, Stimson Center Senior Associate Amy Smithson, and former Army Deputy Under Secretary Amoretta Hoeber. {Center for Defense Information videotape GC751 4 Sep}

**29 August** The Russian Defence Ministry denies reports that “a huge stock of bacteriological and chemical weapons” is held in depots of the 14th Army, which is now withdrawing from its deployment “in the Dnestr region”. {ITAR-TASS 29 Aug in BBC-SWB 1 Sep}

**29 August** Mexico deposits its instrument of ratification of the Chemical Weapons Convention. {*OPCW Synthesis* 30 Aug}

**29 August–3 September** In Iraq, the tenth UN biological inspection team, UNSCOM 92, visits seven sites, some inspected for the first time, others declared by Iraq. The purpose is to advance the process of building the OMV protocols [see ca 9–19 Aug]. {S/1994/1138}

**30 August** The OPCW Provisional Technical Secretariat now has a total staff of 102 people from 43 countries. This is expected to rise to about 370 at entry into force [see 15-25 Aug], levelling off at about 450 six months later. {*OPCW Synthesis* 30 Aug}

**31 August** In Tokyo, Prime Minister Tomiichi Murayama announces the ‘Peace, Friendship and Exchange Initiative’, which is to begin in 1995 as a ten-year billion-dollar programme of cultural and vocational projects in recognition of Japanese behaviour before and during World War II. Government spokesman Kozo Igarashi says that the projects might include one on “defusing chemical weapons of the Japanese Imperial Army left in China” [see Aug]. {Reuter 31 Aug}

**31 August** In Jerusalem, the visiting Foreign Minister of Egypt, ‘Amr Musa, tells a press conference that Egypt will not sign the Chemical Weapons Convention “until all of us [in the Middle East] sign all treaties in the field of disarmament”. With him at the press conference is Israeli Foreign Minister Shim'on Peres who, when asked why Israel was not joining the nuclear-weapons Non-Proliferation Treaty, says: “Well, we are for it once we shall have peace... As long as there are countries who wouldn't depart from the policies of belligerency what is the sense to talk about arms?”. {*Qol Yisra'el* 31 Aug in FBIS-NES 1 Sep} Prime Minister Yitzhaq Rabin is reported to have told ‘Amr Musa during the visit that there would be no point in starting even preparatory talks on regional disarmament, including weapons of mass destruction, unless all the parties were involved, including Syria, Iraq and Iran. {Reuter 31 Aug}

**31 August** In Germany, Economics Minister Günter Rexrodt floats the idea, during a press interview, of Germany relaxing its export controls on dual-use goods by reducing to “perhaps six countries” the list of controlled export destinations. This ‘H-List’ currently extends to 32 countries; the reduced list would include Iran, Iraq, Libya, North Korea and Syria, but not any CIS or European country. The proposal has been stimulated by the state of the negotiations in Brussels on the projected EU-wide regulation of dual-use exports [see 13-14Jun]. It has not yet attracted support from the Federal Foreign Ministry. {*Handelsblatt* 1 Sep; *Frankfurter Rundschau* 2 Sep}

**1 September** Iranian Foreign Minister Ali Akbar Velayati, speaking of the Chemical Weapons Convention at the CD in Geneva, says: “The Convention stipulates [*sic*] that export restrictions may only be applied to non-members. All existing export control regimes, therefore, are expected to be lifted for all members of the CWC without exception upon entry into force”.

He continues: “The same is true of the biological weapons Convention. The current discussions on establishment of a verification system are bound to succeed if they are coupled with a firm commitment to the free flow of material and technology for peaceful use; an undertaking with direct impact on the development of the developing countries in the field of health.”

He proposes the development of a collective system of “defensive security” measures for the Persian Gulf region. In addition to nuclear-weapons related measures, these might include “a harmonized approach to the ratification and implementation” of the CWC and, for the BWC, “formulation of complementary regional verification mechanisms”. {CD/PV.690}

**1 September** Slovakian Foreign Minister Eduard Kukan speaks as follows to the Conference on Disarmament in Geneva: “On the territory of the Slovak Republic there are no chemical weapons deployed, developed or produced and we have no intention to develop, produce or obtain them by any other means at all. There is national legislation being prepared for adoption to ban chemical arms, so that it, together with the

ratification of the CWC, will create legislative conditions in the Slovak Republic for fulfilment of the Convention commitments.” {CD/PV.690}

**1 September** In Moscow the Visas and Registration Department has been overruled by a Russian government interdepartmental commission in its refusal to grant Dr Vil Mirzayanov [see 8 Jul] an exit visa. The commission determined that Dr Mirzayanov was not, as the Department had maintained, in possession of state secrets; the national security would therefore not be undermined by his emigration abroad. {*Izvestiya* 1 Sep in FBIS-SOV 1 Sep}

**1–3 September** In Lima, the Peruvian government in coöperation with the OPCW Provisional Technical Secretariat hosts a Regional Seminar on national implementation of the Chemical Weapons Convention. Participating are 80 representatives of 20 regional and observer states, as well as people from intergovernmental and nongovernmental organizations, including chemical industry associations. {PC-VIII/8; *OPCW Synthesis* 15 Nov}

**6 September** The Conference on Disarmament in Geneva adopts the report of its Ad Hoc Committee on Effective International Arrangements to Assure Non-Nuclear-Weapon States against the Use or Threat of Use of Nuclear Weapons. The report records the concern expressed by the United Kingdom about the proliferation not only of nuclear weapons but also of other weapons of mass destruction and advanced conventional weapons: this “formed part of the security context in which the United Kingdom approached the issue of security assurances”. {CD/1275; CD/PV.690; CD/PV.691} A group of 12 non-nuclear members of CD, parties to the NPT, tables a draft Protocol on Security Assurances, under which nuclear-weapon states would pledge not to use, or threaten to use, nuclear weapons against nonpossessor states; the draft Protocol is proposed for inclusion in the NPT. {CD/1277; CD/PV.691} The P5 countries have not yet reached any formula in their own consultations on harmonizing their unilaterally declared assurances. {*Disarmament Newsletter* May-Sep}

**6 September** US Defense Secretary William Perry arrives in Moscow for talks with Russian Defence Minister Pavel Grachev. Among the matters which US officials had earlier told the press could come up in the talks is the concern in Washington that Russia is continuing to develop advanced chemical weapons and is failing in its promise to disclose full details of its CW programme [see 23 Jun, Russia]. {*Reuter* 31 Aug}

**7 September** In the United States, where the question of ratification of the CWC is currently before the Senate [see 18 Aug], the President of the Chemical Manufacturers Association, Fred Webber, publicly rebuts the arguments of those who have been claiming that the treaty will damage the US chemical industry [see also 4 Aug 93]. In the *Journal of Commerce* he writes: “If this convention were a bad deal for U.S. industry, if it imposed unacceptable costs, if we felt it wouldn’t work, we’d fight it tooth and nail... But we’ve come to the conclusion that the convention is a sound investment. It will yield solid returns at a cost we can and will bear.”

He also says that the number of US businesses likely to incur significant obligations under the CWC will be no more than 2500, in contrast to the 25,000 cited by critics of the treaty,

and that only a small fraction of them will actually be subjected to international inspection.

**8 September** In Iraq, the eighth UN biological inspection comes to an end, the team, UNSCOM 87 [see ca 9–19 Aug], returning to the Bahrain Field Office for its third protocol-drafting session. Its work had taken longer than planned because of inconsistencies between information which Iraq had previously declared and the situation which the team found on the ground. A follow-up inspection (UNSCOM 92/BW10) is being organized to deal with outstanding matters. {S/1994/1138}

**8 September** In Bosnia-Herzegovina, Serb Republic radio reports that, in fighting to the north-east of Bihac, “the Muslims...used poisonous gases in their attacks on the wide area around Otoka, 15 km west of Krupa on the River Una”. {Serb Republic radio 8 Sep in BBC-SWB 10 Sep}

**9 September** In Beijing at a press conference, Chemical Industry Minister Gu Xiulian speaks of the preparations for implementation of the Chemical Weapons Convention that her ministry has been pressing ahead in China. She says that a special office for the implementation work has been established, and that her ministry and other departments have finished preparations for the requisite domestic legislation. {Xinhua 9 Sep in FBIS-CHI 12 Sep}

**9 September** In the UK, where sufferers from the putative ‘Gulf War Syndrome’ are now starting to look for legal redress from the Ministry of Defence, the Manchester law firm of Donn & Co applies for legal aid on behalf of ten such sufferers. The firm has had 375 cases to select from, and believes that as many as a thousand of the 45,000 British personnel who served in the Gulf during the war may now be sufferers [see also 5 Aug]. The Defence Ministry has been quoted as saying that only 35 persons have responded to its offer of medical assessments to people who believe themselves to be sufferers, its spokesman having added: “Ten times that number appear to have gone to their lawyers before going to their doctors”. Of the 35 people, 20 have thus far been examined. The Ministry does not deny that there are genuinely and inexplicably ill people among those who served in Operation Granby, but continues [see 11 Jun] to doubt whether in fact they are suffering from a medical condition that is peculiar to Gulf War veterans. {*Daily Telegraph* 23 Aug}

**11 September** In Bosnia-Herzegovina, in fighting around Bihac, joint Krajina Serb and Bosnia Serb forces are using toxic weapons on the Buzim sector of the front [see also 8 Sep], according to Radio Bosnia-Herzegovina (in BBC-SWB 13 Sep)

**12 September** The US Congress passes the 1995 Defense Authorization Act [see 10 Aug. {*Defense News* 19 Sep}

**12–14 September** In Pretoria, the South African Department of Foreign Affairs with assistance from the OPCW Provisional Technical Secretariat hosts the first African Regional Seminar on national implementation of the Chemical Weapons Convention. Participating are more than 120 people from 47 countries, 38 of them African states including three CWC non-signatories (Angola, Chad and the Sudan). Non-Governmental organizations, such as SIPRI, also participate. A draft African-Group position paper on Article XI issues is distributed and discussed for finalization in time for the imminent Eighth Session of the

OPCW Preparatory Commission. Two site visits are arranged for participants by the host government. One is to NCP Chloorkop, a large industrial chemical plant originating in a World War II mustard-gas production facility dismantled prior to 1 January 1946. The second visit is to Protechnik Laboratories, which is the official South African chemical defence research facility. {Reuter 12 Sep; *Pretoria News* 14 Sep; PC-VIII/B/WP.13; Brian Davey in *ASA Newsletter* 7 Oct; *OPCW Synthesis* 15 Nov}

**13 September** In Washington, the Environmental Protection Agency releases, in "public review draft" form, the findings from its 3-year-long reassessment of the health risks of dioxin. In six volumes totalling some 2000 pages, it contains the contributions of more than a hundred scientists. It reaffirms the Agency's 1985 assessment that dioxins and related chemicals are a probable cause of cancer in human beings. Comments on the draft are due by 13 January 1995, with finalization expected in September 1995. {*Washington Times* 12 Sep; *Guardian* 14 Sep; *Chemical & Engineering News* 19 Sep; *Nature* 22 Sep}

**13–24 September** In Iraq, the 20th UN chemical inspection team, UNSCOM 91, visits "12 sites associated primarily with Iraq's chemical fertilizer industry in order to identify possible dual-purpose equipment, equipment or facility redundancies, plant capacity and normal utilization, unusual chemical processes and waste disposal methods, and to resolve anomalies in Iraq's declarations about those sites". The purpose has been to obtain information needed to build OMV protocols for these sites. {S/1994/1138}

**14 September** The UN Security Council has conducted its 21st bimonthly review of the economic sanctions imposed upon Iraq and, at US and British insistence, again decides not to lift them. The President of the Council says that "despite progress notified to the Council in several reports and letters, many dispositions of the relevant resolutions of the Security Council remain unfulfilled". The statement continues: "There is therefore no agreement that the necessary conditions exist for a modification of the sanctions regime established in Resolution 687". {UPI and DPA 14 Sep}

Britain had pointed to two instances in which Iraq, while claiming compliance with UN demands for disclosure, had only just revealed relevant programmes. One had to do with laser enrichment of uranium. The other was the construction near Nineveh of a pharmaceutical plant having BW-agent production potential. {Reuter 13 Sep}

**14 September** In the US Senate, Veterans Affairs Secretary Jesse Brown testifies during what is described as an acrimonious hearing of the Veterans' Affairs Committee [see 5 Aug] on how to help veterans suffering from the putative 'Gulf War Syndrome'. Support is clearly weak in the Committee for the administration-backed bill that would authorize payments to disabled veterans for three years while research into the illness continues [see also 30 Jun]. The House of Representatives had passed the bill three months previously [see 9 Jun]. {*Washington Post* 17 Sep}

**17 September** In Bosnia-Herzegovina, in fighting to the south of Konjic, Serbian forces use "poisonous gases and tear gas" near Glavaticvevo, according to a spokesman for the Bosnia-

Herzegovina Army 4th Corps. {Radio Bosnia-Herzegovina 18 Sep in BBC-SWB 20 Sep}

**19 September** In Britain, the Royal Society releases a study it began in 1992 on *Scientific Aspects of Control of Biological Weapons*. Produced by a study group of Fellows chaired by Professor Harry Smith and assisted by Mary Barrington-Ward, the report had been endorsed by the Council in April. It presents a broad range of policy recommendations, including proposals on verification technique, support for the Biesenthal vaccine initiative [see 9–14 Sep 92] and recommendations regarding the control of technology-transfer for purposes of BW anti-proliferation. It rejects the idea of controlling transfers of 'intangible' technology [see 19 Jul] as virtually impossible to accomplish, as undesirable because of the normal use of the life sciences in medicine and agriculture, as violating Article X of the BWC [see 1 Sep], and as hindering "efforts to increase transparency between nations".

Another conclusion is as follows: "The UK Government cannot ignore the increased threat of proliferation but there may have been an over reaction in the present [export control] legislation with regard to both the number of countries affected and the items curtailed. A determined aggressor will obtain [biological weapons] if he needs them. Only a short delay in proliferation is achievable. This delay could be attained more simply than the present legislation which is potentially inhibitory to the progress of developing nations. The restrictive measures should be concentrated on countries known to be interested in developing BW. Also the lists of restricted items should be reduced and the ban on delivery systems emphasized."

**19 September** In the US Congress, the House and Senate conference on the 1995 Defense Appropriations Bill [see Aug 11] is scheduled to begin. One subsequent action of the conferees is provide only \$4 million of \$73 million sought for the Joint Program Office for BW Defense. Among the responsibilities of the Office is managing development of the projected vaccine production facility [see 1 Aug]. {*Defense News* 17 Oct}

**19–30 September** In Geneva, 80 of the 131 states parties to the Biological Weapons Convention convene in special conference to consider the 'VEREX report' [see 24 Sep 93], namely the report of the Ad Hoc Group of Governmental Experts that had met in Geneva during 1992–93 to identify and examine, from a scientific and technical standpoint, potential verification measures for the Convention. Options for monitoring compliance with the treaty are now expressly being considered from a political standpoint as well. Prominent in the debate is the long-familiar issue of balancing requirements for strengthened verification measures and their associated financial and other costs against the commitments implicit in Article X to ensure free international flows of material and technology for peaceful purposes [see 19 Sep]; the functional linkage of these two sets of consideration may be somewhat tenuous, but their political linkage along the North-South axis most certainly is not. A joint working paper tabled by China, India and Iran {BWC/SPCONF/WP.15} encapsulates this issue. In the early hours of the morning after the last scheduled day of the conference (in fact at 0328 hrs local time on 1 October), participants finally agree on language setting out a mandate for an Ad Hoc Group open to all states parties "to consider appropriate measures, including possible verification measures, and draft proposals to strengthen the Convention, to be included, as appropriate, in a legally binding instrument, to be submitted for

the consideration of the States Parties". The mandate goes on to specify working topics for the Ad Hoc Group, but does not establish a rigid timetable: "The Group...will complete its work as soon as possible and submit its report, which shall be adopted by consensus, to the States Parties, to be considered at the Fourth Review Conference or later at a Special Conference". Ambassador Tibor Tóth of Hungary is to chair the Group, which is to convene in Geneva during 4–6 January 1995 for initial procedural discussion. {UN press release DC/2484 3 Oct; Barbara Hatch Rosenberg in *Disarmament Times* 24 Oct}

**20 September** Iran announces the successful conclusion of one stage in a missile exercise, *Falaq-2*, that is taking place in the Persian Gulf and the Sea of Oman. The announcement, on Voice of the Islamic Republic of Iran, includes the following: "The third stage...also came to a successful conclusion by implementing chemical attacks and counter-offensives, transporting equipment and deploying it in the predetermined operational zones". {Voice of the Islamic Republic of Iran 20 Sep in BBC-SWB 20 Sep}

**20 September** The United Kingdom publishes a summary report on the "practice compliance inspections" it has thus far conducted in regard to strengthening the Biological Weapons Convention [see 1–3 Dec 93]. There have been four of these PCIs, all done in the UK biotechnology, pharmaceutical and vaccine industries. The report addresses four issues: access, compliance assessment, commercial confidentiality, and logistics. It presents a set of concrete conclusions which bear directly on the VEREX follow-on work currently being discussed in Geneva at the BWC Special Conference [see 19–30 Sep], where the report is tabled. {BWC/SPCONF/WP.2}

**22 September** In Moscow, Dr Lev Fyodorov [see 11 Mar], president of the Russian Union for Chemical Security, announces at a press conference on the "ecological safety of the destruction of chemical weapons" that, in three days time, public demonstrations of concern about chemdemil are to take place in different parts of the United States and Russia. In describing the Russian background, he states that the quantity of mustard gas declared by the Russian government as part of its chemdemil programme represents less than one percent of the mustard gas which the Soviet Union had actually manufactured, which he estimates at some 80,000 tonnes [see also 8 Dec 93]. He also says: "During the last two years the [CW] warheads which have gone undeclared and were hidden were being disposed of at the chemical test range in Shikhany by the army". And later: "[The Soviet Union] built hydrocyanic acid plants in Romania and China. It can be argued that the hydrocyanic acid is just an industrial chemical, but at the time these facilities were built for the purpose of producing chemical weapons. Those were the times before the Sino-Soviet rift at the beginning of the 1960s."

**22 September** What the United States currently means by "effective verification" is explained to the BWC Special Conference in Geneva [see 19–30 Sep] by the US delegation. In the "specialized context of formal arms control", the delegation says, the term "refers to a set of measures designed to verify compliance with the provisions of a treaty with sufficient confidence to detect any militarily significant violation in time for other state parties to take appropriate countermeasures". The statement continues: "In addition, an effective verification re-

gime should safeguard non-relevant national security and industrial proprietary information and provide a net benefit to states parties' national security. In the case of the BWC, it should further the nonproliferation goals set forth by the international community."

The delegation differentiates "effective verification" from what it calls "compliance enhancement". It says that the latter, a "relaxed definition of verification", is what the VEREX report meant in its words "concluded that potential measures as identified and evaluated could be useful to varying degrees in enhancing confidence, through increased transparency, that states parties were fulfilling their obligations under the BWC". The delegation says, further, that "compliance enhancement" also covers what the VEREX report described as "verification measures [that] would contribute to strengthening the effectiveness and improve the implementation of the Convention". {BWC/SPCONF/WP.16}

**22 September** The US Defense Department releases its long awaited Nuclear Posture Review [see 25 Mar]. The review does not, after all, address the possible use of nuclear weapons by the United States in response to CBW attack [see 6 Jan 92], reportedly because this is controversial within the administration on account of the assurance which the United States has given to non-nuclear states parties to the NPT that it will never use nuclear weapons against them [see 6 Sep]. However, Deputy Defense Secretary John Deutch tells reporters that a country considering use of chemical weapons would have to "take into account" the possibility of a US nuclear response. "That's how we contribute to deterrence", he says. {*Arms Control Today* Nov; *Defense News* 14 Nov}

**22 September** In the US Senate, the Foreign Relations Committee, having been scheduled to vote today on the Chemical Weapons Convention, fails to do so. It is still awaiting the report it had requested from the Armed Services Committee. Once that report is received, the Committee is expected to vote in favour of ratification. {*Chemical & Engineering News* 26 Sep}

**23 September** Vietnam is to allow American researchers to conduct a study on Agent Orange in areas where US planes sprayed the herbicide during the Vietnam War, so Admiral Elmo Zumwalt announces at a press conference. He says that such a study could add 18 or 19 medical conditions to the list of nine which the US government currently accepts may be induced by Agent Orange [see 27 Sep 93]. The study would cost about \$50 million per year, and will therefore have to be funded, and approved, by the US Congress. Admiral Zumwalt has just returned from Vietnam. {*Washington Post* 13 Sep and 24 Sep}

**23 September** The US Army announces that it will investigate the charges of unsafe conditions at its new \$450 million chemical-weapons incinerator at Tooele, Utah. {*Los Angeles Times* 24 Sep} The *Washington Post* has today reported that a senior safety officer at the chemdemil facility, Steve Jones, had just been dismissed by the Army's contractor after asserting that the incinerator safety systems were inadequate. Three days later the Armed Services Committee of the US House of Representatives, prompted by Congressman Glen Browder [see 8 Mar] in whose Alabama district the next chemdemil incinerator is to be built, announces that it too will investigate the facility's safety programme and inquire into the dismissal. The incinerator is not yet destroying chemical weapons, being scheduled to

begin fullscale operations in about one year's time. {*New York Times* 27 Sep; *Engineering News-Record* 3 Oct}

**23 September** Iraq is said, in a speech given by the Director of US Central Intelligence, James Woolsey, to be "accelerating construction of deep-underground shelters and tunnels to produce and store weapons of mass destruction", a statement which, however, he later retracts. Contradicting UNSCOM reports, Dr Woolsey also says that Iraq is "still hiding Scud missiles, chemical munitions, and its entire biological warfare weapons programme". {*Washington Times* 7 Oct; *Sunday Telegraph* 9 Oct; *International Herald Tribune*, 10 Oct; *Record* 27 Oct} Iraq is "seeking to reactivate its network of equipment supply" for its biological and other WMD programmes, says US Ambassador Madeline Albright when speaking to the UN General Assembly two weeks later. {CNN news 7 Oct} A massive new underground weapons facility for development of new biological weapons is under construction west of Baghdad, according to unidentified CIA sources subsequently quoted by the London *Sunday Times*, notwithstanding Dr Woolsey's retraction. {*Sunday Times* 16 Oct}

**23–26 September** In Baghdad, the 12th UN biological inspection team, UNSCOM 96, meets with the Iraqi National Monitoring Directorate in order to discuss a list of additional information called for by UNSCOM. The list had been developed after talks in New York between UNSCOM and a high-level Iraqi delegation on the results of the 8th and 10th biological inspections [see 8 Sep and 29 Aug–3 Sep]. UNSCOM later reports that, during the Baghdad discussion, the team stressed "the link between full knowledge of Iraq's past programmes and in monitoring as well as the need for a full inventory of dual-purpose items". The report goes on: "[The team] suggested ways in which Iraq might assist the Commission in indirectly substantiating its account of its past programmes and accurately reporting its dual-purpose activities and capabilities in order to expedite the Commission's fulfilment of its mandate. Iraq reiterated its willingness to cooperate and, upon receipt of the list of additional information required, promised to respond promptly to all the questions." {S/1994/1138}

**24 September** In Moscow the International Science and Technology Centre [see 17–18 Mar] has now been operating for six months and has approved 55 projects funded at a total of \$31 million over three years that will benefit some 3000 Russian scientists formerly engaged in nuclear or CBW weapons programmes. According to its American director, Glenn Schweitzer, the Centre has so far paid out about \$2 million of its US–European–Japanese funds, mostly direct to individual scientists rather than to the institutions where they work. {*Washington Post* 24 Sep}

**24–27 September** In the United States, a team of Russian inspectors conducts a trial inspection of the former chemical weapons production facility at US Army Pine Bluff Arsenal, Arkansas. This initiates the series of five inspections which Russia is allowed under Phase II of the Wyoming Memorandum of Understanding [see 24–27 Aug]. {*USA Today* 28 Sep; *Arms Control Reporter* 704.B.584}

**25 September** 'International Day for the Safe Disposal of Nerve Gas', as declared by the Chemical Weapons Working Group, which is an international coalition of grassroots organi-

zations from communities in the United States, the Pacific and Russia. Marches and demonstrations are scheduled to take place at CW stockpile locations in Alabama, Indiana, Kentucky and Maryland in the United States and, in Russia, in Gorny, Bryansk and Moscow [see 22 Sep]. Prominent in the Russian demonstrations is the environmentalist group Khranitely Radugi (Rainbow Protectors). {*Common Sense* Sep; *Toronto Star*, 28 Sep}

**26 September** In South Korea, the National Unification Board submits a report to the National Assembly Foreign Affairs and National Unification Committee which includes comments on North Korean CBW capabilities. In comparison with earlier reports [see 22 Mar], the most striking feature of the new one is its statement that North Korea has been testing CBW weapons on political prisoners. {Yonhap 26 Sep in BBC-SWB 27 Sep} This is later characterized as "balderdash...sheer fabrication" by the official North Korean news agency. {KCNA 1 Oct in BBC-SWB 3 Oct 94}

**26 September** In Germany, the Bundestag Economics Committee has recently received a confidential briefing from the head of the Federal Intelligence Service, Konrad Porzner, about the apparently continuing involvement of German exporters in the nuclear, CBW and missile programmes of Third World countries, so *Der Spiegel* reports [see also 31 Aug]. According to this report [see also 22 Aug], there is German (as well as Swiss and Italian) commercial input into a Libyan chemical-weapons project near Tarhuna [see 3 Mar]. Syrian and Iranian CBW projects are also mentioned. So is Iraq, the report stating that four-fifths of all Iraqi scientists abroad are actually working as weapons procurers. {*Der Spiegel* 26 Sep in FBIS-WEU 29 Sep}

**26 September** President Yeltsin addresses the UN General Assembly in New York. Prior press briefings in Moscow had suggested that he would be proposing new measures aimed at curbing nuclear and CBW weapons proliferation. {*Ottawa Citizen* 25 Sep} In the event he proposes major cuts in strategic nuclear weapons worldwide, including the elaboration by the P5 of a treaty on nuclear security and strategic stability; but in his only reference to CBW he makes no mention even of the Chemical Weapons Convention. Neither had President Clinton, who had addressed the Assembly four hours previously.

**26 September** In Moscow, the deputy chairman of the Defence Committee of the Russian State Duma, Aleksandr Piskunov, releases the following information about the geographical distribution of the 40,000 agent-tonnes of chemical weapons held in the Russian Federation: Pochev, in the Bryansk region: 18.8 percent; Maradykovskiy, in the Kirov region, 17.4 percent; Leonidovka, in the Penza region, 17.2 percent; Kambarka, in Udmurtia, 15.9 percent; Kizner, also in Udmurtia, 14.2 percent; Shchuchye, in the Kurgan region, 13.6 percent; and Gorniy, in the Saratov region, 2.9 percent. He warns of disaster on a scale larger than Chernobyl if destruction of the stockpile is delayed. He says that the storage containers used for bulk storage of blister agents in Kambarka and Gorniy have long since exceeded their designed lifetime. {Interfax 26 Sep as in FBIS-SOV, 27 Sep}

Next day, *Isvestiya* reports at length on the Russian chemdemil program, which will shortly be engaging the Duma when it returns from its recess. The newspaper observes that there is still no Russian law on the destruction of chemical

weapons, no government decisions on how the chemdemil is to be conducted, and essentially no money to carry it out. Of the 114 billion roubles appropriated in the 1994 federal budget for the chemdemil programme, the military have received only R6 billion. A detailed concept for the programme is currently awaiting the attention of President Yeltsin. The deputy chief for chemical-weapons elimination of the Defence Ministry Radiation, Biological and Chemical Protection Troops, Lt-Gen Yuriy Tarasevich [see 24 Mar], is quoted extensively in the article. He explains the requirements for new laws and ministerial decrees, saying that in most cases these have been drafted and are now being coordinated with the relevant ministries, departments and regions. Rather less is said about the destruction technologies that might be employed, though various different possibilities are cited as being under consideration. The article lays stress on the recycling concepts currently prominent in the planning, notably the extraction from the lewisite of high-purity arsenic, described as "a strategically valuable product for microelectronics". {*Izvestiya* 27 Sep in FBIS-SOV 29 Sep 94, pp 38-40}

Meanwhile, Russian environmentalist protestors are calling for the chemdemil programme to be frozen until "trustworthy experts" have examined its details. Some protestors are characterizing the programme as having been "carved out by the military for their own political capital". {*Toronto Star* 28 Sep}

**26–30 September** In The Hague, the OPCW Preparatory Commission convenes for its eighth plenary session [see 27–30 Jun]. Participating are 79 of the 157 signatory states. {PC-VIII/18} [See further *Progress in the Hague* above.]

**27 September** In Russia, "development of biological weapons and the concealment of weapons production equipment are still underway", this being a verbatim quotation, purportedly, from a secret CIA special estimate prepared in time for the US–Russian summit that is currently underway, published by the *Washington Times*, which also states, attributing that same purported CIA source, that "Russia is violating two bilateral agreements on chemical weapons by stalling, providing incomplete data and blocking US inspections". {*Washington Times* 27 Sep}

**28 September** In Tehran, the Supreme Assembly of Islamic Revolution in Iraq (SAIRI) issues a statement declaring that the Baghdad regime has hidden chemical weapons in depots of the Mojahaden-e Khalq Organization in Baghdad and its suburbs. The statement also announces that the Baghdad regime is trying to import through Jordan materials it needs for manufacturing chemical weapons. {IRNA 28 Sep in FBIS-NES; *Al-Sharq al-Awsat* 29 Sep in FBIS-NES 4 Oct}

**28 September** In Iraq, a recently observed rise in respiratory tract diseases is attributed by the head of the Asthma and Allergic Diseases Centre in Basra, Dr Muhsin al-Hamadani, to environmental hazards ensuing from military operations during the Gulf War, specifically the use of depleted uranium weapons. {*Baghdad Observer* 28 Sep}

**28 September** In Washington, Presidents Clinton and Yeltsin issue a *Joint Statement on Strategic Stability and Nuclear Security* at the close of their two-day summit meeting [see also 26 Sep and 27 Sep]. On CBW, the statement says: "Taking a broad view of strategic stability and bearing in mind the need to

control all types of weapons of mass destruction, the Presidents agreed on:

— The importance of continued, full, mutual and reciprocal implementation of the September 1992 US–Russian–UK statement on Biological Weapons as a means of gaining confidence that offensive biological weapons programs have been terminated.

— The need for adherence by all states to the Chemical Weapons Convention and for universal application of its provisions, as well as the need for adoption without delay of measures that make it possible to bring the CWC into force; and the need to resolve without delay the outstanding issues related to the Bilateral Destruction Agreement and the Wyoming Memorandum of Understanding." {*Arms Control Today* Nov}

**29 September** In Tokyo, Japanese and Russian officials conclude an initial round of bilateral working consultations on military and dual purpose exports, and on the prospects for joint work in the activities of the Australia Group. {ITAR-TASS 29 Sep in BBC-SWB 7 Oct}

**29 September** Turkmenistan deposits its instrument of ratification of the Chemical Weapons Convention.

**29 September** In Iraq, the 11th UN biological inspection team, UNSCOM 94, arrives to continue the inventory and tagging of dual-purpose biological equipment which the 5th biological inspection team, UNSCOM 78, had started in May [see 28 May–7 Jun]. A subsequent UNSCOM report explains the mission as follows: "Owing to the receipt of additional information, including the new findings of declarable equipment during inspections since the first inventory, it has been necessary to perform a further inventory at approximately 50 sites. The team will also try to establish the circumstances that gave rise to the damage to or loss of tags noted during recent inspections, with a view to remedying the problem. The team is expected to operate in Iraq for approximately two weeks, covering a variety of sites falling in the categories of research and development facilities (such as universities and research institutes) and industrial facilities (such as vaccine production and pharmaceutical plants). {S/1994/1138}

**30 September** In The Hague, the OPCW Provisional Technical Secretariat convenes its second international seminar on National Implementation of the CWC. More than 145 participants from 60 states participate, as well as representatives of non-governmental organizations, including chemical industry associations. {*OPCW Synthesis* 15 Nov} Presentations include one by the Harvard Sussex Program.

**30 September** In the US Senate, the Select Committee on Intelligence issues its report on the Chemical Weapons Convention [see 21 Jul], in both classified and unclassified versions. The report presents the results of a detailed and intensive assessment of the treaty focussed on the compliance-monitoring aspect, assisted by executive-branch documentation (including the intelligence community's National Intelligence Estimate on US CWC monitoring capabilities and the USACDA verification report on the CWC [see 17 May]) and closed-session testimony. The report also acknowledges assistance from the Henry L Stimson Center and from the EAI Corporation. The latter had furnished to the committee a January 1994 CWC verifiability assessment based on extensive study and consultations that had been commissioned by

ACDA. The report, which the Committee has adopted unanimously, avoids making any specific comment on the overall merits of the Convention, but does put forward the following detailed recommendations:

(1) "The Senate should make its consent to ratification of the CWC conditioned upon a binding obligation upon the President that the United States be present at all Amendment Conferences and cast its vote, either positive or negative, on all proposed amendments made at such conferences, thus ensuring the opportunity for the Senate to consider any amendment approved by the Amendment Conference."

(2) "The Executive branch should work to foster OPCW procedures that would permit on-site inspectors to identify and record the presence of non-scheduled chemicals, while taking extraordinary steps, if necessary, to protect any confidential information thereby acquired."

(3) "The Executive branch should adhere to an arms control verification policy that does not require agencies to prove a country's noncompliance before issues are raised (either bilaterally or in such fora as the OPCW or the United Nations) and appropriate unilateral actions are taken."

(4) "The Committee endorses the call by the interagency committee under the Deputy Secretary of Defense for increased funding of CW sensor technology and urges the Executive branch to redirect FY 1995 funds for this purpose as well. The Committee also recommends that Congress rescind its restriction on DOE efforts to develop CW (and BW) sensors based upon technologies it is developing in the nuclear field."

(5) "Rather than waiting until the CWC enters into force, the Executive branch should begin preparing now to meet the likely need for US support to OPCW inspections, including information that would be needed for challenge inspections of declared and undeclared sites pursuant to Part X of the CWC Verification Annex."

(6) "The President should make full Russian implementation of the Wyoming MOU and the BDA an issue of high priority in US-Russian relations and raise the matter personally at the highest levels. The Committee recommends that the Senate add a condition to the resolution of ratification of the CWC requiring the President, 10 days after the CWC enters into force or 10 days after the Russian Federation deposits instruments of ratification of the CWC, whichever is later, either — (a) to certify to the Senate that Russia has complied fully with the data declaration requirements of the Wyoming MOU; or (b) to submit to the Senate a report on apparent discrepancies in Russia's Wyoming MOU data and the results of any bilateral discussions regarding those discrepancies."

(7) "The Senate should add a condition to the resolution of ratification of the CWC, barring the deposit of instruments of ratification until the President certifies to Congress either: (a) that the US-Russian agreement on BDA implementation has been or will shortly be achieved, and that the agreed verification procedures will meet or exceed those mandated by the CWC; or (b) that the OPCW will be prepared, when the CWC enters into force, to effectively monitor US and Russian facilities, as well as those of the other States Parties. Relevant committees may also wish to consider whether it would be effective to attach conditions to one or more elements of US economic assistance to Russia."

(8) "The Executive branch and the committees of Congress with responsibility for US contributions to the OPCW budget should pay close attention to the OPCW's changing needs, so that additional funds can be made available in a timely fashion if current planning assumptions prove too conservative."

(9) "The Executive branch should ensure that the effectiveness of the CWC, both in Russia and around the world, is the primary objective of US-Russian CW policy."

(10) "The United States should exercise its right to reject a proposed inspector or inspection assistant when the facts indicate that this person is likely to seek information to which the inspection team is not entitled or to mishandle information that the team obtains."

(11) "Congress should amend the CWC implementing legislation (S.2221) to give the DoD On-Site Inspection Agency (OSIA) authority to escort inspectors on non-DoD sites, when asked to do so by the owners or managers of those sites, on a non-reimbursable basis to the extent that funds are available."

(12) "The Department of Commerce, with assistance from the Department of Defense, should develop a database similar to the Defense Treaty Inspection Readiness Program (DTIRP) database, to which interested firms could voluntarily contribute information on security needs at their facilities in the event of a CWC inspection."

(13) "The Commerce Department should undertake a substantially increased outreach program to inform companies that do not yet understand their data declaration obligations, in particular. Because US ratification of the CWC may well precede enactment of implementation legislation, the Commerce Department should begin this effort now, rather than waiting for formal designation as the lead agency for this effort."

(14) "The Senate Committee on Foreign Relations should pay particular attention to whether section 302 of S.2221 provides for sufficient disclosure of information to Congress and, if necessary, to the public."

Included in the report are responses from the Administration to numerous written questions from the Committee. In one of these it is stated that "the US has reached a political agreement within the group [of Western European and Other States] that the US will have a permanent seat on the Executive Council" of the OPCW, and elsewhere the responses state that this political agreement designates the WEOS membership of the Council for the first 17 years after entry into force. Other responses set out the Administration's interpretation of such aspects of the Convention as its provisions regarding "law enforcement" and "riot control". {SRpt 103-390}

**30 September–2 October** In England, at Wiston House near Steyning, there is the fifth of the Wilton Park Arms Control Seminars [see [24–26 Sep 93], this one on Implementing the Chemical Weapons Convention. There are 61 participants from Austria, Belgium, Canada, Denmark, Finland, France, Germany, the Netherlands, Norway, South Korea, Spain, Sweden, Switzerland, the UK and the USA. {Malcolm Dando in *ASA Newsletter* 7 Oct}

**1 October** In the US Army, the Chemical Materiel Destruction Agency [see 23 Nov 93] merges with the Chemical and Biological Defense Command, the latter establishing a Directorate of Chemical Demil/Remediation under its Deputy Commander. For the major tasks currently facing this new directorate, total costs are currently estimated at \$10 billion for unitary stockpile chemdemil, \$1.1 billion for binary chemdemil and elimination of production facilities, and \$17 billion for nonstockpile demil and remediation.

**1 October** The US Department of Commerce establishes an Office of Chemical and Biological Controls and Treaty Compliance as part of the reorganization of the Bureau of Export Ad-



ministration. One branch of this new Office, the Chemical and Biological Controls Branch, will continue the Department's previous CBW antiproliferation export-control work. A second branch, the Treaty Compliance Branch, is to be industry's main point of contact within the US government for CWC matters. {*CWC Chronicle* Nov}

**1 October** The US National Security Council and USACDA issue a *Report on Demonstration of Russian Commitment to Comply with Three Agreements on Chemical and Biological Weapons*. The report had been requested by the ranking minority member of the Senate Foreign Relations Committee, Senator Jesse Helms. {*Defense News* 24 Oct}

**1 October** The US Veterans Administration opens in Boston one of the three Environmental Hazard Research Centres it is establishing around the country in order to investigate illnesses related to Gulf War service. The Boston centre is affiliated with Boston University Medical Center, and is funded at \$3 million over five years. {*Boston Globe* 20 Sep}

**2 October** In Iraq, the first UNSCOM chemical monitoring group, CG1, arrives at the Baghdad OMV Centre. The group comprises four experts whose job it will be, under the guidance of UNSCOM staff in New York, (a) to draft and revise site monitoring and verification protocols; (b) to conduct inspections of research, development and university facilities; (c) to tag and monitor dual-use chemical-processing equipment; (d) to conduct inspections of sites of potential relevance to the chemical-monitoring regime; (e) to collect, assess and record monitoring sensor data; and (f) to provide technical expertise to the export/import monitoring group. {S/1994/1138}

**3 October** The US Army Safety Office begins its investigation at Tooele Army Depot into the charges of unsafe conditions at the chemdemil incinerator being built there [see 23 Sep]. At least three other investigations are or soon will be under way, including ones by the House Armed Services Committee, by the federal Occupational Safety and Health Administration, and by the Utah Department of Environmental Quality. One reason for such active concern is the prospect of the entire US chemdemil programme unravelling if closure of the Tooele incinerator were to be ordered. Environmentalist opponents of incineration, including the Kentucky-based Chemical Weapons Working Group [see 25 Sep], are lending their support to the call for shut-down pending full safety investigation being made by the original whistleblower, Steve Jones. He is reported in some quarters to be a most experienced safety engineer who has come to believe that the facility has fundamental design flaws. {*Greenwire* 7 Oct; *Boston Globe* 10 Oct; *Washington Post* 12 Oct}

**3–6 October** In Iraq there are high-level talks between officials and UNSCOM Executive Chairman Rolf Ekéus who, following an acrimonious round of talks in New York that had ended on 22 September, is visiting to "continue the dialogue" on establishing the system for ongoing monitoring and verification of Iraqi compliance with the weapons-of-mass-destruction nonarmament stipulations of the Gulf War ceasefire agreement [see 1 Aug]. UNSCOM spokesman Tim Trevan reiterates to reporters at the outset the view that the OMV system will need a trial period of at least six months before the Commission can determine whether it is able to certify that Iraq is in proper compliance, this being a necessary precondition for the lifting of the

oil embargo by the UN Security Council. He says that UNSCOM expects to be able to report, in its next six-monthly OMV report to the Security Council due on 10 October, that the OMV system is provisionally operational. {*Reuter* 3 Oct} At a press conference immediately following the talks and the departure of Ambassador Ekéus, Iraqi officials present an angry account of the Iraq–UNSCOM relationship over the years; they threaten a "new attitude" towards the UN if the Security Council meeting on 10 October does not directly lead to an easing of the sanctions. {*INA* 6 Oct in *BBC-SWB* 8 Oct; *Financial Times* and *International Herald Tribune* 7 Oct}

**4 October** In Thailand, Deputy Foreign Minister Surin Pitsuwan says in interview that, after diplomatic clarification by the Thai government, Libya once again wishes to recruit skilled Thai workers. Last year, Libya had been angered by the Thai government taking action against three Thai companies said to have provided workers for a Libyan chemical-weapons plant, and many Thai workers had returned home as a result [see 10 Mar]. {*Voice of Free Asia* 4 Oct in *BBC-SWB* 14 Oct 94; *Far Eastern Economic Review* 6 Oct}

**4 October** The US Assistant Secretary of Defense for International Security Policy, Ashton Carter, testifies on the Cooperative Threat Reduction (Nunn–Lugar) programme [see 26 Aug] before the Senate Foreign Relations Committee. Further assistance for Russian chemdemil is among the new initiatives planned in the FY 1995 programme. He says: "Duma leaders have made it clear that their decision about [Russian] ratification [of the CWC] will depend upon whether the Yeltsin government presents a credible plan for both destroying and financing the destruction of chemical munitions and agents... We expect that with our assistance [through current Nunn–Lugar projects], Russia will make a decision in 1995 about how chemical weapons will be destroyed. Then the task will be to begin the process of actually destroying the weapons. This will be a costly and time-consuming effort, and it might benefit from an infusion of US technology, funds and expertise. It is a task of such magnitude that it will also probably require assistance from other countries within NATO and the G-7. In FY1995 we plan to work with Russia on a final choice of destruction technology, and within the constraints of our budget to assist Russia to begin the process of destroying chemical weapons stockpiles." {*Federal News Service* 4 Oct}

A report by the General Accounting Office on the delays and management difficulties which the Nunn–Lugar programme has, until recently, been experiencing is released two days later. {*GAO/NSIAD-95-7*}

**5 October** In Washington, the Henry L Stimson Center releases a report on the US chemdemil programme containing recommendations for ways of restoring public support for the programme. The report evaluates objections raised by environmentalists against the high-temperature incineration process now being brought into use in the programme, and argues that most of the objections are based on weak or flawed science. {*Salt Lake Tribune* 13 Oct; *Defense News* 10 Oct}

**7 October** The UN Secretary-General transmits to the Security Council the sixth 6-monthly progress report on implementation of the UNSCOM plan for ongoing monitoring and verification of Iraq's compliance with the disarmament stipulations of ceasefire resolution 687 (1991) [see 22 Apr and 3–6 Oct]. The report details the OMV preparatory work done since

March, including the establishment of the Baghdad Monitoring and Verification Centre. It states that UNSCOM "believes that the basic elements for a thorough system are now in place", and that the system "is now provisionally operational". {S/1994/1138}

**7 October** In the US Senate, the Chairman of the Banking Committee, Senator Riegle, releases the third committee staff report on *US Chemical and Biological Exports to Iraq and Their Possible Impact on the Health Consequences of the Persian Gulf War* [see 1 Nov 93]. The report presents evidence that both US and British units detected and identified a variety of different CW agents during the Gulf War. The report gives prominence to British and US Army reports on a chemical storage tank found at a location in Kuwait which had been an Iraqi defensive position during the war. The chemical in the tank had, in different tests using different kit, shown positive for three quite different types of CW agent: mustard gas, dichloroformoxime and phosgene; subsequent official opinion, here disputed, was that these were in fact false identifications, and the chemical was actually fuming nitric acid, a rocket fuel oxidizer. Also recorded in the report is a preliminary finding of Q-fever and *Brucella* organisms inside a gas-mask brought back as a souvenir from the war theatre. {*Chemical & Engineering News* 24 Oct}

**7 October** The US House of Representatives passes a new bill, HR 5244, authorizing the Department of Veterans Affairs to make payments to veterans who are at least ten percent disabled by the so-called 'Gulf War syndrome'. This follows staff negotiations between the House and Senate Veterans Affairs Committees during which Senate opposition to the earlier House bill [see 14 Sep] is largely overcome. The Senate is expected to clear the measure very soon. {*CQ Weekly Report* 8 Oct}

**9 October** In the UK, particulars of 24 ocean-burials in the North Atlantic where the British government had got rid of some 120,000 tons of chemical munitions during 1945–57 are published in *Scotland on Sunday*.

**10 October** Iraq, which has for some days now been massing troops near its border with Kuwait, thereby provoking rapid re-deployment of US and British forces into the region, informs the UN Security Council that it will now move the troops away [see also 3–6 Oct]. The Tehran-based opposition group SAIRI states that Baghdad had also moved chemical weapons into southern Iraq. {AFP 10 Oct in FBIS-NES 11 Oct; Reuter 12 Oct} The Security Council postpones the meeting it had scheduled to consider the latest UNSCOM report on implementation of the OMV plan [see 7 Oct], a report which UNSCOM Executive Chairman Rolf Ekéus says at a press conference may have triggered Iraq's new belligerence by failing to recommend a date for a partial lifting of sanctions. {*New York Times* 12 Oct}. Baghdad denounces the report, a senior Iraqi official saying that it had deliberately ignored Iraq's coöperation with UNSCOM. The Security Council considers the report on 13 October. It decides against issuing a statement afterwards. {Reuter 13 Oct} The work of the three UNSCOM inspection teams currently in Iraq is reportedly continuing unhindered. {AFP 16 Oct}

**10 October** In the UK House of Commons, the newly formed Porton Down Volunteers Association [see 27 Jan] holds a press conference calling for an independent medical inquiry

into the chemical warfare testing of human guinea pigs in secret military laboratories [see 24 Jun]. The Secretary of the Association is Mick Roche [see Jun].

**10 October** In Washington, on the last day of the 103rd US Congress, legislation is finally passed authorizing payments to veterans suffering from the so-called 'Gulf War syndrome', *i.e.* to veterans chronically ill with undiagnosed disabilities that developed during or after the Gulf War [see 7 Oct]. {*Washington Post* 11 Oct} President Clinton later signs the bill into law. {*Washington Times* 3 Nov}

**10 October** In Washington, the 103rd US Congress ends without the Senate deciding for or against ratification of the CWC. That will now have to wait until after — perhaps some considerable time after — the new Congress convenes in the new year. The CWC implementing legislation, in the forms of Senate bill S 2221 and its House counterpart HR 4849 [see 3 Aug], likewise remains unpassed; it will have to be reintroduced in the next Congress.

**10 October** Uruguay deposits its instrument of ratification of the Chemical Weapons Convention.

**10–14 October** In Moscow there are bilateral talks on chemical weapons between US and Russian officials. One topic is the Bilateral Destruction Agreement [see 23 Nov 93, Clinton], which was last the subject of bilateral talks in November 1993, according to *Arms Control Reporter* citing interviews with an unidentified US official. Another topic, according to the same source, is the dispute over data exchanged under the Wyoming Memorandum of Understanding [see 23 Jun and 24–27 Aug], including the reported failure of the Russian side to include information on its alleged binary-munitions programme, and including also the noninclusion of data on certain production facilities which the former Soviet Union had listed in the initial Phase I information exchange. On the current Russian interpretation of what is meant by 'chemical weapons production facility', and in the light of certain conversion activities, the Russian side maintains that several former factories are no longer eligible for declaration. The talks end earlier than had originally been scheduled.

**11 October** In Moscow, in the Russian State Duma, where draft legislation has not yet been submitted on either chemical-weapons destruction or the Chemical Weapons Convention [see 26 Sep], the Defence Committee conducts a closed-session hearing on implementation of the Russian chemdemil programme. A representative of the General Staff is heard by the committee.

**11 October** In Greece, National Defence Minister Yerasimos Arsenis proposes the establishment of the eastern Mediterranean and the Middle East as a zone free from ballistic missiles and nuclear and chemical weapons. He is speaking at a conference in Athens organized by the Greek American Chamber of Commerce and the *International Herald Tribune*, attended by some 200 people from 25 countries. He says he will propose the opening of multilateral talks on the subject during the NATO ministerials in Brussels in December. {ER radio 11 Oct in BBC-SWB 13 Oct; Reuter 11 Oct}

**11 October** Chad signs the Chemical Weapons Convention, becoming the 158th state to do so. {PC/CWC-S.R./2}

**11 October** In the UK, a documentary on past British chemical-weapons programmes at Porton Down is screened on Independent Television. {*ITV Network First* 11 Oct} Among those appearing are a number of former volunteers for CW-related experiments [see 10 Oct], and the Director General of the Porton Down establishment, Dr Graham Pearson, who had been interviewed for the programme some eight months previously. {*Hansard (Commons)* written answers 26 Oct}

**12 October** In Japan, the Ministry of International Trade and Industry announces that it will be expanding existing export controls in response to growing concern over proliferation of weapons of mass destruction reflected in the current COCOM-successor talks [see 28-30 Mar]. Some 200 dual-use technologies, including ones potentially applicable in CBW weapons, may be affected. {*Kyodo* 12 Oct; *AFP* 7 Nov; *Defense News* 14 Nov}

**12–16 October** In Germany, the 15th Kühlungsborn Colloquium takes place on Insel Vilm, the topic being *Biological and Toxin Weapons Research, Development and Use; 1925-1945*. The meeting is organized by Professor Erhard Geissler, with papers scheduled to be presented by participants coming from Canada, France, Germany, Japan, Poland, Russia, the United Kingdom and the United States on the early BW work in their countries. SIPRI will in due course be publishing a book based on these papers. {*ASA Newsletter* 11 Aug}

**13 October** In Britain, Channel Four Television broadcasts a further documentary on 'Gulf War Sickness'. It asks the question whether the refusal by the British government to hold an inquiry into the illness is an admission that it had poisoned its own troops. {*Channel Four Critical Eye* 13 Oct}

**13 October** The US Army announces that the decision on the BW vaccine production facility [see 1 Aug] has been postponed until the new year. One reason is the decision by Congress not to appropriate most of the funding it had authorized for the Joint Program Office for BW Defence [see 19 Sep], which will be managing the new vaccine programme. Another reason is said to be the reluctance of the US pharmaceutical industry to become involved, as the Defense Department wishes, both because of the public stigma of association with BW and because of current Food and Drug Administration regulations. {*Defense News* 5 Sep and 17 Oct}

**15 October** In Russia, participants at a public conference in Nizhnii Novgorod, *Volga Days 94*, adopt a resolution setting out detailed policy guidelines on chemdemil and other chemical weapons problems.

**17 October** UK Defence Secretary Malcolm Rifkind, asked about UK ratification of the Chemical Weapons Convention, has written to his opposition counterpart to say "we hope to be among the first 65 states to ratify". {*Hansard (Commons)* 17 Oct} This stands in striking contrast to what was said in the declaration by governments of the UK and the other G-7 countries which Foreign Secretary Douglas Hurd released after the 1991 Economic Summit in London: "We reaffirm our intention to become original parties to the Convention". {*Dispatch* 22 Jul}

**17–21 October** US Army Edgewood Research, Development and Engineering Center, together with the US Navy, Air Force and Marines, sponsors the Third workshop on Stand-off Detec-

tion for Chemical and Biological Defense, in Williamsburg, Virginia.

**19 October** Libyan leader Muammar Gadhafi, in a speech to the Arab Pharmacists' Union, refers to the production facility in Rabta [see 27 Aug 93], describing it as a "pharmaceutical plant" satisfying the "need for medicines in this region". He rejects US statements that the facility is a poison-gas factory, and invites the Union to revisit it. {Libyan TV 19 Oct in BBC-SWB 21 Oct}

**19 October** The US Commerce Department Bureau of Export Administration publishes an interim rule exempting the Czech Republic from Australia Group export controls, now that the country is becoming a member of the Group. Turkey, in contrast, is removed from the list of exempted countries, because it "has not adopted AG-comparable export controls". {*BNA International Trade Daily* 2 Nov}

**21 October** In the United States, the American Bar Association sponsors a conference addressing export control policy and the possible character of the post-COCOM regime that is currently the subject of intergovernmental talks [see 12 Oct]. The Deputy Assistant Secretary of State for Export Controls, Martha Harris, refers to a strengthening of the Australia Group as being among the US policy objectives. {*Daily Report for Executives* 25 Oct}

**22 October** In Seoul, South Korean Foreign Minister Han Sung-chu reports to the National Assembly Foreign Affairs and Unification Committee on the outcome of the US and North Korean negotiations in Geneva, which had now culminated in agreement on nuclear matters. On the question of North Korea and the United States resuming diplomatic relations, he says that South Korea and the United States "are firm that it should be preceded not only by the resolution of the nuclear matter, but also by that of various issues between them including chemical weapons and human rights." {*Yonhap* 22 Oct in BBC-SWB 24 Oct}

**23 October** In Bosnia-Herzegovina, Muslim units use "toxic weapons" in fighting in the Kupres area, so Serb Republic Army sources report. {*Tanjung* 24 Oct in BBC-SWB 26 Oct}

**24–25 October** In the United States, at the chemical weapons storage facility at Tooele, Utah, a team of Russian inspectors conducts one of the practice challenge inspections allowed under Phase II of the Wyoming Memorandum of Understanding [see also 24-27 Sep]. {*Arms Control Reporter* 704.B.585}

**25 October** In Moscow, at the Russian American Press Center, the president of the Union for Chemical Security, Dr Lev Fyodorov [see 22 Sep], holds a press conference on ratification of the Chemical Weapons Convention. He gives details of the closed session of the State Duma Defence Committee (at which he was not present) during which implementation of the Russian chemdemil programme had been considered [see 11 Oct]. He says: "a representative of the General Staff argued that the signing by Russia of the Convention on Chemical Weapons was a mistake and that this process, as far as possible, should be reversed. This is not true, according to an account subsequently given by a member of the committee; the General Staff witness had expressed support for the treaty but concern for how the chemdemil programme it necessitated was to be financed.

**26 October** In the UK, Parliament receives further particulars of the volunteer testing programme at CBDE Porton Down [see 11 Oct] from Director General Graham Pearson, who is responding to a question addressed to the Defence Secretary about the number of deaths in the programme: "Since the start of the Service volunteer programme in the 1920s, there has been a single fatality in 1953 as reported in [*Hansard (Commons)* 9 and 22 June 1953, written answers]... In the subsequent 40 years, there has been no fatality nor has there been any evidence that any Service volunteers have suffered deterioration in their health as a result of participating in studies at Porton Down." {*Hansard (Commons)* written answer 26 Oct}.

**26 October** In the UK, Parliament learns from the response to a question in the House of Lords about why, in the Persian Gulf area, a British NAIAD CW-agent alarm had sounded on the night of 20–21 January 1991. The response states that the occurrence was "entirely consistent with the occasional transient false alarms that arose during Operation Granby" [see also 7 Oct]. It continues: "In addition, there has been no evidence to suggest that chemical warfare agent was used at any stage by Iraq during Operation Granby. The equipment provided to the British Armed Forces to detect and monitor chemical warfare agents, when used in accordance with their drills and training, is highly effective and is second to none."

The response to another question also bears on the putative 'Gulf War Syndrome'. Asked about possible long-term effects of a drug that is used in the standard-issue Nerve Agent Pretreatment Set, the government responds: "Pyridostigmine bromide has been used for several decades as a continuous (life long) therapeutic regimen to treat neuromuscular disorders such as myasthenia gravis using doses 10 or more times greater than that used in the NAPS preparation. No evidence has emerged that pyridostigmine reacts with any vaccine or combination of vaccines to produce short or long-term neurological or immunological damage." {*Hansard (Lords)* written answers 26 Oct}

**26 October** UNSCOM Executive Chairman Rolf Ekéus speaks at a lunchtime gathering at the Washington Institute for Near East Policy about recent developments in Iraq, including the background to the recently renewed military confrontation [see 10 Oct]. As to the disarmament work of UNSCOM, he speaks of Iraq's foreign supply lines as now being the "only unclear issue". However, he refers to a recently acquired list of more than 800 Iraqi letters of credit, saying: "We are now exploring, through the international bank system what has been bought for these... So far, we have identified 174 deliveries, and of these 174, 25 percent have been definitely related to chemical weapons program. So this is a very exciting development." He is later asked about the differing assessments of residual Iraqi WMD capabilities by the CIA and UNSCOM [see 23 Sep]. He says that UNSCOM is confident that it has emptied Iraq's longer-range missile inventory and also its stocks of chemical weapons; but he says there is considerably more doubt about the status of the Iraqi BW programme, which he calls "the area where they are most difficult with us". {*Reuter* 26 Oct; *Record* 27 Oct}

**26 October** The US Army awards a \$515 million contract to Loral Vought for engineering, manufacturing and development of the ERINT antimissile missile [see *ca* 22 Apr], thus launching the PAC-3 programme. Further, the Army directs Raytheon to

cease its work on the previously competing *Patriot* system. {*Defense News* 31 Oct}

**29 October** UK forces during the Gulf War had in fact used organophosphate insecticide, despite a Defence Ministry denial [see 27 Jun], so the *Guardian* newspaper reports, referring to the use of malathion powder to delouse Iraqi prisoners. {*Guardian* 29 Oct} The Defence Ministry later acknowledges to Parliament that this was so, saying that probably only ten British service personnel would have been involved in the use of the pesticide. {*Hansard (Commons)* written answers 3 Nov}

**31 October** In the UK, Parliament learns of current Defence Ministry work on the putative Gulf War syndrome. The Commons is told in a written answer from the Ministry: "A medical assessment programme has been established for all former Gulf personnel who have come forward with concerns about their health. As part of the assessment they are given a very detailed medical examination consisting of tests and investigations tailored to the patient's medical and occupational history, their reported symptoms and clinical signs. In addition to clinical information gained through these assessments, we are kept informed of relevant developments by former Gulf allies, including the findings of the ongoing American medical assessment programme for US Gulf veterans. Information from the medical assessment programme and from other recognised scientific sources is reviewed by medical and scientific experts in my Department covering a range of specialities, including general medicine, occupational medicine, public health medicine, pathology and psychiatry. These investigations have produced no evidence of any medical condition peculiar to service in the Gulf." {*Hansard (Commons)* written answers 31 Oct}

A written answer to the Lords states that: "So far, 29 patients have been examined by the military medical consultant physician appointed to investigate personnel who believe their health has been adversely affected by Operation Granby [see also 9 Sep]." {*Hansard (Lords)* written answers 31 Oct}

**1 November** In Estonia, "strategically important goods" become subject to export and transit controls, including dual-purpose goods applicable in the manufacture of CBW weapons. {*Estonian Radio* 1 Nov in BBC-SWB 11 Nov}

**1 November** The US Commerce Department discloses its estimate of the numbers of US companies likely to be affected by the Chemical Weapons Convention. The total number of such companies may be up to 6,000 [see also 7 Sep]; those affected by the Schedule 1 regime may number 5 to 15; by the Schedule 2 regime, another 100 companies; and by the Schedule 3 regime, another 200-300. The remainder would be affected only by the reporting requirements for "unscheduled discrete organic chemicals". {*BNA Chemical Regulation Daily* 3 Nov}

**2 November** In Texas, at a pre-trial hearing before the US District Court in Galveston in the case of Gulf War veterans against corporate suppliers of CBW-related technology to Iraq [see 3 Jun], a cut-off date of 22 November is set for adding further named plaintiffs to the litigation. Lawyers acting for the plaintiffs suggest that the number of veterans involved might eventually reach 100,000.

Meanwhile, unrelated to the lawsuit, erstwhile presidential candidate Ross Perot is backing the inquiries of a team of Dallas scientists into Gulf War sickness. {*Houston Chronicle* 25 Nov}

**3 November** In the UK, Parliament learns from the Director General of CBDE Porton Down, Graham Pearson, about the work done at Porton in the 1960s assessing the effects of the drug LSD on troops: "The assessment was made that although LSD could be synthesised, it was immensely expensive and being a solid it would be difficult to disseminate further, and as the effects were not highly predictable, the conclusion was reached that LSD would not present a significant battlefield hazard." {*Hansard (Commons)* written answers 3 Nov} The experimental work had taken place between 1961 and 1972, involving about 72 Service volunteers in laboratory and field trials. The maximum dose administered was no more than 0.2 mg, given orally in water. {*Hansard (Commons)* written answers 21 Nov}

**4 November** Iraq has consistently declared to the United Nations that it produced a total of 4340 tons of lethal chemical agents during its now-defunct chemical weapons programme, according to UNSCOM spokesman Tim Trevan, quoted in the *Washington Post*. In contrast, Iraq's declarations of total acquisition/production of CW-agent precursors has ranged from 13,221 tons in October 1993 to 17,657 tons in March 1994. As to suppliers, UNSCOM has found that, before 1986, Iraq purchased most of its CW-agent precursors from western Europe and the United States. From 1986 India was "more or less" the main supplier. {*Washington Post* 4 Nov}

**5 November** In the United States, a conference on Gulf War syndrome takes place at the William Joiner Center for the Study of War and Social Consequences at the University of Massachusetts at Boston. {*Boston Sunday Globe* 6 Nov} Some 29,000 of the 697,000 Gulf War veterans have now signed on to the special Gulf War registry opened by the Veterans Administration to document individual cases. There is mounting concern among veterans that the illness is contagious. {*International Herald Tribune* 15 Nov}

**8 November** In the US Congressional elections, the Republicans take control of both Houses. Chairmanship of the Senate Foreign Relations Committee is expected to pass to Senator Jesse Helms who, it is predicted by some, will oppose ratification of the Chemical Weapons Convention. {*New York Times* 11 Nov}

**10 November** In Japan, the Ministry of International Trade and Industry, coöperating with the Japan Chemical Industry Association, is pressing ahead with preparations for implementing the CWC, so *Japan Chemical Week* reports. The Ministry is working to present implementing legislation for passage through the Diet during the next ordinary session. {*COMLINE Daily News: Chemicals and Materials* 16 Nov}

**14 November** President Clinton issues a new Executive Order consolidating and amending two existing ones aimed at countering the proliferation of weapons of mass destruction. {*US Newswire* 15 Nov}

**14–17 November** In Baghdad, UNSCOM Deputy Executive Chairman Charles Duelfer meets with senior Iraqi officials to discuss deficiencies in the information which Iraq has furnished to the UN about its past weapons programmes, especially in the BW area. The head of the Military Industry Organization, General Amer Rashid, promises strong efforts to satisfy UN demands. {*Reuter* 13 Nov; *AFP* 17 Nov}

**15 November** In London the allegations that the military government of Burma is using biological weapons against rebellious Karen villages along the border with Thailand [see 3 May] are repeated in a report by Christian Solidarity International and Baroness Cox, Deputy Speaker of the House of Lords, who has just returned from a visit to the region. {*Times* 15 Nov}

**15–16 November** In Buenos Aires, the Argentine Republic hosts for the Latin American region an International Seminar on Non-Proliferation of Chemical and Bacteriological Weapons [see 6–9 Dec 93]. The seminar is organized by the Ministry of Foreign Affairs, International Trade and Worship in coöperation with the governments of Australia, Canada, Norway and the United States. Besides these five countries, there is participation from Brazil, Colombia, Costa Rica, Chile, Ecuador, Mexico, Panama, Peru, Spain and Venezuela.

**15–18 November** The US Army Chemical and Biological Defense Command Edgewood RDE Center hosts its annual scientific conference on chemical and biological defence research.

Among the presentations is one from Edgewood on the synthesis and physiological activity of certain quinoline and quinoxaline analogues of medetomidine, the abstract of which begins thus: "Centrally acting  $\alpha_2$ -adrenergic compounds show antihypertensive actions with sedative properties. More selective  $\alpha_2$ -adrenergic compounds with potent sedative activity have been considered to be ideal next generation anesthetic agents which can be developed and used in the Less-Than-Lethal Technology program. Unlike opioids, these compounds are devoid of the usual liabilities associated with respiratory depression, physical dependence and environmental concern after dissemination. Recently we have shown that a naphthalene analog of medetomidine is also a very potent and selective  $\alpha_2$ -adrenergic stimulant. However..."

**15–22 November** In Iraq, a visiting UN team of six BW specialists headed by Richard Spertzel of the United States is at work. {*AFP* 17 Nov}

**18 November** In the United States, *Science* publishes the second, epidemiological, part of the inquiry led by Professor Matthew Meselson of Harvard University into the 1979 outbreak of anthrax in Sverdlovsk, USSR [see 15 Mar 93]. The abstract reads: "In April and May 1979, an unusual anthrax epidemic occurred in Sverdlovsk, USSR. Soviet officials attributed it to consumption of contaminated meat. US agencies attributed it to inhalation of spores accidentally released at a military microbiology facility in the city. Epidemiological data show that most victims worked or lived in a narrow zone from the military facility to the southern city limit. Farther south, livestock died of anthrax along the zone's extended axis. The zone paralleled the northerly wind that prevailed shortly before the outbreak. It is concluded that the escape of an aerosol of anthrax pathogen at the military facility caused the outbreak."

Although the findings of the study indicate without any doubt at all that the release of anthrax spores came from a known BW facility in the city, they do not indicate whether the origin was a weapons programme such as the Biological Weapons Convention prohibits or a BW-protection programme such as the Convention permits.

**18 November** The United States imposes sanctions against two Swiss companies for allegedly providing assistance, in the

form of construction machinery, to Libya's chemical weapons programme. The two companies — Loop SA and CDM Engineering SA — are currently in liquidation. No Swiss laws were violated. {Reuter 18 Nov}

**18–20 November** In Houston, Texas, the US Defense Department Advanced Research Projects Agency sponsors an international conference on *Old Issues and New Strategies in Arms Control and Verification* chaired by Dr James Brown of Southern Methodist University. There is a panel on the Biological Weapons Convention in which the speakers are Australian CD Ambassador Richard Starr, Dr Marie Chevrier of the University of Texas at Dallas, Dr Graham Pearson and Ambassador Tibor Tóth.

**19 November** In the UK the law firm of Leigh Day & Co announces that it will start proceedings for personal injuries on behalf of former soldiers who had been used as guinea pigs in chemical warfare experiments. One such veteran, Michael Roche, founder of the Porton Down Volunteers Association [see 10 Oct], had just obtained legal aid. {*Independent on Sunday* 20 Nov}

**20 November** In Bosnia-Herzegovina, in fighting near Bihac, joint Krajina Serb and Bosnia Serb forces "attack defence lines at Veliki Skocaj with poisonous gases" [see also 11 Sep], according to Radio Bosnia-Herzegovina {in BBC-SWB 22 Nov} Two days previously Krajina Serb aircraft had dropped napalm bombs in the area. {*Daily Telegraph* 19 Nov}

**20 November** In London the Gulf War Veterans Association has its inaugural meeting and is likely to become involved in the litigation over the so-called Gulf War Syndrome: the product liability claims against 30 companies in the United States [see 2 Nov] and, pending the outcome of legal-aid applications, the compensation claims by upto 416 service personnel against the UK Defence Ministry [see 9 Sep]. {*Independent* 21 Nov; *Daily Telegraph* 24 Nov}

The Defence Ministry informs Parliament next day that 40 patients "have so far been examined by the military medical consultant physician appointed to investigate personnel who believe their health has been adversely affected by Operation Granby" [see also 31 Oct]. {*Hansard (Commons)* written answers 3 Nov}

**21 November** In Scotland, a claim against the UK Ministry of Defence for compensation for Gulf-War-related illness is made at the Court of Sessions in Edinburgh on behalf of a former Territorial Army nurse, Katherine Lamb, who blames her present debilitated condition on Nerve Agent Pretreatment Set [see 26 Oct] tablets. {*Guardian* 22 Nov}

Meanwhile, in England, legal aid certificates have been granted for more than 20 similar claimants [see 20 Nov] to take the Defence Ministry to court. And the War Pensions Agency decides to grant a war pension to a still-serving veteran of the Gulf War, Cpl Robert Lake, who had had an adverse reaction to his anthrax immunization. {*Independent* 24 Nov}

**21 November** The US Army releases the report on its safety investigation of the Tooele chemdemil incinerator [see 3 Oct]. The report concludes that, contrary to what the facility's former safety officer, Steve Jones, had been saying, safety at the plant has not been compromised. It does, however, recommend that the Army Corps of Engineers should examine the alleged de-

## CWC Non-Signatory States

as of 7 December 1994

Bosnia-Herzegovina	Andorra
Macedonia, FYR of	
Uzbekistan	Angola
Yugoslavia	Botswana
	Egypt
	Libya
Bhutan	Mozambique
Iraq	Sao Tome & Principe
Jordan	Somalia
Kiribati	Sudan
Lebanon	
North Korea	Antigua & Barbuda
Solomon Islands	Barbados
Syria	Belize
Taiwan	Grenada
Tonga	Jamaica
Tuvalu	Suriname
Vanuatu	Trinidad & Tobago

159 states have signed the CWC 18 of which have deposited instruments of ratification

## Deposited CWC Ratifications

as of 7 December 1994

Fiji — 20 January 1993
Mauritius — 9 February 1993
Seychelles — 7 April 1993
Sweden — 17 June 1993
Norway — 7 April 1994
Australia — 6 May 1994
Albania — 11 May 1994
Maldives — 31 May 1994
Cook Islands — 15 July 1994
Spain — 3 August 1994
Bulgaria — 10 August 1994
Germany — 12 August 1994
Sri Lanka — 19 August 1994
Mexico — 29 August 1994
Turkmenistan — 29 September 1994
Uruguay — 6 October 1994
Paraguay — 1 December 1994
Lesotho — 7 December 1994

## Other CWC Ratifications

announced officially but not yet deposited

Greece  
Romania

sign flaws. The director of the Army Safety Office, Brigadier Thomas Garrett, says: "We found a plant that is about where it should be, given the projected start date [September 1995] for full operations". {*Sun* (Baltimore) 22 Nov; *New York Times* 24 Nov}

The investigation by the Occupational Safety and Health Administration has also been completed, but its findings have not been released. {*Washington Post* 12 Oct}

**22 November** In the United States a team of 15 Russian inspectors arrives at the former chemical weapons production facility at Newport Army Ammunition Plant in Indiana to conduct a trial inspection under Phase II of the Wyoming Memorandum of Understanding [see also 24–25 Oct]. {*Chicago Tribune* 23 Nov}

**23 November** In China, the Imperial Japanese Army in 1939 set up a BW laboratory, known as Bo8609, at the former medical college of Zhongshan University in Guangzhou, the capital of southern Guangdong Province, according to a Chinese historian quoted in *China Daily*. {*International Herald Tribune* and *Guardian* 24 Nov}

**24–26 November** In the Hague, at the Peace Palace, the Hague Academy of International Law organises a colloquium,

*The Convention on the Prohibition and Elimination of Chemical Weapons: a breakthrough in multilateral disarmament*, in cooperation with UNIDIR and the OPCW Provisional Technical Secretariat.

**26 November** In the UK, a documentary on international BW anti-proliferation efforts and their complication by the biotechnology industry is screened on BBC television. {*BBC-2 Assignment* 26 Nov}

**26–30 November** In Jakarta, the government of Indonesia in conjunction with the OPCW Provisional Technical Secretariat hosts a regional seminar on national implementation of the CWC. [See further pages 1–2 above.]

**28 November** In the UK, the President of the Board of Trade makes the following statement on his plans to introduce legislation to implement the Chemical Weapons Convention in Britain: "The United Kingdom remains committed to the chemical weapons convention and legislation to facilitate its ratification will be introduced as soon as parliamentary time and other legislative priorities permit". {*Hansard (Commons)* written answer 28 Nov}

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