

# THE CBW CONVENTIONS BULLETIN

News, Background and Comment on Chemical and Biological Weapons Issues

ISSUE NO. 47

MARCH 2000

*Quarterly Journal of the Harvard Sussex Program on CBW Armament and Arms Limitation*

## APPROACHING AN “END-GAME” IN THE NEGOTIATION OF THE BWC PROTOCOL: LESSONS FROM THE CHEMICAL WEAPONS CONVENTION

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In the optimistic days following the conclusion of the negotiation of the Chemical Weapons Convention (CWC), the CWC was seen as something of a case study for arms control and disarmament approaches in the future.<sup>1</sup> The CWC was the first multilateral treaty designed to destroy an entire class of weapons of mass destruction with the most comprehensive verification system yet seen in a multilateral disarmament treaty. It was considered that there were good prospects for concluding new arms control treaties and for improving existing treaties, including the Biological Weapons Convention (BWC), which would reflect the CWC's comprehensive scope and stringent verification regime.

Recently, the view has been expressed that the negotiation of the BWC Protocol at the Ad Hoc Group (AHG) in Geneva can be concluded by the end of this year. In the past, a number of commentators have suggested that there are lessons from the negotiation of the CWC that could be used in the negotiation of a Protocol for the BWC. This raises the question, in light of the current status of the BWC Protocol negotiations, whether any of the lessons from the CWC “end-game” are applicable to an “end-game” negotiation of the BWC Protocol.

In terms of a way ahead for the BWC Protocol, it is useful to consider that from 1988, when people first started thinking the CWC could be concluded within 12 months, the whole atmosphere in the CWC negotiation became a lot more serious. In particular, participants started to undertake a range of activities in capitals, including surveys of industry, practice inspections, and outreach to chemical industry, as discussed below. It is also useful to consider proposals suggested by Australia in 1991 in order to conclude the CWC negotiations during 1992.<sup>2</sup> These included:

- greater involvement of capital-based officials in the negotiations;
- movement away from the multiple Working Groups towards a “less formalistic” structure in the negotiations;
- greater use of private consultations via a system of Friends of the Chair so as to “allow for compromises to emerge without having to be publicly viewed and without negotiators being seen as gaining or losing face”;

- a meeting of the Ad Hoc Committee at ministerial level;
- more regional dialogue; and
- a meeting of the prospective or acting heads of national implementation authorities.

This would suggest that an increase in capital-based activities might add greater interest and momentum to the negotiation process in Geneva, which in turn might benefit from a “less formalistic” negotiation process in the AHG.

### ***Proposed capital-based activities to support conclusion of the BWC Protocol***

***Surveys of Relevant Facilities*** It is useful to recall that, following a proposal by Germany in April 1988<sup>3</sup>, the majority of countries which were either member or observer nations of the CD undertook national surveys of chemicals relevant to the CWC. Several additional surveys were also undertaken, including surveys by chemical industry associations and study groups (for example, the Pugwash/SIPRI Thiodiglycol Project<sup>4</sup>). These surveys provided a very useful indication of the extent and production, use and trade in certain CWC-relevant chemicals in various countries and assisted in the development of the CWC provisions.

So far, it would appear that only a small number of BWC states parties have undertaken surveys of their biotechnology and pharmaceutical industries and reported the results to the AHG, despite the fact that a significant part of the relevant information would be available from the voluntary CBM declarations that many states parties provide on an annual basis. It would be useful if as many as

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possible of the BWC states parties were to conduct national surveys based on the various possible triggers in the current Rolling Text, and report the results to the AHG. This activity would provide useful background information to assist in developing a better appreciation of which are the most useful triggers, and whether particular triggers would be useful as stand-alone triggers or in combination.

*Practice Visits* Another very useful development in the development of the CWC was the conduct of many National Trial Inspections (NTIs) of chemical industry. Most countries involved in the Conference on Disarmament (CD) conducted NTIs — approximately seventy were conducted and reported to the CD. These were followed by a Pugwash NTI Evaluation Meeting, which was able to draw even more valuable lessons from the practice inspections.<sup>5</sup>

So far, it appears that only a small number of BWC states parties have conducted practice visits in biotechnology facilities. These have been reported to the AHG in a piecemeal manner, and there has been no attempt by the participants to meet in a workshop format to analyse the results and lessons learnt. It would be useful, both in terms of determining what is feasible and in getting industry involved, if as many as possible of the BWC states parties were to conduct a practice visit and report their results to the AHG.

*Practice Investigations* It became clear during the CWC negotiations that there were major concerns regarding national security/military facility issues, which led several countries to conduct a number of Practice Challenge Inspections (PCIs). These PCIs helped in the development of ways and means to solve the outstanding issues such as the prevention of abuse during the conduct of a challenge inspection. Most notable in this regard was the UK, which performed a series of PCIs at military facilities, including a nuclear weapons storage area, a nuclear weapon R&D establishment and a signals establishment and which were reported in CD/1012. During this series of PCIs, the UK developed the concept of “managed access”, to provide negotiated access to very sensitive installations, sufficient to demonstrate compliance while at the same time allowing the state party to protect unrelated national security information.

As in the case of practice visits discussed above, it would be useful if BWC states parties, particularly those concerned about potential compromise of confidential information from sensitive sites, were to conduct practice investigations at relevant sites, and report their results to the AHG.

*Interaction with Biotechnology Industry* It has been said in the margins of the AHG that chemical industry representatives embraced the CWC in the 1980s as means to redeem their “tarnished reputation”, but that the biotechnology industry has not seen the same need to support the work of the AHG. Without entering that debate, it is worth noting that at the first formal meeting of chemical industry representatives with the negotiators in the CD in June 1987, most of the industry representatives

were in a state of shock when they were presented with the data reporting and on-site inspection activities which were being proposed. Indeed, they expressed similar concerns to those that have been expressed recently by certain biotechnology and pharmaceutical associations about intrusion into current and future commercial and technical proprietary areas, and the large body of intellectual property, which is considered as “know how” and is not patented. At subsequent industry-CD meetings, there gradually developed a much closer understanding between negotiators and industry/association representatives, who eventually pledged their support and provided valuable input. This input helped in shaping a final CWC package, with the outcome that the CWC became both more workable and less of a burden for the chemical industry than it would otherwise have been.

Based on the extent of cooperation reported by the relatively few BWC states parties who appear to have made the effort to develop a working relationship with their biotechnology industries (for example, through the conduct of practice visits, workshops and seminars), one gets the impression that the biotechnology industry, once it understands what is being proposed, is supportive of, and willing to assist in the development of effective strengthening measures being developed for the BWC, including some form of “random” or transparency visits to declared facilities.<sup>6</sup>

*BWC National Authority preparations* In the lead up to the conclusion of the CWC, Australia established a “National Secretariat” which was the nucleus of what ultimately became the Australian National Authority under the CWC.

The National Secretariat assisted relevant agencies in focussing on the fulfilment of future obligations under the CWC, and was involved in the industry surveys and practice inspections outlined above. There would be clear benefits in BWC states parties establishing at least a preliminary National Authority arrangement pending conclusion of the negotiation of the BWC Protocol.

*Regional Activities* In the years leading up to the conclusion of the negotiation of the CWC, a number of countries became involved in regional activities designed to share information and build greater support for the CWC. For example, Australia conducted a number of activities under its “Chemical Weapons Regional Initiative” including seminars, workshops and a multilateral trial inspection at a civil-industry facility, as reported in CD/1128.

There would be obvious benefits in BWC states parties undertaking similar regional activities in the lead up to the BWC Protocol.

### ***The AHG Negotiation Process***

*A “less formalistic” AHG Negotiation Process* The current AHG negotiation process consists of two formal three-hour sessions each day of the Ad Hoc Group Session. This was a reasonable process in the early stage of the negotiation. However, with this formal meeting format,

there is only very limited opportunity available for bilateral or open-ended informal discussions. Clearly, at this stage of the negotiation, it would be preferable to move to a less formal process, making greater use of informal consultations, which are more conducive both to drafting and developing compromises, as was the case in the final negotiation phase of the CWC.

A “less formalistic” format would also be more suitable for the discussion and analysis of the various capital based activities. Alternatively, such activities could be undertaken through the auspices of Pugwash or HSP.

It would also be preferable to move away from the existing practice whereby any delegation can add elements from a national paper to the Rolling Text, to a Rolling Text which only contains text which had been negotiated, as was the case with the CWC Rolling Text. Also, bearing in mind the extremely useful role played by Ambassadors in the end-game negotiation of the CWC,<sup>7</sup> it would also be useful to encourage greater involvement by Ambassadors in the AHG negotiations.

*Negotiating contentious issues — a case study from the CWC* In view of the divergences on some of the key issues in the BWC Protocol negotiations, it is interesting to consider as a case study, one of the most contentious issues in the final stage of the negotiation of the CWC, which was the question of “CW-capable” or “Other Chemical Production Facilities” (OCPFs) producing “discrete organic chemicals”. In early 1992, concerns were being expressed by a number of CD members, relating to both the scope of the declarations of OCPFs, and also as to whether any or all OCPFs should be subject to routine inspection. Eventually, it was agreed the routine inspections of OCPFs “would commence at the beginning of the fourth year after entry into force unless the Conference of the States Parties (CSP), at its regular session in the third year after entry into force of this Convention, decides otherwise”.<sup>8</sup>

And, by the time of the 4<sup>th</sup> CSP in June 1999, the states parties which had previously expressed concerns accepted the benefits, and supported the commencement of OCPF inspections in 2000.

A similar phased implementation approach, subject to CSP approval based on early implementation experience, may also be worth considering for some of the more contentious elements of the BWC Protocol. For example, if various declaration and follow up activities are phased, for example, to commence at the beginning of the 2<sup>nd</sup>, 3<sup>rd</sup> or 4<sup>th</sup> year after entry into force unless the Conference of the States Parties decides otherwise, then states parties may be able to find a compromise Protocol package.

It should be noted that a set of “phased-in” provisions along the above lines would also enable an Organisation for the Prohibition of Biological Weapons to be established in a less time-pressured manner than was the case of the Organization for the Prohibition of Chemical Weapons, as a consequence of the “front-end loaded” nature of the CWC.

It is interesting to recall that the nuclear Non-Proliferation Treaty (NPT) also had a phased approach in the implementation of various provisions. For example, the NPT did not require the same level of national

implementing measures to be in place prior to ratification as the CWC did.

*A Clean Text* In March 1992, Australia presented a “clean draft CWC text” (i.e., free of square brackets and footnotes) to the Conference on Disarmament (CD/1143), 80 percent of which comprised already agreed language from the Rolling Text (so was quite familiar to the negotiators), the remaining 20 percent which advanced a “model for the kind of compromises which it will be necessary for all parties to make” on issues where agreement does not already exist.

This text was intended to accelerate the negotiations -- to “change the psychological climate” within which the talks were proceeding. It was subsequently recognised that the appearance of the clean CWC text helped to focus efforts on a final text.

Clearly, if the negotiations are to be concluded in 2000, it would be useful to have a clean BWC Protocol draft text to help focus minds on how the eventual Protocol might look. However, in the case of the BWC Protocol, it is unlikely that a “National” clean text would assist the Ad Hoc Group process. Because of the very wide range of preferences and the resulting large numbers of brackets in the BWC Rolling Text, a clean text would look very different to the current Rolling Text, and therefore would be unlikely to be helpful. However, a clean text, if produced by the Chairman, Tibor Tóth, in collaboration with the various Friends of the Chair, would assist delegations in assessing how close they are to an agreed Protocol text.

### **Concluding Comments**

It is to be hoped that the negotiation of an effective BWC Protocol can be concluded by the end of this year, which will meet the timetable mandated by the Fourth Review Conference in 1996. As discussed above, there are a number of useful lessons of various activities which took place in the lead up and during the end-game of the negotiation of the CWC which could usefully be applied to the negotiation and successful conclusion of the BWC Protocol. Further, in order to achieve an effective Protocol with minimum delay, these activities should be commenced now, as they will help to develop a higher level of interest in the Protocol in capitals, which will help to maintain the momentum necessary to achieve an effective BWC Protocol.

### **References and Notes**

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2. Statement made by Australian Disarmament Ambassador Paul O’Sullivan, at the First Committee of the UN General Assembly in New York. See also Paul O’Sullivan, “Concluding the Chemical Weapons Convention”, *Chemical Weapons Convention Bulletin* no 13, (September 1991), pp 1–2.
3. Federal Republic of Germany, “Provisions of Data relevant to the Chemical Weapons Convention”, CD/828, 12 April 1988.

4. R J Mathews, "Global survey of Thioidiglycol", Chapter 4 in S J Lundin (ed.), *Verification of Dual-use Chemicals under the Chemical Weapons Convention: The Case of Thioidiglycol*, SIPRI Chemical and Biological Warfare Studies no. 13 (Oxford University Press: Oxford 1991).
5. R Trapp, "CW Technical Expert Meeting to Evaluate Experiences from National Trial Inspections" (Rapporteurs report), 17th Workshop of the Pugwash Study Group on Chemical Warfare, 15–16 June 1991, Geneva, Switzerland.
6. Indeed, the comment by biotechnology and pharmaceutical industry personnel who have taken part in a practice visit is that, compared to the frequent inspections that they already receive from various national and international regulatory

- bodies (such as Therapeutic Goods Administration, Food and Drug Administration, and various occupational health and safety and environmental agencies), an occasional relatively non-intrusive BWC Protocol visit would not be a problem.
7. H Mashhadi, "How the negotiations ended", *Chemical Weapons Convention Bulletin* no 17 (September 1992) pp 1 & 28–30.
8. CWC Verification Annex Part IX, Paragraph 22.

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*The views expressed in this article are those of the author and do not necessarily reflect the position of the Australian Government.*

## Developments in the Organization for the Prohibition of Chemical Weapons

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The period under review, from mid-December 1999 to early March 2000, saw the OPCW pass its first 1,000 days of operations on 25 January. Since beginning operations, more than one million chemical weapons and 4,000 tonnes of chemical warfare agents had been destroyed in three of the four declared possessor states. Of the 60 declared Chemical Weapon Production Facilities (CWPFs) 20 had been certified as having been destroyed and five had been approved for conversion to peaceful purposes. The world's declared stockpile of 70,000 tonnes of chemical agents, contained in eight million munitions and bulk containers, and the 40 remaining CWPFs, including those approved for conversion, are all subject to a stringent international verification regime. San Marino, Eritrea and Azerbaijan ratified or acceded to the CWC during the period under review, bringing the total number of states parties to 131, and the number of other signatory states to 40.

A significant milestone in the implementation of the Convention will be reached on 29 April when transfers of Schedule 2 chemicals to non-states parties are banned. This is the second step in the Convention's gradual imposition of trade restrictions on scheduled chemicals: transfers of Schedule 1 chemicals to non-states parties were banned upon the entry into force of the Convention on 29 April 1997 and in 2002 the Conference will consider the need to establish measures regarding transfers of Schedule 3 chemicals to non-states parties.

This year also sees the expansion of the Convention's inspection regime to cover facilities producing unscheduled "discrete organic chemicals" (DOCs) above certain thresholds. While declarations of such plants have been required since entry into force, after May this year these DOC plants will also be subject to OPCW inspection.

The focus of attention within the OPCW once again turned towards preparations for the annual session of the Conference of the States Parties which will convene in The Hague during 15–19 May. A first draft of the 2001 budget was circulated to member states and the annual reports of the Organization and the Executive Council for 1999 were in preparation. The period under review has also

demonstrated that further consideration needs to be given to the working methods of the Council. The Council's eighteenth session only took decisions on two relatively minor issues and the agenda of Council sessions continued to grow as important decisions were deferred once again. Despite the establishment of two working groups and the convening of numerous informal consultations, the Council still spent much of its time deliberating and negotiating rather than approving decisions.

### **Executive Council**

During the period under review, the Executive Council met for one regular session, its eighteenth, during 15–18 February. On 14 February, it held an informal one-day meeting on the progress of destruction of chemical weapons and the destruction or conversion of CWPFs. A number of informal consultations were also convened, in which delegates discussed various unresolved and pending issues on the Council's agenda. Given the length of this agenda, the next regular session, the nineteenth, has been extended by one day to meet during 3–7 April with an informal meeting on the progress of chemical weapons destruction and CWPF destruction and conversion on 30 March. Besides the recurring agenda items, the nineteenth session will also have to consider the report on the performance of its activities, the draft report of the Organization and the draft 2001 budget, all of which need to be forwarded for adoption to the fifth session of the Conference. Therefore it is possible that it will meet for at least one unscheduled meeting in the run-up to the Conference.

As requested by the fourth session of the Conference, the Director-General convened a meeting of experts to examine the recommendations made by the Scientific Advisory Board at its second meeting in April 1999. This meeting took place on 24 January and its conclusions will be considered by the Council's nineteenth session in April.

*Status of implementation of the Convention* The Director-General submitted a *Status of Implementation*

*Report to the Council.* As usual, Part I of the report, reporting on the results of the OPCW's verification activities, was classified as Highly Protected. Part II, dealing with the implementation of Articles X and XI, was issued as an unclassified Council document.

The Director-General reported that, as of 11 February, only 97 of the 129 states parties had submitted their initial declarations, leaving 32, almost one quarter of states parties, which had not done so. Given this situation, the Director-General announced that he had written to the foreign ministers of the countries concerned requesting that their initial declarations be submitted, if possible, before the Council's nineteenth session. The Director-General also announced that he had assigned Jean-Louis Rolland, the director of the Verification Division, to initiate consultations with each of the 32 states parties and to travel to some of them as his special representative in order to encourage them to fulfil their obligations.

The coordinator of the cluster of pending and unresolved issues related to legal, organizational and other issues, Ambassador Seyed Shamseddin Khareghani (Iran), reported to the Council on the issue of the reporting of results of verification activities, including inspection results. Ambassador Khareghani reported on consultations held during the intersessional period and the Council decided to return to the issue at its next session.

*Destruction of chemical weapons* The Council returned to its deferred consideration of the request by Russia, made in accordance with the Convention, that it be granted an extension of the intermediate deadline for the destruction of Category 1 chemical weapons. In his opening statement, the Director-General, emphasised that the provision of financial assistance to Russia could not be made from the OPCW's own budget, but acknowledged that "the OPCW should support this kind of cooperation amongst Member States in order to achieve the objectives of the Convention". He therefore expressed his support for the proposal of a standing committee to coordinate and prioritise the provision of assistance to Russia and offered the OPCW as a venue for such an informal "outside" body. As encouraged by other states parties at the previous Council session, Russia submitted to the Council additional information on the state of construction of its first Chemical Weapons Destruction Facility (CWDF) at Gornyy and on its plans for the destruction of Category 1 chemical weapons. Russia also invited the Council's Chairman, Ambassador Ignacio Pichardo Pagaza (Mexico), to Gornyy, in order to facilitate the Council's deliberations on the request. The Council requested the Secretariat to fund the Chairman's technical visit to Gornyy from the OPCW's 2000 budget even though there is no budget line for such trips. Once again, the Council deferred a decision on the Russian extension request until its next session or meeting.

In his opening statement the Director-General raised a number of issues relating to old chemical weapons (OCW). He noted that, three years after entry into force, there is still no agreed verification regime for OCW and differences remain with regard to the interpretation of the declaration requirements for such weapons. Consequently, the files on all the OCW and abandoned chemical weapons (ACW)

inspections conducted so far, with the exception of those few OCW sites which only contain pre-1925 old chemical weapons, remain open. Although a decision on the costs of verification for ACW inspections was adopted by the fourth session of the Conference, consensus had not been reached on the draft decision related to the costs of verification of OCW. In fact, this draft decision has not been considered by the Council since its fifteenth session. The second major obstacle to establishing the OCW verification regime is the lack of agreement upon guidelines to determine the usability of chemical weapons produced between 1925 and 1946. States parties have been trying to agree criteria by which such chemical weapons could be judged to be unusable since the Preparatory Commission. The new facilitator on this issue, Col. Gábor Nagy (Hungary), held informal consultations during the intersessional period, the results of which were reported to the Council by the coordinator of the chemical weapons cluster of unresolved and pending issues, Ambassador Carl Niehaus (South Africa). The Secretariat circulated to states parties its proposals for resolving the remaining issues related to OCW. The Council deferred consideration of the issue to its next session.

*Requests for conversion of CWPFs* Three requests for the conversion of CWPFs to purposes not prohibited by the Convention were submitted to the Council. One was submitted by Russia for the former DF production facility in Volgograd and two were submitted by the UK for the former CWPFs at Runcorn and Rhydymwyn. The Council decided to defer consideration of all three requests until its next session.

*Industry verification issues* The last session of the Council reviewed the status of a large number of issues related to the chemical industry but failed to resolve any of them. Following a report on the status of the consultations by the coordinator of the cluster of unresolved and pending issues relating to the chemical industry, Ambassador Edwin Delofski (Australia), the Council renewed its consideration of only two issues. The first such issue was the draft decision on low concentrations limits for plant site declarations and for Schedule 2 and 3 transfers which had been submitted to the seventeenth session. A number of delegations stressed the need to find an urgent resolution to this issue given that the transfer of Schedule 2 chemicals to non-states parties will be forbidden after 29 April. However, the Council was once again unable to reach consensus on the draft decision and decided to convene urgent consultations with a view to taking a decision at its next session. A similar course of action was taken with regard to the proposed understandings on the inspection of records during Schedule 2 inspections.

*Financial issues* The first draft of the 2001 budget was circulated to states parties on 8 February. At this initial stage the budget, which is denominated in Euros for the first time, totalled EUR 70,393,200, as opposed to a converted total of EUR 60,238,419 for 2000 (there are 2.2 Guilders to one Euro and approximately one US Dollar to one Euro). The 33 per cent projected increase is mainly due to the

planned phasing out of subsidies from the host country, the anticipated increase in staff turnover as a result of the adoption of a maximum seven-year tenure policy and a decrease in the reimbursements from states parties for inspections under Articles IV and V. This first draft of the budget provided for an additional 20 new fixed-term posts which would bring the personnel strength of the Secretariat up to 527. The draft will be considered in detail by the Council's nineteenth session.

The Director-General reported to the Council on the status of contributions to the 2000 budget. Of the total 2000 assessments of NLG 105,423,227, the Secretariat had received NLG 43,539,633 (41.2 per cent) as of 31 January. Of the then 129 member states, 33 had already paid in full, 32 had partially paid, but 64 had not paid anything. The Director-General also reported on the status of contributions to the 1999, 1998 and 1997 budgets: 96.3 per cent, 98.9 per cent and 99.5 per cent of contributions were received respectively. However, many states parties were still in arrears with their contributions to the 1998 and 1999 budgets while a number of signatory states had still not paid outstanding contributions to the Preparatory Commission. In accordance with Article VIII.8 of the Convention, a member state which is in arrears will lose its vote in the OPCW if the amount of its arrears equals or exceeds the amount due from it for the previous two years. The Director-General reported that, as of 31 January, the following 24 states parties were at risk of losing their vote: Armenia; Burkina Faso; Cook Islands; Costa Rica; Ecuador; El Salvador; Equatorial Guinea; Georgia; Ghana; Guinea; Guyana; Laos; Macedonia; Maldives; Mali; Mongolia; Niger; Paraguay; Moldova; Seychelles; Tajikistan; Togo; Trinidad and Tobago; and Turkmenistan. On 4 February the Secretariat wrote to all 24 states parties warning them of the consequences of losing their voting rights under the CWC.

The Director-General also reported on the status of reimbursements of verification costs by states parties which declared chemical weapons or chemical weapons related facilities under Articles IV and V. Of a total of NLG 18,067,419 invoiced to the nine states parties (China, France, India, Iran, Japan, Russia, UK, USA and one other), as of 31 January the Secretariat had only received NLG 9,971,627, a shortfall of NLG 8,095,792. Almost 80 per cent of the outstanding amount was owed to the OPCW by the USA. Only China, France, Japan and the UK had paid all of the amounts invoiced to them. India, the USA and another state party had partially paid, while Iran and Russia had paid nothing. States parties had not yet been invoiced for inspections in the fourth quarter of 1999.

The Advisory Body on Administrative and Financial Matters (ABAF) held its seventh session during 24–27 January. The Secretariat provided preliminary figures on the status of the 1999 budget showing an underspend of around NLG 9,500,000. The ABAF also commented on an advance copy of the first draft of the 2001 budget. During the Council's eighteenth session the Secretariat, in a departure from normal practice, circulated a note taking issue with some of these comments. In his opening statement to the Council the Director-General referred to some "glaring deficiencies" in the work of the ABAF and

urged the Council to review its terms of reference, suggesting changes to its composition and mandate. In the Director-General's view, the ABAF had strayed from the terms of its mandate and was becoming involved in political judgements which should be the preserve of the Council. He also pointed out that many of the ABAF's current members did not have the required "recognised standing in the financial and administrative fields". The ABAF will hold its eighth session during 29 March–1 April.

*Staffing issues* Although the fourth session of the Conference adopted staff regulations, it delegated to the Council the authority to decide upon the starting date of the seven-year tenure period. Despite being considered by every session of the Council since July 1999, agreement on the starting date has proved elusive. The coordinator of the cluster of unresolved and pending issues related to administration and finance, Ambassador L'ubomir Kopaj (Slovakia), reported to the Council on the results of informal consultations convened prior to its eighteenth session. Despite several delegations stressing the need for an urgent resolution to this issue, the Council once again deferred a decision until its next session and agreed to continue the informal consultations.

*Other issues* The Council considered the list of new spectra for inclusion in the Central Analytical Database validated by the fifth meeting of the Validation Group. As no concerns had been communicated by states parties, the Council approved the list of new spectra. Following its sixth meeting during 17–18 January, the Validation Group forwarded to the Director-General more new spectra for inclusion in the database. This new list will be considered by the Council's nineteenth session in April. The database was also discussed at the second meeting of the Scientific Advisory Board's temporary working group (TWG) on analytical issues, which was attended by Eric Wils, the chairman of the Validation Group. The Validation Group will hold its seventh session during 5–6 June.

The Director-General submitted for the Council's approval the Memorandum of Understanding (MoU) on assistance and protection against chemical weapons signed on 2 July 1999 by the OPCW and Iran. The MoU is the first bilateral agreement to be concluded under Article X.7(b). It details the assistance which Iran would provide upon receiving a request under Article X from the Director-General and states that Iran will establish a regional base for casualties arising from attacks by chemical weapons. The Council adopted the corresponding decision.

The Council has been considering additions to the list of inspection equipment approved at the first session of the Conference for many months now. Informal consultations took place prior to the Council's eighteenth session and a draft decision was circulated in early February. However, the Council's Chairman reported that agreement had not yet been reached and that further consultations would take place in the period before the nineteenth session when a decision could hopefully be approved. In his opening statement, the Director-General informed the Council that some states parties had been systematically applying restrictions on the use of specific items of approved

equipment. He stated his intention to circulate to the Council a list of these states parties including the circumstances of each case. The Director-General also told the Council that he would inform it of any state party which restricted the use of newly acquired approved equipment after the two-month familiarisation period has ended.

The Council's eighteenth session also adopted the provisional agenda of the fifth session of the Conference.

### **Action by Member States**

**Ratifications** During the period under review three additional states deposited their instruments of ratification or accession with the UN Secretary-General in New York. In chronological order: San Marino ratified the Convention on 10 December (entry into force on 9 January); Eritrea acceded on 14 February (entry into force on 15 March); and Azerbaijan ratified on 29 February (entry into force on 30 March). This brings the total number of states parties to 131 and the number of signatory states to 40.

### **Technical Secretariat**

**Declaration processing** Reacting to the report of the audit team on the Security Critical Network (SCN) the Director-General told the Council that he had appointed a project manager to coordinate the Secretariat's response to the concerns expressed in the report. Additional experts were provided by France, the UK and the USA. A mock audit is planned for 6–10 March with the formal audit taking place a few weeks later.

**Inspections** As of 6 March, 666 inspections had been completed or were on-going at 332 sites in 35 states parties. The breakdown of these inspections was as follows: 14 to ACW sites; 152 to CWDFs; 157 to CWPFS; 92 to chemical weapons storage facilities (CWSFs); 25 to OCW sites; 59 to Schedule 1 facilities; 114 to Schedule 2 plant sites; 52 to Schedule 3 plant sites and one other. OPCW inspectors had spent a total of 42,641 person-days on mission.

**Challenge inspection seminar** On 11 February the Secretariat and the UK, hosted a joint seminar on challenge inspections. The UK presented a national paper which it had submitted to the Council's seventeenth session. The UK and Australia also presented their experiences of numerous national trial challenge inspections conducted in the early 1990s and detailed their procedures for receiving a challenge inspection. The Secretariat then presented the lessons which it had learnt from the two challenge inspection exercises (CIEs) held at military facilities in the UK (RAF Valley in February 1998 and the Royal School of Artillery at Larkhill in June 1999). There then followed two presentations on the CIE at a private industrial facility in Brazil in October 1999, one by a member of the Brazilian national authority and one by the leader of the inspection team. Following a presentation on the involvement of the OPCW policy-making organs in a challenge inspection, national statements were made by the delegations of Canada, China, Cuba, India, Iran, Pakistan, Russia, France and South Africa expressing their views on challenge

inspections. Most speakers appeared to view the conduct of CIEs as a valuable tool, although there were differences of opinion on the circumstances under which a challenge inspection could be requested. While some speakers emphasised the importance of consultations and depicted challenge inspections as an option of last resort, others noted that the Convention does not require states parties to enter into consultations before requesting a challenge inspection. Although some speakers hoped that few if any challenge inspections would ever be requested, others saw challenge inspections as an integral part of the Convention's verification regime and believed that the regime would be undermined if the provisions for challenge inspections were not utilised. Another issue on which differences persist relates to the cost of abuse of challenge inspections and its determination.

**Implementation of Article X** The Director-General reported to the Council that only 12 per cent of states parties had provided information on their national programmes related to protection against chemical weapons as required under Article X.4. By 31 December 1999 only 16 states parties (Albania, Australia, Belarus, Canada, Czech Republic, Denmark, Finland, France, Lithuania, Romania, Spain, Sweden, Switzerland, UK, USA and Zimbabwe) had submitted information under Article X.4. Six of these states parties (Belarus, Czech Republic, France, Romania, Sweden and UK) had reported twice. The Director-General reiterated his request for states parties to meet their obligations under Article X.4.

The Director-General also reported on the continuing development of the data bank on protection against chemical weapons. Efforts are underway to make the index of the data bank available to states parties via the Internet and to improve the coverage of the data bank. As reported in the previous quarterly review, the Secretariat has established a protection network consisting of experts nominated by states parties. As of 31 December, 19 states parties had submitted the names of 43 experts to serve on the network. The Secretariat, in cooperation with a number of the nominated experts, is currently preparing a series of modular "protection information packages" covering issues such as protection equipment, detection, contamination control and medical countermeasures.

States parties continued to inform the Secretariat of which of the three options for providing assistance under Article X.7 they had chosen. No additional states parties had contributed to the voluntary fund for assistance under Article X.7(a) since the previous quarterly review. As of 31 December, 24 states parties (Belgium, Canada, Chile, Denmark, Finland, Hungary, Ireland, Italy, Japan, Kenya, Kuwait, Lithuania, Luxembourg, Mauritius, Netherlands, New Zealand, Norway, Oman, Peru, Slovenia, South Korea, Sweden, Switzerland and Turkey) had contributed or expressed their intention to contribute to the fund. The total amount in the fund remained unchanged at NLG 1,253,642. As reported above, the first bilateral agreement under Article X.7(b) was concluded with Iran during the period under review. A further five states parties (Philippines, Poland, Slovenia, Slovakia and Spain) had also expressed their interest in concluding bilateral



agreements. A total of 30 states parties (Australia, Austria, Belarus, Bulgaria, China, Croatia, Cuba, Czech Republic, France, Germany, India, Iran, Latvia, Lithuania, Mongolia, Pakistan, Poland, Portugal, Romania, Russia, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Ukraine, UK and USA) had made unilateral offers of assistance under Article X.7(c), while two (Monaco and Morocco) had made general statements under Article X without indicating which specific option they had selected. Only six states parties had selected more than one option under Article X. In December 1999 the Secretariat wrote to those states parties which had not selected any option under Article X.7 reminding them of this obligation.

Many of the unilateral offers made so far are too vague to fit into an effective assistance package and the Secretariat had therefore approached willing states parties to clarify their offers and any specific conditions for their availability at short notice. The Director-General pointed out that in a real crisis there would be no time to discuss the modalities for the delivery of assistance and it might therefore be useful to supplement unilateral declarations with bilateral arrangements. This was also one conclusion of the annual workshop to promote and coordinate assistance under Article X which was held in Slovakia in November 1999.

As part of its offer under Article X.7(c), Switzerland, in cooperation with the Secretariat, is hosting two training courses in the coming months. The third chief instructor training programme (CITPRO-III) will take place during 2–7 April and during 14–19 May there will be the second emergency field laboratory training programme (SEF-LAB II). Both courses will be held at the NBC Training Centre in Spiez. In addition, Slovakia is hosting a civil defence training course at the Institute of Civil Protection in Slovenska Lupca during 27–31 March. More details on all three courses can be found on the OPCW website.

The Director-General reported to the Council that the Secretariat is finalising its concept for investigations of the alleged use of chemical weapons. This concept will stress that the Secretariat has the resources to undertake a limited investigative role, but that its ability to conduct a large-scale investigation while providing emergency assistance is heavily dependent upon the support of states parties. The Secretariat's role would necessarily be limited to the coordination of assistance from states parties. The Director-General also informed the Council that he had received two letters from non-governmental organizations regarding allegations of the possible use of chemical weapons. The first, from the International Council of Médecins Sans Frontières, referred to allegations of the use of chemical weapons by government forces in Sudan, while the second, from the International Peace Bureau, concerned allegations of chemical weapons use by Russian armed forces in Chechnya. In both cases, the Director-General replied stating that investigations of the alleged use of chemical weapons can only be initiated by states parties to the Convention, both Sudan and Russia were under an obligation not to use chemical weapons and both had publicly denied the allegations.

*Implementation of Article XI* The Secretariat also continued its activities under Article XI. One aspect is the

provision of support to national authorities. An advanced training course for national authority personnel was held in Ypenburg during 17–25 January and was attended by around 35 people. Further courses are planned for the first half of this year, including the first regional meeting of national authorities from Latin America and the Caribbean in Lima during 28–30 March, a regional implementation workshop in Dubrovnik on 10–12 April and a regional forum on the CWC in Singapore during 3–5 May. Immediately prior to the fifth session of the Conference the OPCW will host the second annual meeting of national authorities and chemical industry representatives. Further details of these events are available on the OPCW website. Under the declaration assistance and support programme, members of the declaration network continued to travel to those states parties which requested help in compiling their declarations.

The Secretariat also supported capacity-building in states parties. Upon receiving a request, the Secretariat sponsored a team of experts from Finland, Switzerland and its own staff to visit the Laboratory of the NIOC Research Institute of the Petroleum Industry in Iran during December. Like the Brazilian laboratory mentioned in a previous quarterly review, this laboratory also has the long-term goal of seeking designation by the OPCW. The Secretariat is also sponsoring an internship by a scientist from a South African laboratory to the OPCW-designated laboratory at Spiez in Switzerland.

In order to facilitate access for all states parties to scientific and technological information the Secretariat supported a number of international conferences in the fields of chemistry and chemical technology and other areas related to the CWC. During early 2000 the Secretariat will also support internships in industrialized states parties by scientists from Morocco, Pakistan, Russia and South Africa. The Secretariat is also updating the old *Handbook on Chemicals*. The new version will correlate the CAS numbers of the scheduled chemicals identified so far with the code number used by the Harmonised System (HS) and the Standard International Trade Classification (SITC). The first draft has been submitted for review by the World Customs Organization and will eventually be provided to states parties to assist them preparing their declarations.

During the period under review the Secretariat has strengthened its cooperation with other organizations in areas relevant to Article XI. Links with chemical industry associations will be reinforced by the convening of the second annual meeting of national authorities and chemical industry representatives. The Secretariat has an active partnership with the International Foundation for Science and has supported 26 research projects related to applied natural products chemistry in states parties from Africa, Asia, Latin America and the Caribbean. Possible synergies between the Secretariat and the secretariats of other international organizations, in particular some partner organizations of the IOMC, including UNITAR and the Basel Convention, had also been explored. Areas in which the secretariats could cooperate include legislation for the sound management of chemicals, issues related to the disposal of toxic waste and old/abandoned chemical weapons and training courses on customs enforcement.



**Sixth official proficiency test** As reported in the previous quarterly review, the final evaluation of the sixth official proficiency test should have been circulated in mid-January. However, as the Director-General reported to the Council, during discussions on the preliminary evaluation in November 1999 a number of the participants raised concerns over the validity of the samples prepared for the test. A revised evaluation report was submitted to the Secretariat on 11 January and the Director-General took the exceptional step of requesting that the Scientific Advisory Board's temporary working group on analytical procedures address the test results at a meeting on 13–14 January. Although the application of the group's recommendations would treat the participating laboratories more fairly, three of the 12 designated laboratories would still lose their status. The Director-General expressed his uncertainty about the practicality of revoking a laboratory's designation for failing a single test and proposed that the Council consider alternative measures, such as temporary suspension. He decided to delay the promulgation of the results to give the Council sufficient time to consider the situation and possible solutions.

**Official visits** On 17 January, Walter Slocombe, the US Under Secretary of Defense for Policy visited the OPCW, becoming the first such high-ranking US official to visit the Organization since its establishment. On 29 January a group of delegates from the Ad Hoc Group of the States Parties to the Biological Weapons Convention visited the OPCW. The group was in The Hague at the invitation of the Dutch government. The group was briefed on the status of implementation of the Convention and given a tour of the OPCW building. A high-ranking delegation from the upper chamber of the Russian Parliament, the Federation Council, led by its chairman, Egor Stroyev, and a number of regional governors visited the OPCW on 1 March. The delegation held discussions with the Director-General and other senior officials of the Secretariat.

**Outreach activities** During 17–18 February two staff members of the Secretariat participated in a regional workshop in St Lucia organized by the OPCW in cooperation with the Organization of Eastern Caribbean States (OECS). Late in 1999 a representative of the OECS visited the OPCW and prepared draft legislation to implement the CWC within a package dealing with other toxic chemical regimes. The purpose of the workshop was for member states of the OECS to study the draft legislation with a view to facilitating regional cooperation on the national implementation of the CWC. The workshop was attended by participants from Antigua and Barbuda, Dominica, Grenada, St Kitts and Nevis, St Lucia and St Vincent and the Grenadines.

**Staffing** As of 1 February, 485 of the allotted 507 fixed-term posts within the Secretariat were occupied. Of these 344 were in the professional and higher category and 163 were in the general service category. Including staff on short term and temporary assistance contracts and others the total number of staff was around 530 from 64 different nationalities. The breakdown by region of staff in the

professional and higher categories was as follows: Africa 8 per cent; Asia 26 per cent; Eastern Europe 22 per cent; Latin America and the Caribbean 12 per cent; and WEOG 32 per cent. Of these staff only 40 (12 per cent) are women.

In the first few months of 2000 the Director-General announced a number of structural and personnel changes within the Secretariat. Acting on the conclusions of the report by the SCN audit team, the Director-General announced the establishment of the Office of Confidentiality and Security reporting directly to him. This was a logical extension of the effort to centralise the confidentiality and security functions of the Secretariat by bringing in to one unit the Confidentiality Office, the Security Branch and the Information Security Section of the Information Systems Branch. As reported above, the Director-General also took action to address the lack of initial declarations from member states. With Jean-Louis Rolland (France) overseeing this important project, Ron Manley (UK) was assigned as the acting director of the Verification Division. Taking his place as acting special advisor to the Director-General was Mikhail Berdennikov (Russia). Kevin Beesley (Ireland) was appointed as the new head of the Media and Public Affairs Branch.

### **Subsidiary bodies**

**Scientific Advisory Board** The Scientific Advisory Board held its third session during 14–16 December and the temporary working group (TWG) on analytical issues met on 13–14 January. The Board will resume its third session on 15–16 March at which it will consider the reports of the TWGs on adamsite, equipment issues and analytical issues and forward its recommendations to the Director-General, who will then submit these recommendations, along with his comments upon them, to the Council's nineteenth session and via the Council to the Conference.

### **Future work**

In the short-term the main focus of the OPCW's attention will be on the fifth session of the Conference in May. As in previous years, one of the Conference's most significant decisions will be the adoption of the budget for the following year. Whether the 2001 budget also includes restrictions on the number of inspections to be conducted under Article VI depends to a large extent on when the USA submits its Article VI declaration and when industry inspections begin in the USA. The US industry declaration is now expected at the end of April. As shown by its lengthening agenda, the Council is still experiencing difficulties in addressing the myriad of unresolved and pending issues with which it has been tasked. Agreement on the guidelines for low concentration limits is particularly important given the imminence of the cessation of Schedule 2 transfers to non-states parties on 29 April. In the longer term, thoughts are already turning to the first review conference which must be convened not later than one year after 29 April 2002.

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*This review was written by Daniel Feakes, the HSP researcher in The Hague*

## Strengthening the Biological and Toxin Weapons Convention

Two three week sessions, the seventeenth and eighteenth, of the Ad Hoc Group (AHG) to consider a legally binding instrument to strengthen the Biological and Toxin Weapons Convention (BWC) were held in Geneva from Monday 22 November to Friday 10 December 1999 and from Monday 17 January to Friday 4 February 2000. As in the previous sessions, negotiations focused on the rolling text of the Protocol.

**Seventeenth AHG Session** In the November/December session, 54 states parties and 1 signatory state participated; a net total of 2 fewer states parties than in September/October as 1 (Iraq) participated in November/December whilst 3 (Guatemala, Kuwait and Luxembourg) which had participated in September/October did not in November/December. One fewer signatory state (Nepal) participated in November/December.

The sharp reduction in the number of new Working Papers continued — to 3 in November/December from 11 in September/October and 31 in June/July. The 3 WP (WP.408 to WP.410) were presented by single states. This continued reduction shows that everything that is needed is *already* in the draft Protocol and there is no need for additional Working Papers to add additional ideas or alternative language.

As the November/December session finished on 10 December and the January/February session started on 17 January, there was, because of the annual break, insufficient time for a complete update of the Protocol to be produced, translated into all the UN languages and circulated prior to the latter session. Consequently, the outcome of the November/December session was issued as a procedural report (BWC/AD HOC GROUP/49) together with three Addenda. Addenda 1 and 2 reported the outcome of the various discussions held by the various Friends of the Chair and Addendum 3 (Annex IV) provided text prepared by the Friends of the Chair of proposals for further consideration showing how the draft Protocol text might be taken forward. As in September/October, Annex IV (Part II text) reflected the structure of the Protocol with Friend of the Chair proposed language for the Articles, Annexes and Appendices of the Protocol.

The November/December session focused on compliance measures (8 meetings), definitions and objective criteria (4 1/3 meetings), Article X measures (4 1/3 meetings) and investigations (4 meetings) with one meeting on organization/implementational arrangements and 2/3 meeting on the preamble. The balance of the session was devoted to conceptual discussions on specific issues aimed at achieving further progress. In addition, a number of informal consultations were held to discuss issues prior to their consideration at formal meetings.

The AHG meeting as usual saw the presentation and distribution on 25 November 1999 by the Department of

Peace Studies at the University of Bradford of a further two Briefing Papers in its series: No 26 *Visits: An Essential Portfolio* and No 27 *The Emerging Protocol: A Quantified Evaluation of the Regime* as well as a further four in its series of Evaluation Papers: No 8 *Article V: Measures to Redress a Situation and to Ensure Compliance*, No 9 *Article XI: Relationship of the Protocol to the BTWC and Other International Agreements*, No 10 *Article XII: Settlement of Disputes*, No 11 *Article XIII: Review of the Protocol* (all are available at <http://www.brad.ac.uk/acad/sbtwc>).

**Eighteenth AHG Session** In the January/February 2000 session, 52 states parties and 1 signatory state participated; a net total of two fewer state parties than in November/December as 1 state (Albania) participated in January/February whilst 3 states (Ireland, Singapore and Viet Nam) which had participated in November/December did not in January/February. The same single signatory state (Morocco) participated in January/February 2000 as in November/December 1999.

The sharp reduction in the number of new Working Papers was continued with only 2 being submitted in this session (WP.411 & 412) presented by single states.

The outcome of this session was produced as a complete update of the Protocol issued as Part I of the procedural report (BWC/AD HOC GROUP/50 (Part I)). This was thus the eleventh version of the rolling text – previous versions having been produced in June 1997 (#35), July 1997(#36), October 1997 (#38), February 1998 (#39) and June/July 1998 (#41), September/October 1998 (#43), January 1999 (#44), April 1999 (#45), July 1999 (#46) and October 1999 (#47). As with previous procedural reports, a Part II containing an Annex IV was again produced containing papers prepared by the Friends of the Chair of proposals for further consideration in which the Part I draft Protocol text is modified in a transparent way. Annex IV (Part II text) reflected the structure of the Protocol with Friend of the Chair proposed language for the Articles, Annexes and Appendices of the Protocol.

The January/February session spent most time on compliance measures (6 1/3 meetings), Article X measures (5 meetings), definitions and objective criteria (4 meetings) and investigations (4 meetings) with between 1/3 and 1 1/2 meetings on the other topics. Four meetings were devoted to informal consultations on declarations, on compliance measures and on declaration formats. In addition, a number of informal consultations were held to discuss issues prior to their consideration at formal meetings.

The January/February session saw various NGO activities. On 19 January, there was a lunchtime seminar at which further progress was reported with regard to the Alliance Against Infectious Diseases in which a representative of the WHO spoke. On 21 January, in Paris, the Fondation pour la Recherche Stratégique organized a

conference entitled *Biological Proliferation: Evaluation and Responses* in which over 70 individuals participated including the Chairman of the AHG and several of the Friends of the Chair. A number of panels addressed a range of topics:

- Biological weapons and threat evaluation;
- What response to biological proliferation: disarmament or non-proliferation?;
- Validity of the concept of verification: Looking towards an adequate and effective Protocol;
- Industry and setting up a system of control; and
- Epidemiological surveillance: Possible synergies between disarmament and development.

The Conference concluded with a presentation by Ambassador Tibor Tóth who pointed out that the draft Protocol already had 60 per cent fewer square brackets proportionally than had the CTBT text some 3.5 months before the CTBT negotiation had been completed. Consequently, a Protocol could be completed this year. He urged that the negotiators undertake more joint effort to successfully conclude the work on the Protocol.

On 27 January, the Department of Peace Studies at the University of Bradford presented and distributed a further Briefing Paper in its series: No 28 *The BTWC Protocol: Improving the Implementation of Article III of the Convention* together with three Evaluation Papers No 12 *Article XIV: Amendments*, No 13 *Article VI: Assistance and Protection Against Biological and Toxin Weapons*, No 14 *Article IX: The Organization* (all are available at <http://www.brad.ac.uk/acad/sbtwc>).

### **Political Developments**

On the opening day of the November/December session, Finland on behalf of the European Union and the eight Central and Eastern European countries associated with the European Union and the two associated countries made a statement saying that:

The EU continues to believe that...urgent completion of all stages of the negotiations is imperative so as to ensure the adoption of the Protocol by a Special Conference in 2000.

The statement went on to say:

The elements essential for an effective Protocol are already well-developed in the text in front of us.

After emphasizing the necessity for annual declarations, for the follow-up of declarations in the form of visits, appropriate clarification procedures, provisions for rapid and effective investigations and measures to further international cooperation and exchanges in the field of biotechnology, the statement says that the EU is ready to support initiatives that will provide catalysts for the final stages of the work of the AHG realistically noting that:

All of us must accept that not all shades of opinion or ideas can be accommodated.

It concludes by noting:

It is in all our interests to conclude these negotiations as soon as possible with a Protocol which is a meaningful addition to international arms control, disarmament and non-proliferation efforts.

During the January/February session, the Netherlands Foreign Ministry held a seminar in The Hague at the Netherlands Institute of International Relations, Clingendael during the weekend of 29–30 January 2000 entitled *Strengthening the BTWC: A Seminar on the Recruitment, Training and Operation of the Future Inspectorate*. An informative visit to the OPCW was included in the programme. The seminar was attended by 63 participants, almost entirely from the delegations of 37 states parties engaged in the AHG negotiations. The aim of the seminar was to draw practical conclusions from the experience of organizations in related fields (such as the IAEA and OPCW) which could be used in the final stages of the negotiation of the Protocol and in the early implementation phases of the Protocol. The presentations and discussions were informed and particularly valuable as all participants were fully aware of the detailed provisions in the draft Protocol.

At the beginning of the final week of the session, on 31 January, Federal Councillor Joseph Deiss, Head of the Federal Department of Foreign Affairs of Switzerland made a statement to the AHG in which he said that:

the possibility that the two great scourges of humanity — war and epidemic — might be used in combination remains a great concern. We must prevent life sciences being used against life

and went on to elaborate on what were seen as the minimum requirements for the Protocol. He then went on to set out the many advantages that Switzerland saw in establishing the new organization in Geneva including an offer that:

Adequate premises will be made available for a period of five years free of charge.

Further details of the Swiss offer were promised in the formal bid to submitted to the AHG at an appropriate moment.

### **The Emerging Regime**

The AHG meetings during the November/December session focused on a limited range of issues owing to the decision, noted earlier, not to produce a complete revised Protocol text before the January/February session. Most of the available time was devoted to definitions, compliance measures, Article X measures, and investigations. One meeting was devoted to organization/implementation arrangements and 2/3 of a meeting to the preamble. Useful progress was made with the removal of square brackets and the tidying up of the text in some areas.

A particular outcome of the November/December session was the agreement on the dates for sessions to be held in 2000 as follows:

- Eighteenth session — 17 January to 4 February
- Nineteenth session — 13 to 31 March
- Twentieth session — 10 July to 4 August
- Twenty-first session — 13 to 24 November

In addition, the AHG agreed:

to reserve two periods of two weeks each in the latter part of 2000, namely, from 25 September to 6 October and from 27 November to 8 December. The Ad Hoc Group would decide by the end of the twentieth session (10 July to 4

August) on whether, and in which of the reserved periods, a session would be convened.

Consequently, the AHG in 2000 will have four sessions together with one or two more further sessions.

All sections of the Protocol were addressed during the January/February session with most time being spent on compliance measures, investigations, Article X measures and definitions and objective criteria. In respect of compliance measures, particular attention has been paid to Article III. D. Declarations which has seen a reduction of 25 per cent in the number of remaining square brackets. Declaration formats have also made a significant step forward with language in Appendix C for a single declaration format for a declared facility in which any facility would be required to provide information detailed in sections A and B and, according to the trigger involved, certain information detailed in section C. This information largely requires responses to Yes/No questions or the checking of one of a number of options thereby simplifying the provision of the required information.

Article VII of the Protocol which addresses *Scientific and Technical Exchange for Peaceful Purposes and Technical Cooperation* has developed significantly and now comprises some 12 pages. Good progress has been made with a reduction of by one third in the number of remaining square brackets. A particular step forward came with the removal from square brackets of the provisions for the establishment of a Cooperation Committee as a forum for consultation aimed at promoting the effective and full implementation among the States Parties to the Protocol of the provisions of Article X of the Convention.

Insofar as definitions and objective criteria are concerned, this has long been a contentious subject. However, even here, progress is being made with a reduction of 20 per cent in the number of square brackets. There is greater appreciation between delegations of the arguments for certain definitions and mutually acceptable compromises are being explored.

### **Detailed Developments**

In this Progress in Geneva, attention is focused on the developments in the Protocol issued in February 2000 (BWC/AD HOC GROUP/50 (Part I) compared to that issued in October 1999 (BWC/AD HOC GROUP/47 (Part I)). The distribution of the meetings in the November/December and the January/February sessions shows that most attention was paid to compliance measures, definitions, Article X measures and to investigations with about one meeting apiece to the other subjects.

**Compliance Measures** The two sessions under review saw further development of both Article III *Compliance Measures* and progress in the declaration formats, notably in Appendix C *Facilities*. In Section *D Declarations I Submission of Declarations* there was a reordering of paragraphs and extended language relating to facilities located on the territory of one state party but under the jurisdiction of another state which is either not a party to the Protocol or is a party. A new section of Article III entitled *[(H) Additional Provisions* provides a more clearly

elaborated statement on such responsibilities in regard to declarations, visits and investigations. Within the main body of *I. Submission of Declarations*, progress was achieved with the removal of another category of declarations (*G) Work with Listed Agents and Toxins* from within square brackets. A further declaration category, within square brackets, was added *[(F) Plant Pathogen Containment]* under which states parties would be required to declare any laboratory or building:

specifically designed and used to handle and work with plant pathogens and pests that are of economic importance to a specific area endangered thereby, and not yet present there, or present but not widely distributed and which are also being controlled by official regulatory measures.

One category of initial declarations *[(B) National Legislation and Regulations* has been moved into the Notifications section. Language within this section has also seen a cleaning up of the text and removal of some square brackets. Overall there has been a reduction of close to one third in the number of square brackets in *D Declarations I Submission of Declarations*

In Section *[(II. Follow-up after Submission of Declarations)]* the text has been further developed with the removal of alternatives and a cleaning up of the text by the removal of square brackets. Text relating to the selection of facilities for visits continues to emerge from square brackets with language now requiring the selection mechanism to ensure that:

- (a) Such visits shall be spread among the [broadest possible range of][two types of] facilities subject to the provisions of this section, in terms of their scientific and technical characteristics;
- [(b) Such visits shall be selected on the basis of proportionality;]
- (c) No State Party shall receive more than ... such visits in a five year period;
- (d) No facility shall be subject to more than ... such visits in a five year period;
- (e) No State Party shall receive more than ... such visit per year;
- [(f) Such visits are distributed as widely and equitably as possible among States Parties submitting declarations;]
- (g) The prediction of when any particular facility will be subjected to such a visit shall be precluded.

Much of the language within the body of section II is also emerging from square brackets although the question of whether visits should be to all declared facilities or just to two types, biodefence and BL-4, as proposed by the NAM has yet to be resolved. It is also encouraging that the United States appears to be moving towards an acceptance of transparency visits although still having concerns about some of the details. Text for *(B) Declaration Clarification Procedures* and for *(C) Voluntary Assistance Visits* are also being developed with clean text emerging. Overall, there has been a reduction of about one-third in the number of square brackets in Section II.

Section *[(F. [Measures to Strengthen the Implementation of Article III)]* although still within square brackets throughout has been developed from two to over three pages indicating that the AHG is turning its attention to one of the more controversial elements of the Protocol, the

provisions relating to transfers of dual-use microbial and other biological agents, toxins and equipment.

The Protocol regime on transfers has not yet developed to reach a parallel to that brought about within the 1993 Chemical Weapons Convention (CWC). Under the CWC, the requirements concerning transfers within states parties, to other states parties and to states not party to the CWC are different depending on whether the chemicals concerned belong to Schedule 1, 2 or 3, as defined within the Convention. For example, transfers to non-states parties of Schedule 1 chemicals, which are covered by the most stringent controls, were banned upon the entry into force of the CWC on 29 April 1997. Transfers to non-states parties of Schedule 2 chemicals are prohibited from three years after entry into force, i.e., 29 April 2000 — a current focus of attention in that Convention's organization, the OPCW. The text within the draft Protocol has some similar elements the CWC regime.

**Investigations** The language in Article III section *G Investigations* and *Annex D Investigations* continues to develop with further square brackets being removed. The number removed in *G Investigations* is close to one-third. The provisions in Annex D for the analysis of samples from field investigations usefully states:

when off-site analysis is to be performed, samples shall be analysed in two designated and certified laboratories [in different States Parties].

The corresponding provisions for analysis of samples from facility investigations is still within square brackets stating:

when off-site analysis is to be performed, samples shall be analysed in [a][at least two] designated and certified laborator[y][ies].

In the event of an investigation, it is important to recognize the importance of analyses being carried out blind in duplicate in two designated and certified laboratories thereby reducing the risk of ambiguous results.

**Definitions** Although the basic divergence of view continues between those who oppose any attempt to define terms such as “biological and toxin weapons” which might well result in an unwanted reinterpretation of the basic Convention and those who recognise the need to define terms such as “vaccine” and “perimeter” that are necessary for an effective Protocol with uniform obligations on all States Parties, there has been some progress in respect of both *Article II Definitions* and *Annex A Declarations I Lists and Criteria (Agents and Toxins)* and *II List of Equipment*. The opening paragraph of the lists and criteria in Annex A has started to emerge from square brackets as a clearer view is reached of the purpose of this list:

1. The list of agents and toxins following below is for use with [specific measures in particular] Article III, section D, subsection I, paragraphs ... [and section F]. [In accordance with Article XI, this list shall not be interpreted as in any way modifying or amending the Convention.]

Insofar as the lists of agents themselves are concerned, the lists of human viruses and rickettsiae and the list of toxins are now entirely free from square brackets. The list of human bacteria still has square brackets around *Brucella*

*abortus* and *suis* whilst the lists of animal and plant pathogens are largely still within square brackets with in both lists, only two pathogens out of square brackets. The text for the List of Equipment continues to include several questions intended to be a component of the reporting format. The numbers of square brackets in the list of agents and in the list of equipment have been reduced by over one-third.

**BWC Article X Measures** Article VII has made good progress with both streamlining of the text and removal of square brackets. Section (A) *General Provisions* is now out of square brackets apart from three remaining pairs. Section (B) *Measures to Promote Scientific and Technical Exchanges* is also almost clear of square brackets apart from square brackets around any references to biodefence as there is a view that biodefence has no place in a Protocol Article addressing the implementation of Article X of the BWC. Biodefence is appropriate in Article VI *Assistance and Protection against Biological and Toxin Weapons*.

Section (D) *Institutional Mechanisms for International Cooperation and Protocol Implementation Assistance* has also developed with the Cooperation Committee emerging from square brackets and much of the section having paragraphs clear of square brackets although there are still paragraphs and subparagraphs within overall square brackets. A new Section (E) *[Implementation Follow-Up] [Review of Implementation of Article X of the Convention and This Article]* has appeared with text that is largely free from square brackets. Section (F) *Cooperative Relationships with other International Organizations and among States Parties* in its opening paragraph has lost the reference, which had been in square brackets, to non-governmental organizations which now appears in a separate paragraph within square brackets stating that the:

Conference of the States Parties may consider and decide on possible ad hoc relationships with relevant non-governmental organizations.

The final section of Article VII, section (H) *Declarations* and the related *Appendix E Information to be Provided in the Declarations Required under paragraphs ... of Article VII* has completely emerged from square brackets with the exception of a single paragraph stating:

each State Party shall have the right to declare any restrictions on the transfer of biological materials and technology for peaceful purposes.

The number of square brackets in Article VII has been reduced by one-third.

**Preamble** This has also progressed even though at 29 paragraphs, it is far longer than the Preamble of the BWC (10 paragraphs) or of the CWC (10 paragraphs). Eight paragraphs are completely clear of square brackets and a further 6 paragraphs are out of overall square brackets although with square brackets within them.

**General Provisions** The Friend of the Chair for Article I was appointed during the September/October 1999 session. This Article now has eight paragraphs, all within square brackets. The key issue that is whether Article I of the

Protocol should contain prohibitions additional to those in the Convention and whether any such additional prohibitions would be outside the mandate of the AHG.

**Confidentiality Provisions** Article IV and the associated Annex E are both largely out of square brackets.

**Organization** The number of square brackets in Article IX *The Organization* was further reduced by one-third. Language relating to the Cooperation Committee and to the Scientific Advisory Board emerged from square brackets.

**National Implementation Measures** Article X is now largely clean with the requirement to enact penal legislation having emerged from square brackets.

### Prospects

The January/February session also saw the agreement of the programme of work for the three week nineteenth session to be held on 13 to 31 March 2000. The 28 meetings were allocated as follows:

Compliance measures	5.50
Investigations	4
Article X	4
Definitions	4
Preamble	1
Ad Hoc Group	2.50
Informal	3
General Provisions	1
Organization	1
Legal Issues	0.83
National Implementation	0.50
Confidentiality	0.33
Seat of Organization	0.33
Total	28

The March session began on Monday 13 with a statement by Portugal on behalf of the European Union noting that the current session of the AHG marked the 25th anniversary of the entry into force of the BWC and stating:

the EU believes the most appropriate manner in which to mark this anniversary year would be the early and successful conclusion of the negotiations on a Protocol to strengthen the implementation of the Convention.

The statement sets out the crucial elements of the Protocol regime including a paragraph that:

the Protocol must also provide for effective measures regarding transfers/export controls. Those measures, through improved transparency and confidence-building among states parties, must ensure that inadvertent transfer of materials intended for purposes prohibited by the Convention will not occur.

As language in the Protocol for measures to improve the implementation of Article III of the Convention has been thus far little developed, the EU statement suggests that progress can be made in this area in the current session.

The November/December and January/February sessions have seen further steady progress with an overall reduction of 25 per cent in the total number of square brackets in the Protocol. Particular progress has been made in regard to compliance measures and to Article X measures. There is also real engagement between the delegations who are addressing how to find solutions to the differences of views which augurs well for the future. There is little doubt that the Ad Hoc Group is in the endgame of the Protocol negotiations.

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*This review was written by Graham S Pearson, HSP Advisory Board*

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## News Chronology

## November 1999 through January 2000

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*What follows is taken from issue 47 of the Harvard Sussex Program CBW Chronicle, which provides a fuller coverage of events during the period under report here and also identifies the sources of information used for each record. All such sources are held in hard copy in the Sussex Harvard Information Bank, which is open to visitors by prior arrangement. For access to the CBW Chronicle or to the electronic CBW Events Database from which it is derived, please apply to its compiler, Julian Perry Robinson.*

**1 November** In South Korea, the Ministry of Defence has just announced that the 600,000 soldiers of the country's army are to be vaccinated against anthrax and smallpox [see also 1 Oct], so *Der Spiegel* reports.

**1 November** In Pretoria High Court the Basson trial [see 29 Oct] continues. The following report and commentary on the day's proceedings has been provided from the Chemical and Biological Warfare Project of the Centre for Conflict Resolution, an independent institute associated with the University of Cape Town:

"Jerry Brandt, the first of the State's secret witnesses [testifies today]. Brandt was the managing director of

Organochem, the front company responsible for procurement for Delta G Scientific. Brandt was tasked by Basson to procure the formula for the manufacture of Ecstasy. All substances supplied to Delta G by Brand for making Ecstasy were delivered to a basement room at Medchem's offices in Centurion during 1992. Brandt spoke at length about the relationship between Basson and Solly Pienaar [see 29 Oct]. He claimed that Pienaar was a friend of Nelson Mandela, Graça Machel and Joachim Chissano. He spoke of a trip undertaken by Pienaar, Basson and himself to establish a bank in Mozambique.

"As the trial progresses it becomes increasingly clear that Basson was involved in a number of business deals through a

network of companies related in some way to the project. Basson's defence has mentioned his links to the ANC and particularly to former President Nelson Mandela on a number of occasions during the past two weeks of testimony. These claims have not been challenged, nor have they been tested and it is unclear what the defense's intention is.

"The trial [is now] halted [...] to give the prosecution a chance to consult with two witnesses: Tim McGibbon of the US DEA who was responsible for conducting extensive forensic tests on the Ecstasy, and former Office for Serious Economic Offences investigator Etienne Lamprechts."

**1 November** Over the Mediterranean, the developmental Israeli anti-ballistic-missile Arrow-2 [see 15 Jun] successfully intercepts and destroys a target rocket in a test both of the missile, of its Green Pine radar, and of its Citron Tree fire-management technology. Two batteries of the missiles are now being installed in Israel.

**1 November** In Canada, the National Research Council announces that one of its spin-off companies, IatroQuest Corporation, has developed sensors for rapid detection of CBW agents based on its Bio-Alloy™ platform technology, which the company is now patenting around the world and which officers of the company describe as follows: "This breakthrough technology combines elements of biotechnology with advanced materials yielding unique properties. The technology lends itself to be used in miniaturized, portable, biosensing devices that can be used in defence theaters for real time CBW agent detection and identification allowing for prompt and appropriate countermeasures to be taken." Company president and CEO David Armstrong later tells reporters that his company is in discussions with a "top 10" US defence contractor about manufacturing a pocket-sized detector, which he expects will cost about \$5,000 when it is ready for mass production in about two years' time.

**1 November** In New York, the First Committee (Disarmament and International Security) of the UN General Assembly approves without vote a resolution on the CWC introduced by Canada and Poland, which, among other things, calls for "full and effective implementation of and compliance with all provisions" of the treaty.

The representative of Egypt later expresses reservations on the operative paragraph that emphasized the necessity of universal adherence to the CWC, stating that regional concerns had kept Egypt from signing the CWC until Israel had acceded to the nuclear-weapons Non-Proliferation Treaty. The representative of Israel expresses hope that other countries in the region would sign the CWC, among them the chemical-weapons producers that had continued to improve those weapons, "neither" of which had signed or ratified the CWC. He goes on to reaffirm his country's intention of ratifying its signature of the CWC subject to its regional concerns.

Concern about the continuing absence of formal agreement between the UN and the OPCW is expressed by the representatives of Cuba, Pakistan and Iran.

The representative of India expresses concern that some states have not yet provided declarations to the OPCW under Article XI.2(e) of the Convention, which requires states parties to review their export policies to prevent proliferation of chemical weapons.

**1-2 November** In London, Jane's Information Group convenes *NLW '99*, its third conference on non-lethal weapons [see 1-2 Dec 98]. According to its brochure, the conference is

intended to bring together "senior military and law enforcement personnel to discuss and debate the impact of fielding non-lethal weapons in the new millennium" [see 25-26 Feb 98]. Once again the conference is chaired by Professor Malcolm Dando of the University of Bradford. The registration fee is \$1406 per delegate.

Meanwhile in the United States, the Council on Foreign Relations is publishing another report on *Nonlethal Technologies* [see 22 Jun 95]. It is the work of an independent task force chaired by Dr Richard Garwin, who is now a senior fellow of the Council. The Task Force has reviewed in some detail the work thus far of the US Defense Department's Joint Nonlethal Weapons Directorate. Its chief conclusion, from which it develops specific recommendations, is that "there is a high probability of major benefit from a large, urgent investment in nonlethal weapons and technologies, carried out under the commandant of the Marine Corps as the executive agent of the Department of Defense". Immobilizing chemical or biological agents are not emphasised in the report, though it does say that, in Kosovo, "persistent riot-control agents could have inhibited paramilitary and partisan forces' access to the towns they had purged of inhabitants". Yet, among the subsidiary recommendations is the following: "On occasion, US security might be improved by a modification to a treaty such as the Chemical Weapons Convention or the Biological Weapons Convention. In that case the DoD should propose such a step to the National Security Council and the interagency mechanism involved, to ensure due evaluation of the overall benefits, costs, and the feasibility of the proposed change."

**2 November** In the United Kingdom the *Guardian* newspaper reports that past BW vulnerability trials involving releases of particulate zinc cadmium sulphide to simulate clouds of BW agent had been more extensive than had hitherto been reported [see 23 Nov 98]. The series of trials had commenced in November 1953 in Hampshire, and by the end of the decade had also exposed great tracts of Berkshire, Dorset, Somerset, Surrey and Wiltshire to the simulant. The possible health effects are to be the subject, so it had previously been announced [see 23 Mar], of an independent inquiry sponsored by the Ministry of Defence. Eight days later the Ministry announces that the inquiry is to be headed by Professor Peter Lachmann, president of the Academy of Medical Sciences; he is to be supported by a team of three other independent experts, and will report "within the next few months".

**2 November** In Cuba, the City of Havana People's Provincial Court declares as valid the \$181 billion lawsuit brought against the United States government for human losses caused by 40 years of aggressive policies towards Cuba [see 31 May]. Testimony had been taken during the trial from 198 people, including an expert on biological warfare.

**2 November** The US Senate Foreign Relations Committee conducts hearings on the administration's nominations for new State Department positions on arms control and nonproliferation created by the abolition of the Arms Control and Disarmament Agency [see also 28 Jun]. Previously US ambassador to Bulgaria, Avis Bohlen has been nominated for Assistant Secretary of State for Arms Control. Robert Einhorn [see 4 Feb 98] has been nominated for Assistant Secretary for Nonproliferation. The Senate has not yet acted on the committee's unanimous approval of the nomination of John Holum for the post of Under Secretary of State for Arms Control and International Security Affairs [see 28 Jun].



The Biological Weapons Convention is mentioned. Committee chairman Jesse Helms puts the following question to Ms Bohlen: "Now, I believe, madam, that you are aware of the actions of a specific NSC staffer who had been coaching the British on what to say to alter the US position on BWC negotiations? Is that right?" His staff says that the matter had come up in March. She denies knowledge of it.

**3 November** The UK government publishes its second *Annual Report on Strategic Export Controls* [see 25 Mar], for calendar year 1998. As before, it covers CBW-antiproliferation export controls, including the export controls on dual-use chemicals, biologicals and equipment that are being harmonized with those of other countries through the Australia Group. It also covers export controls on other chemicals listed in the schedules of the CWC, though apparently not all of them. Among its details is the information that during 1998 Britain licensed exports of irritant-agent chemical weapons, mostly CS munitions, to Australia, Bahrain, Barbados, Botswana, Chile, Denmark, Egypt, Germany, Hong Kong SAR, Israel, Kuwait, Lebanon (unspecified "tear gas/irritant ammunition"), Malaysia ("inert CS grenades"), Malta, Morocco, Portugal, Qatar, Saudi Arabia, Singapore, Sri Lanka and Tanzania. Some of these countries had been similarly referred to in the annual report for 1997, as had Bosnia & Hercegovina, the Channel Islands, Finland, Jordan, Norway and the United Arab Emirates.

**3 November** In the US House of Representatives, International Relations Committee Chairman Benjamin Gilman releases the report to the Speaker of the House by its North Korea Advisory Group, which he chairs. The report concludes that, on a variety of criteria, "the threat posed by North Korea to our national security ["national interests" in the press release] has increased since 1994". The report is strongly critical of present Administration policy towards North Korea.

North Korean CBW programmes are addressed in the report, the information presented being drawn from well-known secondary sources. The report states: "The recent increase in the North Korean CBW threat is derived from its assumed efforts to develop CBW warheads for its long-range ballistic missiles, now capable of striking the continental United States." The report also states: "The concept of international abhorrence regarding CBW carries little weight with the DPRK. This could be attributed to North Korea's apparent belief that the United States and South Korea would use CBW in a conflict, international agreements notwithstanding. This belief is reflected in North Korean propaganda, but more significantly in the extensive CBW defense preparations undertaken not only for its military forces, but also for its civilian population. It is also frequently argued that the DPRK would consider any military conflict as a fight for its survival as a nation, and hence would adopt an 'Armageddon' attitude, unconstrained by international law."

**3-4 November** In Washington, *Defense Week* presents its third conference and exhibition on weapons of mass destruction and domestic preparedness, *Interoperability & the Medical Management of a Bio-Terrorist Incident*. There are 40 speakers and panellists, and more than 150 participants. The registration fee is \$895.

**3-5 November** In Nairobi, a regional seminar on the CWC is hosted by the Kenyan National Authority and the OPCW Technical Secretariat. There are 31 participants from 18 states parties (Benin, Botswana, Burkina Faso, Burundi, Cameroon, Côte d'Ivoire, Ethiopia, Gambia, Jordan, Kenya, Lesotho,

Malawi, Mauritius, Morocco, Senegal, Sudan, Tanzania and Zimbabwe) and one non-signatory state (Eritrea), plus several Secretariat personnel and a resource person from the US Argonne National Laboratory.

**4 November** In New York, the First Committee of the UN General Assembly approves without vote a resolution on the BWC introduced by Hungary and some 60 co-sponsors, which, among other things, calls for acceleration of the negotiations to strengthen the BWC by formulating an "efficient, cost-effective and practical regime". The resolution notes that there are 143 states parties to the BWC.

**5 November** Nicaragua deposits its instrument of ratification of the Chemical Weapons Convention. In 30 days time, it will thereby become the 127th state party to the treaty.

**5 November** From Washington, Kyodo news agency reports on connections between the former biological-weapons programmes of Japan and the Soviet Union. Interviewed, Dr Ken Alibek [see 20 Oct] had spoken of these connections and had added further detail to previous disclosures [see 20 May 98 and 6 May], for example the existence of a "huge" number of documents about Unit 731 [see 29 Oct] research in the archives of the Kirov Institute of Microbiology [see 4 Jun] in Russia. The wire-story continues: "Citing specific advances in the Soviet program owing to earlier Japanese research, Alibek said that the Soviet's use of Australian fine wool, beginning in 1947, as a material to stabilize aerosol bio-agents such as anthrax came from the Japanese bio-warfare program". Kyodo also quotes from an interview with whilom US bioweaponer William Patrick III [see 3 Mar]: "Two US scientists [investigating Unit 731 at the end of the second world war] interviewed about 22 Japanese scientists, and brought back several containers of information to the US germ warfare facility at Fort Detrick in Maryland. But unlike the Russians, Patrick says the US quickly deemed the information 'useless' and shelved it. In the 1950s the Unit 731 documents were returned to Tokyo, many not even translated into English. 'The problem with the Japanese data was that their procedures were so damn crude you couldn't quantitate it,' Patrick said. 'We didn't find the Japanese program useful.'"

**5 November** In Tampa, Florida, an FBI-led anti-terrorism task force arrests a 53-year-old man, James Kenneth Gluck. He had apparently written to a judge in Colorado threatening to wage biological warfare on the Jefferson County Justice Center there. The communication had mentioned ricin, and during the subsequent search of his home a makeshift laboratory is found: test-tubes, beakers, textbooks and what one press-report calls "ricin ... in raw form — as a whole [castor] bean". A Tampa court orders him back to Colorado, where he has been indicted by a grand jury on two counts of communicating threats against court officers.

**5 November** The US House of Representatives passes a new FY 2000 Foreign Aid bill, President Clinton having vetoed the first one, on 18 October, because it had reduced by nearly one-third his \$1 billion request for assistance to the newly independent states of the former Soviet Union. The cut had included funding for the State Department counterproliferation programme that seeks to divert former Soviet weapons scientists from selling their skills abroad [see 15 Jun]. The new bill restores all but \$10 million of the \$251 million requested for State Department counterproliferation, which is a substantial increase over the FY99 funding of \$53 million. In accordance

with what President Clinton had said in his last State of the Union address [see 19 Jan], the Administration has now clustered the State and Energy Department programmes with the Nunn-Lugar (Cooperative Threat Reduction) programme of the Defense Department into what it has been calling its Expanded Threat Reduction Initiative (ETRI) [see 21 Jun Germany], which it conceives as a multinational enterprise and on which, in June, an expert-level meeting of 27 donor governments, actual and potential, had been convened in Brussels. However, earlier Congressional action that cut funding for the Shchuch'ye chemdemil pilot-plant project [see 6 Aug] remains unaffected. When Congress completes its work on the FY 2000 National Defense Authorization Act later in the month, all funds for Shchuch'ye have been eliminated.

**5 November** US Under Secretary of Defense for Policy, Walter Slocombe, addressing the Center for Strategic and International Studies in Washington, says that the Administration may go ahead with a national missile defence system even if it means withdrawing from the 1972 Anti Ballistic Missile Treaty. He says that, in the next 15 years, North Korea, Iran and possibly Iraq were "likely to be able to field intercontinental-range missiles that could deliver chemical, biological or nuclear weapons against the territory of the United States". At a conference in Copenhagen three days later, the US Permanent Representative to NATO, Alexander Vershbow, observes that the "proliferation of long-range missiles — which could be equipped with nuclear, chemical or biological warheads — is as much a threat for Europe as it is for North America", and that "Allies may need to look more seriously at the possibility of theater missile defense". Abrogation of the ABM Treaty is viewed with dismay in Europe and could presage crisis in the NATO alliance.

**6 November** In Geneva, the 27th International Conference of the Red Cross and Red Crescent, which began on 31 October, ends with adoption of a plan of action for the coming four years "in order to improve the care and protection of victims of armed conflicts and disasters and more generally of the most vulnerable people". As one of its final goals, the plan specifies "Conformity of weapons with international humanitarian law, the establishment of effective controls on the availability of arms and ammunition, and an end to the human tragedy caused by anti-personnel landmines". As one of the specific means to this end, the plan calls upon states to "make all efforts towards the successful conclusion of the negotiations on a protocol to strengthen the Biological and Toxin weapons Convention".

**6–10 November** In Khartoum, South African Deputy Foreign Minister Aziz Pahad is on an official visit with a team of officials and businessmen. Upon his departure he issues a communiqué which, among other things, notes that there had been discussion of the alleged use of chemical weapons in southern Sudan [see 20 Oct]. The communiqué continues: "It was noted that the allegations could not be substantiated, after tests had been undertaken in Atlanta, USA. It was also noted that Sudan formally joined the Chemical Weapons Convention in 1999."

**8 November** In Bangkok, US FBI Director Louis Freeh, who is on a tour of Japan, the Philippines, Singapore, Thailand and South Korea, tells reporters that the threat of chemical and biological weapons has been among the topics of his discussions with officials about international cooperation in law enforcement.

**8 November** In Baghdad, British Member of Parliament George Galloway addresses a public rally after a two-month journey across Europe, north Africa and the Middle East on a double-decker London bus in demonstration against the sanctions and continued bombing of Iraq. His lengthy and impassioned speech is broadcast on Iraqi television. He includes a reference to chemical weapons, thus: "Why are the imperialists committing this crime? They have a number of hoaxes which they deploy from time to time. Sometimes they say they are doing it for the Kurdish people. Wallahi [By God] they love the Kurdish people, the British and the Americans. The first use of chemical weapons in the Middle East was by the British Royal Air Force under the command of Winston Churchill in 1921 against Kurdish tribesmen in the north of Iraq". [Note: It was not.]

**8 November** In Israel a "chemical terror attack" to be conducted by Hamas on the eve of the May elections had been thwarted by Israeli and Palestinian secret services, so says a report on Channel 2 television. The report had been filed by investigative reporter Yisrael Segal, who attributes the information to unnamed Western authorities involved in Israeli-Palestinian negotiations. The report includes this: "One man [...] was detained. He was one of the most radical Hamas activists. The attack was no abstract idea. Charts, tables and specific instructions on mixing the substances into a lethal weapon were seized." Deputy Defence Minister Ephraim Sneh says later in the programme: "I am not at liberty to confirm all these details, but I am certainly not denying the fact Yisrael Segal mentioned the Hamas capabilities rising a level".

**8 November** In Russia, unidentified military officials are quoted on NTV television as saying that Chechen fighters have been sighted wearing the special white uniforms used for working with chemical weapons. The news agency Kavkaz-Tsentr has just said, in a posting on the Chechen website, that the Russian military is itself planning to use chemical weapons and then to attribute the subsequent environmental catastrophe to the Chechens. Itar-Tass soon afterwards reports unidentified military sources as saying that "rebel forces are digging into the ground tanks with toxic substances to blast them should they leave Grozny and to broadcast the action as the use of chemical weapons by federal troops". The *Moscow Times* characterizes all these rumours of impending CW as merely a feature of the "information war", but, as the siege of Grozny begins in earnest later in November and there is talk of imminent Russian use of air-dropped fuel-air explosives ("vacuum bombs" [see 5 Oct Moscow]) within the city itself in order to penetrate rebel-held trenches, bunkers and cellars, the newspaper speculates that "non-conventional warfare in Caucasus may be in the offing", including use of chemical weapons. Further, reporting that "Russian intelligence sources" have been spreading stories about Chechen preparations to use nerve gas against Russian troops in Grozny, the newspaper suggests that these stories may be "pretext for the Russian military to begin a gas attack themselves and to blame it on the Chechens beforehand". By this time Russian sources are also claiming that Chechen chemical plans are receiving support from the international terrorist organization headed by Usama bin Laden [see also 28 Oct Moscow]. [Note: It would seem that, at least during the first two months of the new Chechnya war, chemical weapons have been playing their traditional role as instruments, not of direct combat, but of psychological or anti-morale or public-relations warfare. There will later be reports from Chechnya alleging actual use of the

weapons, but, in the absence of independent verification, only propagandists will be asserting either their truth or their falsity.]

**8 November** The Canadian Security Intelligence Service has recently issued a report, *Chemical, Biological, Radiological and Nuclear (CBRN) Terrorism*, which states that the likelihood of terrorists using weapons of mass destruction is “both considerable and growing”, according to *The Ottawa Citizen*. The CSIS report refers to activities in Quebec of a cult, the Order of the Solar Temple, and to the presence in British Columbia of armed US radicals possessing gas masks and chemical protection suits: “While we do not have a home-grown militia movement as virulent as that of our southern neighbour, we do have our share of neo-Nazis, and have unwittingly provided in at least one case a place of refuge and stockpiling for one of the American militia groups”. The CSIS report also says that, based on past examples, the type of CBRN terrorist incident most likely in Canada is a hoax or threat rather than an actual attack, or a relatively low-level instance of product contamination as opposed to a mass-casualty outrage; but: “As capabilities and information spread, however, it is becoming increasingly difficult for the authorities to distinguish between a mere hoax and the real thing. Canada remains as vulnerable as any of the other western industrialized states to the kind of nightmarish, mass-casualty CBRN terrorist attack that until recently was confined to fiction.”

**8 November** On Canadian television, two military veterans speak out for the first time about their experiences as human guinea-pigs, one of them exposed to mustard gas at Suffield in 1945, the other as a participant in atomic explosion tests in the United States in 1957. On television the day previously they had been described as being among hundreds of other Canadian veterans “still waiting for some kind of recognition and apology”. Defence Minister Art Eggleton had said to camera: “We’ve had some discussions with some of these people about it and they certainly deserve our attention. They deserve our appreciation for what they did.”

**8–9 November** In Chad, there is a visit by officials from the CWC National Authority of France and from the OPCW Technical Secretariat to facilitate preparations for ratification of the CWC.

**8–10 November** In Pretoria High Court the Basson trial [see 1 Nov] continues. The following report and commentary on the proceedings has been provided from the Chemical and Biological Warfare Project of the Centre for Conflict Resolution:

“When court resumed [...] it was to begin examination of the fraud charges against Dr Basson. The court did however hear that Basson’s defence team has admitted that they do not dispute [...] the evidence presented in relation to the Ecstasy seized in 1997, nor that relating to the drugs found in trunks stored at the house of one of Basson’s close associates, Samuel Bosch.

“The court heard extensive testimony this week about the luxury lifestyle led by Basson and his associates. The first person to give evidence on the fraud charges was architect Lizelle Larson. Larson was contracted by Basson to renovate his Pretoria home at a cost of R1.5 million. She was then contracted to do R8 million renovations to a luxury property known as Merton House, also in Pretoria. Larson told the court that Merton House, which was thought to have been developed as a guest house, included a cordon bleu kitchen, jacuzzis, an extensive wine cellar and a separate service entrance. She

told the court that a special trip was made to Fancourt Hotel near George to inspect the decor which Basson liked.

“Merton House was ultimately sold to the Zimbabwean government at a loss, for use as an embassy. The defence argued that the house had always been intended as an embassy and that it had been visited by the Libyan ambassador to Namibia whilst being rebuilt.

“The builder who worked on this project was Niel Kirstein. He gave evidence on the 9 and 10 November. Kirstein testified that he had befriended Basson and as a result he and his wife had accompanied Basson on overseas trips. He spoke of a holiday in the Kruger Park with Basson and a number of his associates; of a weekend trip in 1992 to watch the South African rugby team play at Twickenham and various other luxury jaunts.

“The court also heard that Basson, Kirstein and Lothar Neethling had flown to Walvis Bay one Sunday for an appointment. According to Basson’s defence, he and Neethling were on official duty all day, meeting representatives of UNITA, Germany and Portugal.

“Evidence has not yet been led on where the money for the overseas trips and the renovations of Merton House came from. We expect to hear evidence from the former Surgeon General, Gen Niel Knobel next week.”

**8–26 November** In Sweden, the government and the OPCW Technical Secretariat conduct a chemical support training course at Rescue College Trevinge, near Malmö. The course is conceived as part of the Swedish offer of assistance under Article X of the Chemical Weapons Convention. The official invitation describes its design as follows: “The course will provide training in planning for and building up chemical support in the areas of civilian protection, rescue operations in contaminated areas, as well as responses and countermeasures in the event of a terrorist attack with toxic chemicals. It will also give an overview of the Swedish organisation and its capabilities to provide assistance.”

**9 November** In Baku the Milli Majlis passes legislation enabling Azerbaijan to ratify its signature of the CWC.

**9 November** The American-Israeli Committee on Terrorism convenes. In Washington the previous week, Israeli National Security Adviser David Ivri had met with the US National Coordinator for Counter-Terrorism, Richard Clarke [see 22 May 98], for talks on strategic cooperation. According to *Ha’aretz*, Dr Clarke had proposed increased US-Israeli cooperation in the development of medication and vaccines to protect populations against biological attack.

**9 November** In the US House of Representatives, there is an oversight hearing on *Force Protection: Improving Safeguards for the Administration of Investigational New Drugs to Members of the Armed Forces* before the National Security, Veterans’ Affairs and International Relations Subcommittee of the Government Reform Committee. Chairman Christopher Shays says that the purpose is to explore the complex and controversial question of the circumstances under which US military personnel should be given investigational drugs or vaccines without their consent, a matter on which the President has recently issued an Executive Order [see 30 Sep]. There are two panels of witnesses. The first comprises John Spotila from the Office of Information and Regulatory Affairs in the White House Office of Management and Budget, Assistant Defense Secretary for Health Affairs Sue Bailey and, from the Department of Health and Human Services, Deputy Assistant

Secretary for Science Policy William Raub. The second panel comprises Arthur Caplan, director of the University of Pennsylvania Center for Bioethics, and Charles McCarthy of the Georgetown University Kennedy Institute of Ethics.

**10 November** In the US Senate, a bill, *Japanese Imperial Army Disclosure Act of 1999* (S.1902), is introduced by Senator Diane Feinstein. The bill states that its purpose is to “require disclosure under the Freedom of Information Act regarding certain persons and records of the Japanese Imperial Army in a manner that does not impair any investigation or prosecution conducted by the Department of Justice or certain intelligence matters, and for other purposes”. The records in question are ones “that pertain to any person with respect to whom the United States Government, in its sole discretion, has grounds to believe ordered, incited, assisted, or otherwise participated in the experimentation and persecution of any person because of race, religion, national origin, or political option, during the period beginning September 19, 1931, and ending on December 31, 1948”. The bill is principally aimed at opening the US archives on Unit 731 [see 29 Oct], access to which has hitherto been obstructed by officials.

In this last regard, Senator Feinstein introduces into the *Congressional Record* a letter dated 7 October 1999 that she had received from Professor Sheldon Harris [see 5 Mar], which records several instances of such obstruction, including the following: “In 1991, the Librarian at Dugway Proving Grounds, Dugway, Utah, denied me access to the archives at the facility. It was only through the intervention of then US Representative Wayne Owens, Dem., Utah, that I was given permission to visit the facility. I was not shown all the holdings relating to Japanese medical experiments, but the little I was permitted to examine revealed a great deal of information about medical war crimes. Sometimes after my visit, a person with intimate knowledge of Dugway’s operations, informed me that ‘sensitive’ documents were destroyed there as a direct result of my research in their library.”

**10 November** President Clinton extends for another year the national emergency he had originally declared in 1994 with respect to the “unusual and extraordinary threat to the national security, foreign policy, and economy of the United States posed by the proliferation of nuclear, biological, and chemical weapons ... and the means of delivering such weapons”. He also transmits to the Congress a formal report on measures taken by his administration over the past year to respond to the threat. Here he notes that the “United States is determined to seek full implementation of the concrete measures in the CWC designed to raise the costs and risks for any state or terrorist attempting to engage in chemical weapons-related activities”.

On the Biological Weapons Convention Ad Hoc Group he reports: “Work is progressing on a draft rolling text through insertion of national views and clarification of existing text. Five AHG negotiating sessions were scheduled for 1999. The United States is working toward completion of the substance of a strong Protocol next year.” He also says: “The United States is working closely with US industry representatives to obtain technical input relevant to the development of US negotiating positions and then to reach international agreement on data declarations and on-site investigations”.

The report also contains advocacy of Congressional support for the Expanded Threat Reduction Initiative, for the component programmes of which the President has proposed an additional \$4.5 billion over five years, starting with his only partly fulfilled request for \$1 billion in FY 2000 [see 5 Nov]. The report says that ETRI supports activities in four areas: “nuclear

security; nonnuclear WMD; science and technology nonproliferation; and military relocation, stabilization and other security cooperation programs”.

**11 November** In Ramallah on the West Bank of the River Jordan, during a ceremony to mark the commencement of a US-funded project for the creation of pre-natal care centres, Shuha Arafat, wife of the president of the Palestinian Authority, says that about 80 percent of water sources used by West-Bank Palestinians were contaminated with “chemical materials” from Israel. She also says: “Our people have been submitted to the daily and intensive use of poisonous gas by the Israeli forces, which have led to an increase in cancer cases among women and children”. The Reuter correspondent reporting the speech assumes she had been referring to Israeli tear-gas, to which Palestinian hospital staff have in the past attributed miscarriages among exposed pregnant women. Later, Palestinian peace-negotiator Saeb Erekat says to reporters: “Of course Mrs Arafat did not mean poison gas, but tear gas”.

**11 November** The UK Ministry of Defence responds to a Parliamentary question about a “secret germ warfare base” at Porton as follows: “An experimental establishment was first set up at Porton Down in 1916 in direct response to the use of chemical warfare in World War I against the allied forces. At that time the remit was for both defensive and retaliatory capabilities. Since the late 1950s, the work has been entirely [but see 1 Feb 96] concerned with the defence of the UK and our Armed Forces against the threat posed by both chemical and biological warfare agents.”

**11 November** US Federal Bureau of Investigation Director Louis Freeh announces a major restructuring of FBI Headquarters. This includes the creation of a new Counterterrorism Division, which is to be headed by Dale Watson, a former deputy chief of the CIA’s counterterrorism centre and former deputy head of the FBI National Security Division where he had been chief of the international terrorism section. The recently created National Domestic Preparedness Office [see 11 Dec 98] is assigned to the new division, as is the National Infrastructure Protection Center, which guards against computer crime.

The annual FBI counterterrorism budget is now around \$3 billion, double what it was in 1993. The number of FBI agents assigned to counterterrorism has more than doubled over that same period, rising from 550 to almost 1400. In 1996 the FBI investigated 37 cases involving chemical, biological or nuclear weapons; this year there have been more than 247, of which nearly 150 were threats involving anthrax.

**11–15 November** In Amsterdam, the North Atlantic Assembly, now called the NATO Parliamentary Assembly, convenes for its 45th annual session. Its Science and Technology Sub-Committee on the Proliferation of Military Technology has produced a report on *Biological Weapons: The Threat of the New Century?*, on which subject the Assembly adopts a resolution. This urges the following actions by governments and parliaments of NATO member-states: “(a) to conclude the negotiations on a legally binding protocol to strengthen the BWC within the coming year; (b) to support the creation of a small, cost-effective organisation to implement the protocol and to benefit from the lessons learned from the implementation [of] the Chemical Weapons Convention; [and] (c) to respond adequately to the threat of biological weapons by adopting a series of measures which include: (1) improving

training and preparation of armed forces and developing reliable protective equipment and a better medical response; (2) co-ordinating intelligence strategies to monitor the activities of rogue states and potentially dangerous groups and exchange data and information on terrorism; (3) controlling exports of dual-use equipment and harmonising export laws; (4) adopting strong international responses to non-compliance; (5) contributing more toward the conversion of former-Soviet Union military biological programmes and facilities for civilian purposes and tackling the issue of the Russian scientific brain-drain; (6) improving civil defence strategies and Research and Development in this field; [and] (7) providing adequate training to emergency personnel and public health services in order to improve the response capabilities at the national and international level.”

**12 November** Kazakhstan “has not and does not have intentions and plans” to create or produce on its territory any type of weapon of mass destruction, according to an announcement by National Security Committee spokesman Kenzhebulat Beknazarov, who goes on to say that the republic “strictly observes” its commitments under the “global agreements on the non-proliferation of nuclear, chemical and biological weapons”. He is reacting to a statement made to reporters in Washington two days previously by former Kazakh Prime Minister Akezhan Kazhegeldin: “Kazakhstan is capable of producing nuclear, chemical and biological weapons in 12 months time. The technology is there. The resources are there.” The former prime minister had suggested that Kazakhstan might use western aid funds in order to produce these weapons.

**12 November** In Switzerland, the parliamentary oversight body for state security and intelligence, the D el egation des Commissions de gestion des Chambres f ed erales (D el CdG), reports on the role of the Swiss intelligence services in relations with South Africa. Its inquiry had been stimulated by the intense press attention given to the arrest earlier in the year of a Swiss television journalist, Jean-Philippe Ceppi, by South African authorities in Cape Town [see 5 Mar]. Two questions had been asked by the D el CdG: (a) what had been the contacts between the Swiss intelligence services, particularly their chief, Peter Regli, and representatives of the South African apartheid regime; and (b) had Swiss military or intelligence personnel become involved in South African CBW armament? The report details contacts between Divisionnaire Regli and apartheid-era South African military and intelligence services, sometimes mediated by the late J urg Jacomet, a Swiss arms dealer, describing how these contacts had, starting in Autumn 1990, included Colonel Wouter Basson [see 8–10 Nov] and General Lothar Neethling [see 8–12 Jun 98]. The report does not find that Swiss intelligence had been helping South Africa to develop CBW weapons. Likewise, the attempts of South African representatives to gain access to the results of research at the Swiss NBC defence laboratory at Spiez had not succeeded, nor had the laboratory, as alleged, provided South Africa with chemicals or equipment, nor even the peptide synthesizer the laboratory was said to have sold to Dr Basson for \$2.4 million in the autumn of 1990.

**12 November** Sweden is ready to provide further financial aid for the chemdemil plant that Russia is currently building in the Saratov region, so its representatives say during negotiations with the administration of the region. The aid would be for construction of the railway installations and purchase of the

air-purification chemicals and medical equipment necessary for the plant.

**14–19 November** In Switzerland, the government and the OPCW Technical Secretariat conduct a training course on emergency field laboratories at the NBC Training Centre in Spiez. The course, SEF-LAB I, is the first of its kind, and is conceived as part of the Swiss offer of assistance under Article X of the CWC. The official invitation explains the course as follows: “Its main purpose is to assist other OPCW Member States in their efforts to establish a basic chemical weapons detection capability that will directly benefit the civilian population. The training will enable participants to properly use the detection equipment contained in the Swiss pledge pursuant to Article X. The course draws on the extensive experience of the laboratory specialists of the Swiss armed forces in the field of technical and personnel support to the civilian authorities. These specialists are equipped with chemical weapons detection equipment for the simple but reliable qualitative and semi-quantitative detection of chemical agents in air, soil, water and food in the case of a chemical weapons disaster. Under difficult circumstances this equipment provides information when there is no power supply.”

**15 November** In South Korea, where thousands of Vietnam-War veterans attribute their poor state of health to wartime exposure to Agent Orange herbicide and are suing US chemical companies for compensation [see 2 Dec 98], declassified US Army documents including *Final Report: Vegetation Control Plan CY68* dated 2 January 1969, are described on SBS television. According to these documents, some 80,000 litres of Agent Orange and Agent Blue, as well as Monuron soil-sterilant powder, had been hand-sprayed or dusted along the southern boundary of the demilitarized zone separating the two Koreas during 1968–69. This activity had been authorized by Prime Minister Chung Il-kwon on the recommendation of US advisers, and carried out by about 7,000 South Korean soldiers. Its purpose was to “improve observation and fields of fire and to deny hostile forces the concealment provided by vegetation”. Both Defence Ministry and US Defense Department officials subsequently confirm the disclosure.

**15 November** In China a student at the Chemistry and Engineering University in Kunming, Yunnan province, has been jailed for nine years after threatening to release sarin nerve-gas during the World Horticultural Exposition in Kunming on 1 October. The student, Tang Congwei aged 22, had been arrested three days after the deadline. The threat had been made in a letter to the mayor demanding \$600,000, which had not been paid.

**15 November** California University Press publishes *Anthrax: The Investigation of a Deadly Outbreak* by Jeanne Guillemin, professor of sociology at Boston College. The book is a detailed account by a participant in the only post-cold-war on-site epidemiological investigation of the controversial 1979 outbreak of anthrax in Sverdlovsk, USSR [see 2–3 Aug 99]. It recounts the examination of autopsy samples, hospital records and official documents. Household interviews with victims’ families and neighbours plus veterinary records allowed the construction of maps of where victims lived and worked and of where livestock died. Together with archived meteorological data, these maps prove that the outbreak was caused by an aerosol emission from a military microbiological facility in the city on Monday, 2 April 1979. The author describes the

measures taken to deal with the outbreak and provides historical and cultural background. Appendices include case data for 66 persons who died and 11 who survived. The book has forty-three photographs, three maps and 326 pages.

**15–18 November** In Pretoria High Court the Basson trial [see 8–10 Nov] continues. The following report and commentary on the proceedings has been provided from the Chemical and Biological Warfare Project of the Centre for Conflict Resolution:

“Court proceedings began this week with the ruling that the State may not use the record of Basson’s bail proceedings following his arrest on fraud charges in 1997. That hearing was held in camera, at the behest of various State departments, in the interest of “national security” and to avoid any possibility that information revealed might contribute to the proliferation of weapons of mass destruction.

“[Judge] Hartzenberg found that by using transcripts of Basson’s 1993-1997 evidence to the Office for Serious Economic Offences to cross-examine him, the State had behaved in an “unseemly” manner, using the OSEO evidence not to prove that Basson would not stand trial but to lay the ground for questioning in future court proceedings.

“The State had also acted unfairly in refusing to allow Basson access to the documents used during his cross-examination, and Dawie Fouche, who had questioned Basson during the OSEO probe, ought not to have acted as prosecutor in the bail hearing.

“The former Surgeon General and manager of Project Coast took the stand on Monday [15 November] and continued to testify throughout the week. He testified extensively about the privatization of the two main front companies of the project: Delta G Scientific and Roodeplaat Research Laboratories [RRL] and spoke about the origin of the programme.

“Knobel told the court that the programme had been initiated in response to threats believed to have been posed by the conflict in Angola and said that Basson had been tasked with collecting information about chemical and biological warfare programmes abroad.

“According to Knobel, Basson’s initial investigation indicated that the existing conventions governing CBW were totally inadequate and had not kept pace with scientific developments and that there were no effective control measures.

“The project was approved after Basson’s initial intelligence gathering and a decision made to make use of front companies in order to establish a CBW capability. To this end RRL and Delta G Scientific were established along with Infladel in 1984 as the information and technology arm of the project. In 1990, the company’s tasks were assumed by Sefmed Information Services, which served until 1994 as the information front. Sefmed had offices in both London and Basle. Initially, Infladel also handled the financial and management functions, with SADF funds being channelled through it, but these functions were subsequently transferred to D John Truter Financial Consultants. The project took some time to get off the ground, and as the need arose, additional front companies were set up. Approval had to be obtained on an annual basis from the Minister of Defence to do so.

“Knobel explained that Delta G’s task was offensive chemical research, while RRL was responsible for the defensive biological programme. Tests were carried out on their behalf by a “private company”, Protechnik Laboratories, while another “private” company, Lifestyle Management, had been contracted to do the physiological research.

“The annual project budget had to be approved by a Co-ordinating Control Committee (CCC) of which Basson was

the secretary. Security was such that the members of the CCC never visited the front companies and relied upon Basson for all and any information relating to the project, financial and otherwise.

“With regard to the privatization of Delta G and RRL, Knobel explained that the companies had ultimately been sold to the major shareholders, Philip Mijburgh in the case of Delta G and Wynand Swanepoel in the case of RRL, for security reasons. He also explained that both transactions had involved the cancellation [of] contracts resulting in large payments to the facilities by the SADF at the time of privatization. In terms of the privatization agreements all SADF contracts with Delta G were to be terminated by 31 August 1991. This raises a question about the SADF contract to manufacture 1000 kg of MDMA (ecstasy) in 1992 and 1993. Knobel also referred to much research having been done on AIDS at Delta G.

“Knobel claimed to have no knowledge of Basson’s, Mijburgh’s and Swanepoel’s interests in companies outside of the official fronts, nor of their interests in companies related to the project but not officially part of the project. He also stated that he should have known about these business interests.

“Knobel told the court in detail of all the inquiries that had been launched into Basson’s affairs including the investigation by the Office for Serious Economic Offences and a series of internal SADF inquiries. In each case when Knobel was required to provide answers to questions about the project and Basson’s activities he had turned to Basson to provide the answers, trusting him implicitly.

“On Wednesday 17 November, just three hours into court proceedings, the security at the Pretoria High Court received a bomb threat. The same phone call was made within a few minutes to the Office of the Judge President, Bernard Ngoepe, to the high court switchboard, and to the Head Office of the Justice Department. The caller said that three bombs had been placed on different levels of the court building and would be detonated if the prosecution of Dr Basson did not stop before noon. The court was evacuated and the bomb-disposal unit brought in to search the building. While the search was underway a further call was received from the same person stating that the occupants of the building were still standing too close to the building and would be injured in the blast. No bombs were found.

“Court resumed at 2 pm with continued testimony from Gen Knobel. Knobel testified about the answers he had provided to the Office for Serious Economic Offences admitting that although the OSEO had instructed him not to ask Basson for answers, he had done so since Basson was the only person who knew the answers to the questions posed. These related to companies Knobel had no knowledge of, such as Intramex and Wisdom Erf 82.

“Knobel also admitted that although he was Basson’s superior in respect of Project Coast, from March 1981 to December 1989, Basson reported to the head of Special Forces on operational matters. Though responsible to the CCC on all aspects of Coast, for operational application of the products made under the project Basson got his orders from Magnus Malan, the SADF chief, the head of Special Forces, Chief of Staff Intelligence, the police commissioner, head of the security police or the head of National Intelligence. The CCC merely “noted” such operational use.

“Knobel went on to explain what has become known as the ‘Croatian deal’. In terms of this agreement Basson was to procure methaqualone from certain Croatian officials, including the Minister of Energy Affairs in 1992. It would appear from Knobel’s testimony that the substance was indeed transferred to South Africa and two of the four officials involved in the

transaction received payment. However the deal then went wrong and the intermediary assisting the South Africans, Jurg Jacomet [see 12 Nov Switzerland], was arrested and his accounts frozen. Basson was later arrested in Switzerland when he attempted to intervene and to get the money back. It is significant that the substance was procured a few months before it was supposed to have been destroyed in January 1993.

“Basson’s arrest in Switzerland was related to his involvement with a Danish Intelligence agent in the interception of fraudulent Vatican bearer bonds, supposedly intended for the purchase of weapons for Croatia. Basson was arrested when he attempted to cash the bonds at a Swiss bank.”

**16 November** In the US House of Representatives, there is a hearing on *Possible Health Effects of Pyridostigmine Bromide on Persian Gulf War Veterans* before the Veterans Affairs Subcommittees on Health and on Oversight and Investigations. There are three panels of witnesses. The first comprises Dr Beatrice Colomb, who is the author of the RAND Corporation literature review on PB [see 19 Oct], Dr Ross Anthony, director of the RAND Center for Military Health Policy and Research, and Dr Joseph Cassells of the Institute of Medicine. The second panel comprises Assistant Defense Secretary for Health Affairs Sue Bailey, Special Assistant to the Deputy Defense Secretary Bernard Rostker, and, from the Department of Veterans Affairs, acting Deputy Under Secretary for Health Frances Murphy. The third comprises the American Legion’s Director of Veterans Affairs and Rehabilitation, Matthew Puglisi, the Executive Director of the National Gulf War Resource Center, Paul Sullivan, and the Vice Chair of the National Vietnam and Gulf War Veterans Coalition, Denise Nichols.

**16 November** In Washington, the Presidential Special Oversight Board for Department of Defense Investigations of Gulf War Chemical and Biological Incidents [see 13 Jul] submits a Special Report to the Secretary of Defense. This follows a public meeting of the Board on 16 September at which the Defense Department Special Assistant for Gulf War Illnesses had, as requested by the Board, presented his recommendations for the future of his office, OSAGWI. Two considerations had underlain the invitation, described thus in the Special Report: “Few medical or scientific studies to date definitively link GW chemical and biological events to severicemembers’ or veterans’ health problems [...] The Board wanted to explore the DOD’s plan to shift focus from retrospective investigations of GW exposures to the medical aspects of troop health surveillance, monitoring and care before, during and after operational deployments.” The Special Report approves most but not all of the recommendations concerning the future of current OSAGWI projects, including discontinuation of some of them; it supports the Special Assistant’s observation that “we can reasonably complete our mission by January 2001” (i.e., by the time the next administration takes over the executive branch of US government); and it recommends that “the Department address the Board’s observation that the mission of a DoD (OSAGWI) ‘follow-on organization’ be defined in terms of the relationship to and functions of the new, presidentially-chartered and multi-agency, Military and Veterans Health Coordinating Board (MVHCB)”.

**16 November** In Houston, the annual conference of the Synthetic Organic Chemicals Manufacturers Association (SOCMA) hears that implementation of the CWC in the United States “holds significant risks for the US chemical industry”,

which has thus far been shielded because the US has lagged behind other nations in drafting implementing regulations. The speaker is John Gilbert, manager of the arms control compliance division of Science Applications International Corporation (SAIC). He is also reported as saying that the CWC treaty obligations will require at a minimum widescale reporting of production by US chemical firms on as many as 10,000 different chemical compounds. OPCW site inspections will typically be conducted by a team of four OPCW officials accompanied by 6–10 US officials including ones from the FBI and the State, Defense and Commerce Departments: “These inspections pose risks to product and business confidentiality and will not likely be ignored by local news media”. However, the problem with greatest impact for US chemicals producers he says is likely to be inadvertent non-compliance with CWC regulations.

**16–18 November** In South Africa, the Council for the Non-Proliferation of Weapons of Mass Destruction, Protechnik Laboratories (Pty) Ltd and the OPCW Technical Secretariat hold the first *African Seminar on Analytical Issues Related to the Chemical Weapons Convention*. It takes place near Pretoria, at the Centurion Golf Club. Companies represented exhibit their products, including individual protective equipment and toxic-agent detectors. There are 73 participants from 20 states parties (Algeria, Botswana, Burkina Faso, Côte d’Ivoire, Czech Republic, Ethiopia, Finland, France, Germany, Hungary, Kenya, Mauritius, the Netherlands, Poland, South Africa, Sudan, Switzerland, the UK, the USA and Zimbabwe) and the Secretariat, plus an observer from Egypt. The 38 presentations are grouped into 6 sessions: on the designation of laboratories by the OPCW, and their analytical tasks; on relevant properties of chemical agents; on the synthesis of verification reference compounds; on protection against CW agents; on detection of CW agents; and on analytical techniques.

**16–19 November** In Kazakhstan, a delegation from the OPCW Technical Secretariat provides technical assistance for preparation of the country’s initial declaration under the CWC, which it is now on the verge of ratifying.

**16–19 November** In the Slovak Republic, the government and the OPCW Technical Secretariat hold an *International Workshop to Promote and Coordinate Assistance and Cooperation under the Chemical Weapons Convention*. The workshop, at Modra-Harmonia, is conceived as part of the Slovak offer of assistance under Article X of the Chemical Weapons Convention. The official invitation explains its purpose as being to provide a forum for states parties to share their experiences of the practical implementation of Article X, and also to give a full picture of how the Slovak protection system is prepared and built up.

**17 November** At Harvard University, in the Belfer Center for Science and International Affairs, the head of UNSCOM Biological Section, Gabriele Kraatz-Wadsack, speaks on *Iraq’s Biological Weapons Program and Requirements for Ongoing Monitoring and Verification* at a session of the HSP Cambridge CBW Colloquium.

**18 November** From Brussels, the Special Coordinator of the Stability Pact for South Eastern Europe issues the *Declaration on the Chemical Weapons Convention* by Albania, Bosnia & Hercegovina, Bulgaria, Croatia, Hungary, the former Yugoslav Republic of Macedonia, Romania and Slovenia. This calls for full implementation of the CWC. It also calls upon the Federal



Republic of Yugoslavia — i.e. Serbia and Montenegro — to accede to the CWC “in order to demonstrate its commitment to the world-wide elimination of this weapon of mass destruction”.

**18 November** In Kew, at the UK Public Record Office, the Defence Ministry releases into the public domain the official report on *Operation Harness*, which was the first of a series of five large-scale BW-agent sea trials conducted over Caribbean and Scottish waters during 1948–55 [see 27 Jan 94]. The released document is a 1949 report to the Biological Warfare Subcommittee of the Chiefs of Staff Committee. Conducted in the Caribbean, off Antigua, *Harness* had been rehearsed beforehand off the Dorset coast of England, and was conceived mainly as a study of the practicability of conducting BW trials at sea. It involved naval vessels towing a line of dinghies carrying containers of test animals, with another vessel upwind spraying bacteria or firing 4-pound bacterial bombs over the dinghies, which were later brought back to land. Brucellosis and anthrax bacteria were the agents used. The test animals shipped in comprised 600 sheep from Texas, 234 rhesus monkeys and some thousands of guinea-pigs. The operation was evidently afflicted by numerous shortcomings in planning and execution. The report observes that it was “uncommonly lucky” that only one member of the research team became infected. “Operation Harness has shown above all else that the keynote to success in field trials is simplicity. The technique was overcomplicated and impracticable.”

**19 November** The US State Department Office of Research publishes a *Russia/NIS Opinion Alert* summarizing preliminary findings from a nationwide opinion poll on security issues just conducted in Russia by the All-Russian Center for the Study of Public Opinion. The Alert includes this: “Asked to choose from three options what Russia’s basic approach to arms control should be, more say that their country should keep things pretty much the way they are now (42%) than advocate either pursuing greater reductions in weapons of mass destruction (21%) or strengthening its arsenal of chemical, biological, and nuclear weapons (16%). (Most of those in favor of reductions think the US and other countries should help pay for the destruction of all these Russian weapons.)”

**19–25 November** In Pretoria High Court the Basson trial [see 15–18 Nov] continues. The following report and commentary on the proceedings has been provided from the Chemical and Biological Warfare Project of the Centre for Conflict Resolution:

“Friday [19 Nov] morning saw another bomb threat at the Pretoria High Court. Once again the threat came from a man stating that if the prosecution of Basson did not cease the bombs would go off. Meanwhile a few blocks away Blinkwater Van Rensberg was due to appear in the magistrate’s court in connection with the earlier bomb threats. The magistrate’s court too received a threat. For some hours the Pretoria CBD was virtually brought to a standstill. This prompted Basson to hold a press conference in which he appealed to those issuing the threats to stop.

“The prosecution went ahead after no bombs could be found on the premises. The former Surgeon General, Gen Niel Knobel, continued to give testimony throughout the week.

“Knobel gave evidence on the destruction of the drugs and chemical agents which allegedly took place in January 1993. The destruction of the agents followed an instruction by the defence minister, Gene Louw, to stop all work on irritants and incapacitants. Louw was briefed on the CBW programme on January 8, less than a week before the foreign affairs minister was due to sign the [new Chemical Weapons Convention, in

Paris]. He was told what stocks of chemicals were on hand and what progress had been made with the new-generation tear-gas.

“Louw ordered that defensive projects — such as procurement of protective clothing by Armscor — go ahead and that the SADF not declare that it had CR (which in terms of the treaty may not be used in a war situation, though it may be applied in riot situations, provided it has been declared, and in limited quantities). At a CCC meeting on January 29, 1993, in Cape Town, Basson reported that the chemicals had been destroyed, though not entirely as ordered. It appears from the documentation and from testimony in court that all samples that were taken from the drums allegedly thrown in the sea, had been taken in Basson’s presence or on his instruction, and in some cases had been taken by him and handed in for analysis at a later stage.

“Knobel explained that 1 000 kg of Product M (methaqualone) specified on the destruction certificate included the 500 kg received from Croatia just two months earlier. The 912.5 kg of BX was the MDMA, 37 kg of Product C was cocaine — which had at one time been seriously considered as an incapacitant, but found wanting and not been further developed. The BZ was also a “potential” incapacitant. Knobel was not able to identify 1 kg of P which also appeared on the certificate.

“Knobel testified extensively about the structures of authority of the Project and it was noted that a National Security Management System meeting in 1987, attended by Magnus Malan, Adriaan Vlok, minister of law and order at the time, police commissioner Johan Coetzee, security police chief Johan van der Merwe, NIS director-general Niel Barnard, Knobel and SADF chief of staff operations Van Loggerenberg, had been briefed by Basson on potential riot control methods, including the New Generation Tear Gas (CR or [as some know it in South Africa] pepper gas). The Minister of Defence, Magnus Malan, told the meeting that if any branch of the security forces needed the product, they should contact Basson directly. He would also be able to advise them on the most effective use of the NGTG and about protective measures to be taken.

“Knobel did confirm during testimony that there had never been any authorization for the encapsulation of any of the incapacitants.

“Knobel was questioned about the destruction of the project documentation and the attempts to capture the information on optical disks. It was revealed that on January 7, 1993, a ministerial decision was taken that Project Coast’s technology and research should be captured on CD-Rom, and all paper documents destroyed. The disks were to be handed to Knobel for safekeeping, lest the information ever be needed again. Basson was personally to supervise the transfer of technology and would be assisted by Dr Cobus Bothma, as well as the managing directors of Delta G Scientific, Roodeplaat Research Laboratories and scientists from both companies. Nowhere within the SADF lay the capability for this task, so, on Basson’s recommendation, Data Imaging (a company owned by Philip Mijburgh) was contracted to do the work. The job cost the state some R600 000.

“At a CCC meeting in January 1994, Basson’s successor, Colonel Ben Steyn, certified that the work had been completed, the documents destroyed as ordered under Basson’s personal supervision, and the disks handed to Knobel. The disks were alleged to contain the full record of Project Coast and had to be preserved ‘at all costs’ on orders of the Defence Minister. Basson personally told Knobel all the paper documents relating to the project had been destroyed. At an unspecified date after this the American authorities reportedly showed an unwelcome

interest in the disks, requesting access to them. This was refused by F W de Klerk, and the NIA then ordered that security surrounding the disks be stepped up even further, since they were a potential target for espionage. When Basson was arrested in January 1997, Knobel was asked to evaluate the documents found in two steel trunks seized by National Intelligence. He and in some cases, Ben Steyn, scrutinized the documents, and Knobel soon realized that the bulk of them contained highly classified technological and scientific details related to Coast.

"The fraud charges against Basson were also raised. Knobel explained that Chemical Agent Monitors had been needed by the troops on the Angolan border who had reported the use of strange smoke bombs. A British company, Graseby Ionics, had developed CAM which was, apparently, so effective that they had not even notified their NATO allies that they had it. Basson, with the help of a collaborator at the factory and a senior CBW scientist, had been able to acquire the 25 CAMs as well as 150 portable detection systems. Payment had been made via R L Buffham to ABC Export. Unfortunately, the first delivery had been detected by British Intelligence and payment for the final consignment had to be made via a different route. R200 010 had been paid to CSD in England and CHF75 000 paid to Dr Chu for services rendered, including a viability study for an RRL marketing arm in Europe, as well as research on peptide synthesis in Europe, specifically the companies, individuals and organisations involved in the process, which led to contact being made with Medalfa in Germany, which later supplied Coast with peptides. This information had been supplied to Knobel by Basson after inquiries.

"[On Monday 22 Nov] Knobel testified about the protective clothing that he had understood had been purchased under the auspices of the project. It became apparent through the prosecution's questioning that Knobel had not been aware of the procurement and payment channels that Basson had used. The purchase of a peptide synthesizer for the project was also raised. It emerged that the Swiss national, Dr David Chu, owner of Medchem Forchungs, was to assist in the purchase of this equipment and that Basson was to use his East German contacts as well. It emerged later that an Iranian who had assisted the South Africans on a number of occasions was also to be involved in the deal.

"[On Tuesday 23 Nov] Knobel told the court that although Project Coast security was substantially no different from any other top secret SADF project, it differed in one important respect and that was that Basson was entirely responsible for decision-making about the daily, weekly and monthly running of the programme. The Coordinating Control Committee did not want to know which individuals or countries Basson dealt with, or even details of foreign bank accounts used. The important thing was that foreign agents and suppliers were never to know the SADF was involved. Handling of funds was crucial to the project's security. Foreign intelligence services would easily enough have been able to make the link between a huge outflow of money from South Africa and a specific supplier, unless the deals were well disguised. Knobel acknowledged that the SADF, like the SAP and other State departments, routinely used bank accounts in the names of friendly foreign nationals for secret projects, and said the entire procurement process, as well as the moving of funds, was largely left to Basson — provided he operated within the broad guidelines laid down by the CCC. The CCC understood that Basson's activities might include having to lie, steal and bribe officials.

"Knobel told the court that the SADF had both moral and practical obligations to protect foreign collaborators, and that there would have been no problem if money from the project

fund was used to help them provide a plausible cover story. If documents were created to back up the cover story, that would also have been acceptable. Roger Buffham was used as an example. As a former MI6 member (which Knobel says he never knew) Buffham had invaluable connections in the Russian and East German intelligence communities and was also able to supply equipment to the project.

"Project security was so successful, Knobel said, that in 12 years, not a single leak occurred. Indeed, both the American and British secret services had been stunned that the project had been run for so long without any foreign intelligence service picking up the slightest hint about its existence. Even the National Intelligence Service only learned of Coast's existence at an advanced stage of the project, Knobel claimed. This appears to be in contradiction to the earlier evidence that the NIS had been briefed by Basson in 1987.

"Countries that had assisted in procurement included Russia, Czechoslovakia, Croatia, China, the UK, East Germany, the US, Iran and Libya, though Knobel said he was not aware of Libya's contribution.

"Despite the vigilance of British and American banks in regard to money laundering, the financial transactions for Coast had never aroused suspicion, and until the Croatian deal, no project funds had ever been lost.

"The defence put it to Knobel that the American secret service had met Basson through NIS in order to establish the CBW capabilities of Iran, which, the defence claimed, proved how extensive Basson's CBW knowledge is. Knobel said he was aware of such a meeting, following the 1994 briefing on Coast to F W De Klerk and Nelson Mandela, but he could only remember that the Americans had questions about the Russian programme.

"Knobel testified about the chain of command and told the court that Basson had taken orders directly from Gen Kat Liebenberg (deceased). The defence put it to Knobel that not only did Basson carry out his duties as project officer of the CBW programme but, following orders from Liebenberg, had also been responsible for establishing Special Forces agents abroad.

"Later in the day, in response to questions about the South African Medical Service, Knobel revealed that he had personally been involved in the large-scale supply of medical supplies to UNITA. Prompted by the defence, he said huge amounts of critical medicines were kept in stock by SAMS at all times, since they would have to supply drugs to the entire country, in the event of a national crisis. As these drugs approached or reached their expiry date, instead of being destroyed, as law requires, they were shipped to UNITA in bulk. The SADF also had an agreement with major pharmaceutical manufacturers that instead of destroying their expired stock, it would be given to the military, and this, too, found its way to UNITA — and RENAMO. Medicine sent to UNITA had, however, been repackaged by members of 7 Medical Battalion, to disguise the source (pharmaceutical companies and SADF) as well as to provide user-friendly dosages with precise instructions for use.

"Basson's reappointment was [addressed] by the defence team, which claimed that Basson's reinstatement had been at the request of the British and the Americans, and had been personally dealt with by then Deputy President Thabo Mbeki.

"The matter of the privatisation of the front companies, Delta G Scientific and RRL was also [addressed] in some detail.

"Wednesday 24 November: Although fraught with exchanges between prosecution and defence, Knobel continued to testify. On matters related to the payments made by Basson on various occasions, Knobel told the court that the

increasingly elaborate and complicated explanations offered by Basson for financial transactions bore scant, if any, resemblance to the responses given in writing to the Office for Serious Economic Offences. Knobel made the court aware that if the current explanations are the correct ones, Basson should have used them in answering OSEO. Having not done so, he had in effect tainted Knobel's own evidence, offered to OSEO, the Truth Commission and indeed the High Court, since Knobel had accepted the answers provided by Basson as being truthful.

"The defence told the court that much of the work related to chemical agents was done, not at Delta G Scientific, but at laboratories built at the Special Forces Headquarters. These labs were under the control of EMLC until 1986, after which — 1988, 89 and 90 — they were used, the defence claims, for the highly sophisticated tests required for weaponisation of the incapacitants. No pyrolytic or pyrotechnical tests were carried out at Delta G — all tests to find the best delivery system for the incapacitants were done at Speskop. Knobel said that he was unaware that tests of this nature were conducted at these facilities. At one stage the labs were destroyed in a fire and, according to the defence, the equipment was replaced with the assistance of Roger Buffham.

"Testimony continued about the purchase of the Chemical Agent Monitors and the peptide synthesizer.

"Court was adjourned until Friday 26 November when Mike Kennedy of the National Intelligence Agency and Etienne Lamprechts, formerly of the Office for Serious Economic Offences, will testify.

"The prosecution will only resume re-examination of Knobel once they have examined the transcripts of the evidence. There has been some delay in this regard since the prosecution team does not have sufficient funds to purchase the daily transcripts from the transcription services."

**20 November** In Russia the Defence and Public Health Ministers sign a joint decree establishing a federal interdepartmental organization for coordinated diagnostics based at the Virological Centre [see 20 Mar] of the Ministry of Defence Research Institute of Microbiology near Sergiev Posad. An article published later in *Meditinskaya Gazeta* describing the work of the Virological Centre, past and present, notes that the new civil-military collaboration in virology is supported by Col-Gen Petrov, the head of the Defence Ministry RKhB Protection Troops, and by his deputy for biological protection, Lt-Gen Yevstigneyev [see 4 Jun].

**22 November** Human Rights Watch publishes on the internet the *Commentary* it is submitting to the impending third session of the Preparatory Commission for the International Criminal Court. Concerning the War Crimes section of the ICC Statute, in particular the passages in Article 8(2)(b)(xvii) and (xviii) that use the term "poison", HRW criticises the definition put forward for this term by the United States in its draft proposal for elements of the ICC crimes, namely "any substance specifically designed to cause death through the toxic properties of toxic chemicals or agents which would be released as a result of the employment of munitions or devices". HRW objects to this restriction of poison to lethal substances, observing that the toxic chemicals to which the 1993 Convention on the Prohibition of Chemical Weapons applies are expressly defined in that treaty to mean "[a]ny chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals". The definition of poison in the US proposal therefore "only partially reflects existing international law".

**22–23 November** In Viet Nam, a training course for CWC National Authority personnel is organized by the OPCW Technical Secretariat with support from the CWC National Authority of Australia in implementation of CWC Article XI.

**22 November–10 December** In Geneva, the Ad Hoc Group of states parties to the Biological Weapons Convention reconvenes [see 13 Sep–8 Oct Jul] for its seventeenth session of work on the projected legally binding instrument, or protocol, that will, in the words of the Group's mandate [see 19–30 Sep 94], "strengthen the effectiveness and improve the implementation of the Convention". Participating are 54 states parties and one signatory state. This time a new rolling text of the projected BWC Protocol is not produced, but the procedural report of the session includes as an Addendum text structured according to the draft Protocol that incorporates the latest language for Articles, Annexes and Appendices proposed by Friends of the Chair. [For further details see *Progress in Geneva* above.] The Eighteenth Session is scheduled for 17 January–4 February 2000.

**23 November** In Washington there is the 31st ROK-US Security Consultative Meeting, South Korean Defence Minister Cho Song-tae and US Defense Secretary William Cohen leading the two delegations. The joint communiqué issued from the meeting states that the two ministers "noted that North Korea's chemical and biological weapons pose a threat to ROK and US security interests and urged North Korea to abide by international conventions banning the production, possession and use of these weapons. In particular, they stressed that North Korea should accede to the Chemical Weapons Convention without delay. Both ministers once again reaffirmed that North Korean use of weapons of mass destruction such as chemical and biological weapons would not be tolerated in any situation."

During the press conference given by the two ministers at the end of the meeting, Secretary Cohen says: "just as the United States has invested in developing greater protective gear in the form of lightweight protective equipment, we think that that is something that should be made available to South Korean forces as well so that our forces could operate effectively in a chemical or biological environment. And should Minister Cho believe it is important for the South Korean forces, the ROK forces, to have vaccinations [see 1 Nov], we certainly would entertain such a request."

Reportedly also discussed at the Security Consultative Meeting are recent press reports that South Korean soldiers, unaware of possible health dangers, had sprayed Agent Orange defoliant along the Demilitarized Zone during 1968-69 at the suggestion of the US Army [see 15 Nov]. Secretary Cohen speaks to reporters of the medical care provided for US veterans exposed to the herbicide when US forces used it during the Vietnam War, adding, however, that the Defense Department doesn't "recognize any legal liability" beyond that because it has taken the position that there is no conclusive link between Agent Orange and health problems.

**24 November** Liechtenstein deposits its instrument of ratification of the Chemical Weapons Convention. In 30 days time, it will thereby become the 128th state party to the treaty.

**25 November** In Geneva, during the seventeenth session of the BWC Ad Hoc Group [see 22 Nov–10 Dec], a further [see 24 Sep] briefing for delegations is provided by the Quaker United Nations Office in conjunction with the University of Bradford Department of Peace Studies at which two further Bradford

briefing papers on *Strengthening the Biological Weapons Convention* are presented, both of them by an editor of the series and their author, Graham Pearson of the University of Bradford: *Visits: The Emerging Portfolio* and *The Emerging Protocol: A Quantified Evaluation of the Regime*. Also presented, by the other editor of the series, Malcolm Dando, are four further 'evaluation papers' in the other Bradford series, *The BTWC Protocol*. They are by Nicholas Sims of the London School of Economics, one them jointly with Graham Pearson, and present evaluations of Articles V, XI, XII and XIII. The briefing is attended by 50 people from 26 delegations.

**25 November** The UK Department of Health publishes *Organophosphates*, which is the report of its Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment (COT) on the question of whether prolonged or repeated low-level exposure to these chemicals, or acute exposure at a dose lower than one causing frank intoxication, can cause chronic ill health [see also 1 May 96, President Clinton]. The organophosphates (OPs) under study are those that can inhibit acetylcholinesterase. The report presents a detailed review of the relevant scientific evidence, such as it is, especially epidemiological studies, and it also draws from information provided by individuals in personal testimony and by two NGOs that have been keeping databases on the subject, the OP Information Network and the Pesticide Exposure Group of Sufferers, noting, however, that, because of barriers to full reporting (such as "a culture of stoicism among agricultural workers"), the body of pertinent clinical data available had not been substantial.

The Working Group that COT had set up early in 1998 to prepare the report had decided to limit its attention, first, to health effects suspected of being common to OPs in general not just specific OPs, and, second, within those possible class effects, to focus on nervous-system effects. As a result, the report is quite narrow in scope and draws attention to several areas for further research in addition to the unanswered aspects of its own inquiry. The report concludes that, as regards long-term sequelae of acute poisoning, a connection can exist between OP exposure and certain neuropsychological abnormalities. For example, mental agility may be damaged. As regards prolonged low-level exposure, however, the report finds no convincing evidence of adverse health consequences but, on some possible outcomes, it also notes the inadequacy of available data. On psychiatric illness, for example, it says: "The available data indicate that exposure to OP sheep dips is not a major factor in the excess mortality from suicide among British farmers. However, in general, the evidence relating psychiatric illness to OPs is insufficient to allow useful conclusions." Investigation of "dipper's flu", which has been proposed, but not accepted by the Working Group, as an indicator of acute OP toxicity, is one of the recommendations for further research; another is that the OPIN and PEGS databases should be expanded.

The regulatory implications of the report are later the subject of advice to ministers from the Veterinary Products Committee, the Advisory Committee on Pesticides and the Committee on Safety of Medicines, all of which have in the recent past concerned themselves with OPs. This advice is against any general withdrawal of OPs from the market, but one recommendation is that all OP sheep-dips should be withdrawn pending the introduction of new containers that would minimise operator exposure.

**26 November** In Syria, a hot-agent field test of a CW bomb dropped by a MiG-23 aircraft was conducted at the end of

October, so the *Washington Times* reports, citing US satellite imagery that had shown distinctive coloration on the impact area of the Syrian practice range. Reporting this, the *Jerusalem Post* notes that Syria is developing non-conventional warheads for its newest missiles, including a cluster warhead for its developmental longer-range Scud D, and that the reported Syrian CW-bomb test took place just a few days before the last Israeli field test of its Arrow-2 antimissile missile [see 1 Nov].

**26 November–1 December** In Pretoria High Court the Basson trial [see 19–25 Nov] continues. The following report and commentary on the proceedings has been provided from the Chemical and Biological Warfare Project of the Centre for Conflict Resolution:

"On Friday [26 Nov] the court heard evidence from an unnamed National Intelligence Agency agent. The agent told the court how the surveillance of Basson's house, on the day of his arrest in January 1997, had led to the discovery of the trunks of project documents found at the house of a close associate of Basson, Samuel Bosch. A day later, during the cross examination of Gen Knobel, the defence alleged that these trunks had been packed and stored at Bosch's house by Philip Mijburgh in April 1995, while Basson was in Libya.

"During the testimony of another National Intelligence agent from the counter intelligence unit, it was said that the scientific value of the documents found in the trunks was assessed by General Niel Knobel and Colonel Ben Steyn, Basson's successor at SAMS. Later, they were also evaluated by Dr André Immelman (formerly the head of research at RRL) and Dr Daan Goosen. The intelligence agent told the court that some four months after Basson's arrest, on Saturday, May 10, 1997, he was called to the Sunnyside offices of attorney Ernst Penzhorn, where he and another senior NIA member were handed another two trunks of documents. These were found to contain classified documents relating to the SADF and Project Coast, various documents relating to Delta G Scientific, Roodeplaat Research Laboratories, Protechnik, Technotek, Sefmed, Infladel, Medchem Consolidated Investments, Global Management, Contresida and Data Imaging, personal documents and foreign currency in various denominations in a number of plastic bank bags. They found 4 000 Spanish pesetas, 26 000 Italian lira, 50 Finnish marks, 200 Seychelles rupees, 125 Russian roubles, 25 Netherlands guilders, 220 French francs, 1.08-million Polish zloty, Austrian schillings and coins from a large number of countries, including America and the Cayman Islands. A single Libyan bank note was also found. He had found 205 reports related to 177 biological research projects which included details of technology, names of scientists and toxins.

"The cross examination of Gen Knobel continued on Monday 29 November with Knobel being asked to answer questions about the acquisition of a peptide synthesizer for the project [see 12 Nov Switzerland]. Defence counsel for Basson, Adv Jaap Cilliers, put it to Knobel that the peptide synthesizer allegedly bought by Project Coast and installed at the Speskop laboratory was not, as Knobel said he had been led to believe, needed for AIDS research, but for research into "one of the most dangerous aspects of chemical warfare".

"The equipment, he claimed, could be used to alter brain and motor functions — and the results would be long-term, if not permanent. For example, according to Cilliers, by tampering with brain peptides, the aggression level of a normally placid person could be increased to above-normal levels, turning the subject into an "uncontrollable monster". Conversely, a highly aggressive person could be turned into a

meek and mild one. The potential of this research, according to Cilliers, was the “biggest single fear” of the international community in respect of CBW, as the implications for the human race are terrifying should the process be abused.

“That, said Cilliers, was the background to Project Coast getting rid of the peptide synthesizer (by swapping it for 500kg of methaqualone in the 1992/93 Croatian deal). Following the 1991 political decision not to proceed with weaponisation of the incapacitants, and by implication halt all “offensive” research, there was no longer a need for the synthesizer. Knobel has no knowledge of research into the field of permanent altering of brain functions, and does not remember this motivation for the swap. He was also unable to tell the court who had been responsible for the AIDS research that he believed was being conducted at Delta G, or what the research entailed.

“During both cross examination and re-examination Knobel confirmed that he had not been aware of the nature of research conducted at the front companies.

“Payment of 130 000 Swiss francs to David Chu, which Basson explained to OSEO was for prostaglandins, Cilliers now says was actually to obtain a substance called Varsu Active, a chemical used to stretch arteries — and used, by some countries, he claimed, as an incapacitant. He told the court that the drug causes a sudden and dramatic drop in blood pressure, which in turn causes recipients to collapse. Project Coast had acquired the substance for possible addition to the CR — but tests showed it caused the lungs and trachea to contract to a life-threatening degree, so the research was halted. As a precursor to the Croatian methaqualone deal, Cilliers says, a large quantity of BZ — a derivative of the other incapacitants researched by Coast — was bought. Knobel said he was aware that in January 1993, 1,000kg of BZ was on Coast’s stock books, but that the Croatian deal, approved in October 1992 by the CCC, was only in respect of methaqualone. According to Cilliers, the deal was for chemicals and technology, acquired through the offices of Swiss intelligence chief General Peter Regli and Swiss agent Jurg Jacomet [see 12 Nov Switzerland], later investigated by Swiss authorities for various other deals, including some involving nuclear weapons/technology. Knobel believed the deal was for methaqualone only, and with Croatian dissidents.

“On Wednesday 1 December National Intelligence Agency deputy director-general Mike Kennedy testified. A 34-year veteran of intelligence work, he has been involved in counter-intelligence and counter-espionage regarding weapons of mass destruction since the 1970s, when South Africa first developed a nuclear capability. During the 80s, the focus of his work shifted towards CBW.

“Although the NIA did not receive its first official briefing about Project Coast until the end of 1993, Kennedy said the agency was aware of Coast’s existence from the mid to late 1980s. This had come about as the result of a number of people being detained in SA as foreign intelligence services tried to obtain information about South Africa’s CBW programme through espionage. The NIA knew enough to brief F W de Klerk in November 1989 — one month after he became state president — about the existence of the CBW programme and about allegations of abuse, even though at that stage the programme had not been officially disclosed to the NIA.

“During both the initial November 1989 briefing of De Klerk, and another in January 1990, De Klerk gave Kennedy instructions to investigate the alleged abuses in Coast.

“In the line of duty, Kennedy has been thoroughly briefed by CBW experts attached to foreign intelligence sources, mainly defectors from the former USSR.

“In cross-examination, Kennedy confirmed that he was aware Basson had “close contacts” with the Libyan intelligence community, and that some members of this service had stayed at Basson’s home for some months. He did not know, but could not dispute, that some Libyan intelligence agents had also stayed with Basson’s mother for a “lengthy period”.

“Kennedy is also aware that at one stage, according to Jaap Celliers, Basson brought a “high-level” Libyan into South Africa to visit Nelson Mandela. However, he has no knowledge of the claim that Basson bypassed passport and immigration control in the process.

“Kennedy acknowledged that the Americans and British who were briefed on Project Coast were “amazed” at the level of sophistication Basson told them the programme had attained. They had judged it to be second only to that of the former Soviet Union, not in size, but in sophistication and level of scientific advance. Kennedy agreed that the aspect that most amazed them was Basson’s briefing on the research done on, and his personal knowledge of, the mood/personality altering brain peptides.

“The defence placed on record that they do not dispute that the 4 000 red and black capsules seized by Sanab during the three sting operations in January 1997 that culminated in Basson’s arrest, contained MDMA.

“The court is now recess and the trial will resume on 24 January 2000.”

**28 November** From China the official news agency Xinhua reports that “at least 270,000 Chinese soldiers and civilians were slaughtered by Japanese germ-warfare troops between 1933 and 1945” according to “in-depth study by Chinese and Japanese scholars” [see also 23 Nov 97 and 5 Mar]. Xinhua does not identify the Japanese scholars, but it says that the Chinese ones include “Guo Chengzhou [see 2 Aug 95] and Liao Yingchang from the Academy of Medical Sciences attached to the Chinese People’s Liberation Army”.

The report continues: “According to the researchers, Japanese troops who invaded China between 1932 and 1945 set up a germ-warfare base in Wuchang County in northeast China’s Heilongjiang Province in 1933 and eventually deployed five ‘bacteriological experimentation units’ with a total of over 20,000 men in the cities of Harbin, Changchun, Beijing, Nanjing and Guangzhou. A report delivered at a secret meeting held at the headquarters of the invading Japanese troops in 1943 discloses that the ‘bacteriological experimentation units’ turned out 75 kilograms of bacteria a month. During the war, 20 Chinese provinces were attacked by these Japanese units who spread deadly diseases including typhoid, cholera, diarrhoea fever, anthrax, lockjaw and gangrene.”

The report relates an eye-witness account of one such episode: “Wang Laiyong, 64, is one of five victims from Yiwu [see 23 Nov 97] in east China’s Zhejiang Province who survived the ‘bacteriological experiment’ conducted by Japanese troops in October 1942. Japanese aircraft arrived and sprayed something like a white fog in the air above Wang’s village. Shortly afterwards, many rats were found dead, followed by many villagers who fell ill, vomiting foam and blood. This lethal operation killed 386 villagers, according to official statistics.”

**29 November** Russian officials publish particulars of the 24 chemical-weapons production facilities declared by their government nearly two years previously to the OPCW as required by the CWC. The publication is in the November-December issue of the OPCW magazine *OPCW Synthesis*.

**29 November** The OPCW Technical Secretariat now has 474 position holders for its 496 authorized fixed-term posts [see also 20 Sep]. Of the position holders, 324 are in the professional and higher category and 150 are in the general service category. Including people on short-term (17) and temporary-assistance (30) contracts, the total number of staff at OPCW headquarters is now 535.

**29 November** President Clinton signs into US public law an omnibus appropriations act for the fiscal year that has now begun. The act includes the *State Department FY 2000 Authorization Act*, HR 3427, which itself includes the *National Security and Corporate Fairness under the Biological Weapons Convention Act* [see 8 Sep] that requires the President to conduct a series of trial investigations and trial visits at both government and industry facilities “during and following” the BWC Protocol negotiations, reporting thereon to the Senate Foreign Relations Committee.

**29 November–17 December** In New York, at United Nations headquarters, the Preparatory Commission for the International Criminal Court convenes for its third session under the continuing chairmanship of Philippe Kirsch of Canada. The ICC Statute now has six of the sixty ratifications necessary for its entry into force, and the Commission is continuing to elaborate, against a June 2000 deadline, the rules necessary for the functioning of the Court. The chairman says in his opening statement that the goal this session is to have the *Rules of Procedure and Evidence* and the *Elements of Crimes* ready for a first reading — urging flexibility, however, as the next two sessions will provide opportunity for a second look at the texts. The session achieves this goal.

The coordinator of the working group on *Elements of Crimes* is Herman van Hebel of the Netherlands. The language he initially presents in the draft *Elements* to describe the “War Crime of Employing Prohibited Gases, Liquids, Materials or Devices” in international armed conflict is limited to “a gas or other substance that causes death or serious damage to health in the ordinary course of events, through its asphyxiating or toxic properties”, this language being qualified in a footnote stating “Nothing in this element shall be interpreted as limiting or prejudicing in any way existing or developing rules of international law with respect to the development, production, stockpiling and use of chemical weapons”. [See also 22 Nov]

The fourth session of the Commission is scheduled for 13–31 March. In February there is to be an intersessional meeting in Siracusa, Italy, to discuss the overall structure of the text of the *Elements* and how, as a whole, the *Elements* relate to Part 3 of the Statute, which contains its more general criminal provisions.

**30 November** In the European Parliament, the EU–NGO Common Foreign and Security Policy Contact Group convenes for a public meeting on *Reinforcing EU Action on Biological Weapons*. The meeting is organised by the International Security Information Service, both its UK and its European office. The speakers are Clara Ganslandt of the EU Council Secretariat, Graham Pearson [see 25 Nov] and Michel Pletschette from the Research Directorate of the European Commission.

**30 November** In The Hague, the Netherlands Foreign Ministry hosts the second *Expanded Threat Reduction Initiative Conference*, which is a follow-on, at a higher political level, to the expert-level meeting in Brussels in June at which the United

States had sought multinational involvement in ETRI [see 5 Nov US House], which is its programme of assistance to Russia and other newly independent former Soviet republics for dismantling or converting USSR weapons programmes and for providing alternative employment for the scientific and technical staff of these programmes. The aim of the conference is to generate more non-US donor support for these activities.

**30 November** The UK Home Office responds to several Parliamentary questions about the CS spray weapons [see 23 Sep] on issue to the Metropolitan Police. Since September 1997 this force has purchased 30,200 CS spray canisters at a cost of £196,000, imported from their manufacturer in France, SAE Alsetex, by Primetake Ltd.

**30 November** The UK Defence Ministry releases an overview of research carried out at Porton Down on glycollate and related mental incapacitants, including Agent 15 [see 9 Feb 98], work that had taken place during the period 1962–74. The chemical identity of Agent 15 remains undisclosed, but it is stated that “Agent 15 has been used in animal studies at Porton Down, but not in any work involving humans”. The overview refers to human volunteer studies at Porton only on BZ and N-methyl-4-piperidyl isopropylphenylglycollate (MPIG, also known as EA 3834). The ministry also states that there is no evidence of Iraq having used Agent 15.

**30 November** The US General Accounting Office releases another report addressing CBW aspects of *Combating Terrorism* [see 7 Sep]. Submitted a month previously to its Congressional requesters, this one reports that the medical supplies stockpiled by the federal government in case of chemical or biological terrorism are poorly managed, often lacking key items, and insufficiently secure: “The poor management controls and lack of required items in their stockpiles lead us to conclude that they cannot provide reasonable assurance that the required medical supplies will be available if needed”. These criticisms are directed against the Department of Veterans Affairs, which is managing stockpiles for the Department of Health and Human Services Office of Emergency Planning, and against the US Marine Corps Chemical Biological Incident Response Force.

**30 November** In Chicago, preliminary findings from a Gulf War illness study are presented at the 85th annual meeting of the Radiological Society of North America. A team led by Professor James Fleckenstein of the University of Texas Southwestern Medical Center in Dallas reports that magnetic resonance spectroscopy brain-scans of 22 sick veterans had shown levels of N-acetyl-aspartate 10–25 percent lower than in 18 healthy veterans, which indicated damage in the scanned regions of the brain.

**30 November** The US National Academy of Sciences announces publication of three reports by its Institute of Medicine and its National Research Council in the series *Strategies to Protect the Health of Deployed US Forces*, commissioned by the Defense Department. The reports address technical aspects of identifying and assessing hazards from CBW agents, other toxicants and infective disease, and psychological and physical stress; of reducing the risk of exposure; and of improving surveillance and record keeping. A fourth report, assessing methods and policies used to detect and track exposures to potentially harmful agents, is expected later in the year.

**30 November** The US Deputy Assistant Secretary of State for Near Eastern Affairs, Ambassador Ronald Neumann, speaking at a conference on Libya hosted by the Middle East Institute in Washington, says: "While US sanctions were imposed because of concerns about Libyan support for terrorism, there have been other sources of contention in US–Libyan relations over the past three decades, including Libyan efforts to obtain missiles and weapons of mass destruction. Indeed, Libya continues to pursue programs for the acquisition of WMD and missiles, which would threaten US interests, and we continue active efforts to impede them. We continue to want Libya to find a way to address these concerns. For example, if Libya joined the Chemical Weapons Convention, that would be a welcome step towards answering the international community's concerns regarding Libya's WMD programs and a further signal of Libyan willingness to establish positive relations with other nations."

**30 November–1 December** In Seattle, where delegates from 135 countries have assembled for World Trade Organization talks, police and National Guard forces use irritant chemicals and other such weapons to control the great numbers of mostly peaceable demonstrators who have also assembled in the city. Street clinics organised by the Direct Action Network Medical Collective provide care for thousands of people affected by the chemical weapons. These are mostly Pepper Gas, Fog or Spray devices based on irritant Oleoresin Capsicum (OC — the active ingredient of cayenne pepper), but there is also exposure to irritant agents CN and CS plus their various disseminants and solvents. Street doctors say that the signs and symptoms of those they treat on the first day appear typical of exposure to tear gas, but on the second day they say that a "neurotoxic set of symptoms", which they later detail and publicise, has become increasingly discernible. Subsequent commentary suggests that they might have been deceived by the persistence and severity of what were in fact irritant-agent effects, including effects that have not yet been widely acknowledged or even recognised and effects resulting from abusive employment of the weapons. But rumours quickly spread that anticholinergic disabling chemicals, even nerve gases, have been employed.

**30 November–2 December** In Bangladesh, a training course for CWC National Authority personnel is organized by the OPCW Technical Secretariat in implementation of CWC Article XI.

**30 November–3 December** In The Hague, the OPCW Executive Council convenes for its seventeenth regular session [see 22–24 Sep]. [For further details, see *Progress in The Hague* above.] For the first time, the opening statement of Director-General José Bustani, which reports on Secretariat actions during the intersessional period, is posted straight onto the internet at the OPCW website. He takes the opportunity to "reaffirm and reinforce my earlier appeal to those Member States which are in a position to do so, to step up, and not to scale down, their [chemdemil] assistance to the Russian Federation", and also to express the hope that the ETRI conference now taking place in The Hague [see 30 Nov] "will contribute to finding additional ways of achieving this goal".

Among the many other matters on which the Director-General reports is that, earlier in the month, there had been "very productive" official discussions, after several months of informal contacts, between the Secretariat and the Foreign Ministry of the Federal Republic of Yugoslavia on the issue of that country's accession to the CWC [see also 18 Nov].

**1 December** In Heilongjiang Province, north-east China, 24 old chemical munitions discovered in Lindian County are now awaiting destruction, so Xinhua reports. The munitions were among numerous dud high-explosive bombs that had first been encountered at Lindian Rolling Mill in 1992, some two tons of which had since been blown up after reburial in two 3-metre-deep pits. Xinhua also reports that documents in the Lindian County Archives Bureau show that Japanese aircraft had dropped bombs on Lindian County in November 1931. The chemical munitions are said to contain either mustard gas or chlorine, and one of them, 155 mm in diameter, is said to be the first of its kind ever to have been found in China.

**1 December** UK Home Office Minister Charles Clarke, responding to a Parliamentary question about the expert recommendations regarding CS Spray recently published by the Department of Health [see 23 Sep], writes as follows to the House of Commons: "Operational guidelines issued by the Association of Chief Police Officers have been revised to take account of the report's findings concerning the use of CS with persons who are mentally ill and those who may have respiratory conditions. The guidelines include appropriate advice on aftercare and will be issued to chief officers shortly. The Home Office will be taking forward with the Department of Health the report's recommendation for follow up studies into persons who have received medical treatment following the use of CS spray. In addition, the Home Office's Police Scientific Development Branch is continuing work looking at alternative solvents and potential alternative incapacitants [see 30 Jun]."

**2 December** In Geneva, during the seventeenth session of the BWC Ad Hoc Group [see 22 Nov–10 Dec], a presentation on *The National Infectious Disease Surveillance Network in Finland* is given to delegations by Dr Petri Ruutu of the National Public Health Institute of Finland.

**2 December** In Brussels the North Atlantic Council meets in Defence Ministers' session and then issues a 35-point Final Communiqué, of which Point 20 states: "The Alliance is making progress in implementing the Weapons of Mass Destruction Initiative (WMDI) [see 23–25 Jun]. The new Weapons of Mass Destruction Centre will improve co-ordination of all WMD-related activities at NATO Headquarters, as well as strengthen non-proliferation related political consultations and defence efforts to improve the preparedness of the Alliance. We look forward to establishing the WMD Centre in early 2000. Significant progress has been made in defining the tasks of the WMD Centre. The specifications of a WMD intelligence and information database are under active consideration, with the aim of improving the quality and increasing the quantity of intelligence and information-sharing among Allies. Finally, we are continuing to prepare for renewed consultations with Russia under the Permanent Joint Council on these matters, and we welcome the initiation of proliferation-related discussions with Ukraine in the NATO–Ukraine Commission. We are determined to improve our capabilities to address appropriately and effectively the risks associated with the proliferation of weapons of mass destruction and their delivery means, which also pose a potential threat to the Allies' populations, territory and forces."

That last sentence reflects the continuing contrast of views within the Alliance on the role of ballistic missile defence [see 5 Nov]. US Defense Secretary William Cohen tells reporters that the WMD threat "will, in all likelihood, intensify in the coming years as countries continue to acquire chemical, biological and



nuclear capabilities; and that it would put at risk their populations as well as their forward deployed troops". Within the NATO Nuclear Planning Group, also meeting today, the United States makes a detailed presentation on what a US press-briefer calls "the growing ballistic missile threat from rogue states".

**3 December** In Australia the Institute of Health and Welfare releases its report on the health of Vietnam-War veterans, which had been commissioned as a validation study of an earlier survey conducted by the Department of Veterans Affairs. The report notes a significantly higher rate of death by accident and suicide among the veterans and, among their children, a significantly higher incidence of birth defects such as spina bifida and cleft palate. These findings are portrayed by the Vietnam Veterans' Federation of Australia as proof of what the Australian government has long declined to accept: that Agent Orange is linked to birth abnormalities in children.

**3 December** UNSCOM acting Executive Chairman Charles Duelfer speaks to the *New York Times* about what UNSCOM has been doing since its expulsion from Iraq almost a year previously. He says that a core of some 15 weapons experts have spent that time writing what amounts to an institutional history of UNSCOM work in Iraq since its commencement of operations there after the Gulf-War ceasefire in 1991: "We're doing two things related to the information we already collected — rationalizing it and putting it into a form that a successor organization would make ready use of. But we're also studying it and analyzing things in a way that we hadn't in the past, for lack of time. It's actually yielding some interesting conclusions, in the sense of defined gaps in what Iraq has presented to us." UNSCOM spokesman Ewen Buchanan says that extensive cross-referencing has been done, allowing experts to make new connections, adding that information filed away over the years has sometimes turned out to be valuable pieces of larger puzzles. All of the collected material and associated analytical databases will be turned over to whatever new body emerges from the current negotiations within the UN Security Council.

**4 December** The Indiana Department of Environmental Management has now approved permits allowing the US Army to dispose of the 1200-plus tons of VX nerve gas stored at Newport Chemical Depot using a hydrolytic chemdemil technique [see 18 Feb]. An OPCW inspection of the Depot is about to begin, aiming to verify that VX can no longer be manufactured there and that the stockpile declaration for the Depot is accurate.

**5 December** In Chechnya, chemical weapons are used in two districts of Grozny, killing 31 people and injuring scores more, so an envoy of Chechen President Aslan Maskhadov, Saidhassan Abumuslimov, later tells reporters in Istanbul, also saying: "There are people with blisters covering their bodies, who complain of abnormal drowsiness, but we do not know what kind of gas was used". Witnesses, he says, saw "a strange yellow smog" when bombs exploded. On 6 December, the Chechen news-agency Kavkaz-Tsentr reports that, during the previous night, two districts of Grozny had been attacked with "special chemical bombs, which release clouds of inflammable gas creating massive blasts that incinerate buildings and people" 37 people had died and more than 200 injured. Most of the wounded, according to a Chechen press release issued in Azerbaijan, suffered serious burns, with "psychological disorders and poisoning" also being observed in people in the vicinity. These accounts are rather widely

reported in the media, not as instances of fuel-air-explosives employment, but of Russian chemical warfare. Other such allegations are also publicized: the Glasgow *Herald*, for example states that "Intelligence sources claimed yesterday [7 December] that Russian aircraft have already used mustard gas in strikes against pockets of resistance" on approach routes to Grozny. The Secretary-General of the International Peace Bureau in Geneva writes to OPCW Director José Bustani on 7 December requesting the OPCW to "conduct a thorough inquiry" into the allegations of Russian CW. President Aslan Maskhadov, too, writes to the OPCW in The Hague accusing the Russian military of using chemical weapons against Chechen civilians during the night of 5-6 December in Grozny.

The OPCW is permitted by the CWC to investigate CW allegations only when requested by states parties. So these reports remain unverified [see 8 Nov Russia], as do the numerous others that are subsequently directed against the Russian military, among them a statement by the Mayor of Grozny, Lechi Dudayev, on 24 January that about 2,500 people had died of Russian chemical warfare during the previous week. The allegations are vigorously denied by Russian officials. A Defence Ministry spokesman says they are "misinformation aimed to deceive the world public", and General Stanislav Petrov, the chief of the Ministry's RKhB Protection Troops, tells reporters: "No ammunition containing poisonous substances is being used in North Caucasus. Such ammunition is subject to strict international control and is kept in military bases and ammunition dumps situated thousand kilometres away from Chechnya." The Foreign Ministry issues similar denials.

**6 December** In the United Kingdom, the Defence Evaluation and Research Agency launches the DERA history, *Cold War, Hot Science: Applied Research in Britain's Defence Laboratories, 1945-1990*. It includes a chapter on the history of CBW work at Porton Down written jointly by the establishment's historian Gradon Carter and HSP Associate Brian Balmer.

**6 December** UK Foreign and Commonwealth Office Minister Peter Hain, responding to a Parliamentary question about bilateral assistance to support Russian chemdemil [see 30 Nov 98] and related work, writes: "Specific projects are now being considered but, before we can initiate projects on the ground, we need an adequate legal and financial framework for such assistance. This is under negotiation."

**6-10 December** In Basel, officials representing the 131 states parties to the 1989 Convention on the Control of the Transboundary Movements of Hazardous Wastes and Their Disposal (the Basel Convention) convene to continue the negotiation that began in 1993 to strengthen the global system of hazardous-waste management by means of a protocol to the Convention setting out rules on liability and compensation.

**7 December** In Uganda, the leader of the Sudan People's Liberation Army, Dr John Garang, addresses a press conference after a meeting in Kampala with other Sudanese opposition leaders. Among other things he charges Khartoum with continued chemical warfare [see 6-10 Nov], saying that the evidence is in the population — nasal and ear bleeding, increased miscarriages and small animals like cats dying.

**7 December** The UK Defence Ministry, in response to a Parliamentary question about the possible exposure of UK

armed forces to nerve gas released in March 1991 during the US demolition of Iraqi munitions at Khamisiyah [see 1 Sep], publishes a lengthy review of information available on the matter. It also publishes, as background information, a detailed paper describing how British CW defence had been organised during the 1990–91 Gulf war. And it states to Parliament: “As a result of our review of the information on the Khamisiyah incident, we do not believe there is evidence that any UK troops were definitely exposed to Iraqi chemical agents on 10 or 11 March 1991. Although some British troops were located within the computer modelled composite plume footprint, such theoretical exposure would have been at a very low level. We judge that if such an exposure took place it would present no risk to health.”

**8 December** In Washington a conference on *Deterring NBC Terrorism* is convened by the Chemical and Biological Arms Control Institute in conjunction with Sandia National Laboratories. Its purpose, according to the CBACI prospectus, is to “examine the appropriateness of applying the traditional elements of deterrence to new post-Cold-War security problems, specifically the NBC terrorism threat”. CBACI continues: “A number of first order questions must be posed: Is deterrence applicable in the context of non-state actors i.e. NBC terrorists? Can the cost/benefit calculations of potential NBC terrorists be manipulated in ways similar to those by which we tried to deter state actors? Do terrorists’ values and logic provide opportunities for deterrence? Can we clearly and credibly communicate with terrorists as the target of deterrence? What instruments or tools of deterrence will be most effective for deterring NBC terrorism? Can we identify new instruments of deterrence that may prove effective? How do we integrate the tools of deterrence into a strategy for combating NBC terrorism?”

**8 December** In Philadelphia a group of 20 South Koreans file a federal lawsuit against Dow Chemical and six other US chemical companies seeking compensation for harm suffered from the US-manufactured chemical herbicides that were sprayed along the Korean demilitarized zone during 1968–69 [see 15 Nov].

**9 December** In Tokyo some 60 senior officials from the Japan National Police Agency, the Defence Agency and government departments assemble for a conference on biological and chemical terrorism convened by the Cabinet security and crisis-management office. Reportedly the first such meeting of its kind, its aim is to build an information base on these forms of terrorism, to compile possible responses or deterrents to such attacks, and to establish connections with overseas antiterrorism experts. Experts from the US Centers for Disease Control and Prevention and from the US Army Medical Research Institute of Infectious Diseases are scheduled to address the conference tomorrow.

**9 December** The UN General Assembly adopts Resolution 54/109 recommending an *International Convention for the Suppression of the Financing of Terrorism* [see 15-16 Mar], a treaty of 28 articles that is to be opened for signature at UN Headquarters on 10 January 2000. Described by the UN Secretariat as the “latest in a series of interlocking conventions intended to combat terrorism”, the Convention had been proposed by France a year previously, at the 53rd Assembly, and had since been developed within the Sixth Committee.

**9 December** The US State Department Senior Adviser for Arms Control and International Security, John Holum [see 20 Oct], speaks at a press conference of the BWC Protocol negotiation: “I’ve also seen in this past year [...] a disturbing trend in which countries are starting or intensifying their assertion that arms control is something that requires compensation; that if countries give up, for example, the option of pursuing biological weapons as part of the global agreement, they somehow deserve payment in terms of transfer of technology or other steps, and that perverts the whole idea of arms control. The first benefit of arms control is national security for all of its members; the assurance, the reliable assurance, that by joining a regime that other countries join, your neighbors and rivals aren’t acquiring these weapons, and you know they’re not because of strong inspection regimes.” Later he says: “We’ll continue the efforts to make the Biological Weapons Convention enforceable by strengthening the compliance process and providing for on-site challenge inspections.”

**9–10 December** In Beijing, President Yeltsin of Russia and President Jiang Zemin of China conduct their second informal meeting and adopt a joint statement. This notes that the two countries “share identical or similar positions on a number of key issues”, amongst which are listed the CWC and “the elaboration of a protocol” to the BWC.

**10 December** In Chechnya, in the Khankala district of Grozny, there is an explosion and then a great cloud of what is later described as chlorine and petroleum products drifting over the city. General Alexander Baranov, chief of staff of Russian forces in Chechnya, says on television that rebels had blown up specially prepared containers of chemical, and he produces in evidence what he says is a recording of an intercepted Chechen radio communication about the operation; this includes an instruction to “prepare gas masks urgently”. He adds: “we assume that the rebels intended to blame federal troops for using weapons of mass destruction or poisonous substances” [see also 8 Nov Russia]. However, on Ekho Moskvyy radio, Chechen presidency spokesman Sharip Yusupov says that Chechens lack antichemical protection and “will not explode chemical weapons right on their own doorstep to poison themselves”. He suggests that a Russian bombardment had struck one of the several cisterns of ammonia, chlorine and oil established to service the airfield in the days when Khankala was a military base. In Moscow, Major-General Nikifor Vasiliyev of the Ministry of Defence RKhB Protection Troops later tells reporters that the Chechen leadership in Grozny “is preparing for hostilities involving highly toxic industrial substances — chlorine, ammonia and sulfuric acid”. He says there are 160 tonnes of ammonia and 60 tonnes of chlorine in Chechnya, and that rebels “are planting various ground bombs filled with such toxic substances”. Over the next month there are several reports of Russian units encountering improvised chemical mines of this type, or anticipating their use. There are also Russian reports of such weapons actually being used, and, in addition, of Chechen mortar fire releasing chemical clouds smelling of ether. After one such incident, on 31 December, the commander of the northern group of federal forces, General Vladimir Bulgakov, issues a warning that, in the event of the rebels using chemical weapons, “all measures” would be taken to destroy them.

**10 December** In Venice, a conference *Europe Faced with the Nuclear Risk and Mass-Destruction Weapons in the Former Soviet Republics* is sponsored by the Marco Polo Institute in

collaboration with Acque & Terre and with the patronage of the European Parliament, the Italian government and the municipality of Venice. Three of the presentations — by Oliver Thränert, Benjamin Garrett and Rulf Linkohr — address CBW aspects of the conference topic.

**10 December** San Marino deposits its instrument of ratification of the Chemical Weapons Convention. In 30 days time, it will thereby become the 129th state party to the treaty.

**10 December** In Geneva, the World Health Organization announces the recommendations of its Advisory Committee on Variola Virus Research, which met during 6–9 December primarily to determine if further research on smallpox virus should be carried out in order to facilitate reaching a global consensus on the date for the destruction of the remaining stocks [see 24 May]: “In their deliberations, the experts defined the following areas in which research could usefully be conducted before the end of 2002: sequencing more completely the DNA of the smallpox virus; devising tests to detect smallpox infection in humans; and developing drugs to treat human smallpox infections, should they reappear.” The announcement also says that the committee is to “outline an inspection schedule to confirm the strict containment of existing smallpox virus stocks [in Atlanta and Novosibirsk] and to ensure a safe and secure research environment for the investigations that will be conducted”. The research, which in accordance with the World Health Assembly resolution of 24 May is to be reviewed and approved by WHO, will be conducted at the US Centers for Disease Control and Prevention, Atlanta, Georgia, and at the Russian State Research Centre of Virology and Biotechnology (Vektor), Koltsovo near Novosibirsk. Once central to the USSR bioweapons programme, Vektor [see 15 Jun] has become increasingly involved in international activities [see, for example, 2–4 Sep] and is soon to be reported by the *New York Times* as having “quietly been removed from the [US] administration’s ‘threat’ list”.

**10 December** In Washington the Henry L Stimson Center publishes *Toxic Archipelago: Preventing Proliferation from the Former Soviet Chemical and Biological Weapons Complexes*, which is a detailed appraisal of international, primarily US, efforts to provide support for scientists and engineers who had formerly been employed in the CBW weapons programmes of the USSR and who might otherwise sell their special skills abroad. The study rests on public sources and on extensive interviews conducted by its author, Amy Smithson, with, as she puts it, “current and former US government officials and with numerous veterans of the former Soviet chemical and biological complexes”. She also had the active cooperation of the Moscow-based International Science and Technology Center.

The study opens with an overview of the organization and staffing of Soviet CBW programmes during their final years. Here it is estimated that the USSR “employed roughly 65,000 in the vast biological warfare complex, including about 40,000 in Biopreparat, of whom 9,000 were key scientists and engineers”. No such synoptic estimate is given for the CW programmes, but the study does say that “approximately 6,000” were employed in the four main branches of GosNIIOKhT that conducted the research, development and testing of chemical agents. Later the study quotes a US government estimate that “roughly 10,500 former Soviet chemical and biological weaponers are of high-risk proliferation concern, including 3,500 chemical weapons

scientists and 7,000 biological weapons scientists”. The comparable figure for nuclear weapons scientists is given as 2,000. As to institutions, the study quotes an unofficial ISTC estimate that there are 13–15 “core biological weapons institutes” and 10 “chemical sites [...] in this core proliferation-risk category”.

The greater part of the study comprises a close examination of the grant-aid and job-creation work of two international efforts — the ISTC [see 15 Jun] and the STCU [see 22 Nov 96]; and of two purely US efforts — the US Energy Department’s IPP programme [see 15 Jun], and an ISTC-complementary grant-giving body called the Civilian Research and Development Foundation (CRDF) run by the National Science Foundation. These four “brain drain prevention programs” are found to have spent a combined total of \$310.3 million on scientific grant activities during 1994–98, of which \$26 million went to biotechnology grants and \$11.3 million to chemistry grants: 178 projects involving bioweapons people and 69 projects for their CW counterparts. Also noted by Dr Smithson are EU efforts within INTAS and the Copernicus programme, both run by the Research Directorate of the European Commission.

The report recommends that the US budget for collaborative research grants be increased by a factor of at least two for the biological effort and at least three for the chemical. Further, it exhorts Russia to “clean house of the hardline holdovers from the Soviet days who want to perpetuate a weapons capability and their own personal influence to the detriment of efforts to transform the weapons institutes to peaceful, commercial research and manufacturing centers”. It recommends reforms in ISTC procedures. And, as its final recommendation, it says: “Washington needs to create an overall architecture for brain drain programming, insulate these programs and other Cooperative Threat Reduction efforts from politics, and repeal the blanket prohibition on use of US funds for defense conversion.”

**10–11 December** The European Council, meeting under Finnish presidency in Helsinki, approves a *Common Strategy on Ukraine*. This states, in paragraph 26, that the EU is “interested in strengthening cooperation with Ukraine in the field of export controls and non-proliferation of weapons of mass destruction and their delivery vehicles, and encourages Ukraine to fulfil its obligations under the Chemical Weapons Convention”.

**10–12 December** In Tokyo, the *International Citizens’ Forum on War Crimes & Redress — Seeking Reconciliation & Peace for the 21st Century* is organised by Japanese citizens’ groups of scholars, attorneys and human rights activists led by a former president of the Japanese Bar Association, Koken Tsuchiya, who is president of the California-based Global Alliance for Preserving the History of World War II in Asia. Co-sponsors include the World Jewish Congress and the Anti-Defamation League. Participating are more than 600 people from Canada, China, Germany, Hong Kong, Japan, the Philippines, South Korea, Taiwan and the USA. The keynote speaker is Mark Weintraub, national chair of community relations of the Canadian Jewish Congress. He lays stress on the importance of memory and proper recording of history of atrocities. Among the workshops is one on Unit 731 [see 10 Nov] and the CBW activities of the Imperial Japanese Army. The conference ends with adoption of a *Tokyo Appeal*, which calls upon the Japanese government to accept wartime responsibility and to offer an unambiguous apology and compensations to its victims.

**13 December** The OPCW Technical Secretariat holds a staff seminar on lessons learned from the challenge-inspection exercises held in the United Kingdom and Brazil.

**13 December** The US Defense Department announces a delay in the commencement of Phase 2 of its forces-wide Anthrax Vaccine Immunization Program (AVIP), previously scheduled for next month. The Food and Drug Administration, which in November had inspected the new BioPort production-line for the vaccine [see 5 Aug and 22 Oct], has denied certification. Pending FDA approval, the Department will continue only with the phase-1 vaccinations, using its remaining holdings of FDA-approved vaccine for troops deploying to South Korea and the Persian Gulf area. The Department anticipates a 6–12 month delay before it will be in a position to begin phase-2 and phase-3 vaccinations, which are for forces not immediately entering what are regarded as high-threat areas.

**14 December** Norway is under pressure from several NATO countries, the UK among them, to request an inspection under the CWC of a Russian facility on the Kola peninsula, so *Verdens Gang* reports. The newspaper had said earlier in the year that this facility was being used by the Russian navy to store chemical weapons [see 15 Jul]. The allegation had been denied soon afterwards in a note from the Russian Foreign Ministry to Norwegian authorities. Foreign Minister Knut Vollebæk, visiting his Russian counterpart Igor Ivanov in Moscow on 4 October, had then asked what the facility was being used for. No response has yet been received, according to the newspaper, despite several reminders.

**14 December** At Harvard University, in the Belfer Center for Science and International Affairs, historian John Ellis Van Courtland Moon speaks on *Biological Warfare: The Lessons of History* at a session of the HSP Cambridge CBW Colloquium.

**15 December** In the United States, the President and the Congress receive the first annual report of the Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction, which is chaired by the Governor of the Commonwealth of Virginia, James S Gilmore, III. The panel, of private US citizens, had been mandated by section 1405 of the FY99 National Defense Authorization Act (PL 105-261), which requires the panel to produce three annual reports. Comprising 18 retired senior military, counter-terrorism and intelligence officers, medical officials and emergency planners, the panel had started its work on 9 June, thereafter convening quarterly. The RAND Corporation has been providing research, analytical and administrative support, and also maintains a public website for the panel at [www.rand.org/organization/nsrd/terrpanel/](http://www.rand.org/organization/nsrd/terrpanel/). The RAND input has been led by Dr Bruce Hoffman, director of the RAND Washington Office.

This initial report presents an assessment and analysis of the potential domestic threats from terrorists who might seek to use a chemical, biological, radiological or nuclear (CBRN) device. The introduction explains the purpose thus: “A principal focus of this report is on the threat dimension of CBRN terrorism. From the outset of its work, the Panel concluded that Federal, state, and local domestic response capabilities for potential acts of CBRN terrorism could not be critically assessed, neither could well-informed public policy be developed, in the absence of a thorough understanding of the threat — specifically, the type and magnitude of attacks for which each of the above jurisdictional levels of government is

charged with preparing. The Panel, moreover, sees the threat not as a rigidly static phenomenon but as a dynamic and evolving one that requires constant monitoring, assessment, and evaluation.” The report concludes that CBRN terrorism (it explains why it does not use the term ‘WMD terrorism’) does indeed pose a threat to US security, and it sets out its reasons for doing so persuasively and in some detail. The report also observes that the government has not yet succeeded in developing and implementing a clear, comprehensive and integrated strategy of preparedness against this threat

Among the several detailed briefings received by the panel has been one by the CIA National Intelligence Officer for Science and Technology, Larry K Gershwin, on “Threat posed to the US by international terrorism using chemical and biological weapons”. Another, by Dr Christopher Davis [see 2–3 Aug] of InSight International, also on 9 June, was about “The threat of state-sponsored biological terrorism” and provided information on the bioweapons programs of the USA, the USSR, Russia and Iraq.

**17 December** In Russia, in Saratov Regional Court, hearing of the lawsuit filed against the leadership of the Central Scientific Research Institute, at Shikhany, of the Russian Defence Ministry’s RKhB Protection Troops by Vladimir Petrenko [see 22 Apr] is once again delayed. Petrenko had begun his action in 1995, aiming to show that exposure to an organophosphorus CW agent at Shikhany a decade previously had destroyed his health. The delay this time is because the plaintiff has failed to appear. He is objecting to the court’s recent decision to conduct the hearing in secret, on which he has submitted a complaint to the Supreme Court.

**17 December** In Brussels, the Council of the European Union adopts a Joint Action establishing an EU Cooperation Programme for Non-proliferation and Disarmament in the Russian Federation. The Action states that the objective of the Programme is to support Russia “in its efforts towards arms control and disarmament”, which is an objective expressly envisaged in the Common Strategy of the EU on Russia [see 3–4 Jun]. The Action also states that, in its first phase, the Programme is to contribute to “a chemical weapons pilot destruction plant situated in Gorny” [see 4 Oct] and to studies of plutonium disposition. EUR 8.9 million is earmarked to set the programme going during 1999–2000, supplementing both the European Commission funding under the TACIS programme [see 18 May] and the bilateral assistance being provided by EU member-states. The Commission is to supervise activities under the Cooperation Programme via a project assistance team in Moscow that reports to a Policy and Project Coordination Section in Brussels.

An annex to the Joint Action describes how the EU-Russia chemical weapons destruction project in Gorny relates to the joint Russia-Germany chemdemil project that has been running at Gorny since 1993, on which the German side has so far spent DM 48.5 million. The annex states that an April 2001 target for the launch of chemical weapons destruction at Gorny “seems realistic”. Gorny contains 225 tonnes of lewisite, 690 tonnes of mustard gas and 210 tonnes of mustard-lewisite mixture, corresponding to 2.9 percent of the total CW-agent stocks identified by Russia for destruction under the CWC. The annex states, too, that Gorny production principles will be replicated at the Kambarka chemdemil facility [see 15 Jun], where the same types of weapon are stored in larger quantity (6400 agent-tonnes in all). It continues: “The Gorny facility plays thus an important role in catalysing chemical weapons destruction in selected other sites”.

**17 December** The United Nations Security Council adopts Resolution 1284 (1999), which is omnibus legislation on UN-Iraq relations that has been many months in negotiation [see 15 Sep], and which is now approved by a vote of 11-0 with China, France, Malaysia and Russia abstaining. Its principal feature is that it establishes a new subsidiary body of the Council in place of UNSCOM [see 8 Oct]: the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC or, in the French, CoCoVINU). The resolution also lifts the ceiling on how much oil Iraq may sell abroad under the 'oil for food' programme [see 20-21 Apr 98]. Further, the resolution relaxes conditions for the lifting of the UN sanctions that have been in place since Iraq invaded Kuwait: if both the new Commission and the IAEA (which is to continue its role in Iraq) report that Iraq has cooperated in the requisite manner for a period of 120 days, the Council may decide to suspend economic sanctions for a renewable period of 120 days.

The new Commission is to retain the basic mandate, rights, privileges and immunities of UNSCOM, including rights of access for its inspectors. Its Executive Chairman is to be appointed by the Secretary-General of the United Nations, subject to Council approval, within 30 days, and he or she will thereafter have 45 days to submit to the Council, in consultation with the Secretary-General, an organizational plan for UNMOVIC, including its staffing. The Secretary-General is also to appoint, in consultation with the Executive Chairman and members of the Council, "suitably qualified experts as a College of Commissioners for UNMOVIC". The Commissioners are to meet regularly to review implementation and to provide professional advice and guidance to the Chairman "including on significant policy decisions and on written reports to be submitted to the Council through the Secretary-General".

Within 60 days of UNMOVIC and IAEA having started work in Iraq, they are to prepare for Council approval "a work programme for the discharge of their mandates, which will include both the implementation of the reinforced system of ongoing monitoring and verification, and the key remaining disarmament tasks to be completed by Iraq pursuant to its obligations to comply with the disarmament requirements of resolution 687 (1991) and other related resolutions, which constitute the governing standard of Iraqi compliance". The resolution goes on to state that what is required of Iraq for the implementation of each task "shall be clearly defined and precise".

Iraq next day formally rejects the new inspection plan.

**17 December** President Clinton signs a Presidential Decision Directive specifying in detail the roles and responsibilities of different government agencies in domestic implementation of the CWC, as already outlined in Executive Order 13128 [see 25 Jun].

**17 December** The US General Accounting Office transmits a report, *Agent Orange: Actions Needed to Improve Communications of Air Force Ranch Hand Study Data and Results*, to the ranking minority member of the House Veterans Affairs Committee, Congressman Lane Evans. The Ranch Hand study, which since 1982 has been following the health and mortality rates of the 1200 US Air Force personnel who sprayed chemical herbicides during the Vietnam War and a comparison control group, is due to end in 2006 at an estimated cost to completion of at least \$140 million. It has come under criticism both on scientific grounds and on grounds that findings from it are being misrepresented for political purposes [see 1 Nov 98]. The GAO had been tasked about a year previously,

not to evaluate the scientific design of the study, but rather (1) to assess whether the interim findings and data have been properly and promptly reported and disseminated, (2) to examine the statistical limitations of the study and whether they have been adequately reported and communicated, (3) to examine the measures established to monitor the study's conduct and to prevent improper influence, and (4) to assess the impact of the Ranch Hand study on National Academy of Sciences reports [see 11 Feb] and Department of Veterans Affairs determinations regarding diseases for which Vietnam veterans are eligible to receive compensation benefits [see 27 Sep 93 and 28 May 96]

**19 December** In Serbia, a court in Nis has just passed a 12-year jail sentence on Dr Flora Brovina, an Albanian paediatrician and writer, who now joins the estimated 1500 other Albanian political prisoners held in Serbia. In 1992 she had founded the League of Albanian Women in Kosovo to protest against Serbian rule and to provide humanitarian assistance to Albanian women and children. But what is thought to have first identified her to the Milosevic regime as an opponent is her doctoral dissertation: its subject had been the episodes apparently of mass poisoning that in 1990 had afflicted thousands of Albanian schoolchildren in Kosovo [see 9 Nov 91].

**20 December** In Spain, the king signs into law an act of 33 articles, Ley 49/1999, providing for the control of chemical substances applicable to the fabrication of chemical weapons. This completes the legislation implementing the CWC in Spain.

**21 December** In the United States, the *Seattle Post-Intelligencer* reports on the international bioweapons nonproliferation programme that has been running at the Energy Department's Pacific Northwest National Laboratory. Since 1997, groups of former Soviet BW researchers have been coming to PNNL for periods of several weeks to participate in what is conceived as an assistance programme enabling them to develop their skills for commercial or other non-BW application [see also 10 Dec].

**23 December** In Russia, Security Council Deputy Secretary Oleg Chernov states that the existing system of export controls guarantees that weapons of mass destruction will not proliferate from Russia. This he says at a meeting of the interdepartmental working commission for the non-proliferation of mass destruction weaponry, according to Itar-Tass quoting the Council's press service next day. The commission has been analysing implementation of the federal law *On Exports Control*. The news agency reports that the commission has "reaffirmed the need for the soonest amendments" to the Russian Criminal Code toughening the punishment for infraction of that law.

**24 December** In Japan the Cabinet approves the draft budget for the financial year that starts on 1 April 2000. The draft, which will now be debated in parliament, includes provision for a sevenfold increase over 1999 of programmes to counter nuclear, biological and chemical warfare: Yen 2.4 billion (\$21.6 million) is being sought for NBC-defence research and procurement.

**30 December** From Halabjah, in Iraqi Kurdistan, a joint memorandum of appeal is addressed to the Secretary-General of the United Nations and other figures of the international community by the Patriotic Union of Kurdistan and the Islamic

Unity Movement. The joint memorandum is also posted on the Sulaymaniyah *Al-Ittihad* website. It includes the following:

"Since the catastrophe [the CW bombardments of March 1988], Halabjah has made progress; its residents have returned in the aftermath of the mass uprising of March 1991 and have started their lives again amidst the debris of the destroyed town, hoping that the international community would view them, after the tragedy and the uncovering of the true face of the perpetrators, with compassion and responsibility and extend assistance to them, help them rebuild their town and heal their wounds.

"However, regrettably, the town of Halabjah and its suburbs are so far deprived from all that, with the exception of the preliminary reconstruction of some facilities in the town by its masses, the Kurdistan regional government and the area administration. However, the effects of the chemical bombardment, not cleaning the town, and the fact that the ruins of buildings which were destroyed are still there, in addition to lack of a medical centre and a hospital and negligence have contributed towards the exacerbation of the tragedy. All that [has] made the residents of Halabjah and its suburbs lose the hope of getting any reaction or assistance from any side, particularly since they have been for years conveying the ordeal of their town to the world as a whole, welcoming scores of concerned groups, organizations and prominent figures to the town and furnishing them with all the information.

"Therefore, from our podium, we convey to you again the outcry of Halabjah and its suburbs and remind you of the unhealed wounds of the residents of the town and the families of the victims of the chemical bombardment."

Specifically, the appeal asks that a second international conference, like that held four months previously in Cartigny [see 2–5 Aug], be convened in Halabjah, for which purpose it offers hospitality there on 16 March 2000; that the international community and human rights organizations "put pressure on the states and the sides which were behind that horrifying massacre [...] to get compensation from them in any form"; and that oil-for-food resources under UN Security Council resolution 986 (1995) "be allocated to the removal of the effects of destruction in the town and to the building of medical and service institution and centres".

**30 December** The US Department of Commerce Bureau of Export Administration and the US Department of State publish an Interim Rule establishing the *Chemical Weapons Convention Regulations* (CWCR) to implement provisions of the CWC that affect US industry and other US persons [see also 18 May and 17 Dec]. The CWCR had been published in draft some five months previously [see 21 July], and a summary of the comments received as well as commentary on the comments are now also published in the *Federal Register*. A further 30-day comment period commences pending finalization of the Interim Rule. Unless the Final Rule changes the 90-day reporting period, US industry now has until 30 March 2000 to submit the data that will enable the US CWC National Authority to prepare and transmit to the OPCW the US industry declarations required under the CWC. [Note: It will presumably take the US National Authority a good month to convert the industry-data submissions into the requisite national declarations. So the United States will finally be in compliance with the CWC on about the third anniversary of entry into force.]

**31 December** British journalist Damien Lewis publishes an account of the field-investigation into recent CW-use reports [see 23 Jul and 19 Aug; see also 7 Dec] he had led in southern

Sudan starting on 12 August. His account, published in *ASA Newsletter*, states that his team had taken samples of soil, water, vegetation and munition-fragments from an attack site in Lainya, and that, through a documented chain of custody, sample-sets had been delivered for analysis at CBD Porton Down in the UK and at VERIFIN in Helsinki. The results of the analyses are still awaited.

**1 January** In the United Kingdom, the new Joint Nuclear, Biological and Chemical Regiment [see 1 Apr 99] is now operational at RAF Honington, tasked to protect British military units serving overseas and to provide specialist capabilities at home, such as CBW-agent detection and identification, in the event of a terrorist incident. Formed mainly from 27 Squadron RAF Regiment and 1st Royal Tank Regiment following the 1997 Strategic Defence Review, the Joint NBC Regiment has a strength of some 300 personnel, likely to increase as the new Integrated Biological Detection System [see 9 Mar 99] enters service. It had conducted its first major exercise, Brave Guardian, on Salisbury Plain some three weeks previously.

**3 January** In Japan the government is planning to establish an advisory panel to study possible crisis-management mechanisms for coping with bioterrorism [see also 9 Dec 99], according to unidentified government sources quoted by Kyodo. The panel would advise the head of the Defence Agency, Tsutomu Kawara, and would include experts on infectious disease.

**4 January** In Angola the army announces the capture of 430 tons of war-fighting stores at Andulo three nights previously in an operation against UNITA forces. The stores included gas masks and protective clothing, gloves and boots. Asked whether UNITA had therefore been using chemical weapons, Army Colonel Cutavio says on national television: "In fact we already suspected in our operations in Calosinga [phonetic] region the presence of chemical elements and now we have proof that UNITA used those elements". [See also 26 Sep 99]

**4 January** At the UK Public Record Office in Kew, state papers of 1969 are now open for public inspection. In files CAB 128/44 and CAB 129/146, they include Cabinet papers on the question of the 1925 Geneva Protocol and the use in war of riot control agents.

**5 January** The Chechnya mission in Georgia distributes a statement by Chechen President Aslan Maskhadov in which he says he has called on Moscow to declare a three-day truce in Grozny, during 8–11 January. The mission says this is because "information has come to light about the Russian military's use of chemical weapons in Grozny" [see 5 Dec 99]. President Maskhadov has proposed that, during the truce, Russian and foreign experts should examine "material evidence of the Russian side's use of chemical weapons in the capital of Chechnya" [see also 9 Nov 99].

**6 January** In Texas, a 27-year-old medical technician, Steven Matthew Cutler, is arrested at his home in Lewisville, near Dallas, and charged with threatening to use a weapon of mass destruction. According to an FBI agent speaking to reporters, he is the first person to be charged with allegedly mailing something purported to be "anthrax". A federal indictment states that Cutler had mailed a vial labelled as containing anthrax that had been recovered by a bioterrorism task force and determined by the FBI to contain nothing more than water. The vial had apparently been mailed in December 1998, and a

second one had subsequently been found at a Dallas apartment complex.

**6 January** The New York outbreak of West Nile fever [see 3 Sep 99] had been investigated by the FBI and the CIA as a possible incident of terrorism, so US Assistant Health and Human Services Secretary Margaret Hamburg tells reporters shortly before addressing a conference on bioterrorism organised by the Reserve Officers Association. CIA spokesperson Anya Guilsher says: "There was an examination into whether the outbreak [...] might have been an act of terrorism. There was nothing that we found that would support that notion." At the time of the Gulf War, the virus that causes the disease had been listed among BW agents under development by Iraq in press-reporting of a CIA document.

**10 January** At UN headquarters in New York, the *International Convention for the Suppression of the Financing of Terrorism* [see 9 Dec 99] is opened for signature and will remain so until 31 December 2001. It will come into force once 22 states have ratified their signature of it. Today it is signed by seven states: Finland, France, Malta, the Netherlands, Sri Lanka, the UK and the USA.

**10 January** In Washington, the White House announces that the President's budget for FY 2001 is to include an extra \$20 million for development of the national disease surveillance system for rapidly detecting the cases of infectious disease that could signal the beginning of an outbreak. The FY 2000 budget of the Centers for Disease Control and Prevention already includes \$44.3 million for this programme, and will now increase by nearly 50 percent. The new budget will be submitted to the Congress in about a month's time.

**10 January** In Washington, at the Carnegie Endowment for International Peace, a workshop on *Bioterrorism in the United States: Calibrating the Threat* is convened as the first in a series by the Chemical and Biological Arms Control Institute, which describes the workshop as "part of a year-long study of bioterrorism that aims to develop a nuanced assessment of the threat of domestic bioterrorism which can serve as a basis for developing a public health and medical response". CBACI is engaged on such a study for the US Centers for Disease Control and Prevention. There are four panels of expert speakers, who address the questions: Who finds bioerrorism attractive? What BW agents should we worry about and plan for? How will a terrorist use BW agents? Where will bioterrorists attack?

**11 January** The Tooele Chemical Agent Disposal Facility (TOCDF) in Utah is once again [see 26 Nov 96] subject to whistleblowing, this time by Gary E Harris, who had worked at the chemdemil incinerator until 1996. At a press conference convened in Washington by the Chemical Weapons Working Group [see 7–17 Jun 99], he says: "Many questionable practices that were not environmentally protective, safe or legal occurred at Tooele during my five years of employment there, and many documents were submitted to Utah regulators by the Army and its contractors that were dishonest or misleading. As Permit Coordinator I was directed to submit modifications to the plant that did not comply with Federal law. I reported health, safety and environmental issues to the contractor and the Army which I was directed not to bring to the attention of the State under the threat of losing my job." He has sworn an affidavit in support of a legal challenge to the plant's hazardous-waste operating permit listing more than a hundred improper

activities. One of these allegations is that the Army exerted political influence to "fix" the Utah permit process, thereby concealing dangerous practices and evading public review and comment. Asked why he had delayed going public for five years he responds: "Well, five years ago with these problems, I was over 60, making a very good salary, and it's kind of difficult to go against your employment, knowing that you will lose your job if you do bring this stuff public. Following that, I thought I could deal openly and directly with the Army on these issues, and in the interim I found out I could not. I ran out of funds supporting my own medical care."

Neither the Army nor its prime contractor for the facility, EG&G Defense Materials Inc, immediately respond to the specific charges, instead issuing a coordinated statement expressing confidence that the allegations will be proved false. A local business halts scrap-metal processing of emptied shell-casings from TOCDF for fear that they may still be contaminated, as Harris had warned, with nerve gas.

**12 January** US medical preparedness for domestic use of weapons of mass destruction is addressed in the latest issue of *Journal of the American Medical Association*. A team of researchers led by Dr Anthony Macintyre of George Washington University analyses the principal problems confronting planning for an effective health-care-facility response to a WMD event, focusing on events that require decontamination of exposed persons. An accompanying editorial by Dr Joseph Waeckerle of the University of Missouri in Kansas City notes that an event involving biological weapons could have characteristics very different indeed from the familiar hazardous-materials model developed from chemical-accident experience to provide the standard planning framework for community response. The editorial also notes that most federal WMD preparedness funding has thus far been directed, quite rightly, to first-responders: firefighters and law enforcement. It is now time, the editorial argues, to incorporate the entire medical response system into the preparedness.

**13 January** In Sofia, the Bulgarian parliament passes legislation implementing the Chemical Weapons Convention, including the designation and empowerment of a CWC National Authority. Under the new *Prohibition of Chemical Weapons and Control of Chemical Weapons and their Precursors Act*, a State Commission for Control of Toxic Chemicals and Their Precursors is established under the Council of Ministers. Among the licensing and other control functions of this Commission is the receipt of information and other data from the Ministry of the Interior on the types and quantities of chemicals available in the country for the maintenance of law and order, including riot control agents.

**13 January** President Clinton certifies to the US Congress that, in connection with Condition 9 of the Senate resolution of advice and consent to US ratification of the CWC — the condition on *Protection of Advanced Biotechnology*, requiring annual certification [see 13 Jan 99] — "the legitimate commercial activities and interests of chemical, biotechnology, and pharmaceutical firms in the United States are not being significantly harmed by the limitations of the Convention on access to, and production of, those chemicals and toxins listed in Schedule 1 of the Annex on Chemicals".

**13 January** In Washington, the Special Assistant to the Deputy Secretary of Defense for Gulf War Illnesses, Dr Bernard Rostker, issues two new reports from OSAGWI investigations.



They are final versions of case narratives already issued as interim reports. One reaffirms the conclusion that it was “unlikely” that chemical agents had been released during the aerial bombardment of the An Nasiriyah Southwest Ammunition Storage Point [see 4 Aug 98] in February 1991 or during subsequent US demolition operations there.

The second final report concludes that “chemical warfare agent was definitely not involved” in an incident at Camp Monterey, Kuwait [see 22 May 97]. This location had been a Kuwaiti brigade headquarters prior to the Iraqi invasion of Kuwait, after which it had served as an Iraqi corps headquarters. On 14 September 1991, a US unit was removing from a basement area wooden crates containing canisters, one of which broke open to release its chemical contents, which thereupon made several soldiers sick with characteristic signs and symptoms of exposure to tear gas. But an MM-1 mass-spectrometer mounted on a Fox NBC reconnaissance vehicle alerted for GF nerve gas. Subsequent completion of the spectral analysis, however, confirmed a strong presence of irritant agent CS, as did additional inquiries later on. [Note: The report does not indicate how it concluded so definitely that the CS was not a chemical warfare agent. Maybe OSAGWI considered this to be self evident, for some US officials still hold to the mistaken view that a chemical which is used for riot control cannot, for that reason, ever be a chemical-warfare agent.]

**13 January** The US Defense Department announces the second phase of its preparedness programme for aiding the civil power in the event of the country being attacked with weapons of mass destruction [see 17 Mar 98]. Defense Secretary William Cohen states in a press release that 17 additional WMD Civil Support Teams (formerly called Rapid Assessment and Initial Detection — RAID — teams) are to be established, bringing the total up to 27. Each team will continue to comprise 22 fulltime National Guard members equipped and trained to “deploy rapidly, assist local first responders in determining the nature of an attack, provide medical and technical advice, and pave the way for the identification and arrival of follow-on state and federal military response assets”. The Assistant Defense Secretary for Reserve Affairs, Charles Craigin, tells reporters that the first ten teams have just completed their initial training. He explains that command and control authority over each team rests with its state governor — in contrast to the federal response teams of the Department, which are the Army’s Technical Escort Unit and the Marine Corps Chemical/Biological Incident Response Force (CBIRF).

It had earlier been announced that the 373-member CBIRF would be relocating from Camp Lejeune, North Carolina, to a military base in suburban Maryland, the Indian Head Naval Surface Warfare Center, so as to enhance WMD-response capacity in the Washington DC area.

**14 January** In Delaware, at Dover Air Force Base [see 5 May 99], Major Sonnie Bates [see 12 Oct 99] is charged with refusing to obey a lawful order in that, on 3 December, he had refused to be injected with anthrax vaccine in accordance with the forces-wide Anthrax Vaccine Immunization Programme [see 13 Dec 99]. He is the most senior active-duty officer among the 320 armed-service personnel who have thus far refused AVIP. Some 391,500 persons have been inoculated under the programme.

**14 January** In Wisconsin, 23-year-old Micky Sauer is charged with mailing a threatening communication, having

been arrested in Kenosha after FBI agents retrieved from a mailbox an envelope they had watched him posting. This past week 14 threatening communications postmarked Milwaukee have been received by mail at abortion clinics and other locations in eastern Wisconsin, which is a pattern once again being replicated nationwide. An FBI affidavit states that the Milwaukee communications “contain threats that there is Anthrax contained on the paper or in the envelope containing the communication. A typical sample of the threat contained in these letters is as follows: ‘This is Anthrax and you will die. Have a happy death’.” The affidavit also states that the handwriting in these communications was similar to that on the retrieved envelope. None of the communications in fact contained anthrax bacteria.

US authorities responded to more than 200 such threats involving CBW agents during 1999 and all of them turned out to be hoaxes, so *WorldTribune.com* reports [see also 11 Nov FBI]. A spokesperson for the US Centers for Disease Control and Prevention, Tom Skinner, tells the *Hartford Courant* that no anthrax threat in the United States has ever turned out to be real, but each one must nevertheless be taken seriously.

**17 January** The EU is seeking clarification of the declaration made by Sudan when it acceded to the CWC [see 24 May], so the UK House of Commons learns from the Foreign and Commonwealth Office.

**17 January** In Geneva, the Ad Hoc Group of states parties to the Biological Weapons Convention reconvenes [see 22 Nov–10 Dec] for its eighteenth session of work on the projected BWC Protocol. Participating are 52 states parties and one signatory state. The session is due to end on 4 February. The next one is scheduled for 13–31 March. [For further details, see *Progress in Geneva* above.]

**17 January** In London, the opening in Geneva of the eighteenth session of the BWC Ad Hoc Group, is marked with publicity about the nature of US participation in the BWC Protocol negotiation. “International efforts to outlaw biological weapons will enter a crucial stage today amid mounting pressure on the US to drop objections to effective verification measures”, writes the *Guardian* newspaper. “The US has paid little attention to the [EU] proposals, mainly, say European sources, because of objections by American biotechnology and pharmaceutical industries to on-site inspections. They claim they need protection for reasons of commercial confidentiality. [...] Independent US experts familiar with the negotiations say that privately the industry would be prepared to cooperate if forced to do so but is hiding behind the Clinton administration’s apparent indifference.” The newspaper also reports International Security Information Service Director Stephen Pullinger saying that the Geneva talks would be “a test of US commitment to an effective treaty-based non-proliferation regime”. In the House of Commons next day, Foreign & Commonwealth Office Minister of State Peter Hain says “[W]e are putting major effort into the negotiations at Geneva to agree a satisfactory verification protocol to the treaty. [...] We want those negotiations to be brought to a successful conclusion by the summer.” To this end he would himself be visiting Geneva in March. In the House of Lords soon afterwards, another government minister, Baroness Scotland of Aghal, says: “The UK is playing a leading role in the negotiations, where we are responsible for compliance measures — the core of the future protocol. We hope to see substantive progress towards completion by the end of 2000. [...] We are very close to a mature protocol with which our partners will feel happy.

Challenges remain and they are well-known, but we are optimistic that they may be able to be overcome by the end of 2000." She reaffirms the UK offer [see 22 Jun–10 Jul 98] to host the BWC Protocol signing ceremony in London.

**17 January** In the United Kingdom, Sir Richard Scott, who had headed the 1992–96 judicial inquiry into the export of defence equipment and dual-use goods to Iraq during its war with Iran, deplores the continuing failure of the UK government to implement key recommendations from the inquiry [see 15 Feb 96], especially the recommendation that new legislation be introduced to modernize the basis for the country's export controls. He says on BBC radio: "I said in my report I thought it was extraordinary and quite unacceptable that for so long emergency legislation, brought into being with the view to the emergence of World War Two, should still be relied on". Although the government has issued a consultative White Paper [see 1 Jul 98], it has no plans, so the *Guardian* now reports, to include the recommended legislation in its existing legislative programme.

**17–25 January** In Ypenburg, at the Netherlands Defence College, an advanced course for personnel involved in the implementation of the CWC is given by the OPCW Technical Secretariat. It is intended for people who have either already attended a basic course for National Authority personnel [see 7–15 Jun 99] or who have been involved in national implementation work for at least a year.

**18 January** In Japan the apocalyptic cult responsible for releasing sarin nerve-gas in Matsumoto and Tokyo announces that it is changing its name from Aum Shinrikyo to Aleph, which is the name of a company it had set up in Tokyo in September 1994 for real-estate broking, financing and the convening of seminars. It also declares that it is renouncing its leader, Shoko Asahara, whose trial on murder and other charges continues [see 2 Dec 97], and that it is purging itself of doctrine that condones murder for the benefit of the cult. It says that Aleph will liquidate the substantial assets of Aum Shinrikyo and use the proceeds to compensate its past victims, some 1136 of whom have thus far claimed compensation.

**18 January** In the United Kingdom, the former Defence Ministry establishment at Nancekuke in Cornwall, where there were once plans to build a sarin nerve-gas factory, is the subject of an adjournment debate in the House of Commons instigated by the local Member of Parliament, Candy Atherton. She is seeking a government inquiry into past operations at Nancekuke and their possible effect on the health of her constituents. There have recently been reports in the media of abnormally high morbidity and mortality rates among past Nancekuke workers. During the debate, Ms Atherton also refers to local stories that equipment from the establishment, including material from its nerve-gas pilot plant, had been dumped down disused mineshafts during the decommissioning period that followed the decision, taken in 1976, to transfer the work of the facility elsewhere. Armed Forces Minister John Spellar, responding, speaks of a lack of statistical robustness in the available data on the health of former Nancekuke workers, but confirms the mineshaft burial of equipment, saying, however, that recent land and water quality assessments have shown no signs of contamination by toxic agents. Similar assurances are given in Ministry responses to subsequent parliamentary questions, but these prompt Ms Atherton to seek an inquiry by the Environment Agency.

**18 January** The US Defense and Veterans Affairs Departments are continuing to seek the participation of sick Gulf War veterans in nationwide trials of two medical treatments for unexplained Gulf War illnesses. The trials began in Spring 1999. One, the EBT study, has a rehabilitative rather than a curative focus, studying whether aerobic exercise and cognitive behavioural therapy can do any good. The other trial is testing the idea that sick veterans who test positive for *Mycoplasma fermentans incognitus* will improve after antibiotic treatment with doxycycline [see 9 Mar 97].

**19 January** In Indonesia, the *Jakarta Post* publishes a letter asking why, in mid-1997, members of the Army's special force Kopassus had participated in a US Defense Department NBC training course.

**19 January** At Harvard University, in the Belfer Center for Science and International Affairs, the acting Executive Chairman of UNSCOM in its final months, Charles Duelfer, speaks on *The Death of UNSCOM* at a session of the HSP Cambridge CBW Colloquium.

**19 January** Over the Pacific, a US missile interceptor launched from Kwajalein Atoll fails to destroy the warhead of a Minuteman ICBM launched from Vandenberg Air Force Base, 6900 km away in California.

**20 January** In Seoul there are talks between Chinese Defence Minister Chi Haotian and his South Korean counterpart Cho Song-tae. The agenda includes an item on CBW.

**20 January** The Islamabad English-language newspaper *The News* reports that "Pakistani military experts and defence analysts are growing wary of the continuous Indian research and development in the field of chemical weapons in violation of the Geneva Convention, the UN Charter and the Chemical Weapons Convention". Sources are not identified either for this allegation or for the other tales the newspaper goes on to relate — for example: "According to The News sources, there is compelling evidence that the Indians supplied the war gas [phosgene] from the Bhopal Plant to Iraq and, by this act, the Indians confirmed the effectiveness of this weapon during the Gulf war". The article also asserts that India used chemical weapons during the recent Kargil crisis [see 26 May 99] to cause "heavy casualties over large areas without putting much strain on its ammunition-starved supply routes" and would have used more such weapons had those supply routes not been "under heavy fire by the Mujahideen". The article closes thus: "Emphasising the need for protective measures, the sources said that in order to perfect countermeasures against this deadly kind of warfare, it would be important for Pakistan to acquire significant offensive and defensive capabilities. This should also be supported by realistic training, adequate medical facilities, quick decontamination methods, better gas masks and early warning systems to deter the Indians from use of such weapons in future, the sources added."

[Note: One may think that this type of inflammatory and mendacious press reporting is inevitable under the conditions of non-transparency that afflict the OPCW in the conduct of its business.]

**20 January** In Moscow, the visiting Foreign Minister of Italy, Lamberto Dini, and his Russian counterpart Igor Sergeevich Ivanov sign an agreement whereby Italy will provide Lira 15 billion (\$8.3 million) in assistance to build the infrastructure necessary for the planned destruction of Russian chemical

weapons at Kizner in the Udmurt Republic [see 16 Mar 99] during 2000–2002. Acting President and Russian Prime Minister Vladimir Putin signs a Russian government resolution on 28 January approving the agreement. Itar-Tass reports that the Italian chemdemil assistance is to be provided in three annual instalments of 5 billion lira each, to be “channelled to the design and construction of facilities of gas, water and power supply infrastructure deliveries of sanitary equipment and monitoring of the environment”.

**20 January** The UK Ministry of Defence releases three further papers relating to Gulf Veterans’ Illnesses [see 7 Dec 99 UK]. *Implementation of the Immunisation Programme against Biological Warfare Agents for UK Forces during the Gulf Conflict 1990/1991* details the use of vaccines against anthrax and plague, the policy underlying the programme, and its administration. *A Review of the Suggested Exposure of UK Forces to Chemical Warfare Agents in al Jubayl on 19 January 1991* is the second to be published of three highly detailed reviews of specific events during the Gulf War when chemical alarms reportedly sounded. It complements a US review of the same episode [see 12 Aug 97] and concludes that the alarms were probably false and that UK troops were almost certainly not exposed to Iraqi CW agents. The third paper is a response to an independent audit of the Ministry’s Gulf Veterans’ Medical Assessment Programme accepting all of the auditor’s recommendations.

The Ministry also responds to a Parliamentary question on whether its assessment of the possible role of organophosphates (OPs) in Gulf War illnesses [see 28 Oct 97] had been affected by the recent Institute of Occupational Medicine report on the relationship between OP sheep-dips and illness in exposed sheep farmers or by the Committee on Toxicity report on OPs [see 25 Nov 99]. It says: “The case for ill-health effects resulting from long term low level exposure to OPs remains unproven and there is currently no reason to believe that Gulf veterans who might have been in casual contact with dilute pesticide [...] are at increased risk of long term ill-health”.

**20 January** The UN Security Council is addressed by US Senator Jesse Helms, chairman of the Senate Foreign Relations Committee. His final words epitomise the address: “If the United Nations respects the sovereign rights of the American people, and serves them as an effective tool of diplomacy, it will earn and deserve their respect and support. But a United Nations that seeks to impose its presumed authority on the American people without their consent begs for confrontation and, I want to be candid, eventual US withdrawal.” Senator Helms also offers this: “The sovereignty of nations must be respected. But nations derive their sovereignty — their legitimacy — from the consent of the governed. Thus, it follows that nations can lose their legitimacy when they rule without the consent of the governed; they deservedly discard their sovereignty by brutally oppressing their people.”

**20 January** President Clinton proclaims January 2000 to be National Biotechnology Month. His proclamation speaks of the enormous potential of biotechnology in medicine (“a third of all new medicines in development are based on biotechnology”), in bioremediation, in agriculture, in paper and chemicals manufacture, in forensic technology and in beneficial economic impact — stimulating the creation and growth of small businesses, generating new jobs and encouraging agricultural and industrial innovation. It says that the industry is currently

investing nearly \$10 billion a year in research and development. The proclamation goes on to describe the lengths to which the administration has gone to promote biotechnology in the United States. [Note: Nowhere does the proclamation refer to the downside of this pre-eminently dual-purpose technology. It makes no mention of the potential of the BWC Protocol for protecting biotechnology from abuse.]

**21 January** In Paris, an international conference on *Biological Proliferation: Evaluation and Responses* is organised by the Fondation pour la Recherche Strategique in association with the French Defence and Foreign Ministries. There are more than 70 participants including people from the pharmaceutical and agro-alimentary industries, BWC Ad Hoc Group Chairman Tibor Tóth and several Friends of the Chair.

**23 January** North Korea has conducted major NBC warfare exercises in Yangdeok-Gun every December since 1990, according to South Korean military authorities speaking to the Seoul *Chosun Ilbo*, which also states that these exercises have used real CBW weapons.

**24 January** In The Hague, further to a request by the OPCW Conference of the States Parties at its fourth session [see 28 Jun–2 Jul 99], there is a meeting of experts at OPCW headquarters to examine the recommendations on ricin, on “production by synthesis”, and on the salts of scheduled chemicals put forward by the Scientific Advisory Board during its second session [see 21–23 Apr 99]. The experts concur only with the ricin recommendation (to the effect that castor-oil plants should not be subject to CWC reporting procedures because the ricin present is destroyed, not isolated). They disagree with the other two recommendations. Their report is to be considered by the OPCW Executive Council at its nineteenth session, in April.

**24–28 January** In Pretoria High Court the Basson trial [see 26 Nov–1 Dec] resumes. The following report and commentary on the proceedings has been provided from the Chemical and Biological Warfare Project of the Centre for Conflict Resolution:

“After a seven-week recess, the trial [resumed]. [...] Forensic auditor Hennie Bruwer was the first witness. Bruwer is expected to give evidence in chief for at least two weeks on the 400-page report he compiled following a six-year probe into alleged financial irregularities under the aegis of Project Coast. Bruwer’s report is supported by documents relating to the companies allegedly established by Basson.

“Bruwer told the court that investigators recovered evidence from American lawyer David Webster’s office, despite the normal client-attorney privilege rule, and notwithstanding attempts by Webster, through the American courts, to prevent them gaining access. Details of these court actions were not provided. The American courts decided in favour of the investigation team and compelled Webster to open his files. Many of the documents retrieved contain notes and instructions in Basson’s handwriting, and appear to be explanatory and briefing notes to Webster during legal consultations regarding the establishment companies.

“Bruwer said that he had found that many of the companies allegedly established by Basson were used solely as a conduit for the transfer of funds and had no assets. It was claimed that Basson was a shareholder in all the companies listed in the indictment.

“An unsigned document, found in Webster’s files, providing the background to the WPW Group of companies was presented in court. The document states that the WPW group

was tasked by the Southern African Health Authorities with the establishment of clinics in a number of African countries. It also states that the group was involved in drug development. The report indicates that WPW had interests in the following areas: (1) Medical and pharmaceutical development. (2) Data Management and Systems Development (in this regard mention is made of Data Image Pty Ltd, the company referred to in the 1998 TRC hearing into chemical and biological warfare as being responsible for capturing all technical project information on optical disk). (3) Aviation. (4) Financing and Investments. (5) Property Investments. (6) Leisure related activities. (7) Trading (including close trading links having been developed with North African countries).

"Notes, handwritten by Basson found in David Webster's possession, relating to off-shore companies and companies registered in South Africa were entered into the record.

"Documents found by Bruwer indicate that on October 29, 1989, before the privatization of Delta G Scientific was completed in August 1991, Medchem Consolidated Investments held 75% of the Delta G shares, reduced to 51% on completion of privatization. How MCI came to be the majority shareholder in a declared SADF front company six months before the April 1990 launch of the privatization scheme has not yet been explained.

"Another note breaks down the shareholding of Protechnic as follows: 55% WPW Investments, 30% Charburn, 15% Jan Lourens. Lourens is named as the MD with Bernard Zimmer, Wynand Swanepoel and P W de Jager as directors. There is an additional note which says: NB: Wouter Basson owns one third of Charburn. Bruwer testified that the shareholding of Protechnic changed several times. He could not establish whether or not the proposed merger took place, but confirmed that Protechnic was subsequently sold to Armscor.

"Bruwer testified that the Jetstar (which the defence claimed last year had been purchased with funding transferred to a European account from Project Coast and earmarked for the purchase of the peptide synthesizer) was sold in December 1995 (three years after Basson was asked to resign from the military and two months after his reappointment to the SADF) for US\$ 2 million, through David Webster. Bruwer found no evidence of a connection between the Jetstar and the peptide synthesizer deal.

"Throughout the week the structure of the companies mentioned in the indictment and financial transactions in which these companies were involved was dealt with in great detail. The prosecution presented documents and statements by directors of the companies to support the documentation. On Tuesday the defence lodged an objection, pointing out that the Bruwer report is based on hearsay (in respect of statements taken from Zimmer, Van Remoortere, Antoinette Lourens and Webster, amongst others) and that the prosecutor would be compelled to call these people as witnesses if the defence were to accept the supporting documents. Otherwise, the defence warned, all the documentary evidence will be inadmissible. The defence had agreed that the documents be presented during Bruwer's testimony on condition that the State prove their authenticity by means of testimony from the parties directly involved. The defence said that until this was done they would dispute every document. On Friday the court was informed by the prosecution that key witnesses were not prepared to come to South Africa to give evidence and that international judicial channels would have to be pursued.

"Much of Tuesday's evidence involved the perusal of the exchange of correspondence between Basson and Webster regarding fund transfers and the establishment of companies.

"On Wednesday 26 January Bruwer testified that he had discovered a deposit, on June 16, 1989, of £22,101 into an account at Bank Indosuez, Luxembourg, held in the name of Wouter Basson, on which he and his wife at the time, Claudine van Remoortere, both had signing powers. This is the first time testimony has been presented to indicate that funds were placed in accounts held by Basson personally. Bruwer alleged that the money formed part of the R5.5-million transferred from Project Coast in April 1988 to what was believed to be the Luxembourg account of ABC Import/Export, and which Basson claims was used to pay for the 25 Chemical Agent Monitors bought in two batches by Aubin Heyndrickx and Roger Buffham, and the 150 portable field detection kits.

"During the detailed examination of the flow of funds, the defence indicated that there was no intention on their [part] to dispute the flow of funds, merely the purpose thereof, and that detail of the type entered into was therefore unnecessary. Justice Hartzenberg responded by supporting the defence and instructed the prosecution to confine itself to the report prepared by Bruwer and not to deal with the supporting documentation unless absolutely necessary. The Judge made it clear that the matter in dispute is whether Basson had acted in accordance with his military orders.

"Bruwer testified that the funds referred to [in] the first charge against Basson were not used for the benefit of Project Coast. He said that he could find no evidence of delivery of any scientific equipment, despite assurances given to the Office for Serious Economic Offences by both the former Project Manager, Gen Knobel, and project external auditor Pierre Theron that this is what the funds were used for. Bruwer claims to have established that neither the auditor Pierre Theron nor Brigadier Hein Pfeil of Chief of Staff Finance made any attempt to verify the purchase or inspect the merchandise.

"Evidence presented by Bruwer on Thursday indicated that WPW Investments Inc had several accounts. One, opened in London in 1989, gave individual signing powers to Basson and David Webster. Bank documents show that the beneficial owner of all assets deposited in the account is Mr Wouter Basson, Pretoria, SA. Evidence was also presented that WPW had a US dollar account and another specifically for Hong Kong dollars at Credit Suisse in Zurich.

"The case will continue next week with the testimony of Bruwer".

**26 January** In Russia, General Yuri Kalinin, the general director of Biopreparat [see 4 Jun 99], which has now been reorganised as a state-owned pharmaceutical company, is quoted by *Izvestiya* as rejecting a recent report in the *New York Times* suggesting that Biopreparat is still developing bioweapons under cover of medicament manufacture: "There is not a single true word in this article. [...] We develop countermeasures to biological armament, not such armament." The *Times* article had also stated: "In response to American protests in 1992 over Russia's germ warfare activities, Boris N Yeltsin, then the Russian president, assured Washington that he had ended his country's germ warfare program [see 1 Feb 92]. He also promised to dismiss General Kalinin as Biopreparat's director. But for unknown reasons he was unwilling or unable to fulfil that pledge."

**26 January** The UN Secretary-General appoints Dr Hans Blix, formerly head of the IAEA and before that Foreign Minister of Sweden, to be Executive Chairman of the UNSCOM-follow-on organization, UNMOVIC [see 17 Dec 99]. Only on his name among the 25 nominees put forward by the Secretary-General could all 15 members of the Security

Council achieve agreement. Iraqi Deputy Foreign Minister Nizar Hamdoun says next day on Radio Monte Carlo that Dr Blix "may be a compromise candidate for Security Council members, but Iraq is not concerned with the compromise [...] We have major reservations on the Security Council resolution, its conditions and its ambiguity".

**26 January** In the United Kingdom the government is asked in the House of Lords whether they will now press the United Nations to authorise an independent expert epidemiological investigation into the reported increase in birth deformities, leukaemia and cancer in southern Iraq. The response is as follows: "Officials from the Department for International Development have been in discussion with the World Health Organisation (WHO) concerning possible projects to improve epidemiological surveillance in Iraq, to establish links between medical teaching institutions in Iraq and similar institutions outside Iraq, and to improve Iraq's cancer registration system. It is now understood that the Government of Iraq has now approved these projects and WHO will shortly be requesting funding from governments. Her Majesty's Government will consider this very carefully when it is received."

**26 January** The UK government again rejects the call by the Royal British Legion for a public inquiry into the undiagnosed illnesses of Gulf War veterans and into the manner in which these veterans have been treated [see 20 Jan]. Baroness Symons of Vernon Dean tells the House of Lords that a public inquiry will simply not be able to answer the question of why the veterans are ill, and their treatment is currently being investigated by the House of Commons Defence Select Committee, to which, on 15 December, the Defence Ministry had submitted a memorandum on the subject.

**26 January** US Director of Central Intelligence George Tenet is today scheduled to testify before the Senate Intelligence Committee on *The Worldwide Threat in 2000: Global Realities of Our National Security* but a snowstorm forces postponement of the hearing. His prepared statement, as later made available, addresses CBW in a number of contexts.

One such context is the growing availability of dual-use technologies: "The dual-use dilemma is a particularly vexing problem as we seek to detect and combat biological warfare programs, in part because of the substantial overlap between BW agents and legitimate vaccines. About a dozen countries either have offensive BW programs or are pursuing them. Some want to use them against regional adversaries, but others see them as a way to counter overwhelming US and Western conventional superiority."

Another context is terrorism: "Although terrorists we've preempted still appear to be relying on conventional weapons, we know that a number of these groups are seeking chemical, biological, radiological, or nuclear agents. We are aware of several instances in which terrorists have contemplated using these materials. Among them is Bin Ladin, who has shown a strong interest in chemical weapons. His operatives have trained to conduct attacks with toxic chemicals or biological toxins. HAMAS is also pursuing a capability to conduct attacks with toxic chemicals."

Some days previously, CIA Deputy Director for Intelligence John McLaughlin had said in interview that there are 16 or 17 countries developing biological and chemical weapons that the CIA watches closely.

**27 January** In Geneva, during the eighteenth session of the BWC Ad Hoc Group [see 17 Jan], a further [see 25 Nov 99]

briefing for delegations is provided by the Quaker United Nations Office in conjunction with the University of Bradford Department of Peace Studies at which a new Bradford briefing paper on *Strengthening the Biological Weapons Convention* is presented by its author, Graham Pearson of the University of Bradford: *The BTWC Protocol: Improving the Implementation of Article III of the Convention*. Also presented, by his co-editor in the series Malcolm Dando and himself, are three new evaluation papers in the other Bradford series, *The BTWC Protocol*. The first two — on *Article XIV: Amendments* and on *Article VI: Assistance and Protection* — are jointly authored by Graham Pearson and Nicholas Sims of the London School of Economics. The third, on *Article IX: The Organization*, has a third author as well, namely Ian Kenyon, a Visiting Fellow in the University of Southampton Department of Politics, formerly Executive Secretary of the OPCW Preparatory Commission. The briefing is attended by 48 people from 24 delegations.

**27 January** President Clinton refers to CBW in his State of the Union Address to Congress. He says that the threat of terrorism must be met by, among other things, "increasing our preparedness against chemical and biological attack". In contrast to an earlier Address [see 27 Jan 98], he makes no mention of the BWC Protocol negotiation.

**27 January** The US National Academy of Sciences announces publication of the fourth and last report by its Institute of Medicine and its National Research Council in the series *Strategies to Protect the Health of Deployed US Forces* commissioned by the Defense Department [see 30 Nov 99].

**27 January** In Alabama, a centre for training emergency medical personnel in the treatment of victims of chemical terrorism opens near Anniston on the site of an old Army hospital, next to the US Justice Department's new antiterrorism school for law-enforcement officers and first responders [see 30 Sep 99]. It is the first such federal medical training centre.

**28 January** The US Director of Central Intelligence transmits to the Congress his latest 6-monthly report on the acquisition by foreign countries of dual-use and other technology applicable to weapons of mass destruction, as required under Section 721 of the FY 1997 Intelligence Authorization Act [see 9 Feb 99]. Prepared by the DCI Nonproliferation Center and coordinated throughout the US intelligence community, an unclassified version covering the period 1 January through 30 June 1999 is soon afterwards posted on the internet. Much of what it says on chemical and biological matters simply repeats what earlier reports in the series had said.

The report concludes with this observation: "As in previous reports, countries determined to maintain WMD programs over the long term have been placing significant emphasis on insulating their programs against interdiction and disruption, trying to reduce their dependence on imports by developing indigenous production capabilities. Although these capabilities may not always be a good substitute for foreign imports — particularly for more advanced technologies — in many cases they may prove to be adequate."

**29–30 January** In The Hague, at the Netherlands Institute for International Relations 'Clingendael', the Netherlands Foreign Ministry convenes a seminar, *Strengthening the BTWC*, on the recruitment, training and operation of the future inspectorate to be established by the BWC Protocol. Participating are BWC Ad Hoc Group delegates or other governmental officials from Argentina, Australia, Austria, Brazil, Bulgaria, Canada, China,

Cuba, the Czech Republic, Finland, France, Germany, Hungary, India, Indonesia, Iran, Italy, Japan, Malaysia, Mexico, the Netherlands, Norway, Pakistan, Panama, Peru, Poland, Romania, Russia, Slovakia, South Africa, South Korea, Spain, Sweden, Switzerland, Turkey, Ukraine, the UK and the USA, plus individuals from NGOs. The co-chairs are UNIDIR Director Patricia Lewis and Clingendael Deputy Director Marianne van Leeuwen. The speakers include people from the OPCW Technical Secretariat, the IAEA and CEFIC, and also Dr Graham Pearson.

**30 January** In Jordan, alleged associates of Osama bin Laden were arrested in December and are now reported by *Newsweek* magazine, citing "two knowledgeable US sources", to have been preparing to use poison-gas bombs in an attack on American and Israeli tourists.

**31 January** In Russia the Ministry for Emergency Situations announces that it is planning to inspect chemical-weapon ocean-burial sites for possible impacts on marine ecology. Such sites exist in the Baltic, the White, the Black and the Barents seas, and along the far-eastern coast of Russia.

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## Forthcoming events

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The nineteenth session of the OPCW Executive Council will be held in The Hague on 4–7 April, with subsequent sessions during 27–28 June, 3–6 October, and 5–8 December.

A symposium on *Biological Weapons and Bioterrorism*, open to the public, will take place at the US National Academy of Sciences, Washington, DC, on 2 May, 2–5 pm.

The Fifth Session of the OPCW Conference of the States Parties will take place in The Hague during 15–19 May.

In Lyon, during 18–19 May, there will be a conference on *Emerging Diseases and Bioterrorism* sponsored by the Fondation Marcel Mérieux, the Haut Comité

Français pour la Défense Civile and the École du Service de Santé des Armées.

In Piestany, Slovakia, during 17–21 May there is to be a NATO Advanced Research Workshop on *Maximizing Security Benefits from Technical Cooperation in Microbiology and Biotechnology*.

The *CWD2000 International Chemical Demilitarization Conference* will be held in The Hague on 22–24 May.

*NBC2000, A Symposium on Nuclear, Biological and Chemical Threats in the 21st Century* will take place during 13–15 June at the Helsinki University of Technology. Enquiries about participation to Dr Katri Laihia, e-mail: laihia@cc.jyu.fi, fax: \*\*358-14 602 501.

The twentieth session of the BWC Ad Hoc Group will be held in Geneva during 10 July–4 August, with the next scheduled for 13–24 November and the possibility of a further two-week session interposed between the two.

The EXPO2000 *Second International Symposium on Destruction of Chemical Weapons* will be held in Munster, Germany, during 30 July–3 August. Enquiries to fax: \*\*49-5192 136508, e-mail: volkerstarrock@bwb.org

A Wilton Park conference *The Growing Danger of Biological Weapons* will take place at Wiston House, England during 29 September–1 October 2000. Enquiries to: fax +44 1903 814217 or heather.ingrey@wiltonpark.org.uk

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## **Chemical Weapons in the Twentieth Century**

The turn of the century appears a good time for a review of how the chemical weapons problem has developed over a hundred years. Ian Kenyon, a member of the HSP Advisory Board, has produced a paper with the above title which is primarily intended for use in briefing newcomers to the subject such as officials newly posted into a job in arms control or students entering courses on International Relations. The paper, which is a little under 15,000 words in length, covers the nature of the weapons themselves; the history of their use from the First World War to the Tokyo Subway; and attempts at their control from the 1899/1907 Hague agreements to the 1993 Chemical Weapons Convention. In the case of the CWC some detail is provided on the provisions; how they came to be the way they are; and the experience of bringing them into force and applying them. It closes with brief conclusions about what has been achieved and what remains to do. The paper will be published in the June issue of the *Bulletin*, displacing the News Chronology.

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*The CBW Conventions Bulletin* (formerly the *Chemical Weapons Convention Bulletin*) (ISSN 1060-8095) is edited and published quarterly by the Harvard Sussex Program on CBW Armament and Arms Limitation. The goal is to provide information and analysis towards an effective multilateral treaty regime which will eliminate chemical and biological weapons and help prevent the exploitation of biomedical technologies for hostile purposes. The Harvard Sussex Program is supported by American and British charitable foundations, including the John D and Catherine T MacArthur Foundation, the W Alton Jones Foundation, Carnegie Corporation of New York and the Joseph Rowntree Charitable Trust.

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