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US POLICY AND THE BWC PROTOCOL

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When President Nixon unilaterally renounced all biological and toxin weapons, in 1969 and 1970, he also announced US support for the British proposal for an international ban. This led to the completion, in 1972, of the Biological Weapons Convention (BWC). Since that time, under presidents Reagan, Bush Sr and Clinton, there has been bipartisan US support for strengthening the Convention. Under the previous Bush Administration, the United States participated in a study of potential verification measures known as VEREX, carried out by experts from the BWC parties, which issued a positive report. A series of international steps, begun in 1986, have brought us close to the goal of a legally-binding compliance regime for the BWC, as represented by the Chairman's draft Protocol text presented to the Ad Hoc Group of the BWC States Parties in April.

Throughout the six years of Protocol negotiations, however, virtual deadlock in the inter-agency process prevented US leadership and greatly limited US contributions. With each agency most interested in protecting its own turf, there has been no participant who has had both the vision and the political authority to insist on the public interest. It is one of the weaknesses of US government that such bureaucrats endure regardless of the party in power. Only high-level determination, like that of George Bush Sr to complete and sign the Chemical Weapons Convention (CWC), will override these narrow perspectives. Informed oversight by the legislative branch could also play an important role.

Consequently, at the Protocol negotiations the ball has been carried by US allies, particularly the United Kingdom, which served as Friend of the Chair for Compliance Measures. The UK has devoted great effort to research and develop an effective compliance regime and has subsequently secured the support of the entire European Union. The proposals have been applauded by many outside experts. If the Western Group had stood solidly behind the original British contributions to the rolling text, we would have a much stronger Chairman's Protocol text now. But US objections forced continual weakening of the text, and the obvious split between the US and the majority of the Western Group prevented the West from negotiating from strength with other Groups.

The Politics of the Chairman's Protocol Text US objections to the strong Protocol measures originally advocated by US allies centered around the criteria for declaration of biological defense facilities. This year, new objections were added, including opposition to declaration of non-governmental production facilities. Once US objections were known, it became impossible to reach consensus on anything stronger. Incorporation of US demands in his compromise text left the Chairman in a weakened position to deal with the opposition of other countries to more effective measures. Many US allies consider the Chairman's text to be the best that can now be achieved. At the same time, they consider it the bottom line and want no further compromises. Moreover, the negotiators are close to the end of their patience and US allies may well see no point in continuing to spar unproductively with the United States.

Endangering the International Norm against Biological Weapons Unless the remaining four weeks of negotiation in July and August put agreement within reach, there is sure to be a contentious row at the fifth BWC Review Conference in November, with quite likely a lack of agreement on what to do next. The United States is certain to receive most of the blame. It led the chorus in citing the danger posed by such weapons; if the United States turns down an international step toward prevention that is almost within our grasp, it will signal to potential violators that the international community is not prepared to enforce the ban on biological weapons. As citizens of the lone superpower, Americans would be a prime target if these weapons were used either strategically or as an instrument of terror. Even without use, the proliferation of biological weapons entails

<i>Invited Article by Barbara Rosenberg</i>	1-3
<i>Progress in The Hague: 34th Quarterly Review</i>	3-15
<i>Progress in Geneva: 15th Quarterly Review</i>	15-30
<i>Proceedings in South Africa: 5th Quarterly Review</i>	30-33
<i>News Chronology February-April 2001</i>	33-58
<i>Recent Publications</i>	58-60
<i>Forthcoming Events</i>	60

a serious risk of escape and the possible establishment of new and uncontrollable diseases in the biosphere. There are no military weapons that can “take out” an emerging disease.

Bioterrorism Requires State Sponsorship US military experts and independent studies agree that, for some time to come, terrorist groups are highly unlikely to have sufficient expertise and resources to succeed in a mass attack with biological weapons. Aum Shinrikyo, the Japanese terrorist cult, had plenty of both but is reported to have failed in nine attempts to mount a biological attack. Although the United States has so far concentrated on preparations for mopping up after a bioterrorist disaster, it would be foolhardy to ignore the more important goal of cutting off the source by preventing the development, production and proliferation of biological weapons. That is not something the United States can do unilaterally. The effort must be international, and strengthening the BWC is the available tool.

What the Protocol Could Do A verification regime that can provide high confidence that violations of the BWC will be detected is not possible. That is not what the Protocol is about, and not what the negotiators have ever tried to do. Rather the objective is to deter potential violators by posing a significantly increased risk that their noncompliance or coverup will be discovered and, correspondingly, to provide compliant states with increased confidence and security. A further objective is the provision of a credible means to resolve mistaken or malicious accusations of non-compliance.

The Protocol’s compliance regime would effectively complement national intelligence, diplomacy and military capabilities. In serious situations the Protocol would provide a basis, broader than currently, for joint international action.

Much, although not all, of what is needed to develop, test, and produce biological weapons also has peaceful uses. In such “dual-use” situations, the objective is to increase transparency with regard to relevant capabilities. This was an intrinsic premise in the VEREX feasibility study and its positive outcome. Substantial transparency can be achieved by requiring declaration of the most relevant installations and activities and providing means for clarifying any questions that may arise regarding the declarations, including whether there are relevant sites that have *not* been declared. The Chairman’s Protocol text does this. It requires declaration of the sites and activities of greatest potential threat, and it provides several different means for getting on site (which, if blocked by the party in question, would also yield information). The Chairman’s text provides a variety of on-site measures:

- mandatory randomly-selected visits to declared facilities;
- visits to clarify remaining questions when consultations fail (these may be voluntary or can be pursued through the Executive Council to become mandatory);
- challenge investigations anywhere, including both facility and field investigations.

Douglas MacEachin, former Deputy Director of the CIA and, before that, Director of the CIA Arms Control Intelligence Staff, has made a persuasive case for the deterrent effect of non-challenge visits when combined with a provision for investigations (*Bulletin* no 39, March 1998).

He points out that, so long as outsiders are kept out, a potential violator would prefer to use a legitimate facility as a cover to hide a biological weapons programme, thereby minimizing the chance that the proscribed activity would become known for what it really is. But if the facility were subject to random visits by inspectors, the potential violator could no longer be confident that prohibited activities or attempts to cover them up would escape notice. To avoid that risk, the illicit activity could be conducted at an undeclared facility, without benefit of camouflage. But then, a much higher level of secrecy would need to be maintained in order to escape detection—all of the equipment, materials, and activities that ought to have been declared must be kept hidden. Their mere existence, if undeclared, would be a violation. Under a Protocol, evidence of suspicious activity at an undeclared site could lead to intense surveillance, a clarification process, or a challenge investigation.

The Chairman’s Protocol text calls for a 50 per cent vote of Executive Council members present and voting to authorize an investigation at a suspected facility. A study by the Federation of American Scientists recommended this formula as the best means for preventing ill-founded investigations without unduly inhibiting the use of this important measure or impeding its deterrent effect (*Bulletin* no 41, September 1998). Although investigations have political costs and will not be used often, they can provide a way, possibly the only way, to investigate serious concerns such as the present status of the former Soviet BW facilities at Kirov, Sverdlovsk and Zagorsk, or possible future suspicious outbreaks of disease such as that which occurred in Sverdlovsk in 1979. In future, the existence of a Protocol would contribute to the deterrence of prohibited activities.

The US Critique of the Protocol The US policy review has reportedly rejected the Chairman’s text on the grounds that (i) it is too weak, (ii) it would unacceptably threaten national security and commercial proprietary information, and (iii) it threatens the Australia Group and its “dual use” export control regime.

Weakness of the text: The argument of not being able to detect violations with high confidence is frequently invoked. As discussed above, this is not and could not possibly be the purpose of the Protocol. If this were the only criterion of interest to the United States, it should never have participated in the negotiations in the first place.

Moreover, the weaknesses in the Chairman’s text are largely there in compliance with past US demands, including the following:

- The text does not require declaration of all biodefense facilities; only those conducting certain activities, and only those above a certain size.
- The text requires no significant information about production facilities for pharmaceuticals (other than licensed vaccines), and exempts them from visits.
- All on-site activities of inspectors during visits are at the discretion of the host government.
- All visits require at least two weeks notice.

FAS has advocated stronger measures, but we recognize the necessity for compromise and the role played by the United States in shaping those compromises.

Confidentiality: The Chairman’s text possesses more safeguards for confidential information than the 1993 CWC,

to which the United States is already a party and which covers many of the same facilities — those handling toxins (including facilities in the US biodefense program), for example, fall under both treaties. Most pharmaceuticals are produced by synthesis, and therefore are “discrete organic chemicals”, for which facilities with annual production above specified thresholds must be declared under the CWC. And relevant inspections under the CWC can take place “anytime, anywhere,” as President George Bush Sr insisted.

Unlike the CWC, the Protocol text allows no sampling and analysis in non-challenge visits, and gives control of access to the host country. These aspects of the Protocol text comply with the wishes of US bioindustry, which is particularly concerned about protecting its proprietary microbial strains. There are, in addition, all the protections for confidentiality that were developed for the CWC with the help of the chemical industry. The exemption of certain defense facilities and of most pharmaceutical facilities from declaration under the Protocol, discussed above, provides additional protections for confidential information. The Chairman’s text more than meets all the essential confiden-

tiality concerns of the pharmaceutical and biotech industries. Further safeguards for industry could be incorporated into US Protocol implementing legislation, and, when the time comes, the FAS and its industry colleagues will be happy to work with industry representatives, as we have in the past, to help design appropriate implementation measures.

Export controls: Article 7 of the Chairman’s text sets out suggested guidelines but no mandatory obligations regarding export control. Each state party would retain full discretion over implementation of the suggestions in the text.

All in all, the best course now would be to accept the Chairman’s Protocol text for what it is — a compromise that makes reasonable tradeoffs on all of the major issues, providing a sound basis for achieving agreement on an effective protocol to strengthen the BWC and signify the determination of the international community to enforce it.

Based on testimony presented to the Subcommittee on National Security, Veterans Affairs and International Relations of the US House Committee on Government Reform, 5 June 2001.

Developments in the Organization for the Prohibition of Chemical Weapons

On 29 April 2001 the Organization for the Prohibition of Chemical Weapons (OPCW) celebrated the fourth anniversary of entry into force of the Chemical Weapons Convention (CWC). In spite of the administrative and budgetary difficulties that have beset the Organization in recent months, there was much to celebrate in the period surrounding this important benchmark. Ten new states parties have joined the CWC over the last twelve months, bringing the total to 143 states parties and 31 signatories — an impressive record for any multilateral treaty.

The approval of the UN-OPCW relationship agreement by the Conference of the States Parties in its sixth session, to be followed by similar approval in the UN General Assembly in October, can only strengthen the Organization both substantively and politically. The fourth anniversary was also marked by the beginning of OPCW verification of chemical weapons (Category 2 and Category 3) destruction activities in Russia.

The period under review, from early March until the first week of June 2001 included the convening of the sixth session of the Conference of the States Parties (CSP-VI) during 14-19 May, and the twenty-fourth session and the twelfth meetings of the Executive Council. In these forums, the states parties took some decisions on issues of critical importance to the OPCW — the budget and finances, industry verification and conversion of chemical weapon production facilities (CWPFs). The funding to be provided to the OPCW in 2002, while being insufficient for the full implementation of the 2002 programme of work, would barely enable it to cover the “mandatory” functions under the CWC, and would allow it to survive the period of austerity without significant structural changes. With the exception of the

2002 budget, there were few substantive decisions adopted by CSP-VI due to an increasing paralysis in the policy-making organs of the Organization, especially the Council.

Executive Council

The Executive Council convened its twenty-fourth session during 3-6 April. It also met in formal meetings during 3-4 May and on 15 May in order to take decisions prior to and during CSP-VI. The Council also met in an informal session on 2 April to discuss the progress on chemical weapons destruction and the destruction and conversion of chemical weapon production facilities. Informal consultations on numerous issues related to administrative and budgetary matters — with respect to the 2000, 2001, and 2002 budgets — were held throughout the intersessional period preceding the twenty-fourth session and continued through both formal meetings and during the Conference itself.

Before the twenty-fourth session was opened, the Council briefly reconvened its twenty-third session to adopt a report of that session, which it had been unable to do in February. At that time, there had been no consensus in the Council on the language to be included in the report regarding financial and administrative issues. Informal consultations were held during the intersessional period, led by Geoffrey Cole (UK), in order to help bring about a consensus on the issue. The resulting language called for states parties to pay both their annual assessments and any outstanding balances under Articles IV and V. The Council requested the resumption of essential activities, especially verification and international cooperation components of the work of the Organization, but also asked that the Secretariat

continue to pursue economies in the 2001 programme of work. The Council announced its intention to resolve the current financial situation in the course of the twenty-fourth session and therefore asked the Secretariat to provide all relevant data during the intersessional period to enable it to make the required recommendations to the Conference. In addition, the Council tasked the external auditor with a special examination of the financial statements of the Organization and other processes carried out within the OPCW with respect to the budget and finances. The external auditor had been advised of this and was prepared to report his findings to the Council in its twenty-fourth session.

In his opening statement to the Council in its twenty-fourth session, the Director-General attempted to focus attention on issues of universality, verification activities, and the destruction by Russia of its chemical weapons stockpile, as well as on the need to put the Organization on a sound financial footing. The Director-General also emphasised that verification activities had been undertaken during the first three months of 2001 at some CWPFs, one abandoned chemical weapons (ACW) site, and at 16 industrial facilities. He announced that 25 industry inspections would be undertaken before the Conference in May. No chemical weapons storage facility (CWSF), Schedule 3, or discrete organic chemical (DOC/PSF) plant sites had been inspected yet in 2001 due to the limited finances of the Organization.

On the financial situation, the Director-General highlighted the need for an additional EUR 7 million to be provided to the OPCW to allow for the implementation of the full programme of work for the remainder of 2001, particularly in the areas of verification and international cooperation. He noted that in order to make such funds available states parties could either pay the gross assessment or approve a supplementary budget. Furthermore, The Director-General asked the Council to recommend to the Conference that the Secretariat be given the authority to retain the 1999 cash surplus as an exceptional measure to compensate for the 2000 deficit. The Council noted the Director-General's opening statement.

The Council was, as usual, briefed by the relevant coordinators on the status of the clusters of issues subject to ongoing consultations. Mark Albon (South Africa) reported on the status of consultations on chemical weapons issues and Armin Andereya (Chile) spoke about those topics included under chemical industry and other Article VI issues; three draft decisions from this cluster were up for consideration by the Council—low concentration limits for Schedule 2A and 2A* chemicals, transfers of Schedule 3 chemicals, and guidelines for boundaries of production. Dorian Mihai (Romania) briefed the Council on administrative and financial issues, and Amir A. Shadani (Pakistan) reported on legal, organizational and other issues, including the status of draft proposals for the implementation of Article XI.

Status of Implementation of the Convention The Council noted the Director-General's report on national implementation measures. As of 8 March, only 53 states parties had informed the Secretariat of their implementing legislation; furthermore, 64 percent of states parties had yet to respond to the legislation questionnaire first circulated in July 2000. The Council urged these states parties to do so as

soon as possible. Furthermore, the Director-General emphasised the role this data would serve, in a comprehensive and complete format, in the course of preparations for the 2003 review conference.

The Director-General made note of the activities undertaken by the Secretariat in this area — integrated legislation for the Organization of Eastern Caribbean States (OECS), the legislation questionnaire, legislative workshops in Spain (October 2000) and Swaziland (November 2000), establishment of a network of legal experts for the Latin American and Caribbean region, and the international legal symposium held in February. Under the revised budget for 2002, only one legislation workshop and one regional legal assistance project would be undertaken in 2002.

Under this agenda item, the Council also received a request from Italy to discuss the issue of declaration requirements for adamsite and a draft decision was tabled. This decision was consistent with the view of the Scientific Advisory Board and the Director-General in recommending that stocks of adamsite that have been weaponised, or are in excess of amounts justified for riot control, research, or protective purposes, would need to be declared and destroyed under CWC provisions for chemical weapons or abandoned chemical weapons. A decision in this matter was deferred to the next regular session of the Council in June.

Destruction/Conversion of Chemical Weapons and CWPFs During the period under review, Russia did not submit a revised comprehensive plan for the destruction of its chemical weapons stockpile, which was originally expected in April. However, some aspects of the destruction programme were outlined by Russia in its statement to the Council meeting in its twenty-third session, most notably the intention to build and utilise only three CWDFs — Gornyy, Kambarka, and Shchuch'ye — instead of seven. This decision made international financial assistance to the Russian destruction programme, and especially promised US support for the destruction of Category 1 chemical weapons at Shchuch'ye, absolutely critical. Russia had stated that with US support phase-one construction of the Shchuch'ye facility could be completed by 2004.

During the twenty-fourth session of the Council, Russia announced its plans to begin destruction activities at three sites, including phase one destruction of Category 2 chemical weapons at Shchuch'ye and Category 3 destruction at Leonidovka and Maradykovsky, in April. These destruction activities began as scheduled and with full verification by the OPCW. These were the first cases of continuous monitoring by the OPCW in Russia.

The Russian conversion plans for a facility for the production of aminomercaptan and another for the production of chloroether, both at Novocheboksarsk, were considered by the Council in its twenty-fourth session, and twelfth and thirteenth meetings, but no recommendation was made to the Conference. The demonstrated lack of decisionmaking within the Council extended to other aspects of Russia's destruction efforts as well. Of the five documents submitted to the Council for approval and/or adoption in this session, only one was adopted: the combined plans for destruction and verification of the CWPF for the filling of sarin, soman, and viscous soman into munitions at Volgograd. With regard to the frequently postponed decision on plans for verification

of the destruction of Category 2 chemical weapons at a CWDF in Shchuch'ye, the Council considered a draft decision, yet decided to return to the issue at its next session in June. In dispute was the matter of formally declaring a commercial facility at which phosgene removed from munitions was going to be destroyed under continuous monitoring by the OPCW.

The Council noted the general plan for destruction or conversion of the other CWDFs at Volgograd. There are eight facilities at this site, used variously for the production of sarin, soman, DF, and mustard gas and filling them into munitions. Two facilities (mustard gas production and production of sarin, soman and VR, and filling them into munitions) were previously destroyed and their destruction has been certified by the OPCW. For two of the facilities (filling of non-chemical parts of chemical munitions and DF production), conversion requests were previously approved and the buildings were being used for non-prohibited purposes. Another was the subject of the destruction and verification plans recently approved. The remaining three were subject to conversion requests which had not yet come up before the Council.

Industry Verification Issues Over the last year, many of the substantive issues in this category suffered from the Council's inability to reach consensus decisions. The Council considered a proposal on low concentration limits, which recommended that declarations were not required for mixtures of chemicals containing 0.5 percent or less of Schedule 2A or 2A* chemicals. Although this proposal found much support among delegations, action was deferred to the Council's twelfth meeting. The same action was taken with respect to a proposal on transfers of Schedule 3 chemicals, which stated that end-use certificates were not required for products containing 30 percent or less of a Schedule 3 chemical and/or products identified as consumer goods packaged for retail sale for personal use. At the twelfth meeting, both proposals were considered, and the Council adopted the decision on Schedule 3 chemicals. This decision was then forwarded to the Conference for its approval. The Council was not able to take a decision with regard to low concentrations of Schedule 2A or 2A* chemicals and reported this lack of consensus to the Conference.

The Council took a similar approach to the draft decision on guidelines regarding boundaries of production, which recommended that declarations be made for plant sites comprising one or more plants producing Schedule 2 or 3 chemicals, provided that the quantity of such chemicals is above the relevant declaration thresholds and that the concentration is above the relevant concentration limits at any point in the production plant or plants. However, it pledged only to return to this item at a future meeting; the issue was not discussed at either the twelfth or thirteenth meetings.

And finally, the Council recommended that the Conference refer the issue of the implementation of section B or Part IX of the Verification Annex (the verification regime for other chemical production facilities) back to the Council. The Council would then submit a recommendation on this matter to the Conference in 2002.

Office of Internal Oversight The Council received the annual report of the Office of Internal Oversight (OIO) for

2000. The report highlighted the need for structural improvements in a number of areas, particularly within the Administrative Division. The OIO also brought attention to the vagueness of its own mandate as well as inadequate staffing, and called for a greater oversight and monitoring role within the Organization. The first priority mentioned in the report was a recommendation to "completely re-organise" the Budget and Finance Branch. This branch was not previously involved in the preparation of the budget and had no separate treasury unit, leading to inefficient oversight of income and expenditures. Deficiencies were noted in the Human Resources and Procurement Branches and the former Security Office. During 1998-99, 78 percent of the recommendations issued by the OIO had been addressed or implemented, while in 2000, only 25 percent of OIO's recommendations had been implemented.

In response, the Secretariat prepared and submitted a note on the status of implementation of the recommendations contained in the OIO report for 2000. Actions taken included the promulgation of numerous administrative directives on financial and human resources issues. The Budget and Finance Branch was transferred to the jurisdiction of the Special Adviser for Budgetary and Financial Issues and would thus be directly involved in the preparation of the OPCW budget. As well, a treasury function was established within the branch. The Human Resources Branch has been tasked with a comprehensive review of recruitment and appointment procedures. The Procurement Branch would take a stricter approach to planning and monitoring the performance of suppliers. A new Head of Security was appointed and coordination between the Security Office and other key Secretariat bodies had improved significantly. Over 80 percent of the recommendations made in the course of confidentiality audits have been implemented.

Discussion on this report continued during the intersessional period and at the twelfth meeting. At this meeting, the Council made the decision to note the report and forward it to the Conference with comments attached. These comments recognised the considerable efforts undertaken by the Secretariat to implement recommendations of the OIO and requested that the Secretariat report to the Council twice a year on its efforts in this regard.

Reports of the External Auditor The external auditor found that the financial statements of the OPCW, as of 31 December 2000, presented an accurate picture of the financial position of the Organization—99 percent of the monies appropriated in the 2000 budget were expended. Furthermore, there were no "material inconsistencies" found in the financial statements. He did, however, highlight areas in need of improvement, such as: the need to make estimates for miscellaneous income on a more realistic basis—largely dependent on available funds, the need to strengthen the recovery mechanism and pursue invoices more vigorously and systematically — perhaps via a system of quarterly review, the need for more realistic budget estimates in order to reduce the reliance on transfers of funds between programmes, the need to consider the short-term investment of funds, the need to more carefully access requirements for procurement purposes and to make the bidding process open and competitive, and more assiduous follow-up on the recommendations of the OIO.

The Council noted the audited financial statements of the OPCW and the Provident Fund of the OPCW for the period ending 31 December 2000 and the statement of the external auditor containing his recommendations. The Council further considered the external auditor's recommendations during the period between its twenty-fourth session and the twelfth meeting. At this meeting, the Council noted the external auditor's report and statement and transmitted the audited financial statements to CSP-VI. The Council also added its own comments, requesting that the Secretariat report biannually on the implementation of both the external auditor and OIO's recommendations, as well as on the income and expenditures of the Organization, and for the Conference to request the Council to take up as a matter of priority the improvement of the process by which payments under Article IV and V are made. Included in these comments was a request that the Council be charged with decisions in other areas of budgeting and administration and that the Secretariat provide the Council with a report on the internal financial control mechanisms in place within the Secretariat; this paper was prepared and presented by the Secretariat to the Conference in its sixth session.

2001 Budget and Programme of Work The Council in its twenty-fourth session requested the Secretariat to provide it with an account of the economies being made in the 2001 budget, including specific proposals for the provision of additional funding for the 2001 programme of work, by 17 April. The Council continued to insist that additional funds should be provided on a voluntary basis, and that the austerity measures combined with the 1999 surplus funds should prove adequate to cover the majority of the projected shortfall for 2001, which would also take into account the 2000 deficit.

The Secretariat submitted to the Council on 17 April its latest plan for economies in 2001. Cuts would be made in the areas of training, procurement, hospitality, work on the Central OPCW Analytical Database, meetings of subsidiary bodies, interpretation and translation services, and external relations programmes. Through these measures, the Secretariat could recover about EUR 4.7 million of the current budget shortfall of EUR 7 million, but the remainder would need to be received from the states parties (as voluntary contributions or a supplemental budget) to eliminate the need for cuts in the verification and international cooperation programmes—the programme areas deemed high priority by the states parties.

This issue was discussed further at both the twelfth and thirteenth meetings and throughout the period between the twenty-fourth session of the Council and CSP-VI. A final decision was deferred to CSP-VI.

2002 Budget and Programme of Work The Council in its twenty-fourth session approved the report of the facilitator for the cluster of administrative and financial issues on the consultations on the 2002 budget, which expressed the Council's desire for a revised draft budget. Although the first draft budget had requested growth of 24 per cent and 31 new fixed-term posts, in reality growth was much lower (around 12 per cent) if it were based on the amount required to fully implement the original 2001 programme of work, as opposed to the deficit budget currently being utilised. Moreover,

of the 31 fixed term posts requested, all but six already existed as short-term contracts. The Council, however, asked for growth, if any, to be kept to a minimum (preferably a single digit) and to limit growth to the high-priority areas of verification and international cooperation. The Council also called for a review of the budget's structure with regard to Article IV and V reimbursements, citing the unpredictable and deleterious effects of continuing to rely on the current practice of including estimates of this income in the budget.

The Secretariat's revised draft programme and budget for 2002, submitted to the Council on 17 April, was based on a 5.9 per cent increase over the 2001 budget. If inflation was taken into account, real growth in this budget amounted to a mere three per cent.

The revisions to the 2002 budget made by the Secretariat included further cuts in training and other personnel resources, an intention to leave 30 fixed-term posts vacant in the coming year, a maintenance of the hiring freeze, and economies in other non-operational areas of the Organization's activities. The Secretariat requested that the Council forward this revised budget as is to the Conference for its approval, but emphasised that it was an "austerity budget" and did not reflect the real costs of fully implementing the mandate of the OPCW; anticipated growth in the 2003 budget is 24 per cent.

Owing to the recent problems caused by treating Article IV and V reimbursements as "miscellaneous income", these monies were removed from the budget by the Secretariat in its revision, and the establishment of alternative payment methods (i.e. pre-payment) was encouraged. The level of assessment to states parties would therefore increase at a higher rate (from EUR 54.9 million to 63.1 million). The Director-General urged the chemical weapons possessor states parties to agree to pay the projected reimbursement costs in advance, on the basis of their planned activities for the year. Meanwhile, the Council was keeping the matter of how to treat reimbursements under Article IV and V in the future under consideration and subsequently asked that a portion of these monies be added back into the budget until an alternative solution was found. The income from Article IV and V reimbursements should be estimated as realistically as possible to prevent future budget deficits, and the Secretariat suggested a figure of not more than EUR 2.5 million.

The twelfth and thirteenth meetings of the Council considered the Secretariat's second revision of the programme and budget for 2002, and after considering the cuts in expenditures already made, requested from the Director-General a third revision that would bring growth down to a bare minimum. A revised programme and budget that reflected growth of only 4.3 per cent (before inflation) was achieved through nearly EUR 1 million in "unallocated cuts". This budget was then submitted to the Council in its thirteenth meeting, but still proved unacceptable to two states parties. While other Council members were willing to accept 4.3 per cent growth, one state party in particular insisted upon growth of not more than 2.8 per cent, therefore blocking any consensus decision on the budget in the Council. A decision on the exact figures in the 2002 "austerity budget" was left to the Conference in its sixth session. The Council also forwarded to the Conference the draft Medium Term Plan for 2003-2005.

Other Financial and Administrative Issues The Council in its twenty-fourth session received a report by the facilitator for administrative and financial issues, Mr Doiran Mihai (Romania), detailing the results of consultations on the OPCW financial regulations and rules that took place during the intersessional period. The Council also noted a note by the Director-General on transfers of funds between programmes in 2001. These transfers encompassed nearly 7.2 percent of the regular budget in 2000 and became necessary between budget programmes and sub-programmes as the 2000 programme of work was implemented. The Council decided to consider the recommendations contained in the report and possible amendments to the OPCW financial regulations, along with other budgetary matters, at its twelfth meeting. At this meeting, it was decided that the proposed amendments to the regulations would be taken up again at the next session, in June.

The Advisory Body on Administrative and Financial Matters (ABAF) The tenth session of the ABAF met during 26-29 March. The report of this session highlighted the necessity to implement a budget monitoring system that functioned on a “day-to-day” basis, to review the budget activity of the Organization on a biannual basis, and for the OIO to review budget activity on a regular basis; as well, the ABAF called for greater cooperation between the OIO and the external auditor. The ABAF suggested overall improvement of the financial control mechanisms of the Organization and made numerous recommendations as to how to address the impact of the 2000 budget deficit, the 2001 cash shortfall, the budget’s structural deficiencies, and how to account for past and future cash surpluses—the four components of the current financial crisis.

The ABAF recommended against making any changes to the current financial rules, citing that they do allow for some flexibility, including granting the Secretariat the right to retain past surpluses (i.e. the 1999 surplus), to compensate for cash shortages in exceptional situations.

The ABAF would meet in the third quarter of 2001 in order to provide a mid-term review of the finances of the Organization.

The Council in its twenty-fourth session noted the ABAF report and approved the appointment of Ms Keiko Yanai (Japan) to the ABAF.

Status of Contributions It was reported to the Council that as of 31 March, only 76 states parties had paid their contributions for 2001 in full, while 33 states parties were in arrears for two full years and would consequently have no vote in the Organization in 2001. Sixty-seven states parties had yet to make any contribution toward their assessments under the 2001 budget.

As for the reimbursement of verification costs under Article IV and V of the Convention as of 28 February, eight states parties still owed nearly EUR 3.4 million. By 30 April, six states parties owed an outstanding balance of nearly EUR 3.6 million. The Council urged the states parties to pay all outstanding balances promptly and fully.

Fostering of International Cooperation for Peaceful Purposes in the Field of Chemical Activities The Council considered a draft decision on the implementation

of Article XI prepared by the facilitator for legal, organizational, and other issues, Mr A. Shadani (Pakistan). This proposal recommended the establishment of an International Cooperation Committee. Delegations continued to propose amendments to this decision, one of which mandated that the Council prepare a specific proposal for the establishment of this International Cooperation Committee that could then be submitted to the seventh session of the Conference for approval. The Council deferred decision in this matter to its twelfth meeting. In spite of discussion in all its sessions and meetings, the Council was not capable of reaching a decision on this issue, and reported this result to the Conference.

Recommendations of the Scientific Advisory Board The Council noted the report of the fourth session of the Board. Details of the report can be found below. In a separate note, the Director-General relayed to the Council the SAB’s recommendations with regard to low concentration guidelines for Schedule 2A and 2A* chemicals and the inclusion of unscheduled chemicals into the Central OPCW Analytical Database, as well as informing the Council of other matters under consideration by the SAB—destruction technologies, biomedical samples, inspection equipment and preparations for the First Review Conference.

Use of Official Languages The Council adopted a decision requiring equal treatment of the six official languages of the OPCW—Arabic, Chinese, English, French, Russian, and Spanish. Actions to be taken included efforts to maintain linguistic balance in the dissemination of information and the simultaneous distribution of some documentation in all languages. This decision was then forwarded to the sixth session of the Conference for its approval.

Status of Implementation of the OPCW Headquarters Agreement The Secretariat submitted a background paper to the Council on those issues related to the implementation of the Headquarters Agreement that were under discussion with the host country. These include ID cards for entry into the country, driving licences, the employment of domestic help by staff members, the employment of family members in The Netherlands, and municipal tax exemptions. The Council received this report.

Validation Group The Validation Group met in its ninth session during 13-14 March to consider issues related to the Central OPCW Analytical Database, including the inclusion of new analytical data. The Council in its twenty-third session had requested that the Validation Group discuss the inclusion Chemical Abstracts Service (CAS) numbers in submissions of analytical data. Data cannot be validated and forwarded to the Council for approval without the CAS numbers present.

Other Business During its twenty-fourth session, the Council approved the Report of the Executive Council on the Performance of its Activities during April 2000–February 2001. Of the seven matters referred to the Council by the fifth session of the Conference, the Council made decisions on two in 2000—the authentication and certification procedure for the Central OPCW Analytical Database and on-site databases and guidelines on the designation of

laboratories for the analysis of authentic samples. The other five issues were addressed during the first half of 2001, but no consensus decisions could be forwarded to CSP-VI. Thirty-eight issues continued to be under consideration by the Council as of February 2001. The report of the Council was submitted to CSP-VI for its consideration.

The Council deferred a decision on the Draft Report of the Organization for 2000 (the year 2000 Annual Report) to its twelfth meeting in May. At this meeting, the report was approved and referred to the Conference.

The Council in its twenty-fourth session noted the Director-General's report on the implementation of the regime governing the handling of confidential information by the Secretariat. The Secretariat found that as of 31 December 2001, only 43 of the then 141 states parties were in compliance with the Convention's requirement to inform the Organization about their procedures for handling confidential information. However, in 2000, only nine incidents of alleged violations of confidentiality procedures were reported and none resulted in the disclosure of confidential information. Recommendations were made by the Confidentiality Commission in 2000 to decrease the number of classification levels for confidential documents in order to prevent the over-classification of documents and lessen the workload of the OPCW in this respect. This recommendation would be submitted to the sixth session of the Conference for its consideration and approval.

After receiving a report by the facilitator on the classification of posts within the Secretariat, Mr Max Gevers (Netherlands), the Council decided to defer the issue for further consideration at a future session.

The members of the Council elected the new Chairman and Vice-chairmen of the Council for the upcoming term of office, which began on 12 May 2001 and would expire on 11 May 2002. The incoming Chairman was H.E. Dr Abdel Haleim Babu Fatih Elrayah (Sudan) with the following states parties serving as vice-Chairmen: Mexico, Republic of Korea, Russia, and Sweden.

Other issues brought to the fore during the 2000 and 2001 Council sessions but not up for discussion during the most recent Council session and meetings include: challenge inspections, guidelines for determining the usability of old chemical weapons produced between 1925 and 1946, and facility agreements.

The Council would convene its twenty-fifth session, intended to address administrative matters, during 27-29 June.

Sixth Session of the Conference

The sixth session of the Conference of the States Parties proved contentious on many levels, most notably the programme and budget for 2002 as well as other budgetary and financial issues. In addition, concern was voiced on behalf of many states parties and by the Secretariat over the lack of progress in Russia's programme for the destruction of its chemical weapons stockpile, the world's largest. Russia informed all of those in attendance of its continued efforts in this area and stressed the need for increased international financial assistance. Russia intended to meet the April 2002 deadline for the destruction of Category 2 and Category 3 chemical weapons.

The Conference played host to just over 500 participants, representing 108 states parties, one signatory state (Israel), two non-signatory states (Andorra and Libya), international and non-governmental organizations.

Originally scheduled to run from 14 to 18 May, the Conference spent much of the week in informal consultations and closed sessions and held two additional sessions on 19 May in order to work toward consensus. Substantively, few decisions were made and many issues, including the implementation of Article XI, declaration guidelines for low concentrations of Schedule 2A and 2A* chemicals, and section B, Part IX of the Verification Annex (other chemical production facilities), were referred back to the Council or deferred to the seventh session of the Conference.

On the key budget issues, consensus was reached; an amount totalling EUR 61.9 million was approved for the 2002 programme and budget. The Secretariat had originally submitted to the Council a programme and budget for 2002 amounting to nearly EUR 75 million. The Conference addressed, and took decisions on the critical budgetary issues that lie at the root of Organization's inability to receive all of its budgeted income in 2000 and 2001. It requested that the Council arrive at a solution for the structural deficiencies in the budget. The Conference also adopted a decision on the guidelines for transferring Schedule 3 chemicals.

Opening of the Session The outgoing Chairman of the fifth session of the Conference, Ambassador Jaime Lagos (Chile), opened the sixth session on 14 May. Vladimir Petrovsky, Director-General of the United Nations Office in Geneva, delivered a statement from UN Secretary-General Kofi Annan. The Secretary-General stressed the need for states parties to "give the OPCW their full support, in particular by providing the resources necessary for it to function effectively." In this speech, Mr Petrovsky addressed the need for all disarmament regimes and bodies to work together toward global disarmament and non-proliferation.

In his opening statement, the Director-General highlighted the increasing fragility of the global disarmament regime and therefore the necessity for organizations that contribute to international security, like the OPCW, to remain strong and viable. He spoke of the importance of universality and urged the states parties to play a more proactive role in this respect. He enumerated the achievements of the Organization toward the goal of complete, worldwide destruction of chemical weapons: 143 states parties, a verifiable inspection regime for both chemical weapons-related and industrial facilities, programmes under both Articles X and XI, etc. The Director-General urged Russia to submit its complete programme for destruction to the OPCW as soon as possible. The continued delay on behalf of Russia could encourage other states parties disinclined to fully comply with the Convention's obligation to destroy completely all stockpiles of chemical weapons and/or its other mandates.

With regard to the industrial verification regime, the Director-General brought the Conference's attention to the marked increase in inspectable facilities (600 to 4,600), resulting from the beginning of inspections at DOC facilities. This would understandably result in a "crisis of confidence" if the Secretariat could not increase its inspection

activities proportionally. In addition, the continued existence of unilateral export controls, according to the Director-General, worked to undermine implementation of the CWC.

The last two issues addressed by the Director-General included the programme and budget of the Organization and preparations for the 2003 review conference. On the first, he emphasised the importance of addressing the structural deficiencies in the budget that had led to the current financial crisis. Consultations on the 2003 budget, which would necessitate greater growth than previous years, should begin from a clean slate. On the last issue, the Director-General announced that the formal review process would be launched next year and would be inherently a political process culminating in the convening of a review conference in 2003. This review would focus on the scientific developments that impact directly on the industry verification regime and other matters of importance to the scientific foundations of the Convention. In this context, the Director-General informed the states parties that the International Union of Pure and Applied Chemistry (IUPAC) had proposed to him to assist in this scientific review, which he had welcomed and accepted. The importance of mobilising public support for the Convention and for multilateral arms control in general, by addressing confidentiality, transparency, and contacts with all those organizations and individuals working in the field, would also comprise part of this review process. The Director-General concluded his statement with an appeal to the states parties to approach implementation of the Convention with the same political will that made the CWC “the most rapidly-growing multilateral disarmament and non-proliferation treaty in history.” The states parties themselves bore the responsibility for what the Organization would look like in the future and to what degree the OPCW would be able to fulfil its mandate.

General Debate In general debate, 34 states parties made national statements. Sweden spoke on behalf of the European Union, as well as South Africa on behalf of the African Group.

Election of the Chairman and Vice-Chairmen Amb. Heinrich Reimann (Switzerland) was elected as the Chairman of the Conference and would hold office until a chairman is elected at the seventh session. New Vice-Chairmen were elected, two from each regional group: Algeria, Nigeria (Africa), Pakistan, Sri Lanka (Asia), Russia, the Federal Republic of Yugoslavia (Eastern Europe), Chile, Colombia (Latin American and the Caribbean), France, and the United States (Western European and Other).

Organization of Work and Establishment of Subsidiary Bodies The Conference tasked the Committee of the Whole, under the chairmanship of Ambassador Alberto Luis Davéréde (Argentina) to take up the recommendation on declaration guidelines for mixtures containing low concentrations of Schedule 2A and 2A* chemicals and implementation of Article XI (fostering international cooperation for peaceful purposes in the field of chemical activities), as well as all issues related to the revised draft programme and budget for 2002 and the 2002 scale of assessments. The Committee of the Whole subsequently reported its conclusions to the Conference: both the issues

of low concentrations and Article XI should be referred back to the Council with the view that the Council would report back to the Conference in its seventh session. On the budgetary issues, discussion in the Committee of the Whole facilitated debate and eventual decisions in the plenary body.

At the end of the Conference, the reports of the subsidiary bodies — The Committee of the Whole, the General Committee, the Credentials Committee, and the Confidentiality Committee — were noted. The report of the Confidentiality Commission was derived from a special session held in January 2001. Regret was expressed that the Confidentiality Commission was not able to hold its annual meeting due to the austerity measures implemented by the Secretariat in response to the 2001 budget shortfall and the current financial crisis in general.

Elections to the Confidentiality Commission were held with four individuals from each regional group elected for two-year terms. Those states represented included Algeria, Argentina, Chile, China, Cuba, Czech Republic, Germany, Hungary, India, Iran, Japan, Mexico, Morocco, Netherlands, Nigeria, Romania, Russian Federation, South Africa, Spain and the United States.

Report of the Organization of the Year 2000 The Conference approved the annual report of the Organization for 2000, which would subsequently be printed and distributed before the end of the summer.

Status of Implementation of the Convention Under this agenda item, CSP-VI noted three reports by the Director-General: implementation of the regime governing the handling of confidential information, status of implementation of the requirement for states parties to provide two-year multiple entry/exit visas to inspectors, and the status of implementation of Article VIII, paragraph 50 (privilege and immunities agreements between the OPCW and the states parties).

The Conference noted the decision of the Council in its twenty-fourth session on the Director-General’s report on national implementation measures and echoed the Council’s concern that only about 40 percent of states parties had implementing legislation in place and/or had informed the Secretariat of this fact. It also urged states parties to respond to the legislation questionnaire circulated in July 2000.

Report of the Executive Council The Conference noted the report of the Executive Council on its performance in the period between April 2000 and February 2001. This report made a series of recommendations to the Conference on which the Conference was then obligated to decide. As a result, the Conference adopted the authentication and certification procedure for the Central OPCW Analytical Database, decided upon by the Council in its twentieth session and implemented provisionally in the interim period. The Conference also adopted a decision approving the UN–OPCW relationship agreement, and agreements on privileges and immunities of the OPCW with Portugal and Panama, as well as the decision of the Council in its twenty-fourth session on the use of the six official languages of the OPCW. The Conference gave approval to the Council to consider and approve privileges and immunities agreements with the Philippines, Austria and Belarus.

Two issues raised in the Council's report were referred by the Conference back to the Council: implementation of section B of Part IX of the Verification Annex and declaration guidelines for mixtures containing low concentrations of Schedule 2A and 2A* chemicals. On the first, which relates to other chemical production facilities, the Council was to consider the issue further and make a recommendation to the Conference in its seventh session. On the issue of low concentrations, the Council was mandated to take a consensus decision and implement it provisionally prior to the seventh session of the Conference.

The Conference approved, upon the recommendation of the Council in its twenty-third session, the conversion of the Russian CWPF at Dzerzhinsk. However, no action was taken on the other two Russian conversion requests for facilities at Novocheboksarsk. In its statement to the Conference, Russia cited conversion as the "only economically justified form of the elimination of the industrial potential of chemical weapons". It further drew the attention of the Conference to the fact that only one Russian conversion request had been approved in the previous twelve months.

On another important recommendation of the Council to the Conference, concerning transfers of Schedule 3 chemicals to states not party to the Convention, the Conference adopted the decision taken by the Council in its twelfth meeting — a ban on transfers of Schedule 3 chemicals similar to that effecting trade in Schedule 2 chemicals would therefore not be a possibility until after the seventh session of the Conference in the second half of 2002.

The Council also forwarded to the Conference the audited financial statements of the OPCW and the Provident Fund of the OPCW for 2000 and the report of the Office of Internal Oversight for 2000. The Conference noted these reports and endorsed the comments attached by the Council at its twelfth meeting—relating to the implementation of recommendations of the OIO and the external auditor and the internal control of income and expenditures, as well as the payment/reimbursement of verification costs under Article IV and V. The response of the Secretariat, in the form of a note on the internal control measures utilised by the Secretariat, was also noted by the Conference. The Council could therefore expect biannual reports from the Secretariat on expenditures and the implementation of recommendations from the external auditor and the OIO.

Election of Members of the Executive Council

Twenty member states were elected to the Executive Council for two-year terms of office. They included: Algeria, Benin, Morocco, and South Africa from the African Group; Bangladesh, Iran, Pakistan, and Sri Lanka from the Asian Group; Belarus, Hungary, and the Russian Federation from the Eastern European Group; Chile, Colombia, Panama, and Peru from the Latin American and Caribbean Group; and Belgium, Canada, Denmark, Portugal, and Turkey from the Western European and Other Group.

These states were able to first join the Council in its thirteenth meeting on 15 May.

Programme and Budget of the Organization The issue of the programme and budget of the Organization for 2002 and the expected shortfall in the 2001 budget dominated deliberations in the Conference and had in fact

occupied the time and resources of the Secretariat and the Executive Council for much of 2001. The programme and budget for 2002, adopted by the Conference, amounted to EUR 61.9 million and represented 2.8 percent growth over the amount budgeted for 2001. The states parties would be assessed in the amount of EUR 59 million. This figure reflected an increase, requested by the states parties, in estimated miscellaneous income—from EUR 2.5 million to nearly EUR 3.7 million—which would be derived mainly from reimbursements under Articles IV and V. If these monies were not invoiced and collected in full, or constituted an exaggeration of the actual requirements, then the OPCW would find itself in another financial crisis at the end of 2001.

The Conference urged all states parties to pay their assessments for 2002 by the deadline of 1 January 2002 and for all those with balances outstanding with regard to past assessments or invoices for Article IV and/or V expenditures to make payments immediately. As well, states parties should immediately pay their advances to the Working Capital Fund.

With regard to the 2000 deficit (EUR 3.6 million) and the 2001 shortfall (EUR 5.1 million), the Conference requested the Secretariat to implement its proposed cuts or austerity measures that would result in savings of EUR 4.7 million, and agreed to allow the Secretariat to retain the 1999 cash surplus (EUR 2.7 million) as a one-time exceptional measure in order to offset the 2000 deficit. The Conference decided that using part of the Working Capital Fund in conjunction with the interest accrued by special accounts — also an exceptional, one-time measure, could ameliorate the remainder of the shortfall. It also encouraged the states parties to make voluntary contributions to enable the Secretariat to carry out its operational mandate for the coming year.

The Conference noted the draft medium-term plan 2003-2005 and stressed that work on the 2003 programme and budget should begin no later than the summer of 2001.

Scale of Assessments The scale of assessments adopted by the Conference for the 2002 budget reflected the addition of ten new states parties in the preceding year and the UN scale of assessments, in which the assessment of the United States decreased from 25 to 22 per cent. Changes to this scale were the subject of sharp debate toward the end of the Conference session and debate would continue on this matter in the future. The largest contributors remained the US (22 per cent), Japan (19.7), Germany (9.8), France (6.5), the United Kingdom (5.6), and Italy (5.1). All remaining states parties were assessed at an amount below 5 per cent.

As well, under this agenda item, the Conference noted the report of the Director-General on the status of assessed contributions and reimbursement of verification costs under Articles IV and V. As of 30 April, only 63 states parties had fully paid their assessments for 2001; 20 states parties had made partial payments, and 60 states parties had not paid any portion of their 2001 assessment. From 1993 onwards, the OPCW was owed an outstanding balance of EUR 16.9 million — this amount included contributions to the PrepCom. Five states parties—Bosnia and Herzegovina, India, Russian Federation, United States, and the Federal Republic of Yugoslavia — owed EUR 3.6 million in reimbursements for the costs of inspections under Articles IV or V of the Convention. The United States owed the

largest debt (~EUR 2.1 million), followed by Russia (~EUR 0.8 million), which had not paid its invoices since 1998. Both the Secretariat and the states parties concerned were actively exploring alternative methods of payment for these monies.

The Conference also noted that as of 8 May, 31 states parties had lost their right to vote in the OPCW due to being in arrears for an amount in excess of their assessment for two full years. These states were: Armenia, Benin, Bolivia, Burkina Faso, Burundi, Ecuador, El Salvador, Equatorial Guinea, Fiji, Gambia, Georgia, Ghana, Guinea, Guyana, Laos, Malawi, Maldives, Mali, Mauritania, Mongolia, Niger, Papua New Guinea, Paraguay, Moldova, Senegal, Seychelles, Tajikistan, Togo, Trinidad and Tobago, Turkmenistan, and Tanzania. Taken together, the monies owed by these states parties amounted to just over half a million euros.

Fostering of International Cooperation for Peaceful Purposes in the Field of Chemical Activities Despite the numerous proposals brought to the negotiating table, no consensus was achieved on this issue relating to the Implementation of Article XI. A proposal submitted on behalf of thirteen developing or newly developed states parties called for promotion of cooperation for purposes not prohibited under the CWC through all available means, including the establishment of an international cooperation committee, which would be tasked with implementing Article XI. The Conference referred this topic back to the Council for further consideration in the hope that a proposal would be submitted to the Conference in its seventh session. This issue had been under consideration since the third session of the Conference in 1998.

Ensuring Universality of the Convention The Conference noted the report of the Director-General on the activities undertaken by the Secretariat since the fifth session of the Conference toward achieving universality of the CWC. This report detailed the contacts, meetings, workshops, seminars, speeches and other efforts on the behalf of the Secretariat that contributed to the ratification or accession of new states parties to the Convention. Regional workshops for 2001 were planned to convene in both South Korea and Jamaica, and the Secretariat continued to urge states parties to engage states not party to the Convention on both a bilateral and multilateral basis.

The Republic of Korea submitted its traditional draft decision on ensuring universality of the Convention, in which it stressed the importance of universality to all states parties, and especially those with legitimate security concerns. The Conference adopted the decision, which required a report from the Director-General to the seventh session of the Conference on the work undertaken by the Secretariat toward achieving universality. Forty-seven states parties co-sponsored the Korean initiative.

In Sweden's statement to the Conference, it spoke of recent efforts undertaken by the EU in the capitals of all states not party to the Convention, including signatories, with the goal of promoting universality of the Convention.

Other Business Three other matters addressed by the Conference included moving the date of the Conference to the second half of the calendar year, cooperation between

the OPCW and other international organizations, and preparations for the first review conference in 2003.

The Conference adopted a decision that would move its annual from the first half of the year, usually April or May, to the second half of the year, between September and November, starting in 2002 with the seventh session of the Conference. This action would address the need to adopt the programme and budget of the Organization closer to the budget year to which it relates. However, if the costs involved in moving the dates of the Conference proved to be prohibitive, then the Conference would convene its seventh session as scheduled in the first half of 2002.

A decision was adopted authorising the Council to conclude cooperation agreements between the OPCW and other international organizations, to the benefit of implementation of the CWC. International organizations with which discussions are currently underway or that have previously been approached include the World Customs Organization (WCO), the Preparatory Commission of the Comprehensive Test Ban Treaty Organization (CTBTO), the International Atomic Energy Agency (IAEA), and the International Narcotics Control Board (INCB), among others.

The Conference also recommended that the Council establish a working group to coordinate, in conjunction with the Secretariat, preparations for the review conference. The review conference was scheduled to be convened in the first half of 2003. Several states parties, and the Director-General in his opening statement, made reference to the review conference as an important opportunity for the states parties and the Secretariat to engage the serious substantive issues of relevance to the current and future implementation of the CWC, such as scientific and technological advances, cooperation with chemical industry, international cooperation and development, and the verification regime overall.

Actions by Member States

No states ratified or acceded to the Convention during the period under review; therefore the total number of states parties, as of 1 June, stood at 143, with 31 signatory states.

Actions by the Secretariat

Declaration Processing As of 3 May, initial declarations had been received from 139 states parties. Four initial declarations were still outstanding, all from those states that most recently became members of the Organization — Kiribati, Mozambique, United Arab Emirates, and Zambia. However, 13 states parties had been informed that their initial declarations were incomplete (i.e., missing declarations under Article VI or III).

The 2000 figures on initial declarations and other obligatory notifications were released during the period under review. As of 31 December 2000, the Secretariat had received 79 notifications of points of entry for inspection teams and 64 notifications concerning standing diplomatic clearance numbers for non-scheduled aircraft. One hundred and six states parties had notified the Secretariat of the designation of their National Authority and 53 states parties had passed the required legislation to implement the Convention at the national level.

At the twenty-fourth session of the Council, the response rate for annual declarations was revealed as being extremely low — only 30 states parties had submitted annual declarations of past activities for 2000 by the deadline (31 March). It remains unclear whether this low rate of submission was the result of problems in national implementation or a result of the fact that no declarable activities had been identified in those states parties that had not submitted an annual declaration. It was further highlighted during the session that only 46 percent of the 88 states parties sent clarification requests by the Secretariat had responded. States parties were encouraged to make their annual declarations as soon as possible and preferably before the annual deadlines.

Inspections and Verification As of 1 June, 985 inspections had been completed or were ongoing at 460 sites in 49 states parties, including inspections of chemical weapons and chemical weapons-related facilities in Bosnia and Herzegovina, China, France, India, Iran, Japan, Russia, UK, US, Federal Republic of Yugoslavia, and one other state party. The breakdown of inspections was: 17 to ACW sites; 223 to CWDFs; 209 to CWPfFs; 134 to CWSFs; 51 to DOC plant sites; 34 to OCW sites; 83 to Schedule 1 facilities; 168 to Schedule 2 plant sites; 65 to Schedule 3 plant sites. OPCW inspectors have spent a total of 58,826 days on mission.

Temporary suspension of inspections of CWSFs, CWPfFs and industrial sites was enacted during the period under review as part of the Secretariat's budget austerity measures. Despite this, the Secretariat had completed 52 inspections since the beginning of the year, and an additional 15 were ongoing. Full verification and inspection activities would be reinstated with the resolution of the outstanding budgetary issues.

In March, a joint Chinese–Japanese investigation of ACW resulted in the declaration by Japan of a new CWSF in China. A total of 32 CWSFs have been declared by states parties.

In April, along with the verification of Category 2 destruction at Shchuch'ye, the Secretariat began to verify the destruction of Category 3 chemical weapons at Leonidovka and Maradykovsky, in accordance with the plans approved by the Council at its twenty-first session. This was the continuation of the previous unilateral actions taken by Russia at these sites.

During the period under review, the Secretariat released a note requesting states parties to assign and use unique codes for Schedule 2 and 3 plant sites. Adherence to the rules and procedures outlined by the Secretariat in this paper would streamline the declaration process with regard to these facilities and reduce inconsistencies. In the past, 32 percent of all declared plant sites were susceptible to identification discrepancies due to small changes or differences in the location, owner, etc. Unique codes for each plant site, used consistently across all the Schedules and all inspection activities, would greatly enhance the efficiency of the OPCW inspection and verification regime. The Secretariat also issued revised templates for preliminary findings during inspections and for the final inspection reports in order to streamline the inspection process further.

At the twenty-fourth session of the Council the states parties expressed their approval of the manner in which the Secretariat has been conducting DOC/PSF inspections.

The period under review included the first instance of sampling and analysis in the course of a Schedule 2 inspection; this activity proceeded without difficulty and with the full cooperation of the state party involved.

Destruction As of 1 May the OPCW had overseen the destruction of 56,121 metric tons of chemical agent (Category 1) and 1,649,086 munitions or containers—out of a declared total of 69,863 metric tons of chemical agent and 8,613,399 munitions or containers.

Out of the 40 CWDFs declared (this includes both those existing facilities and those planned to be built) 5 were currently in operation — 2 in the United States and 3 in Russia. Two CWDFs in the US completed destruction activities and were in the process of being decommissioned. In April, a CWPfF in the US received a certificate of destruction from the OPCW. The Director-General had praise for the United States in his opening statement to the CSP-VI for having destroyed nearly one-fifth of its chemical weapons stockpile. The OPCW certified 5 of the 13 CWPfFs declared by the US as destroyed. The UK destroyed or converted 6 out of 8 of its CWPfFs, and Russia destroyed or converted 8 out of 24 of its CWPfFs.

In its statement to the sixth session of the Conference, Russia confirmed that it was currently destroying Category 2 and 3 chemical weapons with OPCW verification at three declared facilities (Shchuch'ye, Maradykovsky, and Leonidovka) and that this work would be completed before the April 2002 deadline. Russia planned to construct facilities at Gorny, Shchuch'ye, and Kambarka in order to begin destruction of its Category 1 chemical weapons. Only aid from international donors and increased allocations by the Russian government would make these projects a reality. Russia stated during CSP-VI that it was complying with the conditions set out by the United States in order that US financial support for Shchuch'ye be reinstated.

Implementation of Article X The fourth CW Chief Instructor Training Programme (CITPRO IV) was undertaken during 22-27 April in Spiez, Switzerland, and also in Spiez, the Emergency Field Laboratory Training Program (SEF-LAB IV) took place from 13 to 18 May. The first programme was designed to aid states in establishing a basic chemical weapons protection capability and included participants from 22 states parties. A more advanced CITPRO course would be held in October of this year, and a CITPRO V was planned for 2002; the Swiss would host both activities.

These programmes were able to proceed as scheduled, despite the financial crisis within the Organization, because they were heavily subsidised by the host state party, in this case Switzerland. Costs incurred by the Secretariat were kept at a minimum. However, in order to meet reduced cost requirements, CITPRO IV was only able to accommodate half the number of participants, compared to previous years.

During 15-19 October, the Secretariat and the government of Austria would jointly host the Fifth Annual Assistance Coordination Workshop in Vienna. The Workshop would enable states parties to review the strategic concept for Article X implementation recently developed by the Secretariat as well as share their own experiences with the provision of assistance. Austria would also demonstrate its offer of assistance under Article X.

Implementation of Article XI Significant discussion on this issue took place at both the Council's twenty-fourth session and its twelfth meeting, as well as at the sixth session of the Conference. A proposal that would establish an International Cooperation Committee to oversee the implementation of Article XI was put to the Conference but failed to gain a consensus among the states parties. The issue would again be under consideration by the Council in the forthcoming year and by the Conference at its seventh session.

Under the direction of the National Authority of Chile, with some support from the Secretariat, the "Second Regional Meeting of National Authorities of States Parties in the Latin American and Caribbean Region" occurred during 27-29 March in Viña del Mar, Chile. The meeting concentrated primarily on three issues: the status of implementation of the Convention in the region, verification-related issues, and international cooperation projects in the region. Sixteen National Authorities attended and advocated the development of a stronger regional approach to implementation that would, for instance, employ bilateral and regional mechanisms to encourage ratification by those regional states that remain outside of the regime.

A Regional Workshop on the Chemical Weapons Convention for the South Pacific region convened in Melbourne, Australia from 30 April to 3 May. The workshop was hosted jointly by the government of Australia, the Royal Australian Chemical Institute, and the Secretariat and focused on promoting regional cooperation among member states from Southeast Asia and the South Pacific. The representatives from the 14 participating states (including 3 signatory states — Thailand, Cambodia, and the Marshall Islands) emphasised the need for increased support, not only from the Secretariat but also from other states in the region, for the establishment of National Authorities and the preparation of declarations to the OPCW, as well as implementing legislation. Discussion also focused on the importance of education and awareness of the CWC and chemical weapons-related issues. Furthermore, the participants discussed possible regional cooperation projects in such areas as "green chemistry". A proposal for a regional meeting of national authorities in the region was put forward by Singapore, this meeting would mirror those meetings convened annually in Latin America and the Caribbean. For Eastern Europe, a similar proposal was put forward by the Slovak Republic at the annual meeting of national authorities in The Hague.

The third annual meeting of national authorities took place in The Hague during 11-13 May, and included over 100 representatives from 72 states parties. In addition to a one-day workshop, representatives from national authorities had the opportunity to hold regional meetings and consult with the Secretariat on issues arising from their experiences implementing the CWC. This year, the workshop emphasised the importance of implementing legislation and the regulation of the trade in chemicals.

The 2001 Associate Programme would from 6 August through 12 October. The Director-General issued an appeal in his opening statement to the Council in its twenty-fourth session for greater participation in this programme by the chemical industries in Latin America and Africa.

Eighth Official Proficiency Test The results of the eighth official proficiency test, which began on 8 November

and involved 12 laboratories in 10 states parties (Belgium, the Czech Republic, India, Iran, the Netherlands, Poland, Romania, Singapore, Sweden, and the UK), were released during the period under review. A laboratory in the Republic of Korea prepared the samples and a second laboratory in the UK carried out the evaluation. On 5 February, a meeting was held to discuss the preliminary results of the evaluation, which were then released in April. Nine of the twelve participating laboratories (Romania, Belgium, Sweden, the Netherlands, the United Kingdom, the Czech Republic, India, Poland, and Singapore) met the requirements for designation. Two laboratories in India and one in Iran did not pass the test.

The ninth proficiency test began on 2 April with 16 laboratories participating. In order to minimise the costs incurred by the Secretariat, a laboratory in Germany prepared the samples and they would be evaluated by the UK facility at Porton Down at no expense to the Organization. A meeting would be held in July to discuss the results of the ninth proficiency test. The tenth official proficiency test would take place as scheduled in the fall, only if other states parties volunteered their scientific and technical know-how for the preparation and evaluation of samples.

On 11 April, the OPCW laboratory and the OIO officially received accreditation by the Dutch Accreditation Board. Accreditation was the end result of a three-year effort undertaken by the OPCW laboratory and the OIO and reflects a high standard of quality assurance within the Organization. The accreditation covers many activities within the purview of the OPCW Laboratory, such as the planning and management of proficiency testing for designated laboratories, the organization and management of the Central OPCW Analytical Database, and the testing of inspection equipment. The OIO was accredited for certifying the organization of the Central OPCW Analytical Database, as well as the testing of inspection equipment.

Legal Issues Preliminary analysis of the legislation questionnaire distributed to the member states in July was released in March. As of 22 March, 52 states parties had submitted their responses and the Secretariat urged all remaining states parties to do so as soon as possible. Of those responding, 92 percent had implementing legislation in place, yet 40 percent were in the process of either re-drafting or modifying their existing legislation. These modifications were made necessary by recent Conference decisions regarding low concentrations and Schedule 2 chemicals. Eighteen percent of member states were utilising integrated legislation packages. In the areas of prohibition and enforcement, 13 percent had not prohibited the transfer of Schedule 1 chemicals or their precursors to or from states not party to the CWC and 36 percent had not prohibited the transfer of Schedule 2 chemicals to the same group of states. Sixty-five percent were enforcing the requirement for end-use certificates. Of particular concern to the Secretariat was the fact that few states parties made adequate provision for the prosecution of violators of the CWC, concentrating instead on licensing and regulatory matters. Other issue areas highlighted by the results of the survey included the identification of declarable industries, variations in concentration thresholds, the role of customs administration, and free-trade zones. All had contributed to the delay experienced by many

states parties in passing implementing legislation and subsequently in enacting all provisions of the CWC. National implementation continued to be an important area of concern and a focus of activities for the Secretariat.

As of 6 June, 88 states parties had yet to respond to the questionnaire and they were encouraged to do so both by the Secretariat and by CSP-VI. The results of the questionnaire would prove integral to the work of the Secretariat in supporting implementation of the Convention as well as in preparing for the 2003 review conference.

The Secretariat prepared and released during the period under review an updated survey of national implementing legislation. This survey examined the different mechanisms that the states parties have established in order to implement the Convention nationally — comprehensive legislation, integrated legislation, amendments to existing laws or statutes, etc. The survey also addressed the issue of legal assistance, which may be required of states parties under Article VII, paragraph 2. The provision of legal assistance would be facilitated by the existence of appropriate national legislation that implements all aspects of the Convention.

Fifty-five states parties had passed implementing legislation as of 1 June.

Official Visits Mr Gareth Evans, former Australian Foreign Minister and current President of the Brussels-based International Crisis Group (ICG), paid a working visit to the OPCW on 28 March.

On 11 April, the OPCW received Russian Foreign Minister Igor Ivanov. The Minister made a short statement, in which he stated that Russia was elaborating upon proposals to reduce the costs of chemical disarmament while at the same time complying with deadlines. Budget allocations for chemical disarmament would be increased, yet the Minister continued to emphasise the importance of external assistance from states parties and the “world community at large”. He also drew attention to the key importance of the conversion requests submitted by Russia to the Organization and the global need for a “strong OPCW”.

On 20 April, members of the delegations to the Ad Hoc Group negotiating a Protocol to the BWC in Geneva were brought to The Hague by the Dutch government, which has bid to host the future Organization, mandated with implementing the Protocol. The delegates visited the OPCW and were briefed on the Organization and its verification regime, as well as its experience being headquartered in The Hague.

The Romanian Minister of Defence, Mr Ioan Mircea Pascu, paid an official visit to the OPCW on 10 May.

Outreach Activities The austerity measures have had a disproportionate impact in this area, since the programmes of the External Relations Division were deemed non-operative by the member states. A planned meeting in India had to be postponed due to the financial constraints. These usual briefings for Brussels-based delegations have been curtailed in 2001 as a result of the Secretariat’s need to reduce expenditures.

The Secretariat used its participation in the United Nations Asia Pacific Regional Disarmament Conference, held in Wellington, New Zealand during 27-30 March, to encourage ratification of the Convention in the South Pacific region. Three states not party to the CWC were in attendance

at this event: Samoa, Tonga, and Vanuatu. All participants stressed the importance of the Convention being implemented regionally — through the cooperative efforts of the Secretariat and states parties in the region.

On 8 May, the Secretariat hosted a one-day meeting with representatives of the chemical industry. This meeting was designed to increase the engagement of the Secretariat with the chemical industry and provided a forum in which views and concerns about the industrial verification regime could be expressed productively.

During the twenty-fourth session of the Council, the South Korean Ambassador supported the Director-General’s call for universality of the CWC in a statement urging those states parties with influence on North Korea to actively work to bring that country into the OPCW. In pursuit of this goal, as well as promoting ratification/accession to the Convention in Northeast Asia and the South Pacific, the Secretariat and the government of South Korea would co-host a regional seminar in Seoul during 17-19 October. The two-day seminar would focus on CW-destruction, non-proliferation, Article XI, and regional security.

A regional seminar focusing on universality in the Caribbean region and Central America was scheduled to take place in Jamaica in November or December 2001. This meeting was supported by financial assistance from Canada.

Earlier plans for additional meetings in 2001 in Africa and possibly in South Pacific, however, seem to be out of reach given the financial situation.

Staffing The Council had yet to resume discussion of the results of the second job classification exercise, completed in late 2000. The results of the first classification exercise were incorporated into the 2002 programme and budget, adopted by the Conference in its sixth session.

As of 5 June, 476 of the allotted 507 fixed-term posts in the Secretariat were occupied. The Conference in its sixth session decided to keep the number of fixed-term posts in the Secretariat at 507. Of these, 333 were in the professional and higher category and 143 were in the general service category. Including staff on short-term and temporary assistance contracts and others the total personnel strength was 531 from around 66 different nationalities.

As per the decision of the Conference in its sixth session on the budget and financial situation of the Organizations, 30 fixed-term positions would remain unfilled in 2001 and 2002 and a hiring freeze would remain in place, with the exception of those positions deemed by the Director-General as integral to the functioning of the Organization. This policy would result in significant savings to the 2001 and 2002 budgets. On a provisional basis, staff from the Inspectorate would be delegated to carry out necessary tasks. This would only be possible until 2003, when it is expected that all inspectors would be fully utilised in verification activities.

Subsidiary Bodies

Confidentiality Commission The Commission was scheduled to meet for its fifth session from 18-20 April, but this meeting was postponed due to budgetary constraints. New members of the Commission were elected to two-year terms during the sixth session of the Conference.

Scientific Advisory Board The Council considered the report of the fourth session of the SAB, which was held during 5-6 February, at its twenty-fourth session. The report included recommendations on low concentration limits for Schedule 2A and 2A* chemicals. In regard to analytical procedures, the SAB endorsed the inclusion of non-scheduled chemicals in the Central OPCW Analytical Database. Those substances included non-scheduled degradation products of scheduled chemicals, riot control agents, old/abandoned chemical weapons, salts of scheduled chemicals and non-scheduled precursors, and by-products of the synthesis of scheduled chemicals. This data would be useful during challenge inspections and investigations of alleged use. The SAB also reported on the progress of its temporary working groups on inspection equipment, destruction technologies, and biomedical samples—a subject on which the Secretariat sent a questionnaire to states parties in March. The SAB was actively preparing for the 2003 review conference. Among other topics, it planned to examine the future interface between the OPCW and the OPBW and new developments in genomics and biotechnology.

Contacts between the SAB and the International Union of Pure and Applied Chemistry (IUPAC) resulted in an offer from IUPAC to contribute to a review of scientific and technical developments in fields relevant to the Convention. The Secretariat welcomed the idea that IUPAC perform an independent scientific review of developments over the last decade; a meeting involving IUPAC, the Secretariat, and the SAB will be held in July 2001 to discuss logistical and substantive details.

The Council in its twenty-fourth session briefly took up the issue of adamsite, which had been under discussion for quite some time in the SAB.

Future Work

In addition to the continuation of its verification activities and a number of projects in the area of international cooperation, the main work of the OPCW in the coming months would focus on universality and the 2003 CWC review conference. Both matters were of key political importance to the Organization and implementation of the Convention in the longterm. There was a necessity to keep up the momentum generated by the ratifications or accessions of ten states parties in the past twelve months, but legitimate political and security concerns on the behalf of many states not party to the Convention would be difficult to overcome. In addition to planned regional seminars focusing on universality in South Korea in October and in Jamaica before the end of the year, the Secretariat would also engage the states parties themselves in this important work, possibly in the form of an informal meeting on universality.

Although the formal review process for the 2003 review conference would not be launched until 2002, work with IUPAC on a scientific review would begin in the summer of 2001 and other preparations within the Secretariat were moving ahead at full speed, including increased communication with chemical industry. The review conference in the first half of 2003, preceded closely by the seventh session of the Conference of the States Parties in the second half of 2002, would be seen as a key watershed in the work of the Organization toward a world free of chemical weapons.

This review was written by Pamela Mills, the HSP researcher in The Hague.

Strengthening the Biological and Toxin Weapons Convention

A three week session, the twenty-third, of the Ad Hoc Group to consider a legally binding instrument to strengthen the Biological and Toxin Weapons Convention (BWC) was held in Geneva from Monday 23 April to Friday 11 May 2001. This session saw a distinct change in the pattern of the negotiations because the Chairman had on 30 March provided to capitals, as well as to delegations in Geneva, a composite Protocol text entirely based on the rolling text and containing compromises to bridge the remaining gaps based on the informal conceptual consultations that the Chairman had had with delegations and the Friends of the Chair over the previous nine months. The composite text retains the clean parts of the rolling text, while adopting a conservative approach with regard to any new ideas necessary for compromises. Consequently, the Ad Hoc Group met primarily in plenary session during the first two weeks of the session when the Chairman provided a detailed explanation of the composite text on an article-by-article basis. During the third week, the Chairman conducted both formal and informal discussions on the comments and feedback

provided both formally and informally on the composite text. The procedural report of the session (BWC/AD HOC GROUP/AHG/56) contains both the composite text (Annex B) and the rolling text (Annex A) and stated:

While recognizing the Rolling Text as the underlying basis for negotiations, the delegations expressed their views with regard to the compromise proposals contained in the Composite Text, both in formal and informal sessions.

In the April/May session, 56 states parties and 2 signatory states participated; two more states parties than in the February session as five states (Bangladesh, Jordan, Slovenia, Thailand and Tunisia) participated in April/May whilst three states (Portugal, Singapore and Yemen) did not. One fewer signatory state (Myanmar) participated than in February.

There was no change to the Friends of the Chair although the list of Friends of the Chair in the procedural report only showed one Friend — that for the Seat of the Organization — as this was the only Friend to hold a meeting. The list of the Facilitators to assist the Ad Hoc Group saw the omission

of the Australian and Pakistan names from the list of those assisting Ambassador Don Mahley as facilitator for the Headquarters Agreement with the Host Country which now read as follows:

The Headquarters Agreement with the Host Country — Ambassador Donald A. Mahley of the USA who will be assisted by Ambassador Krzysztof Jakubowski of Poland, Ms Katarina Rangnitt of Sweden, Sra. Anayansi Rodriguez Camejo of Cuba and Mr Reza Pourmand Tehrani of Iran as well as additional personnel as considered necessary.

There was a slight increase to 10 in the number of new Working Papers (WPs) — up from the 7 in February and the same as the 10 in November/December 2000. Of the 10 WPs (WP.445 to WP.454), 5 related to the Seat of the Organization with 3 being submitted by the Friend of the Chair (WP.445-7) and 2 (WP.448-9) by Switzerland, with single papers by the Netherlands (WP.450), China (WP.453) and Iran (WP.454) and 1 paper (WP.452) by China, Cuba, Iran, Indonesia, Libya, Pakistan and Sri Lanka and another (WP.451) by China, Cuba, India, Indonesia, Iran, Libya, Mexico, Pakistan and Sri Lanka. The latter 5 papers addressed a number of issues — a workshop on the practical aspects of the future organization (WP.450), 2 on export controls (WP.452-3), 1 on entry into force (WP.454) and 1 on the progress of the negotiations (WP.451).

Both the composite Protocol text and the rolling text are included as Annexes to the procedural report of the April/May session (BWC/AD HOC GROUP/56 — again issued in two pieces, 56-1 and 56-2, owing to length). This was thus the sixteenth issued version of the rolling text, although virtually identical to that of March 2001.

The April/May session had 13 AHG meetings of which 11 were plenary. There was 1/3 of a meeting on the seat of the organization and there were 1 1/2 meetings on decisions on the establishment of a Preparatory Commission and 1/6 of a meeting on the headquarters agreement with the host country. The remainder of the time available was used for informal consultations. During the three week session, three days (25-27 April) were used for the Preparatory Committee for the Fifth Review Conference.

Coinciding with the opening of the Session was an unprecedentedly high level of activity in Geneva by non-governmental organizations — such as Bradford University Department of Peace Studies, the Federation of American Scientists and the Sunshine Project — and other organs of international civil society. These are described in the *News Chronology* below at 23–26 April. In addition, representatives of the Stimson Center presented the findings of its latest study on 7 May.

Political Developments

As usual, a number of statements were made during the April session. On the opening day, Ambassador Tibor Tóth, Chairman of the Ad Hoc Group, in his opening remarks said that he believed that everyone was aware of the importance of this specific session of the Ad Hoc Group as it was the penultimate session for this year and secondly, all delegations had before them the composite Protocol text (BWC/AD HOC GROUP/CRP.8) in which the Chair had adopted compromises to the outstanding issues. He undertook to

walk the delegations through this text in detail explaining the main compromises and pointing out the changes.

Ambassador Tóth then gave his appreciation of the overall status of the negotiations noting that the rolling text had been under negotiation for almost four years since July 1997 and much progress had been made in developing the text with the draft Protocol now well developed with a large part of the text agreed by consensus and therefore free from square brackets. He pointed out that every delegation could point to parts of the rolling text where their specific preferences are reflected and likewise that every delegation could indicate parts of the rolling text where they have already made compromises. However, despite the fact that great progress had been made since mid-1997, quantifiable progress had come to a halt for more than a year even though there are still a number of issues that require resolution.

He recalled that the Ad Hoc Group had sought new ways of addressing the outstanding issues with one of the most visible outcomes being the circulation of building blocks which had, by the end of the February 2001 session, covered most of the draft Protocol. By the end of that session the Ad Hoc Group had become more and more aware that only a composite text to resolve the outstanding issues would help to move the Ad Hoc Group forward as the remaining issues were so interrelated that solutions simply are not possible if attention is focused on one issue at a time, or even on a cluster of issues at a time. Consequently, the challenge that had faced the Chairman was to provide a composite text while at the same time not endangering the efforts and great progress made by the Ad Hoc Group so far. The Ad Hoc Group had recognised that a more holistic approach is needed to complete its work and that it is necessary and timely to take the work of the Ad Hoc Group into its final stage. He had therefore presented both in states' capitals and to delegations in Geneva a composite text in which he had adopted compromises on the unresolved issues.

Ambassador Tóth pointed out that the composite Protocol text in CRP.8 should look very familiar to delegations “as it is in its entirety based on the rolling text”. In the composite Protocol text he had developed language to bridge the remaining gaps, drawing upon the Chairman's exploration of these issues in the informal consultations that had been conducted since July 2000 with all delegations and in very close cooperation with the Friends of the Chair and the Facilitators. He said that he had retained the clean parts of the rolling text, while remaining as conservative as possible with any new ideas needed for compromises. The composite text therefore would not contain any great surprises for delegations. It is, however, a composite text that would achieve the mandate of the Ad Hoc Group and will strengthen all the provisions of the Convention. However, the compromises would require compromises by all delegations as the compromises adopted represented a carefully judged balance of the views of all delegations. Consequently, Ambassador Tóth urged all delegations to take a holistic view of the composite text.

He went on to say that in circulating the composite text, his intention was to break the impasse of the negotiations and facilitate the work of the Ad Hoc Group so as to fulfil its mandate in a timely manner. He noted that the Ad Hoc Group had spent quite a number of years and expensive negotiation sessions on the development of a Protocol to the

Convention and said that “We cannot allow ourselves to now fall short of reaching agreement”.

He called on all delegations to give serious consideration to the composite text with the customary flexibility on the side of all delegations. He expected all delegations to consider and examine the text with a view to what benefits they are gaining. These benefits have two aspects: first, which compromises in the composite text originate from their favoured options; and, secondly, and more importantly, what is to be gained collectively by agreeing and, ultimately, becoming a state party to the Protocol. Conversely, delegations needed to recognise what will be lost if the Ad Hoc Group cannot agree to strengthen the BWC during a period when biological sciences become more and more important each day and important new moral, political and legal barriers have been raised in the way of other types of weapons of mass destruction during the past ten years when there have been negotiations to strengthen the Convention.

In the subsequent plenary session, a number of statements were made. Sweden spoke on behalf of the fifteen member states of the European Union (EU) as well as the Central and Eastern European countries associated with the EU — Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia — and the associated countries Cyprus, Malta and Turkey. It was noted that the negotiations had been ongoing since 1995 and the Ad Hoc Group is now within reach of a Protocol which will strengthen confidence in compliance with the Convention. A successful conclusion of these negotiations would not only strengthen the BWC, but will also be a demonstration that multilateral negotiations are capable of achieving progress towards disarmament and non-proliferation. Sweden went on to say that it was apparent that the negotiations had reached a point where compromises and solutions to critical issues have to be found. In respect of the composite text, the EU was looking forward during this session to the Chairman’s comments and explanations of the composite text to clarify understandings of the compromises. However, the EU already wished to underline that the text does not meet all EU expectations. The Chairman’s composite Protocol text constituted a new phase in the negotiations and it was the view of the EU and the associated countries that:

Your text, Mr Chairman, should be the platform for the political decisions that are needed now. Mr Chairman, at this point of the negotiations finalising a Protocol to strengthen the BTWC is within reach.

A further 21 political statements were then made on the first and second days by Switzerland, Iran, Chile, China, Pakistan, Japan, Libya, Cuba, South Africa, the Russian Federation, Australia, Brazil, the Republic of Korea, New Zealand, Argentina, the Netherlands, the Director General of the Agency of the Russian Federation for Munitions, Canada, Poland, Croatia, and the United Kingdom. These statements generally welcomed the Chairman’s composite text and in most cases expressed reservations about specific aspects. [They are reported in more detail in the “Report from Geneva — Friday 27 April 2001” available on the web at <http://www.brad.ac.uk/acad/sbtwc>.]

In the second week of the Ad Hoc Group session, New Zealand made a statement on behalf of Austria, Brazil, Chile, Guatemala, Ireland, the Netherlands, New Zealand, Norway,

Peru and South Africa that acknowledged that the composite text “establishes the basis to conclude the work of our negotiations in accordance with our mandate”. Three particular concerns were noted: entry into force, the visit regime and provisions for declarations. A simple numeric formula was argued for entry into force noting that this is gathering overwhelming support across all regional groups. In respect of the visit regime, randomly selected visits are regarded as an essential component in the toolbox of visits and their purpose, level of access and reporting arrangements should be strengthened. Declarations should encompass all the most relevant facilities, including biodefence with triggers that should apply in a uniform and non-discriminatory way. Finally, New Zealand noted that the wider benefits in capacity building terms of the measures in the composite text will provide an additional incentive for all countries to join the Protocol.

Later in the same week, a statement was made by China, Cuba, Indonesia, Iran, Libya, Pakistan and Sri Lanka which emphasised the great importance attached to the objective of strengthening the effectiveness of the BWC in a comprehensive manner. However, wide differences continue to exist on several issues and with less than 30 working days remaining for the Ad Hoc Group to conclude its negotiations, there was concern that the Ad Hoc Group may not be able to conclude its work as mandated. Accordingly, they firmly believed that the Ad Hoc Group should immediately resume substantive negotiations based on the rolling text to achieve consensus on outstanding issues.

Fifth Review Conference Preparatory Committee

The first week of the Ad Hoc Group session also saw the holding on Wednesday 25 to Friday 27 April of the Preparatory Committee for the Fifth Review Conference. This began on Wednesday morning when the Preparatory Committee elected by acclamation Ambassador Tibor Tóth of Hungary as Chairman of the Committee. The meeting moved rapidly through the substantive business of the Committee in accordance with the draft Provisional Agenda for the Preparatory Committee (BWC/CONF.V/PC/INF.1) unanimously electing Ambassador Munir Akram (Pakistan) and Ambassador Markku Reimaa (Finland) as Vice Chairmen of the Committee, adopting the agenda of the Preparatory Committee, addressing the organization of the work of the Preparatory Committee and then the organization of the Review Conference itself deciding that the Review Conference should take place in Geneva from 19 November to 7 December 2001 and agreed to recommend to the Fifth Review Conference the provisional agenda as contained in BWC/CONF.V/PC/INF.6 which, as expected, contained the following substantive items:

10. Review of the operation of the Convention as provided for in its article XII
 - (a) General debate
 - (b) Articles 1 - XV
 - (c) Preambular paragraphs and purposes of the Convention
11. Consideration of issues identified in the review of Article XII contained in the Final Declaration of the Fourth Review Conference, and possible follow-up action
12. Consideration of the work of the Ad Hoc Group established by the Special Conference in 1994.

The Preparatory Committee then turned to the consideration of the draft Rules of Procedure of the Fifth Review Conference, as in BWC/CONF.V/PC/INF.2, which were the same as those for the Fourth Review Conference. Ambassador Tóth reminded delegations that standard rules of procedure were usually adopted along with oral amendments. Oral amendments were proposed and accepted to Rule 5 so as to elect two Vice-Chairmen for the Drafting Committee and to Rule 8 so that the General Committee would include the two Vice-Chairmen of the Drafting Committee and also the three Regional Group Coordinators and the Depositaries.

The Preparatory Committee also agreed that the Secretariat would be called upon to provide background information documentation on the participation of the states parties in the agreed Confidence-Building Measures. In addition, states parties would be requested to provide information regarding their compliance with all the obligations and provisions of the BWC and the states parties together with the Depositaries would be invited to submit information on new scientific and technological developments of relevance to the Convention. Such background information would be circulated no later than four weeks prior to the opening of the Review Conference. It is to be noted that one of the papers issued for the Preparatory Committee meetings (BWC/CONF.V/PC/INF.5) provides a list of the BWC states parties and signatory states as of March 2001. The numbers of states parties and signatory states are unchanged at 143 and 18 respectively.

NGO participation in the Review Conference

In further consideration of the draft Rules of Procedure, Mexico made a proposal that Rule 44, para. 5 which states:

5. Non-governmental organizations

Representatives of non-governmental organizations who attend meetings of the Plenary will be entitled upon request to receive the documents of the Conference.

should be revised as Mexico noted that in fora such as the Committee on Human Rights, NGOs are practically equivalent to states parties. It was important to consider the civil society element and Mexico did not see why participation by NGOs might not be extended and they proposed the oral amendment to add at the end of paragraph 5 the words “and to submit material both orally and in writing”.

Chile then took the floor and supported the proposal made by Mexico. Canada said that they supported the proposal made by Mexico as Canada was in favour of an active role for NGOs referring to the useful role of NGOs in fora such as the NPT Review Conferences and the Small Arms and Light Weapons Conference. New Zealand said that they fully supported the active participation of NGOs and they supported the amendment proposed by Mexico. South Africa joined the support for the Mexican proposal as South Africa favoured stronger participation by NGOs.

The USA then spoke on the proposal by Mexico. The US also agreed that NGOs are very important and need to be taken into account. However, they had doubts about oral participation. A way should be found to allow NGOs to participate but not to speak.

India said that they were not clear about the proposed amendment put forward by Mexico and asked the Chairman

to repeat this for clarity. India referred to the very good work done by NGOs during the Protocol negotiations — some documentation, analysis, text — which was all very useful. India agreed that NGOs should attend at Plenary sessions and receive the documents of the Review Conference and wondered if NGOs might speak at a special session of the Review Conference but doubted participation beyond that. India also wondered how many NGOs might be involved — India recalled that there was an NGO Committee on Disarmament and felt that this should be the criterion for NGO participation. India would like to hear the voice of civil society — but there were NGOs and NGOs and NGOs. Given the time constraint on the Review Conference, perhaps one afternoon slot might be used for NGOs who have demonstrated a direct relevance on other occasions to the Biological Weapons Convention.

The Chairman then read out again the proposed Mexican oral amendment. Chile then spoke saying that they had not proposed that NGOs should take part in the making of decisions by the Review Conference. Chile had no problem whatever — like Canada — in listening to NGOs. Chile felt that listening to NGOs express their views was a healthy trend in the multilateral arena. Chile agreed with India that these should be NGOs who have some relevance with the subject matter dealt with by the Review Conference.

France then said that they agreed with the Mexican proposal that NGOs should be given the possibility of contributing in writing or orally within limits. NGOs play an important role as the public media do not appreciate the importance of the BWC and NGOs could be of assistance. Communication was a two way street.

The Chairman then suggested that the Review Conference should rely on practice as at the previous one. He recalled that Ambassador Sir Michael Weston as Chairman of the Fourth Review Conference had developed a solution which allowed NGOs to address delegations when on 27 November 1996 he had suspended the meeting and remained in the Chair whilst NGO statements had been made. Ambassador Tóth's recommendation was that this practice should be followed.

Mexico said that they had listened carefully to what had been said but felt that the practice as at the Fourth Review Conference was not effective as such a session isn't given the full attention by delegations — it is a second rate meeting. The thrust of the Mexican proposal was to keep pace with practice regarding NGOs in other multilateral fora. Mexico did not see why NGOs could not make a contribution when invited to do so by the Chairman. Mexico felt that further thought should be given to this issue and an extra effort should be made to progress this.

The Chairman said that the Preparatory Committee should come back to this issue. There would be consultations to see if a proposal could be made on ways and means for NGO participation.

Informal consultations with those NGOs present in regard to NGO participation resulted in the identification of the following: NGOs would ideally like to participate and contribute in the same way as in the environmental treaties, the Land Mine Ban Convention and the Commission on Human Rights; in addition, NGOs would like to be able to be present as observers in all sessions as they would thereby become much more aware of the real issues — rather than

just the fixes presented in Plenary sessions. NGOs were, however, realistic and recognised that evolutionary progress was more likely and were keen to contribute more effectively than at the Fourth Review Conference by making oral contributions during a formal session of the Review Conference thereby giving delegations more access to those contributions, and by circulating written submissions by relevant NGOs as CRP documents with the detailed arrangements being coordinated with the relevant NGOs by the NGO Committee on Disarmament.

Following further extensive consultations among the states parties, it was eventually decided that the same approach would be taken to NGO participation at the Fifth Review Conference as had been followed at the Fourth.

Prospects

The attention of the April/May Ad Hoc Group session was very much focused on the Chairman's composite text and the compromises contained therein. It was evident that whilst all states parties had reservations about some of the compromises adopted, a number of states regarded the Chairman's composite Protocol text as the basis for further negotiation. Consequently, a description and analysis of the composite Protocol text appended to this progress report.

During the final two days of the Ad Hoc Group, a number of delegations made statements which expressed their appreciation for the hard work that the Chairman had put into the detailed explanations of the composite Protocol text. For example, on the final morning, the United States spoke to express thanks to the Chairman for his untiring efforts to guide the work of the Ad Hoc Group to a successful conclusion as most recently reflected in the production of the Chairman's composite text, CRP.8. The US was particularly appreciative of the hard work that went into the Chairman's extensive explanations and commentary regarding CRP.8. The US concluded by saying that its positions on the substance of this Protocol are well known and that many of those national positions are not reflected in the Chairman's text. Nonetheless, the US is carefully studying the text as a whole, recognizing the many views in the Group and that it can help move forward towards our objective of strengthening the BWC. Japan then spoke saying that detailed explanations by the Chairman on the composite text and expressions of views by delegations on the composite text, in both formal and informal meetings, have been very helpful to understand the background to the composite text and to consider it in a very serious manner. Japan went on to say that the interventions made by a number of delegations on the composite text have made it apparent that views still differ on a limited number of issues. However, it should not allow delegations to lose sight of the fact that there is a strong collective will to overcome such differences and conclude the negotiations by the time line set out by the mandate. The Chairman's text, which includes several innovative suggestions and compromises, is the valuable and practical vehicle which enables delegations to fulfill of the mandate. Japan concluded by appealing to all participating governments to demonstrate the political will to have the agreement of the Protocol in time so that delegations can come back in July with the determination to finish the negotiations by the end of the next session.

Although Ambassador Tóth did not make a concluding statement in the Ad Hoc Group session, he summarised the session in the Press Conference on the final day, Friday 11 May 2001, when he said that this session had concentrated on the composite text. During the first two weeks of the session, he had introduced the composite text and had provided explanations on a detailed article-by-article basis in which he had addressed the compromises in the composite text that were significant for the delegations. Delegations had had the chance to comment on the composite text.

Ambassador Tóth said that from the very beginning of the session, the delegations had welcomed this step which was not unusual in multilateral arms control negotiations when the end game was emerging. Delegations had welcomed the fact that it was possible to fulfill the mandate of the Ad Hoc Group, and quite a number of delegations had welcomed the balance of compromises which had been adopted. At the same time, it had to be recognized that a compromise text which was trying to fix 1,400 brackets had left many delegations unhappy. Many delegations had indicated that what was contained in the text was far away from their preferences. There were also a number of delegations which had not been in a position to comment formally on the proposals. These half a dozen delegations were able to share with him in informal meetings their perceptions about the composite text and where problems for them might lie. As a result of the formal comments in the meetings and these informal indications, he had been in a position to carry out focused discussions on a limited number of specific issues in six areas. Those areas were definitions, declarations, visits, investigations, transfer and entry into force.

Ambassador Tóth said that the delegations had ended up with a better understanding of the remaining divisions as a result of the general statements and the formal and informal comments. Numerically, the issues could be limited to half a dozen areas and one or two sub-elements in those areas. In comparison to 1,400 brackets, this was a major step forward in his judgement.

What was emerging as a climate in the negotiations was that the delegations which used to form a silent majority in the negotiations had spoken massively in the course of the session, Ambassador Toth said. They spoke in favour of the fulfilment of the mandate and concluding the negotiations in the next session. That element would have to be taken into account when delegations assessed the situation. How much flexibility and compromise they had to show in the last session to breach the gaps on those specific issues. Political maturity would be required. The issue now was not how to remove certain brackets in a text, but the question was whether delegations and capitals participating in these negotiations for practically seven plus three years would say a yes or no to a protocol, which in his judgement, would respect legitimate bio-defense, industrial and non-proliferation interests while providing for efficient, additional tools to strengthen the BWC. It had been a surprisingly constructive session notwithstanding the complexity.

The programme of work for the twenty-fourth session, the final one scheduled in 2001, to be held on 23 July to 17 August 2001 was agreed with the 40 meetings allocated primarily to the Ad Hoc Group with other meetings allocated to the Ad Hoc Group/informal consultations and to meetings on the Preparatory Commission including its programme

and budget, on the host country agreement and on the Seat of the Organization as follows:

Seat of Organization	1
Preparatory Commission	2
(programme and budget)	5
Host Country Agreement	2
Ad Hoc Group/Informal	15
Ad Hoc Group	15
<hr/>	
Total	40

The allocation of essentially all the meetings to the Ad Hoc Group and the Ad Hoc Group/Informal confirms the indication that the Ad Hoc Group is close to the completion of its planned work.

The April/May session thus saw a significant step forward with the introduction of the Chairman's composite text and the recognition that while the rolling text was the underlying basis for the negotiations, delegations expressed their views with regard to the composite text.

There was a continuing commitment by all delegations in the April/May session to the completion of the negotiations by the Fifth Review Conference in November/December coupled with a recognition that the composite text could provide the basis to achieve this. Consideration of the composite Protocol text as a whole shows that this brings significant benefits to all states parties when compared to the existing regime based on the BWC alone. A comparison of the Protocol regime with that of the CWC shows the two regimes to be closely comparable with several elements elaborated in the Protocol regime that have no explicit counterpart in the CWC. It is evident that the Protocol negotiation can indeed be completed before the Fifth Review Conference and result in an effective and valuable strengthening of the prohibition regime against biological weapons.

The Composite Protocol Text

Table 1 provides a comparison between the composite Protocol text (BWC/AD HOC GROUP/AHG/56 (Annex B)) and the latest version of the rolling text (BWC/AD HOC GROUP/AHG/56(Annex A)).

It should be noted that there have been some editorial changes made in the composite Protocol text such as the replacement of "pursuant to" by "in accordance with" which have not changed the substance. Consequently the composite Protocol text is described as being identical to that in the rolling text any minor editorial changes that have no effect on the substance have been disregarded.

Preamble The composite text includes all the paragraphs in the rolling text that were out of overall square brackets and omitted five of the six that were in overall square brackets. The sixth one that had been within overall square brackets is included thus achieving a balance between paragraphs addressing the implementation of Article X of the Convention and a paragraph reaffirming the obligations under Article III of the Convention. There is no diminution in the overall thrust of the Preamble.

Article 1 General Provisions The composite text has taken all the paragraphs that were in the rolling text that were out of overall square brackets and omitted all but one of those

paragraphs that were within overall square brackets. A new opening paragraph stating the purpose of the Protocol has been added that draws upon some of the concepts within two of the paragraphs within overall square brackets and a new final paragraph has been added which usefully makes it clear that the definitions and objective criteria shall be used solely for the application of specific measures set out in the Protocol. The single paragraph that was within overall square brackets that has been included is the one which requires the states parties and the Director-General, as appropriate, to take into account existing agreements and competencies of other relevant international organisations and agencies in order to avoid duplication and to ensure an effective and co-ordinated use of resources. This paragraph had previously been included within Article VII of the rolling text and its inclusion in Article 1 General Provisions thereby makes it applicable to the entire Protocol.

Article 2 Definitions Article 2 is based on the language and definitions in *Article II Definitions* of the rolling text. The composite Protocol text has rightly concentrated as required by the mandate for the Ad Hoc Group on definitions of terms *where relevant for specific measures designed to strengthen the Convention*. Three basic definitions have been included in Article 2 for *Bacteriological (biological) and toxin weapons*, *Purposes not prohibited by the Convention*, and a new definition of *Biological materials* which is for use with the transparency threshold levels for facilities involved in national biological defence programmes and/or activities. The first two of these basic definitions are drawn directly from the relevant language in Article I of the Convention thereby ensuring that the definitions used in the Protocol in no way amend the basic prohibitions in the Convention. The compromise is the inclusion of these three basic definitions and the omission of three other basic definitions from the rolling text.

The remaining definitions in Article 2 are all based on the definitions in the rolling text; 15 of these have essentially identical language to that in the rolling text with the removal of square brackets and the adoption of appropriate compromises. The definition of facility has been clarified with one definition for the purposes of declarations and follow-up after declarations and another definition for the purpose of investigations. A useful definition has also been added for national biological defence programmes and/or activities. Three additional definitions are now included in Article 2 for Conference, Director-General and Organisation. The compromises in Article 2 ensure that there are no definitions in the Protocol which have the effect of amending the Convention itself and that the definitions in Article 2 are for the purpose of implementation of the Protocol alone.

Article 3 Lists and Criteria, Equipment and Thresholds Article 3 comprises three sections (A–C) based upon language previously contained in Annex A of the rolling text.

A. List of Agents and Toxins. This section of Article 3 now contains the chapeau text which had previously appeared in *Annex A I. Lists and Criteria (Agents and Toxins)* whilst the list of agents and toxins is retained in Annex A of the composite Protocol text. The first paragraph makes it clear that the list of agents is for use with the declaration trigger for work with listed agents and toxins as

Table 1

Composite Protocol text — AHG 56–Annex B	Rolling text — AHG/56–Annex A
Preamble	Preamble
Article 1 General Provisions	Article I General Provisions
Article 2 Definitions	Article II Definitions
Article 3 Lists and Criteria, Equipment and Thresholds	Article III A, B, C Lists and Criteria, Equipment and Thresholds
Article 4 Declarations	Article III D I Declarations
Article 5 Measures to ensure submission of declarations	Article III D III Measures to ensure submission of declarations
Article 6 Follow-up after submission of declarations	Article III D II Follow-up after submission of declarations
Article 7 Measures to strengthen implementation of Article III of the Convention	Article III F Measures to strengthen implementation of Article III (of the Convention)
Article 8 Consultation, Clarification and Cooperation	Article III E Consultation, Clarification and Cooperation
Article 9 Investigations	Article III G Investigations
Article 10 Additional provisions on declarations, visits and investigations	Article III H Additional provisions on declarations, visits and investigations
Article 11 Confidentiality provisions	Article IV Confidentiality provisions
Article 12 Measures to redress a situation and to ensure compliance	Article V Measures to redress a situation and to ensure compliance
Article 13 Assistance and protection against bacteriological (biological) weapons	Article VI Assistance and protection against bacteriological (biological) weapons
Article 14 Scientific and technological exchange for peaceful purposes and technical co-operation	Article VII Scientific and technological exchange for peaceful purposes and technical co-operation
Article 15 Confidence-building measures	Article VIII Confidence-building measures
Article 16 The Organization	Article IX The Organization
Article 17 National implementation measures	Article X National implementation measures
Article 18 Relationship of the Protocol to the Convention	Article XI Relationship of the Protocol to the Convention
Article 19 Settlement of disputes	Article XII Settlement of disputes
Article 20 Review of the Protocol	Article XIII Review of the Protocol
Article 21 Amendments	Article XIV Amendments
Article 22 Duration and Withdrawal	Article XV Duration and Withdrawal
Article 23 Status of the Annexes and Appendices	Article XVI Status of the Annexes and Appendices
Article 24 Signature	Article XVII Signature
Article 25 Ratification	Article XVIII Ratification
Article 26 Accession	Article XIX Accession
Article 27 Entry into Force	Article XX Entry into Force
Article 28 Reservations	Article XXI Reservations
Article 29 Depositary	Article XXII Depositary
Article 30 Authentic Texts	Article XXIII Authentic Texts
Annex on Lists (Annex A)	Annex A Declarations
Annex on Investigations (Annex B)	Annex C Investigations
Annex on Confidentiality Provisions (Annex C)	Annex D Confidentiality Provisions
Appendix A Declarations of Offensive and/or Defensive Biological and Toxin Programmes and/or Activities conducted prior to Entry into Force of the Convention/Protocol for each State Party	Appendix A Declarations of Offensive and/or Defensive Biological and Toxin Programmes and/or Activities conducted prior to Entry into Force of the Protocol for each State Party
Appendix B Declaration of Current National Biological Defence Programmes and/or Activities	Appendix B Declaration of Defensive Biological and Toxin Programmes and/or Activities conducted during the Previous Year
Appendix C Declaration Format for Facilities declared in accordance with Article 4 (6)	
Appendix D Declaration Format for Facilities declared in accordance with Article 4 (8) to (14)	Appendix C Facilities
Appendix E Listing of Facilities in accordance with Article 4 (7)	Appendix D Listing of Facilities participating in Biological Defensive Activities
Appendix F Listing of Facilities in accordance with Article 4 (15)	
Appendix G Facilities existing on the Territory of a State Party but falling under the jurisdiction or control of another State Party/State	Appendix E Facilities existing on the Territory of a State Party but falling under the jurisdiction or control of another State Party/State
Appendix H Information to be provided in the Declarations required under Article 14 (33)	Appendix F Information to be provided in the Declarations required under ... Article VII
Appendix I Format for Reporting International Transfers of Equipment	Appendix H Standardized Formats for Reporting International Transfers of Equipment

well as for the declaration formats for national biodefence programmes and for declared facilities. The second paragraph usefully emphasises that the list of agents and toxins in Annex A is not exhaustive and does not exclude the relevance of unlisted microbial or other biological agents or toxins. The third and fourth paragraphs set out the procedure for review and modification of the list of agents which requires that the Executive Council shall consider the same criteria which had previously appeared out of square brackets in *Annex A. I* of the rolling text.

The list of agents and toxins appears in the composite Protocol text in the *Annex on Lists (Annex A) A. Lists of Agents and Toxins*. This is essentially identical to the list in Annex A of the rolling text with compromises adopted where there had been agents still within square brackets in the rolling text; in respect of the human and zoonotic pathogens list the composite Protocol text includes *Brucella suis* but not *Brucella abortus*, *Nagleria fowleri* but not *Nagleria australiensis*. For the animal pathogen list which was less developed in the rolling text, the composite Protocol text has adopted a compromise list of six animal pathogens. The plant pathogen list contains the same eight plant pathogens listed in the rolling text and the list of toxins is also the same as in the rolling text.

B. List of Equipment. This section consists of three paragraphs which set out which declaration triggers and declaration formats apply to the list of equipment and also provides for the use of the list of equipment during a facility investigation. Finally the provisions for the review and amendment of the list are stated.

The list of equipment appears in the composite Protocol text in the *Annex on Lists (Annex A) B. Lists of Equipment* and is essentially identical to that in *Annex A.II* of the rolling text which was largely out of square brackets. The requirement in square brackets in the rolling text to provide information on biological safety cabinets Class II has been removed.

C. Annual and Current Transparency Threshold Levels. This section of some nine paragraphs has been developed from *Article III. C. Thresholds* of the rolling text. The compromise adopted in the composite text recognises the long debate about thresholds during the VEREX process, at the Special Conference which established the mandate for the Ad Hoc Group and during the Ad Hoc Group negotiations. This section makes it clear that the transparency thresholds set out are to provide additional transparency for national biological defence programmes and/or activities through the provision of information on the aggregate quantities, expressed in ranges, for all biological materials, defined as in Article 2, present at such a facility during the previous year. This information is to be provided in the declaration formats for such facilities in Appendix C.

Article 4 Declarations Article 4 which sets out the declaration triggers is closely based on the language in *Article III. D. Declarations I. Submission of Declarations* in the rolling text. It is subdivided into three sections (A–C).

A. Submission of Declarations consists of two paragraphs which set out first the requirement for states parties to declare all activities and facilities listed in this Article and for the appropriate declaration format in the Appendices to be submitted not later than 180 days after the entry into force of the Protocol for initial declarations and no

later than 30 April each year for annual declarations. This language is essentially identical to that in the two paragraphs out of square brackets in the initial section of *Article III. D. I* of the rolling text. The other paragraphs which had been in square brackets in the initial section of *Article III. D. I* are now addressed in Articles 10 and 21 of the composite Protocol text and are therefore removed from Article 4.

B. Initial Declarations requires two initial declarations — first of offensive biological weapons programmes and/or activities conducted in the period between 1 January 1946 and entry into force of the Convention for that state party and secondly of defensive biological weapons programmes and/or activities conducted during the 10 years prior to the entry into force of the Protocol for that state party. These provisions are based on the language in *Article III. D. I* of the rolling text and have adopted the same date for the start of past offensive programmes and/or activities as in the Confidence-Building Measure F agreed by the states parties at the Third Review Conference in 1991. Any information on past offensive programmes that subsequently comes to light has also to be declared within a specified time period. The information required in these initial declarations is to be provided as specified in the declaration format in Appendix A and seeks additional detail for the 10 years prior to entry into force of the Convention or of the Protocol.

C. Annual Declarations sets out the requirements for annual declarations of national biological defence programmes and/or activities, maximum biological containment facilities, high biological containment facilities which exceed 100 m² and have produced vaccines or other specified production or have carried out genetic modification of any agent or toxin listed in Annex A, plant pathogen containment, specified work with listed agents and toxins and specified production facilities. These provisions are based on the language in *Article III. D. I* of the rolling text. The compromises adopted in respect of these various declaration triggers ensure that facilities of very little relevance are excluded. Consequently, biodefence programmes/activities involving perhaps a single person monitoring developments in the literature are excluded as are high biological containment facilities with a working area of less than 100 m² and similarly plant pathogen containment facilities with a working area of less than 100 m².

The compromise adopted for biological defence programmes/activities requires a summary of the objectives and elements of the programme — rightly including research and development, testing, evaluation and production — as well as a summary of the research and development carried out in accordance with Appendix B. The requirements for the declaration of national biodefence facilities in accordance with Appendix C strikes a balance between the requirements for states parties with large programmes and many facilities and those states parties with much smaller programmes and fewer facilities.

The requirements in Article 4 for maximum biological containment facilities and for plant pathogen containment facilities are closely similar to those in *Article III. D. I* of the rolling text. In respect of high biological containment, the requirement in Article 4 has usefully been more sharply focused onto relevant production facilities and facilities in which genetic engineering of listed agents and toxins than the previous language in the rolling text. The requirements

for facilities which have engaged in work with listed agents and/or toxins is based on the language in *Article III. D. I* of the rolling text with the removal of square brackets and the adoption of reasonable compromises in respect of the various capacities that had previously been in square brackets. The requirement is that a declaration is necessary if work with the listed agent and/or toxin is associated with specified production and recovery features, certain forms of genetic engineering or certain types of aerosolisation activities.

The requirements for the declaration of production facilities have usefully been brought together requiring the declaration of vaccine, microorganism and biological control agent production under specified circumstances. A final paragraph additionally requires general information to be provided on certain facilities producing for public sale microbially produced substances. Provision is made for the First Review Conference of the Protocol to consider whether such facilities should become subject to randomly-selected transparency visits in the light of the experience that will then have been gained on the implementation of the Protocol.

It is evident that Article 4 has focused on requiring states parties to declare those facilities and activities of the greatest relevance to the Convention.

Article 5 Measures to ensure submission of

declarations Article 5 follows closely the language in *Article III. D. III. Measures to ensure the submission of declarations* in the rolling text. The first three paragraphs are identical to those in the rolling text. In the subsequent six paragraphs, a balance has been struck in relation to the options within square brackets in the rolling text relating to the consequences should a state party not have submitted its initial declarations within one year or its annual declarations within six months after the deadlines specified in Article 4. It has adopted a three tier approach which combines some automatic measures with some conditional measures which have to be considered by the Executive Council:

- If the state party has not submitted its initial declarations within one year or its annual declarations within six months after the Article 4 deadlines then it shall not have access to the declarations of other states parties.
- In addition, the Executive Council shall consider whether to apply one or more of three further measures until the declarations are received.
- If the state party has not submitted its initial declarations within **two** years or its annual declarations within a **year** after the deadlines specified in Article 4, then two further measures shall apply until the declarations are received.

Article 6 Follow-up after submission of declarations

Article 6 is developed from and is based on the provisions and language in *Article III. Declarations II. Follow-up after the submission of declarations* in the rolling text. Article 6 is subdivided into four sections (A–D).

A. The role of the Technical Secretariat starts with paragraphs identical to the first two in Article III. D. II of the rolling text. Its third paragraph states what the Technical Secretariat is to do to promote the fulfilment of the declaration obligations under the Protocol — to process and make a technical analysis of the declarations, conduct a limited number of randomly-selected transparency visits to facilities declared in accordance with certain paragraphs in Article 4,

seek clarification should any ambiguity, uncertainty, anomaly or omission be identified in the content of a declaration, provide technical assistance to states parties and help them compile their declarations including a voluntary assistance visit, if requested. The fourth paragraph relates to the procedures whereby a state party may seek a clarification regarding the declaration of another state party; the state party seeking clarification can do so either using the provisions of *Article 8 Consultation, Clarification and Cooperation* or by using the clarification process in this Article.

The next ten paragraphs relate to the allocation of the different types of visits, the selection of facilities for randomly-selected transparency visits, the limitations on such visits and on voluntary clarification visits, the review of these provisions by the first and subsequent Review Conferences and the annual programme of visits and its review by the Executive Council. The key elements are:

- An overall limit for the total number of all visits in any calendar year of 120 — with provision for the Director-General to conduct less in the light of declarations submitted and visits requested.
 - Limits for the number of randomly-selected transparency visits of not more than 75% and not less than 50% of the total number of visits — i.e. between 60 and 90 such visits.
 - Limits for the number of voluntary assistance visits of not more than 25% and not less than 5% of the total number of visits — i.e. between 6 and 30 such visits.
 - Any clarification visits are deducted successively from the number of randomly-selected transparency visits and the number of voluntary assistance visits whilst ensuring that the minimum numbers of such visits are conducted.
- Provision is also made for the first and subsequent Review Conferences to revise the total number of visits and their allocation between the different categories in the light of the experience gained in the implementation of the Protocol.

In addition limits are placed on the numbers of visits so that they are distributed equably among the states parties:

- No state party shall receive more than seven randomly-selected transparency visits in any calendar year.
- Each state party which declares facilities shall receive at least two randomly-selected transparency visits in any five-year period.
- No individual facility shall receive more than three randomly-selected transparency visits in any five year period.
- The probability of a state party receiving a visit shall be proportional to the number of declared facilities in that state party taking into account the limits detailed in the preceding bullets.

Insofar as voluntary clarification visits are concerned, no state party shall receive more than five such visits in any five-year period.

It is thus evident that the composite Protocol text has adopted a number of compromises which together ensure an effective follow-up after the submission of declarations with an equable spread of visits between states parties and across the range of facilities subject to this Article.

B. Randomly-selected transparency visits is closely based on the provisions and language in *Article III. D. II (A) Randomly-selected Visits* in the rolling text. The purpose of randomly-selected transparency visits is clearly set out as:

- Increasing confidence in the consistency of declarations with the activities of the facility and encouraging submission of complete and consistent declarations;
- Enhancing transparency of facilities subject to the provisions of this section;
- Helping the Technical Secretariat to acquire and retain a comprehensive and up-to-date understanding of the facilities and activities declared globally.

In addition, randomly-selected transparency visits can be extended by up to two days if requested in order for the visiting team to provide assistance on any of the subjects or programmes listed in the relevant paragraphs of Article 14.

The detailed provisions for carrying out such randomly-selected transparency visits are essentially the same as in the rolling text. It is made clear that the visited state party shall provide access to the visiting team within the facility sufficient to fulfil its mandate whilst leaving the nature and extent of all access inside the facility, and to the information it contains, to the discretion of the visited state party.

C. Voluntary assistance visits contains essentially the same provisions as in *Article III. D. II (A) Voluntary Assistance Visits* in the rolling text.

D. Declaration clarification procedures is closely based on the provisions and language in *Article III. D. II (A) Declaration Clarification Procedures* in the rolling text. The composite Protocol text has adopted a compromise in that it provides an option as to whether such clarification is carried out using the procedures set out in Article 6 or by the consultation, clarification and cooperation procedures set out in Article 8. In the particular case of clarification requests relating to a facility which is believed to meet the criteria for declaration and which has not been declared, then the state party from whom clarification is requested may at its discretion respond either using the procedures in Article 8 or the procedures in Article 6.

Insofar as the Director-General is concerned, a compromise has been adopted under which the Director-General can initiate the declaration clarification procedure in regard to the content of a declaration submitted by a state party but in respect of a facility which is believed to meet the criteria for declaration and which has not been declared, the Director-General may request the state party to submit a declaration for the facility concerned.

The detailed procedures are closely similar to those in the rolling text. However, should the declaration clarification procedure not resolve the issue and if a suggested voluntary clarification visit is not offered, then the Director-General shall make a report to the Executive Council. The composite text sets out a range of decisions that might be taken by the Executive Council including the decision initiate a clarification visit. It is clear that the composite text has taken care to strike a balance between the interests of all delegations.

Article 7 Measures to strengthen implementation of Article III of the Convention Article 7 has been developed from *Article III. F. Measures to strengthen the implementation of Article III*. The title has been modified to make it clear that these are measures related to BWC Article III. Article 7 has been restructured, thereby improving clarity, into five sections (A–E).

A. Implementing Legislation contains language from Article III. F of the rolling text requiring states parties to

review, amend or establish any legislation, regulatory or administrative provisions to regulate the transfer of agents, toxins, equipment and technologies relevant to the BWC, providing assistance from the Technical Secretariat in this respect and requiring states parties to report any legislative, regulatory or administrative provisions or other measures it has taken to implement Article III of the Convention.

B. Transfer Guidelines draws upon language from Article III. F of the rolling text and requires states parties to take all measures they deem necessary to ensure that BWC Article III obligations are implemented fully and effectively. Measures are also required to ensure that transfers to any recipient whatsoever of dual-use items are only used for prophylactic, protective or other peaceful purposes; these may include four measures which are set out. Four particular dual-use items are identified to which such measures are to be applied to ensure that their use is only for prophylactic, protective or other peaceful purposes are to be taken.

C. Notifications requires states parties to use the reporting format in Appendix I to notify the Director-General annually of aggregate data on exports of the four particular dual-use items identified in Section B.

D. Consultations provides for states parties to consult among themselves on the implementation of the provisions of this Article and also with a view to specifying the context of a request for a transfer. It also provides for a state party, which has a concern that an authorised transfer could be in violation of Article III of the Convention, to consult directly with the transferring state party. Additional supporting information that might be provided during these consultations is elaborated.

E. Review provides for the first Conference of States Parties held after the first Review Conference of the Protocol to review the operation of the provisions of this Article and to consider whether the introduction of restrictions or prohibitions on transfer to states not party to the Protocol or the *Convention* of the four particular dual-use items identified in Section B would further universal adherence to the Protocol. Subsequent Review Conferences shall keep under review the provisions of this Article.

Article 7 has struck a balance between the range of different views as to how the implementation of Article III of the BWC should be improved. It has addressed the difficult issue of how to improve the implementation of BWC Article III through requiring states parties to take necessary implementing legislation; setting out transfer guidelines; requiring annual notifications of aggregate data for four particular dual-use items; providing for consultations; and requiring the implementation of these provisions to be kept under review.

Article 8 Consultation, Clarification and Cooperation

Article 8 sets out the provision that states parties should consult and cooperate directly among themselves on any matter relating to the purpose and objective of the Convention, or the implementation of the provisions of the Protocol, and clarify and resolve any matter which may raise concern about possible non-compliance with the obligations of this Protocol or the Convention. It follows closely the language in *Article III. E Consultation, Clarification and Cooperation* of the rolling text. Article 8 has in some paragraphs simplified the rolling text by removing unnecessary

duplication or repetition and striking a balance between the options within square brackets in the rolling text; for example, the time within which clarification shall be provided is set at 20 days after receipt of the request.

Article 9 Investigations Article 9 is largely based on the provisions and language in *Article III. G. Investigations* of the rolling text. It is subdivided into nine subsections (A–I).

A. Types of Investigations sets out the two types of investigation: field and facility investigations using language that is essentially identical to that in the rolling text.

B. Outbreaks of Disease has language that is essentially identical to that in the rolling text with some small variations in the titles of subheadings and of the language. This section deals with outbreaks of disease and the circumstances under which a field investigation of an outbreak of disease can be requested to address a non-compliance concern. It is also made clear that reports coming exclusively from the mass media cannot be regarded as evidence.

C. Consultation, Clarification and Cooperation has language that is closely based on that in the rolling text and requires that states parties should, whenever possible, consult between themselves in accordance with Article 8 about any matter that causes concern about compliance with the Convention.

D. Initiation of Investigations and **E. Information to be Submitted with a Request for an Investigation to Address a Concern of Non-compliance with the Convention** have language that is essentially identical to that in the rolling text.

F. Follow-up after Submission of an Investigation Request and Executive Council Decision-making is based upon and developed from the language in the rolling text. Section F has adopted a compromise in respect of the Executive Council decision making in which different decision-making procedures are to be followed depending on the particular circumstances relating to the investigation:

- A request for a field investigation of alleged use of biological weapons on the territory or other place under the control of the requesting state party shall proceed unless a three-quarters majority of members present and voting decide otherwise.
- A request for a field investigation of alleged use of biological weapons on the territory or other place under the control of another state party shall proceed unless a simple majority of members present and voting decide otherwise.
- A request for a field investigation on the territory or other place under the control of a requesting state party where there is a concern that an outbreak of disease is related to prohibited activities shall proceed unless two-thirds of members present and voting decide otherwise.
- A request for a field investigation on the territory or other place under the control of another state party when there is a concern that an outbreak of disease is related to prohibited activities shall proceed only if approved by a simple majority of members present and voting.
- A request for a facility investigation should proceed only if approved by a simple majority of members present and voting.

The key thing is that in all these cases an investigation will take place if the Executive Council so decides thereby

providing the Protocol with the essential ultimate measure to address concerns about non-compliance with the BWC.

G. Access and Measures to Guard Against Abuse During the Conduct of Investigations is closely based on the language in the rolling text. Essentially the receiving state party is obliged to make every reasonable effort to demonstrate its compliance with the Convention and to enable the investigation team complete its mandate. However, the nature and extent of access shall be negotiated between the investigation team and the receiving state party with the receiving state party having the right to make the final decision on the nature and extent of access, taking into account its rights and obligations under the Protocol. The composite Protocol text has thus struck a reasonable balance to ensure that investigations can be carried out effectively whilst safeguarding the interests of the receiving state party.

H. Final Report is essentially identical to the language in the rolling text.

I. Review and Consideration of the Final Report is essentially identical to the language in the rolling text with the addition of a new paragraph which usefully specifies that, in the event of non-compliance being determined, the Executive Council shall circulate the final report to all state parties before the meeting of the Conference of State Parties.

Article 10 Additional provisions on declarations, visits and investigations Article 10, addressing declarations, visits and investigations on the territory of a state party but falling under the control of another state party/party, closely follows the language in *Article III H. Additional Provisions* of the rolling text. Article 10 has struck a balance between the alternative language in the rolling text and has also introduced a new *Appendix G Facilities existing in the territory of a State Party but falling under the control of another State Party/Party* which is to be completed by the state party on whose territory the facility exists; this simply requires answers to some yes/no questions. The overall thrust of Article 10 is not substantively different from that in the rolling text; Article 10 provides a useful complement to the regime in regard to declarations, visits and investigations under such circumstances.

Article 11 Confidentiality provisions The six paragraphs of Article 11 are essentially identical to the first six of *Article IV Confidentiality Provisions* in the rolling text. The other paragraphs in Article IV which were within square brackets and which reproduced the language of Annex D which was out of square brackets apart from a single paragraph are included in the composite text in the *Annex on Confidentiality Provisions (Annex C)*. The square brackets have been removed from the only paragraph in Annex D which had been within them — this obliges observers and states parties sending observers to an investigation to protect confidential information should such information be disclosed to or acquired by such observers during an investigation.

Article 13 Assistance and protection against bacteriological (biological) weapons Article 13 is largely unchanged from *Article VI Assistance and Protection against Biological and Toxin Weapons* in the rolling text. There are a number of small changes relating to text that had been within square brackets in the rolling text:

- Paragraph 1. The phrase “including biosensors” which had been in square brackets is included in the composite Protocol text. Given that biosensors are frequently an integral part of detection equipment, the inclusion of the words “including biosensors” provides a useful clarification which does not significantly amend the substance.
- Paragraph 3. This has been simplified by the removal of the clauses in square brackets making it identical to the corresponding paragraph in Article X of the CWC.
- Paragraph 9. The square brackets around the word “serious” have been removed making it identical to the corresponding language in Article X of the CWC.
- Paragraph 10. The rolling text had alternative forms of words within square brackets. The composite text requires requests for assistance when a state party considers that biological or toxin weapons have been used against them to be accompanied, either simultaneously or within 24 hours by a request for an investigation.
- Paragraph 11. The rolling text had various times within square brackets. The composite Protocol text has these square brackets removed and the time during which the Director-General shall initiate an examination of the request has been increased from 12 to 24 hours — the same time as the corresponding requirement in Article X of the CWC. The final sentence of paragraph 11 which had several square bracketed alternatives has been simplified without any change of substance.
- Paragraph 12. The rolling text had various times within square brackets. The composite Protocol text has these brackets removed. The times are identical to those in the corresponding paragraph in Article X of the CWC.

Article 14 Scientific and technological exchange for peaceful purposes and technical co-operation

Article 14 is largely unchanged from *Article VII Scientific and Technological Exchange for Peaceful Purposes and Technical Cooperation* in the rolling text. Article 14 is subdivided into seven subsections (A–G).

A. General Provisions is closely based on the language in *Article VII (A) General Provisions*. In paragraph 1 (c) the composite Protocol text has simplified the text and has struck a balance by adopting the word “through” and in the second paragraph it has simplified the language so that the Organization shall provide a forum for the review of the implementation of Article X of the Convention.

B. Measures to Promote Scientific and Technological Exchanges is closely based on that in *Article VII (B) Measures to Promote Scientific and Technological Exchanges*. The composite Protocol text contains a different formulation in paragraph 3 — and elsewhere in the text — using “microbial and other biological agents” instead of the formulation “bacteriological (biological) agents” in the rolling text. This formulation reflects the language in BWC Article I. In paragraph 4, the composite Protocol text has removed the square brackets around “where appropriate” in the rolling text and has given the names of the various international organizations and agencies in full instead of using their abbreviations as in the rolling text. There are a number of changes to the subparagraphs in paragraph 4:

- (a) — “microbial or other biological agents” replaces the more limited “microorganisms” in the rolling text. This change has also been made in various other paragraphs

of this Article. The phrase “prophylactics and protection” has replaced the term “biodefence” which had been in square brackets in the rolling text.

- (c) and (d) — The composite text contains a simpler and broader form of words — “including laboratories” and “including research institutes” — than the more limited language in square brackets in the rolling text.
- (h) — The composite text contains a simple solution to the alternatives in square brackets in the rolling text.
- (i) — The composite text contains the broader language of “prophylactics and protection” instead of “biodefence” which had resulted in this subparagraph being within square brackets. The broader language makes the subparagraph entirely appropriate to this Article.
- (k) — The composite text has removed the square brackets from this subparagraph in the rolling text thereby making provision for this Article to address whatever future specific measures might be approved by the Conference of the States Parties to improve the implementation of Article X of the BWC and this Article.

C. Measures to Avoid Hampering the Economic and Technological Development of States Parties strikes a balance in paragraph 6 between the different alternatives within square brackets within the rolling text. It also removes the paragraph in the rolling text which had stated the obvious that states parties have the right to seek measures in accordance with Article V of the Protocol.

D. Institutional Mechanisms for International Cooperation and Protocol Implementation Assistance is closely based on the language in *Article VII (D) Institutional Mechanisms for International Cooperation and Protocol Implementation Assistance* in the rolling text. In respect of the Cooperation Committee, paragraph 7 of the composite text in the first sentence has added a formulation that links this paragraph back to paragraph 2 of this Article. In the second sentence it has removed from square brackets the word “monitor” in the rolling text and removed the additional wording in square brackets in the rolling text. The final sentence has been streamlined through a further reference back to paragraph 2 of this Article. The composite text has in paragraph 8 adopted language on the size of the Cooperation Committee and its distribution amongst the regional groups. The size of 57 is six larger than the Executive Council with each regional group having one more representative than in the Executive Council. The remaining paragraphs relating to the Cooperation Committee set out more clearly the provisions already agreed in the rolling text.

In respect of the role of the Technical Secretariat the composite text in paragraph 21 (a) has adopted a compromise drawing upon language and ideas in the three options in the rolling text. In subparagraphs (h) and (i), the composite text has removed language within square brackets in the rolling text. The composite text then includes at this point a paragraph which occurred later in the rolling text and requires the Technical Secretariat to contain a department devoted to implementation of this Article thereby underlining the importance to the regime of the contribution coming from the implementation of BWC Article X.

E. Review and Consideration of Concerns Related to the Implementation of Article X of the Convention and this Article adopts streamlined language in paragraph 28 which addresses the concepts relating to the actions that may

be taken by the Executive Council in considering concerns about the implementation of Article X of the Convention and this Article which has been contained in two paragraphs within square brackets in the rolling text.

F. Co-operative Relationships with Other International Organizations and Among States Parties.

The composite text in paragraph 29 has added an introductory phrase outlining the objectives of such co-operative relationships. It has also given the names of the various international organizations and agencies in full instead of using their abbreviations as in the rolling text. In paragraph 30 it has removed this paragraph from the square brackets in the rolling text thereby including possible ad hoc collaborative arrangements with non-governmental organisations as it is not possible to predict what future NGOs might exist and be appropriate to enter into such arrangements.

G. Declarations is essentially identical to the language in the rolling text apart from the removal of the paragraph within square brackets.

Article 15 Confidence-building measures Article 15 has identical language to that previously within overall square brackets in Article VIII of the rolling text.

Article 16 The Organization Article 16 is essentially identical to the language in *Article IX The Organization* in the rolling text apart from a few areas where compromises have been adopted. One such area relates to the size of the Executive Council in which the composite Protocol text has a membership of 51 comprising of 11 states parties from Africa, 7 from East Asia and the Pacific, 7 from Eastern Europe, 9 from Latin America and the Caribbean, 12 from the Western European and other States and 5 from West and South Asia. A second area is in Section E. Privileges and Immunities where language providing for the concept of the waiving of the immunity of the Organization or of the Director-General has not been included. This exclusion parallels the situation that applies under the CWC to the Organization for the Prohibition of Chemical Weapons.

Legal Issues

The term *legal issues* is used in this description and analysis to refer to those Articles in the composite text that in the rolling text had been developed by the Friend of the Chair on Legal Issues together with *Article 17 National Implementation Measures* which in the rolling text had been developed by the Friend of the Chair on national implementation/assistance. As most of these Articles had already reached the stage of clean text, free from square brackets, the composite text is identical in many Articles to that in the rolling text. The following table indicates which Articles have essentially identical text to that in the rolling text.

Composite Protocol text (AHG/56 (Annex B))	Rolling text (AHG/56 (Annex A))
<i>Article 12 Measures to redress a situation and to ensure compliance</i>	As <i>Article V Measures to redress a situation and to ensure compliance</i> with removal of brackets from final para so that the issue can be brought to the attention of both the General Assembly and the Security Council.

<i>Article 17 National implementation measures</i>	As <i>Article X National implementation measures</i> with removal in para 1 (a) of words within square brackets and in para 4 of words <i>inter alia</i>
<i>Article 18 Relationship of the Protocol to the Convention</i>	Identical to <i>Article XI Relationship of the Protocol to the Convention</i>
<i>Article 19 Settlement of disputes</i>	As <i>Article XII Settlement of disputes</i> with removal of overall square brackets from fifth para
<i>Article 20 Review of the Protocol</i>	As <i>Article XIII Review of the Protocol</i> with removal of a non-essential explanatory phrase in parentheses from the first para
<i>Article 21 Amendments</i>	As <i>Article XIV Amendments</i> with requirement in para 2 being for one third or more states to support the holding of an Amendment Conference
<i>Article 22 Duration and Withdrawal</i>	Identical to <i>Article XV Duration and Withdrawal</i>
<i>Article 23 Status of the Annexes and Appendices</i>	Identical to <i>Article XVI Status of the Annexes and Appendices</i>
<i>Article 24 Signature</i>	Identical to <i>Article XVII Signature</i>
<i>Article 25 Ratification</i>	Identical to <i>Article XVIII Ratification</i>
<i>Article 26 Accession</i>	Identical to <i>Article XIX Accession</i>
<i>Article 27 Entry into Force</i>	Paragraphs 2 & 3 identical to <i>Article XX Entry into Force</i>
<i>Article 28 Reservations</i>	Square brackets in <i>Article XXI Reservations</i> removed and one clause in square brackets removed
<i>Article 29 Depository</i>	Identical to <i>Article XXII Depository</i>
<i>Article 30 Authentic Texts</i>	Identical to <i>Article XXIII Authentic Texts</i>

Those Articles for which there have been changes from the rolling text are considered briefly:

Article 12 Measures to redress a situation and to ensure compliance is identical to Article V in the rolling text with the removal of the square brackets from the final paragraph so that the issue can be brought to the attention of both the General Assembly and the Security Council. This provision is identical to the provision in the corresponding Article XII in the Chemical Weapons Convention.

Article 17 National implementation measures is identical to Article X in the rolling text with the removal in para 1 (a) of the words within square brackets. The words in square brackets in Article X referred to Article I of the Protocol; no such cross-reference is necessary to the provisions in Article 1 General Provisions of the composite Protocol text. This is because Article 1 does not add further prohibitions. Instead, it reaffirms the obligations already contained in the Convention. Linkage with Article 1 of the Protocol is already ensured by the similarity of Article 1 paragraph 8 with Article 17 paragraph 1.

Article 19 Settlement of disputes is identical to Article XII in the rolling text with the removal of overall square brackets from the fifth paragraph which states that this Article is without prejudice to Articles 3 to 12. It is essentially the same as the provisions in the final paragraph of the corresponding Article XIV in the CWC.

Article 20 Review of the Protocol is identical to Article XIII in the rolling text with the removal of an explanatory phrase “(hereinafter referred to as a “Review Conference”)” from the first paragraph.

Article 21 Amendments is identical to Article XIV in the rolling text apart from the second sentence of paragraph 1 which states that any state party may propose changes, in accordance with paragraph 4, to specified parts of this Protocol or its Annexes or its Appendices and the requirement in the second paragraph being for one third or more states to support the holding of an Amendment Conference. This latter provision is identical to the provision in the corresponding Article XV in the CWC.

Article 27 Entry into Force consists of three paragraphs; the second and third paragraphs are identical to those in Article XX in the rolling text. The first paragraph contains language stating that:

This Protocol shall enter into force 180 days after the deposit of instruments of ratification by 65 States, which shall include seven States from Africa, four States from East Asia and the Pacific, four States from Eastern Europe, six States from Latin America and the Caribbean, nine States from among Western European and other States and three States from West and South Asia, but not earlier than two years after its opening for signature.

The number of states required to deposit their instruments of ratification broadly reflect the composition of the Executive Council which is specified in Article 16. This formulation avoids the situation in which a single state can effectively veto the entry into force of the Protocol through withholding its instrument of ratification.

Article 27 provides for entry into force to occur 180 days after the deposit of the 65th instrument of ratification — an identical provision to that of Article XXI of the CWC.

Article 28 Reservations is developed from Article XXI in the rolling text. The provision in Article 28 is that the Articles and Annexes in the Protocol shall not be subject to reservations and the Appendices shall not be subject to reservations incompatible with the object and purpose of the Protocol. It is essentially the same as the provision in the corresponding Article XXII in the CWC.

Article 29 Depositary is identical to Article XXII in the rolling text with the UN Secretary-General designated as Depositary and the other alternative deleted. This provision is identical to the provision in the corresponding Article XXIII in the CWC. A consequential deletion of the alternative has occurred in Article 22, paragraph 2 and Article 30.

Article 30 Authentic Texts is identical to Article XXIII in the rolling text with the UN Secretary-General as depositary and with London shown as the location at which the Protocol is signed. This provision is identical to the provision in the corresponding Article XXIV in the CWC apart from London appearing instead of Paris.

It is thus evident that for these 15 Articles in the Chairman’s composite Protocol text that the language is essentially identical to that in the rolling text; the single Article in which new language has usefully been introduced is in relation to *Article 27 Entry into Force*. The provisions in the Chairman’s composite Protocol text are essentially identical to those in the corresponding Articles of the CWC.

Annexes and Appendices The composite Protocol text has three Annexes:

- Annex on Lists (Annex A)
- Annex on Investigations (Annex B)
- Annex on Confidentiality Provisions (Annex C)

The Annex on Lists (Annex A) is, as already discussed under Article 3, closely related to the language in *Annex A Declarations I Lists and Criteria (Agents and Toxins)* and *Annex A Declarations II List of Equipment* of the rolling text. The Annex on Investigations (Annex B) is largely based on the language in *Annex C Investigations* of the rolling text although compromises have been adopted to resolve issues previously within square brackets in the rolling text. The Annex on Confidentiality Provisions (Annex C) is, as already discussed under Article 11, essentially identical to *Annex D Confidentiality Provisions* in the rolling text.

The composite Protocol text has nine Appendices:

- Appendix A Declarations of Offensive and/or Defensive Biological and Toxin Programmes and/or Activities Conducted Prior to Entry into Force of the Convention/Protocol for Each State Party
- Appendix B Declaration of Current National Biological Defence Programmes and/or Activities
- Appendix C Declaration Format for Facilities Declared in Accordance with Article 4 (6)
- Appendix D Declaration Format for Facilities Declared in Accordance with Article 4 (8) to (14)
- Appendix E Listing of Facilities in Accordance with Article 4 (7)
- Appendix F Listing of Facilities in Accordance with Article 4 (15)
- Appendix G Facilities Existing on the Territory of a State Party but Falling under the Jurisdiction or Control of Another State Party/State
- Appendix H Information to be provided in the Declarations Required under Article 14 (33)
- Appendix I Format for Reporting International Transfers of Equipment

These provide the formats for the various declarations and listing of facilities required under the Protocol.

Analysis of the composite Protocol text

The composite Protocol text is in many areas identical to the language in the rolling text and is firmly based on the agreed language out of square brackets in the rolling text. Compromises have been adopted to address those issues where there continued to be a divergence of views. These compromises have emerged from the bilateral informal consultations held by the Chairman and have been explored through the written elements addressing conceptual solutions based on the rolling text which had been circulated by the Chairman for virtually the whole of the Protocol to all delegations by February 2001. Whilst these compromises will not satisfy the aspirations of all the delegations to the Ad Hoc Group, they do successfully ensure that the composite text achieves its mandate of strengthening the effectiveness and improving the implementation of the Convention. The composite text may be regarded as retaining all the essential elements for an effective Protocol ranging from definitions and objective criteria, through compliance measures to measures for

scientific and technological exchange for peaceful purposes and technical cooperation.

In considering the composite Protocol text, it is important to remember that the BWC with its basic prohibitions and obligations has been **in force** for over 25 years and that the Protocol is to strengthen the effectiveness and improve the implementation of the Convention. It makes **no** changes to the basic prohibitions and obligations. The Protocol regime is supplementary and additional to the Convention.

The key comparison is thus between the Protocol regime and the BWC alone, including the procedures devolved from its provisions. A tabulation of the principal measures in the regime, compared with the procedures of the BWC alone, brings out the significant benefits from the Protocol:

BWC and its Protocol Regime	BWC alone
Mandatory declarations — measures to ensure submission	Confidence-Building Measures — patchy and variable (if made)
Declaration follow-up procedures — analysis of declarations — randomly-selected transparency visits	None — none — none
Declaration clarification procedures — clarification visits	None — none
Voluntary assistance visits	None
Non-compliance concerns — Consultations >>> Investigations	Art V consultation procedures Art VI complaint to UN Security Council
Field investigation	Possible UN Secretary-General investigation if invited by State Party concerned
Facility investigation	None
Transfer procedures	None
Assistance — provisions detailed	Art VII assistance if UN Security Council decides a Party has been exposed to danger
International Cooperation — elaborated in detail — Cooperation Committee	Art X provisions — no implementation procedures — none
Organization — CoSP, ExC & Technical Secretariat	None
National implementation — Penal legislation required — National Authority	Art IV National implementation — No penal legislation requirement — None

Considering all of the elements of the BWC Protocol regime as a whole, there are overall three particularly significant benefits that will accrue from the BWC Protocol regime and which are not available with the Convention alone:

BWC and its Protocol Regime	BWC alone
Measures to increase transparency and build confidence	Suspicions not addressed — and over time reduce international confidence in the regime
Procedures to address non-compliance concerns	Art V consultations (no teeth) Art VI complaints to UN SC (not used)
International cooperation and assistance provisions	No action despite aspirations at successive Review Conferences

The Protocol regime thus brings significant and worthwhile benefits to all states parties — both developed and

developing — over and above the procedures to uphold the basic prohibitions and obligations of the BWC, which remain unchanged. In addition, the Protocol will be effective, over time, in building confidence between states parties that other states parties are indeed in compliance with the BWC, thereby reinforcing the norm that work on biological weapons, whether directed against humans, animals or plants, is totally prohibited. The Protocol thus brings improved health, safety, security and prosperity to all states parties.

It is also appropriate to compare the BWC Protocol regime with the CWC regime. The CWC regime is of considerable relevance to the BWC Protocol regime for a number of reasons. First, there is a close relationship between chemical and biological weapons with the two regimes overlapping for the materials of biological origin such as toxins. Both regimes address dual-use materials and technology and both have general purpose criteria which embrace all possible agents, past, present and future. Indeed the CWC regime is the one of greatest relevance to the BWC Protocol regime and it is already evident that National Authorities for the two regimes are likely to be colocated in a number of countries.

It is hardly surprising that the BWC Protocol regime has been largely developed from the CWC regime; it is, however, much more elaborated than the CWC and has been finely tailored to address those biological agents and facilities of greatest relevance to the BWC. There are, however, some particular differences between the CWC regime and the BWC Protocol regime largely arising from the fact that the CWC came into force in 1997 with a number of states known to be possessors of chemical weapons and chemical weapon production facilities whilst the BWC came into force over 25 years ago. These differences are summarised in the Table:

BWC and its Protocol Regime	CWC Regime
No biological weapon stockpiles	Declaration of chemical weapon (CW) stockpiles
Declaration of past offensive biological weapon programmes	Declaration of chemical weapon production facilities (CWPFs)
No destruction of biological weapon stockpiles	Destruction of chemical weapon stockpiles
No destruction of biological weapon production facilities	Destruction of chemical weapon production facilities
No tight timeline	Tight timelines for declaration and inspection of CW and CWPFs
List of agents and toxins — No SSSF equivalent — Declaration trigger	Scheduled chemicals — Single small scale facility (SSSF) — Varying regime according to Schedule

If the CW and CWPF elements of the CWC are ignored, then the basic architecture of the BWC Protocol regime and the CWC regime is the **same**. The differences between them are in the details. The BWC Protocol regime is built upon the confidence-building measures agreed at the Second Review Conference in 1986, and extended at the Third in 1991, as well as the CWC regime. In respect of the monitoring of dual-purpose materials and facilities, the two regimes are very comparable, with the Protocol regime imposing a less onerous but more focused burden in respect of declarations

and visits whilst the international cooperation provisions are much more extensive than those of the CWC. In comparing the BWC Protocol regime with that of the CWC, the fact that the BWC is **already** in force needs to be remembered.

The two regimes are compared in the following Table:

BWC and its Protocol Regime	CWC Regime
Mandatory declarations — range of facilities (BL-4, BL-3, genetic modification, work with listed agents, production) — requires declaration of biological defence — measures to ensure submission	Mandatory declarations — focused on production of chemicals — no declaration of chemical defence — no measures to ensure submission
Declaration follow-up procedures — analysis of declarations — randomly-selected transparency visits	Routine inspections of Scheduled chemical facilities and DOC (discrete organic chemical) facilities
Declaration clarification procedures — clarification visits	No declaration clarification procedures — implicit not elaborated
Voluntary assistance visits	No provision for voluntary assistance visits — implicit not elaborated
Non-compliance concerns — Consultations >>> Investigations	Non-compliance concerns — Consultations >>> Investigations
Field investigation — includes investigation of releases	Investigation of alleged use — no investigation of releases
Facility investigation — team size and duration limited	Challenge inspection — duration limited
Transfer procedures	Transfer controls
Assistance — provisions similar to CWC	Assistance
International Cooperation — elaborated in detail — Cooperation Committee	International Cooperation — not elaborated in detail — no provision for Cooperation Committee
Organization — CoSP, ExC & Technical Secretariat — TS has role to analyse epidemiological information	Organization — CoSP, ExC & Technical Secretariat — no parallel role

National implementation — Penal legislation required — National Authority	National implementation — Penal legislation required — National Authority
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The similarities between the two regimes are apparent. It is evident that the BWC Protocol regime is considerably more elaborated, with limitations on the overall number of visits, team sizes and durations, than the CWC regime. There are, however, *de facto* limitations within the CWC regime through the annual scrutiny of the OPCW's programme and budget by the Executive Council and the Conference of the States Parties. On the other hand, there are several areas where the BWC Protocol regime has additional provisions that are not specifically included in the CWC regime.

In making an overall comparison of these two regimes, consideration also has to be given to the intensity of the visits/inspections of the facilities declared under the two regimes (and ignoring the CWC inspection regime for chemical weapon, CWPFs and CW destruction facilities). It needs to be recalled also that the numbers of facilities declared under the BWC Protocol regime has been estimated by several European countries as being of the order of tens of facilities per European country; this can be compared to the UK declaration (Department of Trade and Industry, 1997 *Annual Report on the Operation of the Chemical Weapons Act 1996 by the Secretary of State for Trade and Industry*, February 1998) under the CWC of over 550 plants at over 150 sites. Consequently, it can be expected that the number of declared facilities under the BWC Protocol regime will be smaller by a factor of ten. The CWC regime has an intensity that varies depending on which Scheduled chemical is produced or used in a facility and reflects the risk to the Convention with Discrete Organic Chemical (DOC) facilities having a much smaller intensity of routine inspection. The BWC Protocol regime has an intensity of visits that is not dependent on the type of declared facility and should therefore ensure that all declared facilities that are subject to randomly-selected visits will over time receive such visits.

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

The Continuing Trial of Wouter Basson

This report covers the period 29 January through 31 May 2001. A detailed account is posted on the HSP website.

Swiss pharmacologist Dr David Chu was the 131st witness for the State and the first to take the stand on 29 January. He gave evidence for the prosecution about his professional relationship with Dr Basson. Chu met Basson in late 1988, and two years later became managing director of Medchem Forschungs, a company specifically set up by Basson to promote Roodeplaat Research Laboratories in Europe as a

pharmaceutical contract research facility. During testimony Chu denied that he had known that Roodeplaat Research Laboratories was a biological warfare facility saying that he knew it only as a commercial biological research lab.

According to Chu, Medchem Forschungs was unable to promote RRL internationally because of the facility's failure to become GLP (Good Laboratory Practices) accredited.

Despite not doing the work expected Chu's company received an amount of 150 000 Swiss francs from Basson.

Chu testified to having opened personal bank accounts which were used by Basson. Large sums of cash in British pounds were deposited into the accounts. During cross examination Chu admitted that these transactions were nothing more than money laundering.

During cross-examination Cilliers said that Chu had not been completely frank with the court regarding the circumstances under which he met Basson. According to Cilliers, Chu introduced himself to Basson through his association with Jurg Jacomet, who was involved in a variety of sanctions-busting deals. He went on to say that it was because Chu was known to be involved in sanctions busting in East European countries and in money laundering that Basson had wanted to work with him. Chu denied these allegations.

Cilliers also claimed Chu was aware of Basson's contact with the Libyan Intelligence community. Chu denied this saying that late in his association with Basson, Basson mentioned that Libya was a potential buyer for Roodeplaat Research Laboratories. Chu's testimony concluded with him denying Cilliers' allegation that he was aware that the money paid to Medchem Forschungs was of SADF origin.

During early February prosecutor, Anton Ackerman (SC) called a number of former defence force soldiers to testify about their experiences in the Angolan conflict in the early and mid 1980s. The intention was to show no SADF combat troops deployed in Angola or the Namibian operational area were ever issued with NBC suits. These witnesses confirmed that they had never been issued with protective clothing, nor had they ever seen or heard of such items being available in the operational area.

During the second week of February the prosecutors called Antoinette Erasmus to testify. Erasmus is currently based in Canada. She told the court that in her opinion, Basson, Mijburgh and Swanepoel all led luxurious lifestyles, which were not in keeping with their jobs at the time. Erasmus said that gifts bought for her by Basson were indicative that he had access to large amounts of money. These gifts included a Cartier wristwatch and a gold chain bought in England, which he gave her as a Christmas gift. During cross-examination Cilliers challenged Erasmus's view that Basson had led a luxury lifestyle, saying that his lifestyle was in keeping with his position, perhaps slightly above average.

Former National Intelligence agent Cobus Engelbrecht, who was chief of the counter-intelligence operations section from 1990 to 1994 testified about the National Intelligence Agencies (NIA) surveillance of Basson. Engelbrecht said Basson was never the primary subject of surveillance or observation, but came to NIA's attention through his association with Sol Pienaar, whose activities were being monitored from late 1991 to 1993 because of his links with Yusuf Murgham, a Libyan living in Harare at the time. Through their surveillance the NIA became aware of a trip Basson and Pienaar undertook to northern Africa.

The flight set off alarm bells at NIA's counter-intelligence section. Murgham was already under surveillance at the time and there were many questions about his association with Pienaar. NIA strongly suspected Murgham of being involved in covert intelligence work. The flight by Basson and Pienaar served to deepen NIA's interest in Murgham.

Knowing that Basson had been a high-profile SADF officer involved with an ultra-sensitive project, NIA was immediately concerned that his contact with Libya could present a security risk. Some time later Basson met with three NIA agents including Michael Kennedy. Basson told the agents that he had suspected Murgham might previously have been involved in intelligence for Libya. Basson said he understood that Murgham was interested only in trade and "looking after his own interests", although he had maintained contact with his principals in the intelligence community. Projects mentioned by Basson included the building of a railway line, oil imports and trade in fruit juices and clothing. Basson confirmed that a visit to Libya had already been made by a high level delegation in regard to building of a railway line. Basson assured NIA that his only interest lay in becoming a player in the world of finance, that he wanted to make money from commercial ventures, and to this end, was studying economics part-time.

Of crucial importance to NIA was whether or not Murgham knew who Basson really was, what project he had been involved in, and what his capabilities in the CBW field were. Basson repeatedly assured the NIA agents during the interview that Murgham had no knowledge of his military background, or the project. He knew Basson only as a businessman.

In cross-examination, Adv Jaap Cilliers claimed that the intelligence agency had its sights set on Basson from 1990/91, when they were informed by the American intelligence service that Basson was making regular trips to Libya, and asked what these were about. The trips had been picked up, said Cilliers, through Basson's flights to Jerba in Tunisia. Engelbrecht denied knowledge of this and said the first flight that drew NIA's attention to Basson's Libyan links, was the one with Pienaar in mid-93.

Cilliers said that during the first interrogation session with the intelligence agency, Basson had lied. He denied that his Libyan connections had anything to do with CBW – but this was deliberate, said Cilliers, and it was only afterwards that he received orders from former surgeon-general Niel Knobel to put all his cards on the table with NIA and then he provided details of the Libyan CBW programme. Engelbrecht said there were several debriefing sessions following the international demarches, but he cannot remember the Libyan CBW programme ever being brought up. The debriefings dealt with South Africa's CBW programme.

During the cross-examination Cilliers referred to Basson having been arrested in Libya towards the end of 1994 but gave no details of the incident and Engelbrecht said he was not aware that this had been the case.

At the end of February, prosecutor Torie Pretorius made an application to the court to have the transcript of the NIA's interrogation of Basson submitted as evidence. His application was rejected by the Judge who ruled it inadmissible.

The state later called Sol Pienaar. Pienaar is an ANC member who had contact with various high-ranking ANC officials, including Nelson Mandela. Following Mandela's release, Pienaar was in charge of arranging all his flights and those of other senior ANC officials, and when Mandela flew anywhere, Pienaar accompanied him.

Pienaar told the court he first met Basson at the beginning of 1993. At the time, the Libyan government wanted an internal railway line constructed. He was introduced to

Basson as an “international businessman” in South Africa who might be able to help. Pienaar told Basson from the outset that he was involved with the ANC, and close to Mandela. Basson showed great interest in the prospect of international business opportunities.

On 8 May 1992, Pienaar had met Yusuf Murgham in Harare in connection with the railway line project, and this had also been discussed with Mandela in the interim. Murgham was in charge of the visa section at the Libyan embassy in Harare, and it was his specific task to arrange visits to Libya. Asked if Murgham was involved in the Libyan intelligence service, Pienaar said anyone in a Department of Foreign Affairs visa section had intelligence contacts, but any suggestion that Murgham was a high-ranking Libyan intelligence agent was utterly untrue.

Pienaar told the court he had contacts within the Libyan intelligence service. He said that Murgham was never a high ranking intelligence officer in that country. Pienaar said he had not been aware of Basson’s links with the Defence Force or the National party government and would not have done business with him had he known this. Pienaar was asked about the claim by Basson’s defence counsel that he had accompanied Basson on a trip to Libya to fetch cash for payment of Winnie Madikizela-Mandela’s legal fees. Pienaar denied this saying that the trip took place in the early 1990s, and it was not until 1993 that he first took Basson to Libya – and that was the only time they made the trip together. He also said that whilst he would have been prepared to undertake the task, he was never asked to do so.

In cross-examination, Cilliers challenged Pienaar’s statement that Basson had not met Murgham before he introduced the two men, and said that Basson had known Murgham for years before Pienaar introduced them. Pienaar denied this categorically. Cilliers claimed that Murgham was an important person in Libyan politics.

On 20 February, Rear-Admiral Paul Murray testified for the state. Murray was the SADF’s Chief of Staff Finance until his retirement in November 1993. Murray said that while he held this position the SADF annual budget was about R12 billion.

Murray was a member of the Co-ordinating Management Committee of Project Coast from 1992. Asked to comment on claims before the court that the CMC operated in terms of its own rules and regulations governing Coast finances, Murray confirmed that the was subject to Treasury regulations. Unless the CMC had made special application to the Treasury to function in a different manner, it was not authorised to make autonomous financial decisions. Murray said that classified SADF projects were funded from the Special Defence Account.

Murray told the court that in mid-1992 he wrote to Knobel seeking details of past expenditure because he was unhappy with the way Coast finances had been run. His files contained no contracts for Coast acquisitions, as they ought to have, since all contracts entered into on behalf of the SADF should have been signed by the Chief of Staff Finance. Murray’s department was expected to make payments in terms of Coast contracts of which there was no record. He received a response from Basson who listed the outstanding contracts without providing copies of the contracts themselves. Murray never received copies of any

contracts related to Project Coast. He was also unable to get copies of the minutes of CMC meetings prior to 1992.

Asked to comment on Gen Knobel’s agreement with Cilliers’ statement that chemicals, NBC suits and other equipment acquired for Coast were not reflected in the SADF records because they were “too sensitive” Murray said this was not true.

During cross-examination Cilliers said that Basson can not be held accountable for the fact that the CMC did not follow the rules and procedures.

During the last week of February Anton Ackerman, prosecutor on the fraud charges, called Armscor employee Roelf Louw to testify. Louw testified about the weaponization of CR by Swartklip Products and said that as far as he was aware this was the only chemical agent weaponized.

During cross-examination Louw was asked about the use of CR in Angola and he said that he had been reliably informed that 81mm mortars of CR were used during Operation Packer, the withdrawal from Angola.

Dr Torie Pretorius called former SADF medical doctor, Philip Meyer to testify. Meyer told the court that he had been involved in the chemical interrogation of a prisoner at 1 Military Hospital in 1985. He claimed that Basson and Dr Deon Erasmus (now practicing in Canada) had administered drugs to the prisoner through an intravenous drip. Meyer claimed that during the interrogation, there was a “discussion” amongst the doctors to the effect that the patient would have to be “taken out” (murdered) so that he could not identify those involved in his interrogation later. He never saw or heard anything about this patient again.

Meyer said that his religious convictions made it impossible for him to reconcile himself to this type of activity, and about two months later, took his concerns and reservations to General Niel Knobel — not yet surgeon-general, but acting in that capacity in the absence of Nicol Nieuwoudt at the time. He told Gen Knobel he was not prepared to take part in such procedures, and did not want to be associated with them in future. He was then transferred to Chief of Staff Intelligence, and within months Meyer was informed that he to be sent to the operational area. He said he believed this transfer was the direct result of telling Gen Knobel he was not prepared to go along with chemical interrogation and the consequences thereof.

During cross-examination Adv. Cilliers questioned Meyer’s version of events and stated that the use of sodium pentathol was generally accepted by medical science as “a diagnostic aid in identifying/eliminating malingering, particularly in conflict situations.” Meyer agreed that such substances were used in the operational area, specifically when time was of the essence in extracting information. Basson formally denied ever being involved in the chemical interrogation of anyone for any but medical diagnostic reasons. He confirmed that this method of diagnosis was general practice in combat conditions, but said chemicals were never administered to anyone for “improper” purposes.

The penultimate witness for the state was Magdele Jackel, who in mid-1985, was appointed Senior Staff Officer Interrogation at Military Intelligence headquarters. Jackel’s task was twofold: interrogation of detainees/prisoners of war and training of SADF members in the art of interrogation. As an instructor, she trained one group of doctors and operational medics from the Reconnaissance Unit and

Special Forces in interrogation techniques. Among the students on this course was Dr Phil Meyer. She testified to having discussed chemical interrogation techniques with Basson. During cross-examination Cilliers said Basson had no recollection of the discussion.

The state closed its case against Basson on 1 March. The court was not in session between 2 and 12 March, proceedings resumed on 14 March 2001. Argument was presented by the defence team and prosecution team with regard to the dropping of charges against Basson. The state argued that none of the charges against Basson should be dropped at this stage of proceedings. Adv. Cilliers argued

that the state's case against Basson on the human rights violation charges was based on contradictory evidence and said that the state had failed to show that Basson was involved in a conspiracy to murder individuals in South Africa. The judge is expected to give a verbal ruling by mid-June whereafter the defence will present their case.

This review was written by Chandré Gould and Marlene Burger of The Chemical and Biological Warfare Research Project at the Centre for Conflict Resolution, an independent institute associated with the University of Cape Town.

News Chronology

February through April 2001

What follows is taken from issue 52 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 Chronicle, or to the electronic CBW Events Database compiled from it, please apply to Julian Perry Robinson.

1 February The US National Institute of Justice, in collaboration with the Federal Bureau of Investigation and the Technical Support Working Group, is funding a threat-assessment study to define the chemical and biological agents that, in the words of an article from the NIJ in the newsletter of the National Domestic Preparedness Office [see 11 Dec 98], "domestic first responders are most likely to encounter and that terrorists are most likely to use".

1 February In Geneva, at the Conference on Disarmament, the UK representative, Ambassador Soutar, speaks as follows: "Throughout the year, here in Geneva, 52 States Parties to the Biological Weapons Convention of 1972 continued to refine the text of a protocol to ensure compliance with the Convention. As a friend of the chair of the Ad Hoc Group, I can testify from personal experience to the intensification of work within the Group which occurred during the latter part of the year. By year end, the General Assembly had adopted, by consensus, a resolution calling for the convening of the Fifth Review Conference in December 2001. The United Kingdom believes that the negotiations can, and should, be completed before that deadline."

1 February The European Parliament adopts a resolution opposing the use of chemical or biological agents to counter the cultivation of illicit crops [see 4 Jan]. Resolution B5-0087/2001, adopted by vote of 474-1, states that the European Union "must take the necessary steps to secure an end to the large-scale use of chemical herbicides and prevent the introduction of biological agents such as *Fusarium oxysporum*, given the dangers of their use to human health and the environment alike".

2 February Iraq's biological-weapons programme included production of *Brucella* bacteria, so a former UNSCOM inspector, Rod Barton of Australia [see 29 Jan], tells a briefing in Washington organised by the Monterey Institute Center for Nonproliferation Studies. He says: "Iraq claims they never worked on, never weaponized [*Brucella*]. We believe from the evidence we have there could be 2,000 litres. [...] That's based on the bacterial growth media that we know we have documentation for, arrived in the country and cannot still be accounted

for." He explains that the reason why there had been no mention of *Brucella* in any UN or UNSCOM report was because the evidence only emerged, from old records, in 1999. On the subject of whether Iraq has resumed production since the departure of UNSCOM inspectors in late 1998, Barton says: "They could have produced something but it is not likely that they have. They can produce BW indigenously, so if they wish, they could do it. But they probably did not do much because if the only motivation to acquire BW is to deter their enemies, they probably have enough. I don't think they want large-scale production. They don't need it to deter enemies, and they have other priorities." A summary of the meeting is later posted on the Monterey Institute website.

2 February In Russia, the director-general of the Munitions Agency, Zinovyi Pak, is quoted by the Moscow *Izvestia* on the major changes that are now taking place in the chemical weapons destruction programme [see 19 Jan] following the intervention of President Putin. Funding has increased sixfold, and the programme has been amended so that only three, not seven, fullscale chemdemil facilities will be built – at Gornyy [see 21 Oct 00], Shchuch'ye and Kambarka [see 17 Dec 99 and 25 Oct 00]. At the other four stockpile locations, chemdemil activities are to be limited to the preliminary stages of dismantlement only, with agent-neutralization being conducted at the main plants after transportation there. This decision satisfies US preconditions for restoring assistance [see 30 Oct 00], and the US government has now, according to Pak, unfrozen its financial aid for the Shchuch'ye facility. Pak says, further, that all the prerequisites are now in place for his agency to meet its chemdemil obligations by 2007.

Shortly afterwards, on 5 February, the government, in resolution no. 87, approves the statute of the Federal Directorate for Safe Storage and Elimination of Chemical Weapons that is being established within the Munitions Agency [see 19 Jan]. The directorate is to be financed out of the Agency's own budget. Its mandate is to implement the safe storage, transportation and elimination of chemical weapons. It is to be responsible for letting contracts, the accounting of munitions, custody of CW storage sites, and research and development on

chemdemil technologies. According to one analyst, "the status of a Federal Directorate is higher than that of an ordinary directorate and has few analogues in modern Russia."

2 February At United Nations headquarters in New York, the Secretary-General's Advisory Board on Disarmament Matters concludes its 36th session. The final summary statement by the chairman, Ambassador Nabil Fahmy of Egypt, includes this: "The fourth issue we addressed in detail concerned international regimes set to prevent the proliferation of weapons of mass destruction. While we agreed on the fundamental need for measures to prevent proliferation, many of us expressed the view that some of these controls were discriminatory in nature, especially to the extent that non-proliferation was being practised by some states as a policy totally divorced from the issue of disarmament. All of us agreed that these regimes should be dynamic in function and that they must respond to changing international environments, including specifically the deeper roots of the underlying conflicts that can lead to proliferation. Concern was raised about possible ramifications of some regimes on civilian development. All of us see such regimes and global disarmament obligations as twin – and inseparable – means of serving the interests of international peace and security. They should not be viewed as ends in themselves. We agreed on the need for these regimes to increase their transparency and to promote greater consultation between regime members and with non-members."

4 February North Korean CBW weapons facilities are described in the Seoul *Tong-a Ilbo*. Quoting an article in the latest issue of a Chinese quarterly by Han Peishi, a researcher at Unit 87027, Shenyang Military Region, the newspaper reports: "North Korea has nine facilities, such as the Aoji Chemical Depot, the Ch'ongjin Chemical Depot and the Hamhung 28 Vynalon Factory, that produce chemical weapons. The Central Biological Research Institute, the Military Prevention Medical Unit, and Chongju No. 225 Factory are equipped with facilities to produce biological weapons. [...] In particular, they can annually produce more than 5,000 tonnes of chemical weapons, including hematic, tear-gas and blister agents. It has also been revealed that about 1 tonne of biological weapons of 13 types, such as cholera, typhus and anthrax germs, can be annually produced and preserved."

4 February In Britain, the London *Sunday Times* prints an excerpt from *The Big Breach: From Top Secret to Maximum Security*, the book by Richard Tomlinson [see 20 Aug 99], a former officer of the Secret Intelligence Service, that is now being published by Mainstream and which the SIS has been seeking to suppress. The excerpt notes the attention of SIS to the proliferation of weapons of mass destruction.

5 February In Tokyo District Court, the 20th hearing takes place in the lawsuit filed in 1987 by the group of 180 Chinese plaintiffs who are seeking governmental apology and compensation for deaths of relatives during biological experimentation in China by Unit 731 of the Imperial Japanese Army [see 24 Jan]. There is testimony for the plaintiffs from Takao Matsunaga, professor of history at Keio University, and from writer Shoji Kondo, both of whom speak of ways in which the activities of Unit 731 have been covered up since 1945.

5 February Canada is to spend Can \$250 million over the next eight years on its largest-ever programme to procure NBC defence equipment for Canadian Forces. The spending reverses budget cuts in the early 1990s. The purchases, which are to be in seven main areas, will include 10,000 Hot Weather Chemical Warfare Garments, decontamination systems, porta-

ble collective protection, detection, identification and warning systems for biological and chemical agents, and research into a lightweight chemical defence garment and next generation respiratory protection. The improvements are directed not only at enhancing battlefield protection but also at upgrading Canadian Forces ability to deal with incidents of CBW terrorism.

5-8 February In Moscow, OPCW Director-General José Bustani holds meetings with senior officials on the implementation of the chemical demilitarization programme in Russia [see 2 Feb]. Among the officials with whom he meets are the foreign minister, Igor Ivanov, the deputy prime minister, Ilya Klebanov, the speaker of the State Duma, Gennadiy Seleznyov, the chairman of the State Commission for Chemical Disarmament, Sergei Kiriyyenko [see 19 Jan], and the Director-General of the Munitions Agency, Zinoviy Pak. During his meeting with Seleznyov, Bustani emphasizes the 'possessor pays' principle of the CWC: "I hope there will be progress with the funding issue in Russia. The international community should have confidence in Russia's commitment to destruction of chemical weapons." According to an *Izvestia* report, Bustani stressed that the OPCW was not merely a technical body and could "take unusual political measures" in cases of non-compliance.

During their meeting, Pak informs Bustani that a new chemdemil programme will be submitted to President Putin in March, according to which Russia will begin to destroy chemical weapons "in the second half of the year", so a Munitions Agency spokesman is reported as saying. The weapons to be destroyed are shells filled with phosgene, considered to be Category 2 weapons under the CWC. They will be destroyed at the Shchuch'ye storage facility. According to a Munitions Agency expert, Alexander Ivanov, "destroying phosgene is relatively easy and cheap compared to more deadly chemical weapons. We would need more American help to build more complex disposal facilities in Shchuchye." Pak also tells Bustani that under the new plan mobile equipment would be used to neutralize the contents of 400 tons of nerve gas shells, thereby fulfilling the first intermediate destruction deadline for Category 1 chemicals for which Russia was granted an extension.

6 February In Manhattan, in the US District Court where the trial began the day previously of four men accused of involvement in the 1998 bombings of two US embassies in East Africa, prosecution witness Jamal Ahmed al-Fadl, hitherto known in public only as Confidential Source 1, takes the witness stand to begin what will be several days of testimony. A Sudanese who had once been an associate of Osama bin Laden [see 19 Dec 00] and who had been in FBI custody since mid-1996, he speaks of his role in trying to acquire, among other things, chemical weapons for al-Qaeda.

6 February In Washington, US Secretary of State Colin Powell and UK Foreign Secretary Robin Cook hold a joint press conference. Secretary Cook says: "Finally, we both agreed that it is vital for security in the Gulf that Saddam Hussain is defeated in his ambitions to develop nuclear, chemical or biological weapons with which to threaten his neighbours and his own people. We agreed that our officials should meet over the coming weeks to ensure that our policy in Iraq is focused on that clear priority". During the discussions, Powell and Cook also consider ways in which to target UN sanctions more specifically on Saddam and his regime, rather than the general population. According to reports, Powell signalled that less attention should be focused on trying to get UN inspectors back into Iraq, rather a system of inspections at points of import on Iraq's borders should be established.

7 February The UK Defence Ministry publishes a paper, *The Future Strategic Context for Defence*, outlining the implications for UK defence policy of recent events and emerging trends. The assessment extends to 2030 with the caveat that “the further one looks ahead, the less confident it is possible to be in the robustness of the analysis.” Developments and trends are divided into the following seven broad ‘dimensions’: physical; technological; economic; social and cultural; legal, moral and ethical; political; and military. On the technological dimension, the paper includes the following on genetics: “Our understanding of the function of specific genes will improve dramatically. It is possible that some might attempt to harness this for genetic warfare or biogenetic terrorism, such as targeting food sources, against which we would need to develop defensive measures. It is also possible that new antibiotic-resistant diseases could develop or be developed, increasing levels of sickness and likelihood of death.”

Three paragraphs of the ‘military dimensions’ section address the proliferation of weapons of mass destruction:

“(88) We can expect some states to continue to pursue programmes to develop nuclear, biological and chemical (NBC) weapons, and associated delivery systems, particularly missile delivery systems, in the face of international condemnation. The relative cheapness and simplicity of initiating biological warfare (BW) and chemical warfare (CW) programmes may prompt others to follow suit. Where states develop such weapons, this is likely to be primarily with a view to limited regional or internal use. Detection and prevention of trade in WMD-related technologies, particularly those relevant to CW and BW, has proved difficult. The expansion of electronic communications and the Internet and continuing growth in the volume of international trade will make it increasingly difficult to contain the spread of relevant technology and know-how. The likelihood of non-state actors, including terrorist and criminal groups, having access to CW or BW will increase. Developments in BW may make them more deployable, whilst better systems for dispersal of CBW are likely to be developed.

“(89) At present the UK remains out of the range of missiles and aircraft from proliferating states. At current rates of progress, it seems likely that, well before 2030, one or more of these states will have ballistic missiles capable of reaching the UK carrying chemical or biological payloads and, potentially, nuclear weapons. ... The risk of air-launched WMD attacks will remain very low. The possibility of terrorist use of WMD over the 30 year period is less easy to assess.

“(90) Deterrence policies may not prove effective against small scale use of CW or BW, especially attacks on deployed troops or ‘untraceable’ terrorist attacks. Proliferation of WMD and missile-related technologies will be difficult to prevent, especially as for some regimes they represent a rare opportunity to generate foreign income. We should also be aware that some states may not respond to deterrence as we might expect, and that technological developments will affect both offensive capabilities and the active and passive counter measures available.”

On the subject of arms control, the paper states that “the overall effects of arms control agreements on our national security will almost invariably be positive, although they place some restrictions on the activity of UK forces and may thus increase risks.” The paper goes on to say that “ingenuity will be required to improve the effectiveness of arms control and export control agreements, including through compliance monitoring and verification, in a world where advanced dual-use technologies are increasingly accessible.”

7 February The US Energy Department’s Inspector General publishes a report critical of safety conditions and oversight procedures in several US nuclear-weapons laboratories where bioweapons materials are being studied. The work is part of a

\$90 million programme to improve the detection of biological warfare agents and to develop countermeasures against potential attacks. The Inspector General’s report finds that “the Department’s biological select agent activities lacked organization, coordination and direction. Specifically, the Department’s activities lacked appropriate Federal oversight, consistent policy, and standardized implementing procedures, resulting in the potential for greater risk to workers and possibly others from exposure to biological select agents and select agent materials.” Responding to the report, a spokesman for the Department’s National Nuclear Security Agency says that most of the deficiencies are “procedural” and that many had either already been fixed or were in the process of being corrected.

The agents being used in DoE laboratories include *Bacillus anthracis*, *Yersinia pestis*, *Brucella abortus*, DNA of select agents and toxins such as botulinum toxin and ricin. The report adds that “most of the Department’s activities to date have involved select agent toxins, DNA of biological select agents, and nonviable (attenuated or dead) forms of biological select agents. However, activities by DoE laboratories, including those managed by the NNSA, are beginning to involve infectious (potentially lethal) forms of biological select agents that pose a greater risk to employees. For example, two of the Department’s laboratories are currently receiving intact botulinum toxin for experimentation, while another laboratory has initiated experiments with the infectious form of *Y. pestis* and *B. anthracis*.” Laboratories identified by the report as conducting experiments with biological select agents include: Brookhaven National Laboratory; Idaho National Engineering and Environmental Laboratory; Lawrence Berkeley National Laboratory; Lawrence Livermore National Laboratory; Los Alamos National Laboratory; Oak Ridge National Laboratory; Sandia National Laboratory (at both New Mexico and California).

7 February In the US Senate, the Select Committee on Intelligence holds its annual hearings on *The Worldwide Threat*. Testifying are Director of Central Intelligence George Tenet, the director of the Defense Intelligence Agency, Admiral Thomas Wilson, and Acting Assistant Secretary of State for Intelligence and Research Thomas Fingar.

In the open session, Tenet addresses a range of transnational and regional issues. Among the former is terrorism, on which he says “terrorist groups are actively searching the internet to acquire information and capabilities for chemical, biological, radiological, and even nuclear attacks. Many of the 29 officially designated terrorist organizations have an interest in unconventional weapons, and Osama bin Laden [see 6 Feb] in 1998 even declared their acquisition a ‘religious duty’.” Tenet also addresses proliferation as a transnational issue generally: “the missile and WMD proliferation problem continues to change in ways that make it harder to monitor and control, increasing the risk of substantial surprise. Among these developments are greater proficiency in the use of denial and deception and the growing availability of dual-use technologies—not just for missiles, but for chemical and biological agents as well”, and specifically: “Russian entities are a significant source of dual-use biotechnology, chemicals, production technology, and equipment for Iran. Russian biological and chemical expertise is sought by Iranians and others seeking information and training on BW and CW-agent production processes.” On Iraq, Tenet says “the Iraqis have rebuilt key portions of their chemical production infrastructure for industrial and commercial use. The plants [Saddam Hussain] is rebuilding were used to make chemical weapons precursors before the Gulf War and their capacity exceeds Iraq’s needs to satisfy its civilian requirements.”

On the question of the CBW threat to the US, Fingar says the following: “Chemical weapons are more of a tactical threat to US forces and allies than a strategic threat to the homeland.

Biological and toxin weapons are more of a terrorist threat to civilian populations than an effective instrument of warfare. Potential CW and BW threats are nonetheless real and increasingly widespread. Despite broad participation in the Chemical Weapons Convention and Biological Weapons Convention, the dual-use nature of the relevant technologies, modest technological prerequisites for development, and the low profile of illicit activities suggest that the potential threat from both state and non-state actors will continue to grow."

Wilson echoes many of Tenet's assessments and states that the diffusion of technology and information related to weapons of mass destruction "will increasingly accord smaller states, groups, and individuals destructive capabilities previously limited to major world powers." Addressing the terrorist threat to the United States, Wilson predicts, within the next two years, a "major terrorist attack against United States interests, either here or abroad, perhaps with a weapon designed to produce mass casualties."

7-9 February In The Hague, the OPCW hosts an *International Symposium on Cooperation and Legal Assistance for Effective Implementation of International Agreements*. The purpose of the symposium is to study ways in which the undertaking in paragraph 2 of CWC Article VII to cooperate with and assist other states parties in the implementation of Article VII can be implemented. A background note by the OPCW Secretariat observes that "there is no customary practice of international legal cooperation and assistance in criminal matters." Therefore, over three days, the symposium seeks to tackle a range of issues including the exchange of information between states parties, the imparting of experience from other international regimes, the presentation of case studies from actual investigations, arrests, transfers of prisoners, evidence-gathering and extraditions, and the legal issues raised by the CWC confidentiality regime.

The symposium is attended by approximately 200 individuals from OPCW delegations, governments, international organizations, research institutes, universities and industry. The parallel working sessions are divided among three main themes: jurisdictional issues; modalities of international cooperation; and challenges to international cooperation. There are two papers by HSP, one by Matthew Meselson on "A draft convention to prohibit biological and chemical weapons under international criminal law" and one by Daniel Feakes on "Challenges in the implementation of CWC export controls." HSP associate Treasa Dunworth presents a paper on "Confidentiality obligations of states parties to the Chemical Weapons Convention and national implementation: the New Zealand experience". The proceedings will eventually be published.

8 February In Paris, a breakfast meeting devoted to a presentation on the US programme for combating major terrorism is convened by the Haut Comité français pour la Défense civile. The presentation is given by US Justice Department official Theodore Macklin, State Department official Clyde Brinkley and Community Research Associates Inc vice-president Kyle Olson.

8 February In the US House of Representatives, Wayne Gilchrest introduces a bill, the *Preparedness Against Domestic Terrorism Act of 2001*, HR 525, that would provide for improved federal efforts to prepare for and respond to terrorist attacks. The bill is similar to one which passed the House with bipartisan support in its last session (*The Preparedness Against Terrorism Act of 2000*, HR 4210 [see 4 May 00 and 25 Jul 00]) and is based on the recommendations of the Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction [see 15 Dec 99 and 15 Dec 00].

Among the key features of HR 525 is the provision for the establishment of the President's Council on Domestic Terrorism Preparedness within the Executive Office of the President. The Council, chaired by an executive chairman, would consist of the President, the director of FEMA, the Attorney-General, the Secretary for Defense, the National Security Adviser, the Secretary of Health and Human Services, the director of the Centres for Disease Control and Prevention and the Secretary of Veterans Affairs. One of the Council's main tasks would be the development of a five-year Domestic Terrorism Preparedness Plan and an annual implementation strategy for carrying out the plan.

The bill is referred to the House Committee on Transportation and Infrastructure, which is scheduled to hold a hearing on it on 9 May.

8 February In Washington, a meeting on *The United Nations and Regime Compliance: Prospects and Challenges* in the briefing series organised by the Monterey Institute Center for Nonproliferation Studies [see 2 Feb] is addressed by Jayantha Dhanapala, UN Under Secretary-General for Disarmament Affairs. Dhanapala's comments on the international criminalization of WMD are summarized as follows: "There is also a question of individual culpability in the case of non-compliance with WMD regimes. The international criminal court might be looked at as possible means to enhance compliance with WMD treaties. There are talks about the criminalization of biological weapons. It can have a deterrent value in terms of ensuring compliance. Similarly, we can take it one step further with regard to other regimes and make non-compliance a culpable offense. In order to make individuals responsible for their actions, nation states will have to translate non-compliance of international law into an offense. Although in the case of export controls, the penalties have not always matched the offenses and detection was not always very efficient, some exploration of individual culpability may help with compliance. This may be the case especially with regard to sub-national groups acting without the knowledge of states. It will give a stronger control internationally on violations of WMD treaties."

9 February In the United Kingdom, Salisbury District Hospital issues an apology to surgical patients from whom skin had been taken and, without their express consent, supplied to DERA/CBD Porton Down for experimental purposes, in fulfilment of a £17,000 per year contract. According to the hospital, skin had been taken from around 240 patients who had breast and abdominal reduction surgery between 1995 and early 2001. While some tissue had been used within the hospital for research into wound healing and burn treatment, the rest had been supplied to Porton Down. There, the tissue was used in a "chemical absorption study" to examine the rate at which the skin absorbed chemicals, in a project to develop a barrier cream to prevent chemical agents penetrating the skin, and also in studies of percutaneous drug delivery. According to a Ministry of Defence spokeswoman "the tests were solely for defensive purposes—we stopped developing chemicals for attack at Porton Down in the 1950s [*sic*]. Most of the chemical tests done were for the benefit of civilians. They were with corrosive chemicals that are used in the home and work place, to see how the skin would be affected."

A few days later, the Edmonton *Sunday Sun* reports from Canada that the Defence Research Establishment at Suffield has been using the foreskins of newborn boys in experiments to develop antidotes to chemical weapons. Over the past ten years, a hospital in Medicine Hat has supplied hundreds of foreskins to the facility, at which 50 to 100 are used every year. The parents of the babies are only told of the fate of the foreskins if they actually inquire and few, if any, have ever objected. The provision of the foreskins was originally approved by the ethics

committees of both the hospital and Suffield. However, the publicity means that the arrangement will now be reviewed in the light of new guidelines on human tissue use and parental consent. The foreskins themselves are not used in the experiments but skin cells are scraped off to create cell cultures which are then used to test the effects of various chemical agents.

9 February In the UK, the Association of Chief Police Officers [see 18 Jan 96] has asked the Home Office for help in its search for a new police weapon less lethal than a gun but able to operate over distances greater than the CS spray weapon, so *Police Review* reports. An ACPO spokesman is quoted as saying "Between CS spray and firearms there's a huge gap in the operational requirements for the police. It would be enormously helpful for the protection of officers if we could find a device to fill this gap—this is why we have asked for research to be done." ACPO members see CS spray and batons as close-range weapons and, although firearms have a longer range, the police service wishes to remain generally unarmed and to adhere to its traditional use of "minimum force". According to a former ACPO policy officer, Inspector Neil Haynes, "less-lethal is used because we see it as a comparative lethality because although we have got to accept that there are very few things that are totally non-lethal ... what we want is something where lethality is extremely unlikely and minimised." The request, from ACPO's self-defence, arrest and restraint and firearms sub-committees, has been submitted to the Police Scientific Development Branch of the Home Office. Inspector Haynes says that weapons under consideration include chemical ones as well as kinetic-energy instruments, guns firing sticky foam or nets, and electrical impulse devices. Weapons will be assessed by the PSDB and by DERA.

9 February In New York, William Epstein, former UN disarmament official, dies aged 88. His many professional activities in the area of CBW had included chairmanship of the Group of Consultant Experts that, in 1969, produced the seminal UN study *Chemical and Bacteriological (Biological) Weapons and the Effects of Their Possible Use*.

9 February Zambia deposits its instrument of ratification of the CWC. In 30 days time, on 11 March, it will thus become the 142nd state party to the treaty.

9–11 February In England, at Wiston House in Sussex, there is a Wilton Park conference on *International Cooperation to Prevent CBW Terrorism*. The conference is attended by a range of experts reflecting the number of different agencies concerned with CBW terrorism. Participants are from governments, police forces, academia, scientific and medical fields, and civil defence. Concluding his assessment of the meeting, one participant writes that "despite the judgement that a CBW terrorist event has a low probability, it would carry high consequences even if it were done on a small scale and caused few casualties. The imperative for policy is to devise a prevention and consequence management program that steers between panic and complacency."

11 February In Sudan, the bomb-site in Khartoum where the Al-Shifa pharmaceutical factory used to be before US cruise missiles destroyed it in August 1998 [see 25 Sep 00] has become a tourist attraction. The factory, which is said to have been the biggest pharmaceutical plant in Africa, has been left untouched since the bombing. A security guard is quoted as saying that "every day people ask to look around. We are going to leave the factory as a museum so that the whole world can see what the Americans did."

12 February In New Zealand, the government is being pressed by the Vietnam Veterans' Association of New Zealand to investigate the allegation that precursors for the Agent Orange used during the Vietnam War had been manufactured in the country. An unidentified former employee of a New Plymouth chemicals company had alleged that he and the company supplied precursor chemicals for Agent Orange in the belief that the chemical was safe and would only be used to defoliate jungle in war zones. According to the official, the chemicals were shipped via Mexico to avoid detection. Vietnam Veterans' Association president John Moller wrote to the Prime Minister, the Attorney-General and the Police Minister at the beginning of January asking them to investigate what the Association describes as a violation of the Geneva Protocol and to request that the former employee be granted immunity from prosecution. According to Moller: "As we have brought to the attention of the Prime Minister the possibility of a breach of the Geneva Protocol, she is obliged under international law to investigate the matter thoroughly and with some urgency." If the allegations are true, the governments could be faced with massive compensation payments for surviving veterans and their families.

12 February Israel begins to use "internationally banned weapons" in the form of "black gases", so Palestinian President Yasir Arafat next day tells Tunisian President Zine El Abidine Ben Ali.

Speaking two days later on Jordanian radio, Arafat says that the gas had been used in the Khan Yunis refugee camp and also in Bayt Jala, Bethlehem and Bayt Sahur. Further use in Khan Yunis is reported on 18 February. Palestinian health minister Riadh al Za'anoun says that Palestinian doctors have been unable to determine the exact type of gas used and could therefore not administer the proper antidote to the victims. He does say: "We have established that the gas used against our people by the Israeli occupation army is not the standard tear gas used around the world to disperse demonstrators, it is a nerve agent, maybe phosgene or another variety of nerve gas." Al Za'anoun notes that the gas is certainly fatal when used in enclosed areas and causes a variety of symptoms not normally associated with tear gas: "It causes acute shortness of breath, disorientation, hallucination, fainting, vomiting with stains of blood, and nervous breakdown." Another Palestinian description says that the weapon is called "black gas" because, upon explosion in the air, it leaves a black trail; victims do not exhibit symptoms immediately following exposure, but shortly afterwards. The symptoms come in waves, beginning with a sugary taste in the mouth, and also include spasm, stomach cramps, vomiting and fainting.

The Israeli army denies that it is using nerve gas against the Palestinians but an army spokesman does acknowledge that the gas being used against the Palestinians in Gaza "would never be used against Jewish demonstrators." According to the Israeli army, their troops have used "standard tear gas" and smoke bombs to drive snipers out of hiding. In contrast, deputy defence minister Ephraim Sneh tells the Knesset that Israeli troops are not using gas of any kind, except for standard smoke grenades, and calls the allegations "false and contemptible." However, a *Medecins sans Frontières* doctor, Yves Lallinec, says: "It seems it's a new type of gas. People are shaking, are excited and they have convulsions."

The allegations are referred to by OPCW Director-General José Bustani on 20 February, during his opening address to the twenty-third session of the Executive Council: "[L]ate last week we heard allegations that 'poison gas' may have been recently used in the Middle East. In spite of my numerous attempts to call attention to this problem in various forums, the OPCW's policy-making organs have yet to commence a meaningful discussion of the Organisation's strategy to prevent the possible

use of chemical weapons in regions of tension by taking effective steps to bring into its fold countries in such regions which still remain outside the Convention.”

12 February In Geneva, the Ad Hoc Group of states parties to the BWC reconvenes for its twenty-second session [see 20 Nov 00]. Participating are 54 states parties (the same as those that participated in the twenty-first session, but with Bolivia, Guatemala, Iraq, Panama, Singapore and Yemen participating instead of Cyprus, Jamaica, Thailand and Viet Nam) and the same 3 signatory states (Morocco, Egypt and Myanmar) as before. The session is due to end on 23 February.

12 February Dominica deposits its instrument of ratification of the CWC. In 30 days time, on 14 March, it will thus become the 143rd state party to the treaty.

12–23 February At UN headquarters in New York, the Ad Hoc Committee on Assembly Resolution 51/210, which is to elaborate a comprehensive legal framework of conventions dealing with international terrorism, convenes for its fifth session. The committee continues its consideration of a draft comprehensive convention first submitted to the General Assembly by India in 1996 and its consideration of a draft international convention on nuclear terrorism. The latter draft covers the use or threat of use of nuclear material, nuclear fuel, radioactive products or waste or any other radioactive substances with toxic, explosive or other dangerous properties. It defines nuclear terrorism as the use or threat of use of any nuclear installation, nuclear explosion or radiation dissemination devices — to kill or injure persons, to damage property or the environment, or to compel persons, states or global organizations to do or refrain from doing any act.

13 February In Poland, the Katowice-based Organization of Lao Students for Independence and Democracy have arranged for partisan leader General Moua Koumisith to meet with senior parliamentarians. Upon his arrival in the country, the general says: “A civil war is going on in Laos, innocent people are dying every day, and chemical weapons are being used against them. We want the world to know about the efforts for democracy in our country. We are hoping that Poland, having been in the same situation not long ago, and who today has friends all over the world, will help us.”

13 February In Washington, the George C Marshall Institute devotes one of its roundtables on science and public policy to *The Threat of Biological Warfare*, the presenter being William C Patrick III [see 13 Nov 00]. His presentation concentrates on “the four components that are required for successful biological warfare: the agent, the munition, the delivery systems, and (for outside targets) the meteorological conditions.” He says: “I don’t think terrorists today in our country have that capability. But a rogue country like Iran or Iraq certainly does, as does a group like Japan’s Aum Shinrikyo.” On the former Soviet programme, Patrick says: “They had three organisms loaded on their warheads aimed at our major cities, plague, smallpox and anthrax, all three lethal agents. ... They had armed their ICBMs with plague in a liquid form and because of the non-stability of the plague agent in liquid, they had to recycle that material every sixty days — that is, pull it out of the ICBM and fill another ICBM entry vehicle with it. Can you imagine the dangerous activity associated with that procedure? This was in 1991.” Patrick also says that Ken Alibek has told him that the Soviets could produce 4,500 metric tons of dry anthrax per year, mainly because they used a vacuum drum dryer rather than freeze-drying. When questioned on the “brain drain” of scientists from the former Soviet BW programme to third world nations, Patrick re-

plies that “the last report I heard is that you couldn’t account for about 200 scientists who were in the former Soviet Union program. They don’t know where they went.”

13 February In Norfolk, Virginia, during an address at NATO’s Atlantic headquarters, President George W Bush speaks of new dangers confronting the Alliance. His speech includes the following: “First, we must prepare our nations against the dangers of a new era. The grave threat from nuclear, biological and chemical weapons has not gone away with the Cold War. It has evolved into many separate threats, some of them harder to see and harder to answer. And the adversaries seeking these tools of terror are less predictable, more diverse. With advance technology, we must confront the threats that come on a missile. With shared intelligence and enforcement, we must confront the threats that come in a shipping container or in a suitcase.” He announces that the FY 2002 Defense Department budget will include an increase of \$2.6 billion as “a down-payment on the research and development effort that lies ahead”.

13 February President Bush issues a memorandum on *Organization of the National Security Council System* as what is to be the first in a series of National Security Presidential Directives replacing two previous series (the Presidential Decision Directives and the Presidential Review Directives). Approved for public release on 13 March, this new directive appears to revive a National Security Council that had fallen into disuse under the previous presidency, and also radically to reorganise the NSC staff. NSC Policy Coordination Committees are to become “the main day-to-day fora for interagency coordination of national security policy” in place of the previous system of Interagency Working Groups. The directive establishes seventeen such NSC/PCCs, six of them regional, eleven functional. Of the latter, seven are to be chaired by the Assistant to the President for National Security Affairs, including the PCC on Arms Control, the PCC on Counter-Terrorism and National Preparedness, and the PCC on Proliferation, Counterproliferation and Homeland Defense.

13–14 February At the UN in New York, representatives of interested member states and staff of UNMOVIC hold consultations on the suggested revisions to the lists of chemical and biological dual-use items and material to which the export/import mechanism for Iraq applies [see 1 Oct 96]. The revision and updating of the lists has been called for by resolution 1330 (2000), which requires the task to be completed by 5 June [see 5 Dec 00]. The results of the consultations are to be discussed at the forthcoming meeting of the UNMOVIC college of commissioners.

15 February In Iraq, factories near Fallujah that were destroyed by UK/US bombing in December 1998 have now been restored to production of castor oil and chlorine [see 22 Jan] according to an internal UN document now quoted in the *Glasgow Herald*. The document states that the castor-oil plant is able to produce a “significant amount” of the ricin, while “huge imports” of chlorine, financed under the oil-for-food programme supposedly for purifying water supplies, are probably being diverted for use as precursors in weapons production. The newspaper quotes CIA director George Tenet as follows: “Iraq has rebuilt key portions of its chemical infrastructure for industrial and commercial use. But the capacity far exceeds civilian requirements. We have similar concerns about other dual-purpose research, development and production in the biological weapons and ballistic missile fields.”

15 February In Germany, a study by the Federal Intelligence Service, the BND, is reported by *Frankfurter Allgemeine Zeitung* as saying that Iraq is once again close to achieving its aim of producing a missile with a 3000-kilometre range. By 2005, the newspaper says, Iraq should be able to launch such a missile containing at least a kilogram of anthrax bacteria, and it reports the BND as stating: "if such a payload would be dropped on a German town it would kill between 70 and 80 per cent of the inhabitants within a few days." There is media speculation that the timing of the leak has been chosen to influence public opinion on the issue of the National Missile Defense system proposed by the US.

According to the newspaper, the BND estimates that the number of known chemical production projects in Iraq has risen to 80 since the departure of UNSCOM inspectors, and almost a quarter of them are working specifically on weapons production. The report, and another in the German weekly *Der Spiegel*, also alleges that Indian companies have been active at all levels of this rearmament. These allegations are apparently the subject of discussions between Indian government officials and the German defence minister Rudolf Scharping, who is currently in New Delhi.

Later, on 24 February, *Die Welt* reports that Iraq is actively rearming with CBW weapons. The report is based on information provided by the BND to a select group of journalists the day previously. Since mid-1999, the BND has observed increased activity in both the chemical and biological weapons programmes in Iraq, according to the newspaper. The agency estimates that Iraq will soon be able to produce large quantities of chemical weapons. *Die Welt* also describes Iraq's BW programme as advanced and active and says that production could be begun within days, or could already be underway. The newspaper also reports on Iraq's efforts to develop ballistic missiles which could target European cities with chemical and biological warheads.

15–19 February In Brussels, NATO conducts its annual crisis management exercise, CMX 2001. The exercise, which is only a command post exercise conducted within NATO headquarters, involves a border dispute on the island of 'Nog'. Also in the scenario is a threat of chemical warfare. It is reported that next year's CMX will involve a "strong element" of weapons of mass destruction.

15–20 February In San Francisco, the American Association for the Advancement of Science convenes its annual meeting, during which there are two symposia on CBW topics. The first, on 16 February, is on *Arms Control and Proliferation Concerns from Former Soviet Weapons Facilities*. There are presentations by George Parshall of the National Academy of Sciences, Fred Wehling of the Monterey Institute of International Studies, Reynolds Salerno of Sandia National Laboratories, Kathleen Vogel of Cornell University, and Sonia Ben Ouagrham of the Monterey Institute of International Studies. The next day, there is a symposium on *Bio-Technology and Bio-weapons: Weapons of the 21st Century?* Speaking are Matthew Meselson of the Harvard Sussex Program, Margaret Hamburg of the Department of Health and Human Services, Edward Eitzen of the US Army Research Institute of Infectious Diseases, Craig Venter of Celera Genomics, and Stephen Morse of Columbia University. During another symposium, *Ethical and Policy Implications of Synthesizing 'Minimal Genomes'*, there is a presentation on the "Biological Weapons and Policy Implications of Synthesized Genomes" by Jonathan Moreno of the University of Virginia.

16 February In Iraq, five air-defence installations to the south of Baghdad are attacked by US and British aircraft using stand-

off weapons from south of the 33rd Parallel, which is the northern limit of the no-fly-zone being enforced over southern Iraq by Britain and the United States [see 8 Oct 99]. Some 50 warplanes are involved, about half of them strike aircraft. The US Defense Department portrays the attack as a routine response to an increasing Iraqi effort to attack US and British aircraft patrolling the zone. Fibre-optic communication links were being installed (apparently by Chinese workers) to connect Iraqi command-bunkers with anti-aircraft radars, an upgrade that would have prevented communication-intercepts from US satellites. Also, in the words of British junior defence minister Baroness Symons: "January saw more [Iraqi] surface-to-air missile firing than were effected in the whole of 2000". As to the results of the attack, the US Defense Department later says that fewer than half of the missiles fired at Iraqi radar installations hit their targets. The Iraqi Health Ministry later states that two civilians had been killed in the air-raid and more than 20 wounded.

16 February In Geneva, during the twenty-second session [see 12 Feb] of the BWC Ad Hoc Group, a further [see 12 Nov 00] briefing is provided by the Quaker United Nations Office in conjunction with the University of Bradford Department of Peace Studies. At the briefing a new Bradford briefing paper on Strengthening the Biological Weapons Convention is presented by the two editors of the series, Graham Pearson and Malcolm Dando: no 33, *Improving the Implementation of Article III of the Convention: Pragmatic Considerations* by Graham Pearson. The briefing is attended by 45 people from 26 delegations.

16 February In the US, four anti-nuclear organizations (the Los Alamos Study Group, the Natural Resources Defense Council, the Tri-Valley CAREs and the Western States Legal Foundation) join in launching an initiative for a "Scientists and engineers pledge to renounce weapons of mass destruction". The pledge reads "I pledge to never participate in: the design, development, testing, production, maintenance, targeting, or use of nuclear, biological, or chemical weapons or their means of delivery; or in research or engineering that I have reason to believe will be used by others to do so." Among the initial signers of the pledge is Joseph Rotblat, the Nobel Peace Laureate [see 13 Oct 95].

Summing up the moral responsibility of scientists and engineers, Julian Borrell from the Department of Energy's Lawrence Berkeley National Laboratory says: "As scientists and engineers, we are in a unique position to bring about the demise of weapons of mass destruction. These weapons cannot exist without us — we design them, we manufacture them, we test them, we maintain them and we deploy them. We make them possible, and, if we choose, we can make them impossible ...".

17 February In Italy, the president signs into law legislation ratifying the agreement between Russia and Italy on assistance in the destruction of Russian chemical weapons, for which Italy is providing Lire 15 billion during 2000-02 [see 20 Jan 00].

17 February In London, six Algerians appear in court charged, under the 1973 *Prevention of Terrorism Act*, with possession of articles for suspected terrorist purposes, and are remanded in custody until 22 February. Officers from the Anti-Terrorist Branch, Special Branch and MI5 had earlier raided addresses in London and arrested ten men, of whom four were subsequently released. Unidentified police sources are quoted as saying that, among the articles found were "detailed instructions on how to manufacture and deploy sarin". Some papers report this as "a plot to release the nerve gas sarin on the London Underground". The arrests are apparently linked to the arrests on 26 December 2000 of four men in Frankfurt, also on terrorism charges. The telephone number of one of the Algeri-

ans was found on the chip card of a mobile phone seized in Frankfurt. Newspaper reports link both the Frankfurt and London arrests to the al-Qaeda group, headed by Osama Bin Laden [see 7 Feb] and to increased US pressure on European countries to act against groups and individuals suspected of involvement with Bin Laden.

18 February In the United States, a senior counterintelligence officer of the Federal Bureau of Investigation, Robert Hanssen, is arrested on charges of espionage and conspiracy to commit espionage. He is said to have passed 6,000 pages of secret US documents to Russia over a 15-year period in return for some \$1.4 million. The arrest affidavit states that among those documents was a very highly classified paper setting out recommendations on how MASINT (Measurement and Signature Intelligence) information should be collected and used into the 21st Century. This "highly specific and technical" document disclosed, according to the affidavit, "the Intelligence Community's consensus on specific MASINT objectives and studies leading to needed capabilities". According to subsequent press speculation, the document may have extended to MASINT on chemical and biological weapons.

19 February In Moscow, the Defence Committee of the State Duma rejects an amendment to the Federal Law *On the Destruction of Chemical Weapons* [see 25 Apr 97]. Deputies Pyotr Rogonov, Ivan Fedotkin, Vasily Shandybin and Alexander Shulga had sponsored the amendment to article 2 of the chemdemil legislation which would have allowed for the transportation of chemical weapons from storage sites to destruction facilities in other regions of the country. The amendment receives ten comments from the regions — five supporting the transportation of chemical weapons through their territory, albeit with strict safety measures, and five strongly opposing the proposal. The Ministry of Railways commented that transportation could cost about 270 million rubles. Committee chairman Andrei Nikoleyev said the amendment was rejected because it was neither based on environmental examination by the regions nor on a financial and economic assessment.

19 February–23 March In Austria, the third UNMOVIC training course is underway, supported by the governments of Austria, Germany and Sweden. Participating are 52 people of 24 nationalities.

20 February In Israel, civil-defence depots are reporting a 100-percent increase in the number of people bringing in their gas masks for servicing and refurbishment. The increase is attributed to Iraq's threat to retaliate against the recent UK/US bombing [see 16 Feb], although Prime Minister Barak has said that he does not believe that Iraq poses any immediate threat to Israel.

It is later reported in the Tel Aviv *Ma'ariv* that the Home Front Command and the Tel Aviv Municipality are working on a plan to turn the city's underground car parks into public shelters in the event of a CBW attack. It is estimated that around 80,000 people currently lack access to a shelter.

20–23 February In The Hague, the OPCW Executive Council convenes for its twenty-third formal session.

21 February The American-German Sunshine Project circulates a civil society resolution on the BWC to be presented at the preparatory committee for the Fifth BWC Review Conference during 25-27 April in Geneva. Regarding the negotiations on the BWC Protocol, the resolution calls on "all governments to undertake every effort to reach consensus on a strong Protocol, including broad criteria for facility declarations, random vis-

its to all declared facilities, clarification procedures, challenge investigations and an export monitoring system." The resolution also asks the Fifth BWC Review Conference to: "reiterate the broad prohibition of all non-peaceful applications of living organisms and toxins, regardless of whether they target humans, animals, plants or materials; reaffirm in [its] Final Declaration that there is no exemption in the BTWC for law enforcement and; state that any use of biological agents against a nation, a regional group or individuals against their will is not a peaceful purpose and thus banned by the BTWC." The resolution concludes by calling on all governments to "undertake every step necessary to reinforce the global ban on biological weapons." The original signatories of the resolution are Ecoropa, GeneWatch, the Institute for Agriculture and Trade Policy, the Sunshine Project and the Women's International League for Peace and Freedom.

21 February President Bush announces his intention of nominating John Bolton as Undersecretary of State for Arms Control and International Security Affairs, the post held by John Holum in the Clinton Administration. Bolton held a number of posts in the Reagan and Bush Sr Administrations, and is currently at the American Enterprise Institute.

21 February In the United States, the Advisory Committee on Immunization Practices produces new draft guidelines on the use of smallpox vaccine in the event of an outbreak of the disease and in preparedness for bioterrorism. The guidelines replace recommendations dating from 1991 with the biggest change being the inclusion of advice on how to use the vaccine in the case of bioterrorist use of smallpox. Vaccination before an attack is not recommended for anyone except laboratory or medical staff working with the types of viruses that cause smallpox. In the case of a smallpox attack, vaccination is recommended for those exposed to the initial release, people with whom they come into contact, and health care and laboratory workers treating exposed individuals. Other recommendations include the development and evaluation of a new smallpox vaccine to replenish stocks of the current vaccine, which has not been produced since 1981.

21–22 February In Vienna, at the International Centre, the UNMOVIC college of commissioners reconvenes [see 27-28 Nov 00] for its fourth meeting. As at the previous sessions, IAEA and OPCW staff attend as observers. The commissioners are briefed on the progress of UNMOVIC staff with the compilation of an inventory of "unresolved disarmament issues". Staff present the college with selected case studies to illustrate the manner of their selection and the methodologies and sources that had been used. The commissioners request that further work be undertaken on the inventory, addressing in particular the significance of unresolved issues and indicating how these issues might be resolved. According to a BBC report, the work undertaken so far has showed that Iraq could still have stocks of mustard gas and that it may have produced a greater quantity of anthrax spores than previously suspected. The college is also briefed on progress with the Security-Council-requested revision and updating of the list of dual-use items and material to which the export-import mechanism applies [see 13-14 Feb]. The commissioners exchange views on the draft UNMOVIC handbook and encourage UNMOVIC staff to complete it in time for the start of operations in Iraq. UNMOVIC staff then brief the commissioners on the planned use of overhead imagery and the college expresses its view that imagery is "a complement to on-site inspections and a fundamental component of the instruments available to UNMOVIC for its work". The commissioners welcome further exploration of how the Commission can benefit from the increasing availability of overhead imagery from differ-

ent sources. According to reports, UNMOVIC has discussed its requirements with several governments and commercial satellite companies. The next meeting of the college is scheduled for 21-22 May in New York.

22 February The US Central Intelligence Agency posts on its website an unclassified version of its latest six-monthly *Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions*, covering the period through 1 January–30 June 2000 [see 9 Aug 00]. The report had earlier been transmitted to Congress as required under Section 721 of the FY 1997 Intelligence Authorization Act. The report repeats much of what earlier reports in the series had said. Iran, Iraq [see 15 Feb], Libya, North Korea, Sudan and Syria are all identified as having current CW programmes. In contrast to the previous report, which listed only Iran, Iraq and North Korea as perhaps having active BW programmes, this report adds that “evidence suggests that Libya also is seeking to acquire the capability to develop and produce BW agents” and that “it is highly probable that Syria also is developing an offensive BW capability”. In addition, the report again states that Sudan “may be interested in a BW program as well”. Key suppliers are identified as China, North Korea and Russia, while western countries were “not as important as sources for WMD-related goods and materials as in past years”, although the report adds that “Iran and Libya continue to recruit entities in Western Europe to provide needed acquisitions for their WMD programs.”

22 February From the US Defense Department, six new reports are released by the Acting Special Assistant for Gulf War Illnesses, Medical Readiness and Military Deployments, Dale A Vesser. They include an update of the previous year’s information paper, *Iraq’s Scud Ballistic Missiles* [see 27 Jul 00], revised to clarify the toxicity of kerosene, the missile’s fuel. A further four of the releases are case narratives, three of which are unchanged versions of earlier narratives now republished in final form upon the recommendation of the Presidential Special Oversight Board: *US Marine Corps Minefield Breaching* [see 25 May 00], *Possible Mustard Release at Ukhaydir Ammunition Storage Depot* [see 27 Jul 00] and *Possible Chemical Warfare Agent Incident Involving a United States Marine*. The fourth, *Al Jubayl, Saudi Arabia*, is an interim report updating an earlier version [see 12 Aug 97] on the basis of veterans’ comments and an independent investigation by the UK Ministry of Defence [see 20 Jan 00]. The narrative concludes that the presence of chemical warfare agents during the ‘loud noise’ events is “unlikely”, and that chemical warfare agents were “definitely not” present in either the Scud impact or purple T-shirt incidents. The remaining release is a close-out report, *Biological Warfare Investigation*. An initial version had been published in 2000 at the request of the Presidential Special Oversight Board. The current version adds references to documentation not cleared for release at the time of original publication.

23 February In Geneva, the BWC Ad Hoc Group concludes its twenty-second session [see 12 Feb]. The Chairman, Ambassador Tibor Tóth of Hungary, has now circulated more of the “building blocks” that he had begun distributing at the previous session. According to one commentator, the text circulated so far accounts for around 85 per cent of the BWC Protocol. The issues not yet touched upon include the preamble, measures to strengthen BWC Article III, the entry into force criteria, and the appendices. While the procedural report of the session reaffirms that the “rolling text” is the “only basis for negotiations”, only around three dozen square brackets were removed with most activity taking place in informal consultations. Tóth himself

has held over 50 consultations with delegations during the two-week session.

The session has also heard calls from some states parties for Tóth to produce a “chairman’s text” in time for the next session in April. On 12 February, South Africa, supported by New Zealand, Norway and the Netherlands, urged Tóth to distribute a text “as soon as possible before the end of this meeting.” Towards the end of the meeting, the EU stated that “it is only by ... a chairman’s text, that the negotiations will be brought to a successful conclusion. We are also convinced that the Ad Hoc Group need this input as soon as possible given the limited period of time left to us.” Other states parties, though, have been less keen on the introduction of a “chairman’s text”. For example, Iran stated that the introduction of a “chairman’s text” would “endanger the friendly and cooperative atmosphere” of the negotiations, while China insisted that “the rolling text ... continues to constitute the basis of our work”.

23 February In The Hague, a high-level Swiss parliamentary delegation is visiting the OPCW. The speaker of the Swiss National Council, Peter Hess, addresses the Executive Council which is in the final day of its twenty-third session [see 20-23 Feb]. In his address, Hess notes that the Swiss parliament is asking the Swiss government to “come forward with concrete proposals on how Switzerland could join international efforts to assist the Russian Federation more effectively in fulfilling its obligations under the Convention [see 21 Sep 00].”

23 February In the United States, UK Prime Minister Tony Blair and President George W Bush meet for talks at Camp David. Media attention focuses on their discussions on the US plans for National Missile Defense and on EU plans to develop a Common European Security and Defence Policy. Press reporting also alludes to the UK government’s wish to broaden the debate over NMD to include the wider question of proliferation and arms control. However, arms control is not directly mentioned in the joint statement issued after the summit meeting: “We recognize the existence of a common threat stemming from the growing proliferation of weapons of mass destruction (WMD) and increasingly sophisticated missiles for their delivery. We are already working together in this area, and agree on the need for further substantive bilateral consultations, as well as close consultations with other allies. This consultation process, which will involve contacts with other interested parties, will include a review of our common strategic assumptions so that they reflect the contemporary security setting, and especially the growing threat from WMD-armed adversaries in regions of vital interest. We need to obstruct and deter these new threats with a strategy that encompasses both offensive and defensive systems, continues nuclear arms reductions where possible, and strengthens WMD and missile proliferation controls and counter-proliferation measures”. In apparent contrast, the Prime Minister later gives a written answer in the House of Commons: “President Bush and I discussed a range of issues including the growing threat from the proliferation of weapons of mass destruction and their means of delivery and the need for common efforts to counter this. As made clear in our joint statement, arms control and disarmament will continue to be important elements of our strategy to combat this threat.” Later reports cite an unidentified British official as saying that Prime Minister Blair also urged President Bush to support the BWC Protocol.

24 February In Moscow, hazards from chemical-warfare agents remaining on the site of the former Kuzminki Polygon are reported by the Union for Chemical Safety (Russia). Lying just within the Moscow beltway, the 9 square kilometre location had been used for CW test purposes for about 40 years, from the early 1920s until the early 1960s. According to archived re-

ports from the Main Chemical Warfare Directorate to the Defence Commissar in 1937 and 1940: "Unusable toxic agents, which cannot be carried over long distances, are being destroyed at the Kuzminki tests site in Moscow ... Persistent chemical agents and lab waste (20 tonnes), arsenic agents (3 tonnes) and contaminated chemical absorbent (4.5 tonnes) were evacuated from dumping grounds and carried to the Kuzminki site to be destroyed." The Union also reports that samples taken from the site have been analysed in laboratories and found to contain 'mustard gas sulfide' and arsenic. The site is now a popular spot for recreation and fishing.

25 February In the UK, police have commissioned research from CBD Porton Down into possible replacements for CS spray [see 9 Feb], so the London *Sunday Telegraph* reports. The newspaper quotes a member of the self-defence, arrest and restraint subcommittee of the Association of Chief Police Officers, John Harrison, saying that the research would concentrate on an alternative that "will minimise the after-effects" of any spray. The request comes after a series of cases in which people have died after being sprayed with CS. The research will concentrate on examining other chemicals that could be used, including PAVA [see 30 Jun 99], and is expected to be completed by the autumn. Since its introduction in 1996, the CS Spray has been used on more than 10,000 occasions and is now used more often than batons to restrain suspects.

26 February In Washington, approaches to Russia by officials of the Nunn-Lugar programme regarding the biological facility at Pokrov are reported in *Aviation Week & Space Technology*, which quotes Pokrov officials as admitting that, during the cold war period, there were contingency plans to convert the plant to military uses. The plant is for production of animal vaccines and reports to the Ministry of Agriculture. The journal says that the plant has the facilities and resources to generate the same animal diseases it makes vaccines against, and quotes Senator Lugar on a visit he had recently made there [see 8 Dec 00]: "We inspected equipment recently used to produce anthrax, and storage bunkers capable of withstanding nuclear attacks".

The article, based on an advance copy of Lugar's report on his December trip, says that the Senator also hopes to overcome opposition in the House of Representatives to the funding of the CW destruction facility at Shchuch'ye. According to Lugar's report, the two million ground-launched CW munitions, from artillery shells to Scud missile warheads, stored at Shchuch'ye are in "excellent working condition". In his report, Lugar challenges critics [see 6 Aug 99] who claim that the weapons stored at Shchuch'ye "pose no more than an environmental threat to the local population. This contention is dangerously wrong. The size and lethality of the weapons I observed are clearly a direct proliferation threat to the American people. They are small, portable and deadly in the hands of terrorists, religious sects or paramilitary units." During the visit, Lugar had also demonstrated how an 85-mm shell could be concealed and transported in a regular briefcase, a fact which he hoped to use as advocacy in his discussions with Senate and House colleagues.

26–27 February At UN Headquarters in New York, talks take place between Iraqi government representatives and UN officials. The talks are chaired by UN Secretary-General Kofi Annan and the Iraqi delegation is led by Foreign Minister Mohamed Said Al-Sahaf. Iraq reiterates its refusal to allow UN weapons inspectors to return, Al-Sahaf saying: "there will be no return for any inspectors in Iraq – even if sanctions are totally lifted." However, he says that Iraq might allow less intrusive inspections if sanctions are lifted and if Israel and other Middle

East countries are subjected to similar scrutiny. The Iraqi delegation, according to reports, presents the Secretary-General with proof that Iraq has no biological, chemical or nuclear weapons and no long-range ballistic missiles.

Speaking to journalists on 28 February after having briefed the Security Council on the talks, Annan says that the main problems for Iraq are the 'no-fly zones', disarmament and economic sanctions. On disarmament he says: "Iraq maintains that it has fulfilled or indicated that it has fulfilled all the disarmament obligations and requirements placed on it by the council and, of course, the council members have said that if that is the case, let inspectors come in and check it out and certify it." Also speaking after the Security Council session, UK ambassador Jeremy Greenstock says that Iraq's uncorroborated declaration that all weapons have been destroyed cannot be accepted: "There has to be verification, there has to be monitoring, and there has to be inspections on the ground." Annan also indicates that Iraq may be less opposed to ongoing monitoring than it is to random inspections. Further talks are likely to take place in April or May. In addition, he urges the Security Council to "agree on certain critical questions and try to restore the unity of the council."

26 February–6 March In The Hague, a nine-day basic CWC national authority training course was scheduled to take place. However, due to the financial crisis currently affecting the OPCW [see 26 Jan], the course has had to be postponed.

27 February The UK Attorney-General receives application from a Wiltshire coroner for the convening of a new inquest into the death at Porton Down of Ronald Maddison in 1953. For the past two weeks, the coroner has been examining fresh evidence compiled by Wiltshire detectives on Operation Antler [see 5 Dec 00]. If given permission by the Attorney-General, the coroner can apply to the High Court to have the original verdict on the death of the airman quashed. The original inquest was held behind closed doors in 1953, with the coroner concluding that Maddison died of asphyxia. The coroner's report was never released and only Maddison's father was allowed to see it, but he was sworn to secrecy under the Official Secrets Act. A Ministry of Defence spokesman refuses to comment on the coroner's conclusions, adding: "We have, from the outset, been open and co-operating fully with the Wiltshire police investigation. We will continue to do so in the future and with the coroner, if required."

The London *Guardian* publishes extracts of a letter from a senior MoD official to the Medical Research Council in November 2000 in which the civil servant comments on the police investigation as follows: "Whilst we are sceptical about police claims, equally there is insufficient scientific evidence on which they could be either confirmed or refuted. Our ministers have therefore decided that work should be set in hand to establish whether there is any basis to suggestions that Porton volunteers have encountered premature mortality or unusual ill-health related to their exposures. We believe that a soundly based epidemiological study will be the only way to establish these facts [see also 28 and 21 Nov 00]."

27 February The UN Secretary-General transmits to the Security Council UNMOVIC's fourth quarterly report [see 1 Dec 00]. The report covers the period from 1 December 2000 to 28 February 2001, including the fourth meeting of the college of commissioners [see 21-22 Feb]. During the report period, UNMOVIC Executive Chairman Hans Blix has visited the capitals of Austria, France, Norway, Sweden and the UK and also met with representatives of Kuwait and Oman. He has also provided monthly briefings to the president of the Security Council and has also briefed the Secretary-General. Although UNMOVIC

did not participate in the consultations between the UN and Iraq [see 26-27 Feb], Blix had been kept informed of the preparations for and results of the dialogue.

UNMOVIC now employs 44 people from 21 member states, sufficient for the current level of activity. Another training course, the third such, is currently underway in Vienna. When this third course is complete, UNMOVIC will have a roster of more than 120 people trained for activities in Iraq. A fourth course is planned for May. In view of the time lapse between the training and actual employment of staff, UNMOVIC provides all trainees with a newsletter and has recently created its own website at www.un.org/Depts/unmovic/.

The report also details progress in the revision and updating of the lists of dual-use items and material to which the export-import mechanism applies [see 13-14 Feb]. The joint IAEA/UNMOVIC unit established to operate the EXIM monitoring mechanism has continued to receive notifications from member states of exports to Iraq of dual-use equipment. However, it has not received corresponding import notifications from Iraq. On the subject of overhead imagery, the report states that UNMOVIC has discussed its requirements with some governments and commercial providers. The report adds: "While imagery cannot be a substitute for on-site inspection, it can provide a valuable complement to inspection."

The report concludes: "UNMOVIC will be able to assess Iraq's compliance with respect to its obligations under the relevant Security Council resolutions only when the reinforced system of ongoing monitoring and verification is in operation and there is cooperation by Iraq."

28 February In Tokyo District Court there is the 21st hearing in the germ-warfare lawsuit brought against Japan by 180 Chinese plaintiffs [see 5 Feb]. Four elderly Chinese witnesses give testimony on an outbreak of plague they say had been initiated by Unit 731 aircraft in China during 1940-42. Government lawyers, who are claiming that there is no legal jurisdiction for the case, are offering no rebuttal.

28 February In Russia, from Kronshtadt, which is the naval port city on Kotlin Island, 60 km west of St Petersburg in the Gulf of Finland, it is announced that Governor General Viktor Chekesov has promised that the munitions dumps and stored chemicals at the naval base will be removed to the military chemical institute in Shikhany, Saratov, and destroyed. Among the chemicals are ten tons of chloropicrin, so the *St Petersburg Times* reports.

28 February *Polish Business News* carries an article about anthrax suggesting that the outbreak of the disease during the first world war that affected thousands of Russian soldiers in the Kolno region of eastern Poland resulted from a German act of biological warfare. The article quotes Colonel Henryk Arciuch, a veterinarian at the Military Institute of Hygiene and Epidemiology in Puawy: "People in the area affirm that the rise of the disease was not incidental. Many older people believe that anthrax was willingly used to contaminate land, livestock and food in order to inflict massive casualties on Russian forces". According to the article, cases of anthrax among humans and animals in the region were much more frequent during and after the war, with some areas becoming almost completely depopulated.

Since an anthrax outbreak in 1996, veterinarians from the Institute have been investigating the possibility that the anthrax strain responsible was not originally endemic to Poland but was instead introduced to the region as a result of the German sabotage during the first world war. The article also mentions the discovery three years earlier [see 25 Jun 98] by British and Norwegian scientists of a clandestine anti-animal weapon containing anthrax in the possessions of the German saboteur Baron

Otto Karl von Rosen found in a museum the previous year. Samples of the Kolno anthrax strain have been sent to scientists in the US and UK for analysis. If the strain matches that found in Norway, the article concludes that "it would prove without a doubt that the German army did use anthrax against the Russians on what is now Polish territory."

28 February The American-German Sunshine Project publishes a background paper on *Risks of Using Biological Agents in Drug Eradication: A Briefing Paper with Emphasis on Human Health*. Among the paper's recommendations is the following: "Not content to merely undermine the Anti-Ballistic Missile Treaty with a National Missile Defense, US support for biological eradication agents is an attack on another important arms control agreement, the Biological and Toxin Weapons Convention (BTWC). The international community must swiftly and conclusively reject the incorrect arguments that biological weapons prohibitions do not apply to illicit crop eradication because eradication is conducted under color of law enforcement. Failure to do so could result in a dangerous slide down the slippery slope of biological weapons proliferation. At its 5th Review Conference in November 2001, the BTWC should act to prevent the creation of loopholes by affirming in its Final Declaration that there is no exemption in the Convention to allow the development and stockpiling of biological weapons for law enforcement." [See also 21 Feb].

28 February In NATO, the new Long Term Science and Technology Study on *Defensive Aspects of Chemical and Biological Warfare*, which the Netherlands proposed in 1999, is proceeding under the direction of Dr Jan Medema, TNO Prins Maurits Laboratorium, with completion expected in July 2002. The aims, objectives and scope of the study are described in *The ASA Newsletter*.

28 February President Bush transmits to the Congress an outline of his administration's budget for Fiscal Year 2002. The final budget is to be submitted in April. For the Defense Department, an expenditure of \$310.5 billion is proposed, which would be an increase of 4.8 percent over the current spending level. The budget package envisages an increase in defence research and development expenditure of about \$20 billion over the next five years [see also 13 Feb] and lists the following areas in which new investment might be made: "leap-ahead technologies for new weapons and intelligence systems; improvements to the laboratory and test range infrastructure; technologies aimed at reducing the costs of weapons and intelligence systems; efforts, such as counterterrorism and counterproliferation that are focused on countering unconventional threats to national security; and funding to continue research, development, and testing of a missile defense program."

28 February From Portland, Maine, *The ASA Newsletter* reports that live smallpox virus is being used in as many as ten laboratories around the world, in addition to those at CDC Atlanta and Vector Novosibirsk that are authorized, under WHO auspices [see 10 Dec 99], to work with the virus. The newsletter cites its source of information as "one of the world's most highly regarded, non-US, research scientists specializing in this field".

28 February The American Medical Association, in today's issue of its Journal, publishes detailed recommendations for measures to be taken by medical and public health professionals in the event of botulinum toxin being used as a biological weapon against a civilian population. This is the fourth in a series of articles on possible biological weapons [see 12 May 99, 9 Jun 99 and 3 May 00]. Like the earlier articles (dealing with

anthrax, smallpox and plague) the publication is a consensus statement by 18 specialists from the Working Group on Civilian Biodefense, organised out of the Johns Hopkins Center for Civilian Biodefense Studies.

March From the Harvard University John F Kennedy School of Government comes the first issue of *Perspectives on Preparedness*, an occasional paper series published by the Executive Session on Domestic Preparedness. ESDP, which is also sponsored by the US Department of Justice, describes itself as "a standing task force of leading practitioners and academic specialists concerned with terrorism and emergency management." The series "aims to provide useful information to the concerned professional communities about how the nation can enhance its ability to respond to the threat of terrorism with weapons of mass destruction". The first paper, *A New National Priority: Enhancing Public Safety and Health Through Domestic Preparedness*, is focused on biological and chemical weapons.

1 March In the German Bundestag, PDS member Ulla Jelpke asks the federal government whether Germany has provided humanitarian aid to the victims of the Iraqi CW attack on Halabja [see 18 Mar 88] and what steps the government has taken to encourage German firms involved in supplying the Iraqi CW programme [see 3 Sep 98, and 2 Nov 00] to make humanitarian gestures and actions towards the Kurdish victims. Jelpke also asks the government how many German firms were involved, directly or indirectly, in the Iraqi CW programme. On this subject, the introductory material included with the questions repeats earlier press reports that around 70 per cent of the CW production facilities in Iraq originated from Germany.

On 29 March, the government replies that Germany has supplied considerable humanitarian aid to the Kurds since 1991, but that a direct connection to the attack on Halabja cannot be implied. The answer also stresses the government's position that all responsibility for the attack rests solely with the Iraqi government and that the German government cannot therefore be held responsible. It recalls that some individuals were indeed tried and imprisoned [see 3 Jun 96] and that Germany's export control system was strengthened at the beginning of the 1990s [see 23 Jan 92]. The government also recalls that it submitted a report on the supplies to Iraq by German companies.

2 March The London *Financial Times* publishes information about Iraqi CBW weapons taken from a restricted-distribution report that had been presented to the UNMOVIC College of Commissioners at its recent Vienna meeting [see 21-22 Feb]. The UNMOVIC report, probably the inventory of "unresolved disarmament issues" [see 27-28 Nov 00] upon which UNMOVIC staff had been working, is based on information collected by UNSCOM before it left Iraq in December 1998. The newspaper reports the UNMOVIC document as claiming that 500-700 155mm shells filled with mustard gas remain unaccounted for and that the remaining volume of imported phosphorus trichloride is also unresolved. The report also states that UNSCOM had found documents verifying that "spray/drop tanks for the dissemination of CW agents had been successfully tested with mustard agent and that the necessary stocks of bulk CW agents had been reserved for their filling." On biological weapons, the newspaper quotes the report saying that "the production of Agent B (anthrax spores) could be much greater than stated and, had such production taken place, the remaining quantities would still retain significant activity given the stability of this agent." The report also raises concerns about Iraq's research into viruses, saying that "in the absence of further documentary evidence and explanation, the rationale and the scope of the virus research undertaken remains unclear, in

particular the basis for the selection of the viruses." Reacting to a statement from the US State Department which generally endorses the report's findings, the Baghdad *Al-Qadisiyah* newspaper dubs the allegations "stupid" and says that "Iraq is determined to forge ahead with dismantling UN sanctions and putting an end to aggression with the support of Arabs and forces dedicated to world peace."

5 March The UK Ministry of Defence tells Parliament that, by the end of February, a total of 3,105 UK veterans had been seen by its Gulf Veterans' Medical Assessment Programme, which had been operating since October 1993 [see 27 Oct 99]. Further papers based on the observations [see 3 Jan 99] are being published. The statement continues: "Psychiatric illnesses are predominant among the illnesses seen at the GVMAP, of which Post Traumatic Stress Disorder, with or without co-morbidity, is the most common. The GVMAP physicians have found a few other Gulf related illnesses, predominantly of a respiratory or dermatological nature. They have not found any evidence of a unique syndrome among Gulf veterans or any unusual pattern of disease among veterans who attended the programme. They have not seen any evidence of increased immunological, neurological or renal diseases, or the appearance of any unusual cancers. The symptoms presented by veterans who have attended the GVMAP are similar to those reported by members of the general population attending their GP's surgeries."

6-8 March In Hunt Valley, Maryland, two US Army commands — Medical Research & Materiel and Soldier & Biological Chemical — join in cosponsoring the *2001 Scientific Conference on Chemical & Biological Defense Research* [see 17-20 Nov 98]. Some 60 papers are presented and there are also more than 90 poster presentations. Most of the presenters are from US military establishments or contractors, though there are also British and Dutch ones. The keynote address is by Dr Anna Johnson-Winegar, the Deputy Assistant to the Secretary of Defense for Chemical and Biological Defense Matters.

'Emerging Threats' is one of the dozen or so main conference topics. Included under this heading are seven presentations or posters, four of them on biological matters. On the chemical side there is an Army presentation on "Quantum chemical studies on acetylcholinesterase for investigating emerging nerve agents" and also two Army posters, one entitled "Proteome analysis facility" from USAMRIID, the other "Ab initio studies on hexavalent phosphorous compounds". Among the toxicology posters is one from USAMRICD on "Toxicity and treatment of Russian V-agent (VR) intoxication in guinea pigs".

7 March *Iranian Use of Chemical Weapons: A Critical Analysis of Past Allegations* is the topic of a meeting organised in Washington, DC, by the branch office there of the Monterey Institute Center for Nonproliferation Studies in its 2001 briefing series [see 8 Feb]. The speaker is Dr Jean Pascal Zanders of SIPRI, relying on open sources. He presents a critical analysis of such allegations as that it was Iran rather than Iraq that used chemical weapons in Halabja in March 1988. Zanders' comments on current Iranian statements are summarized as follows: "Iran had pilot-production facilities, but it had no large-scale production facilities and it produced relatively few munitions. Iran also produced sulfur-mustard in limited quantities. The status of production of HCN is unclear. According to current Iranian statements regarding its current status of production programs, Iran destroyed its CW production plants and its munitions after the War. Iran submitted declarations on its past programs to the OPCW and declared the production of 500 tons of agents. Its declarations were certified by the OPCW in November 1999." Zanders' response to recent Congres-

sional testimony by US officials [see 21 Sep 00 and 5 Oct 00] alleging that Iran currently has an active CW programme is summarized as follows: "If Iran is indeed producing CW, why isn't the CWC mechanism to deal with such situations being used? Why hasn't any state country called upon a challenge inspection? The basis for testimonies and other statements made by US officials is unclear. In addition, the allegations are often made in the broad context of WMD."

7 March US Secretary of State Colin Powell tells the International Relations Committee of the House of Representatives that the administration is broadening the US rules of engagement against Iraq to permit attacks on weapons-production facilities and possibly troop-movements as well. Referring to activities prohibited to Iraq under UN Security Council resolutions following the Kuwait war, Secretary Powell says: "If and when we find facilities or other activities going on in Iraq that we believe are inconsistent with our obligations, we reserve the right to take military action against such facilities and will do so".

8 March In Geneva, at the Conference on Disarmament, Secretary-General Vladimir Petrovsky reads out the message addressed to the CD by participants in the recent International Women's Day Disarmament Seminar held in Geneva. The statement includes this: "There have been remarkable successes in the field of arms limitation and restraint and a number of them were achieved in this chamber. Many treaties were born from humble beginnings with General Assembly resolutions. One such is the Biological Weapons Convention, which has now reached a crucial stage in its path towards more effective implementation, as we wait to see if dominant countries and pharmaceutical interests will allow the current verification negotiations to succeed."

8 March The UK Ministry of Defence announces that it has now received the first new supplies of licensed anthrax vaccine and therefore plans to resume its programme [see 26 Feb 98 and 26 Jun 98] of voluntary immunization against anthrax for armed forces personnel deployed to the Persian Gulf.

8 March In Washington, the Carnegie Corporation of New York hosts a meeting on biological weapons to examine the prospects for the BWC Protocol and the Fifth BWC Review Conference and to assess ways in which the foundations and NGOs can collaborate most effectively. The meeting is preceded by a press conference at which the Carnegie Corporation launches a "Challenge Paper" by B Alan Rosenberg entitled *Defining the Debate on Controlling Biological Weapons*. The press conference is attended by former Senator Sam Nunn who, jointly with Ted Turner, now heads a new foundation, the Nuclear Threat Initiative [see 8 Jan]. Attending the meeting are NGOs that receive funding from the Corporation and several other NGOs and individuals.

8-9 March In Brussels, the Swedish presidency of the European Union chairs an international conference on the *Non-Proliferation and Disarmament Cooperation Initiative*. The conference addresses international cooperation on non-proliferation and disarmament in Russia and is meant as follow-up to two previous meetings held under the auspices of the Expanded Threat Reduction Initiative [see 5 and 30 Nov 99] in Brussels and The Hague. The meeting is attended by approximately 150 representatives of EU member states, the US, Japan, Russia and other states of the former Soviet Union, Australia and South Korea.

In his opening address, conference chairman Ambassador Stefan Noreen says: "Supporting the early commencement of the destruction of chemical weapons in Gorny will continue to

be the highest priority to the EU." In addition to the EU funding for Gorny [see 17 Dec 99], Noreen notes that individual EU member states are also making contributions to activities at the facility and at others: "As of today, Germany, joined by the Netherlands, are bringing national contributions to Gorny – a project that is coordinated by Germany, owing to its longstanding bilateral experience in this field, and implemented on the basis of bilateral framework agreements between Russia, Germany and the Netherlands. Finland and Sweden are also involved in bilateral cooperation with regard to chemical weapons destruction in Kambarka and are as well considering national contributions to the chemical weapons destruction facility in Gorny." Addressing the Shchuch'ye facility, Noreen says: "Meanwhile, the EU Commission has also been asked to evaluate possible EU joint contribution already this year to the destruction of chemical weapons in Schuchye on the basis of bilateral co-operation programmes already underway between Russia and Italy and between Russia and the United Kingdom. We hope that European support in this area will also encourage the implementation of planned assistance by the United States in this field [see 30 Oct 00]."

During the meeting, besides formal statements from a number of participants, there are also three technical panels looking at nuclear security programmes, non-nuclear weapons of mass destruction programmes, and science, technology expertise non-proliferation and other security cooperation. The non-nuclear weapons of mass destruction panel is chaired by Friedrich Löhr of Germany. Presentations given include: Russia on the overall state of play concerning the implementation of the CWC; Germany on the EU joint action and the status of the Gorny facility; the US on activities at the Shchuch'ye facility and on the status of export control/border security non-proliferation assistance and cooperation; Sweden and Finland on the state of play at the Kambarka facility; Italy and the UK on their plans to support chemdemil in Russia; and the OPCW Technical Secretariat on the need for a "cooperative approach" to chemical weapons destruction. According to a summary of the panel "Russia confirmed her intention to meet the deadlines established by the Chemical Weapons Convention, and announced that a presidential decree on the chemical weapons destruction plan will be presented shortly." Destruction activities are expected to get underway at Gorny in 2002. In addition, the summary states that "another important development was that a number of European countries, as well as the EU as a whole, were considering substantial support to the Shchuch'ye facility." The US reportedly announces at the conference that it is releasing US\$88 million for the development of the Shchuch'ye facility. The panel on science, technology, expertise non-proliferation and other security cooperation is being chaired by Brian Hatwin of the UK. Presentations to this panel included: the EU/European Commission on non-proliferation of expertise; the secretariats of the ISTC and STCU on their activities; the US on science and technology non-proliferation programmes, in particular on efforts to engage former Soviet BW experts.

There is agreement to hold another ad hoc NDCI conference in 2002 in the light of developments in disarmament and non-proliferation in the Former Soviet Union.

8-9 March In London, VERTIC convenes a workshop on *On-site Inspections in Arms Control and Disarmament Regimes: Theory and Practice*. The 13 experts invited to the meeting come from various governments, international organizations and companies, including: UNMOVIC, the US, the CTBTO, the UK, Israel, the IAEA, Austria, the Netherlands, the OPCW and Science Applications International Corporation. The workshop has been convened partly to inform a VERTIC research report on on-site inspections (OSIs) which is due to be produced in mid-2001. The research will "highlight similarities and differ-

ences between OSIs across regimes”, according to a workshop summary posted on the internet. The summary concludes: “The process of implementing OSIs provides context to information provided by declarations or information exchanges. It also allows the inspection team and inspected state party the opportunity to resolve in a reasonable way unexpected difficulties, as well as any anomalies or uncertainties which allows both sides to meet their obligations and responsibilities. OSIs can be of great assistance in helping states to understand the meaning of compliance by differentiating between ‘technical’ non-compliance and ‘fundamental’ non-compliance. Seemingly inexplicable anomalies can often be resolved through the face-to-face interaction between an inspection team and the inspected state party.”

8–10 March At Princeton University, the Center of International Studies joins with the CIA Center for the Study of Intelligence in conducting a conference on *CIA’s Analysis of the Soviet Union, 1947-1991*. One of the speakers, Raymond Garthoff [see 1 Sep 00] speaks on the disinformation campaign that the US directed at the USSR during the Cold War to suggest that the United States still had an active biological-weapons programme notwithstanding the ostensible US renunciation of the weapons in 1969. Garthoff is quoted as telling the conference: “What hasn’t been known until very, very recently is that the United States did a great deal to stimulate the [USSR CBW weapons] program. We carried out a successful deception operation on both the CW and then on BW in persuading the Russians that we had an active program going even after we had signed the treaty. It was less successful in the sense that it turns out they developed both some very effective chemical and biological agents.”

Timed to coincide with the conference is the declassification and release of more than 850 CIA documents pertaining to the Agency’s analysis of the Soviet Union. Among them are a number related to CBW analysis.

9 March US Assistant Secretary of State for Verification and Compliance Owen Sheaks is interviewed by *Washington File*. Questioned on current State Department initiatives, Sheaks responds as follows: “Big questions in this administration are, right now, the Biological Weapons Convention Protocol and compliance. That’s been an ongoing negotiation. It’s nearing conclusion. The viability of that negotiation is under review right now.” Regarding the Administration’s review of the Protocol and other reviews, Sheaks says: “they are all going on more or less simultaneously with limited staff and resources, and they’re trying to get them all done as soon as possible. That’s why I’m saying over the next year I think you will see this administration’s position coming out on the BWC, on strategic agreements, and on testing agreements. Those are the three big areas.”

12 March In Iraq during May 1993, authorities buried banned chemical and biological materials contained in nine coffins in the largest of the Baghdad graveyards, Al-Karkh Cemetery, so the London *Al-Sharq al-Awsat* reports, quoting an Iraqi police officer, Muhammad Ibrahim al-A’zami, whose duties had included escorting the burial parties and who had fled Iraq some two months previously. He is reported as saying that the coffins were later removed and that “I personally was sure that the coffins, shrouded in Iraqi flags, contained very dangerous material because of the security measures taken around them.”

A week later, the same newspaper publishes an interview conducted in London with Professor Husayn al-Shahristani, an Iraqi nuclear scientist. He, too, describes Iraqi concealment techniques. Al-Shahristani recalls how, during UN inspections, chemical and biological materials had been concealed in trucks

bearing “ice cream” or “food stuff” signs which would be parked in residential areas and returned once the inspection was over. On another occasion, chemical and biological materials concealed in the Al-Rashid barracks in Baghdad had been dumped in the Tigris river, when inspectors arrived acting on a tip-off.

Al-Shahristani is also quoted as saying that, during the Shi’ite uprising in March 1991, aflatoxin was used in the shelling of Karbala.

12 March The *Washington Post* reports a restructuring of CIA staff dealing with non-proliferation and arms control issues. According to the newspaper, Director of Central Intelligence George Tenet announced last week the establishment of the Weapons Intelligence, Nonproliferation and Arms Control Center which would bring together three existing units, namely the Nonproliferation Center, the Arms Control Intelligence Staff and the Office of Transnational Issues’ Weapons Intelligence Staff. The new Center will be headed by Alan Foley, the current head of the Arms Control Intelligence Staff and will have a staff of around 500. Announcing the reform, Tenet is reported as saying he is striving for “increased synergy on key missile and nuclear issues as well as better integration between payload and delivery system analyses.” He adds that “by including all weapons, we will also be better able to surge and grow on issues such as advanced conventional weapons, missile defence and space-related systems. This is a move that many in the weapons field have endorsed and called for over the years.”

13 March In Washington, the Monterey Institute Center for Nonproliferation Studies holds another [see 7 Mar] meeting in its 2001 briefing series. The briefing, entitled *Allegations of WMD Terrorism*, is addressed by Rohan Gunaratna from the University of St. Andrews, Roger Davies from Hazard Management Solutions Ltd and Jeremy McDermott of the London *Daily Telegraph*. All three are authors of case studies in the book *Toxic Terror: Assessing Terrorist Use of Chemical and Biological Weapons*.

14 March In Mongolia, the government bans both import and export of some 66 varieties of poisonous chemical substance used for production of chemical weapons.

14 March In Moscow, the State Duma considers the new *Specialized Federal Presidential Program on CW Dismantlement in Russia in 1995-2009*. The main government speaker is deputy foreign minister Grigory Berdennikov. He informs the Duma that the OPCW had granted Russia’s request for an extension of the deadline for the first phase of destruction [see 30 Nov–3 Dec 99], but he adds that “despite objective reasons, [Russia’s] inability to destroy CW in compliance with approved schedule may become a pretext for political and economic pressure on our country; our incompliance with international commitments under the CWC may be used to discredit general vigorous policy of Russia.” Berdennikov also notes that the 2001 allocations for chemdemil increased six times compared with 2000 and that the revised destruction programme would soon be submitted to the OPCW for approval. He also reports on his ministry’s efforts to increase the amount of international assistance to Russia, which he currently reports stands at about seven per cent of Russian demands for chemdemil.

Zinovy Pak, the director of the Munitions Agency, reports on the state of affairs in the management of CW destruction and the situation at storage and destruction facilities. He recalls that the Munitions Agency is now the federal executive authority for all activities relating to CWC implementation, including placing state orders for CW destruction, conversion of CW production facilities and storage of munitions until their destruction. The duties of the federal executive authorities concerning chemical

disarmament had been set out by governmental resolution [see 17 Nov 00], which had also created the Federal Directorate for Safe Storage and Elimination of Chemical Weapons. According to Pak, the programme priorities are the destruction facilities at Gorny and Shchuch'ye. The former has received 1.1 billion rubles and should become operational in the first quarter of 2002, while Shchuch'ye got 725 million rubles, thus fulfilling one US Senate condition [see 30 Oct 00] for the resumption of financial assistance. Pak also reports that the government has today received for consideration a set of measures, including new conceptual approaches towards realization of the CWC. In November 2000, President Putin had directed that a revised chemdemil programme be submitted this month. According to Pak, it would be unrealistic to meet the 2007 deadline in the CWC and the new programme therefore talks about 2011.

Concluding the debate is its initiator, Nikolai Bezborodov, who suggests that the Committees for International Affairs, Defense, Security and Environment should work on an address to the forthcoming sixth session of the OPCW Conference of the States Parties scheduled to take place in The Hague during 14-18 May. Bezborodov is reported as saying that "the document should confirm Russia's commitment to complete elimination of chemical weapons, describe Russia's difficulties as far as CWC implementation is concerned, recommend the conference to meet Russia's request for postponement of the second stage of CW destruction, reiterate Moscow's appeal to the States Parties to increase substantially their financial assistance to Russia. Otherwise Russia may suspend its participation in the convention or withdraw from the treaty and this should not be allowed to occur: without Russia the CWC will lose its political and humanitarian meaning."

14 March In the UK House of Commons, the Quadripartite Select Committee [see 14 Dec 00] publishes a report on *Strategic Export Controls: Annual Report for 1999 and Parliamentary Prior Scrutiny*. The report sets out the committee's views on a number of issues of general policy and its conclusions and recommendations on the application of strategic export controls on several individual states. The report also describes the outcome of the committee's scrutiny of the Government's 1999 *Annual Report on Strategic Export Controls* [see 21 Jul 00] and its revised proposals for prior parliamentary scrutiny. The report reveals that one request for a permanent license to export CS gas to Israel [see 14 Nov 00] was refused in mid-2000 and that a temporary license had been granted in 1998 for exhibition purposes but that the items had been returned to the UK.

On the subject of the export of chemical precursors to Sudan [see 12 Dec 00] the report states: "[A] letter from Lord Sainsbury to Baroness Cox placed in the Library of the House revealed that one of the three licences in question had covered the export of triethanolamine to the Nile Paints Company for the manufacture of rubbing compounds for use with automotive paints. The other two exporting companies concerned had objected to the disclosure of the end-user." The report continues: "We obtained from the Government details of the five licences granted since May 1997 for goods to Sudan under the IC 350 category, including the value and end-user. One licence was for substantial volumes of a precursor chemical. Our informal inquiries suggested that the volumes and the material were reasonable for the stated purpose. The Foreign Secretary confirmed in oral evidence that the appropriate steps had been taken prior to granting a licence to ensure that the volumes sought were reasonable for the stated purpose."

The report also details the committee's revised proposals for prior parliamentary scrutiny of export licences [see 25 Jul 00]. The committee is willing to limit its scrutiny of a number of categories of export licences, including licence applications for dual-use goods.

14 March In Washington, the Potomac Institute publishes *Out of the Box and Into the Future: A National Security Forecast*, which is the outcome of a conference held in June 2000 to examine trends in science and technology for their possible effects on future national security. The project had been initiated at the request of a bipartisan group of Senators and Congressmen. The report focuses on the impacts of advances in six areas of science and technology, namely energy, advanced materials, nanotechnology, human factors and neuroscience, biomedicine and information and knowledge. In its consideration of the evolving political landscape, the report has the following to say on weapons proliferation: "Weapons of Mass Destruction (WMD) capabilities will be acquired by more nations, sub-national groups and individuals and will likely be used. These capabilities will include nuclear munitions and biological and chemical agents. The most disturbing potential for global catastrophe lies in the development of bioagents, incorporating airborne contagious pathogens." While recognizing the "impressive solutions for diagnosis and treatment of diseases" offered by research in biology, especially genetics, the report also acknowledges the downside: "[T]he proliferation of gene manipulation techniques can easily lead to catastrophic consequences we cannot begin to predict at this point. Results may include specially designed pathogens for terrorist use with great resilience and airborne contagion, perhaps even targeting specific ethnic groups."

15 March In Geneva, at the Conference on Disarmament, the representative of Hungary, Ambassador Joó, includes the following remarks about the BWC Protocol negotiation in what is his farewell address: "Since Hungary chairs the Ad Hoc Group, our special commitment to bringing the negotiations to a successful conclusion needs no detailed explanation. Our assessment is that significant progress has been made towards reaching this objective. The results achieved so far are encouraging and lead us to believe that the Group is in a good position to complete the negotiations in a time-frame enabling it to submit the draft protocol for adoption relatively soon. This can be done at a special conference to be held prior to the Fifth Review Conference in November-December this year. We call upon States Parties to redouble their efforts to implement the relevant decisions of the Fourth Review Conference and make the political decisions necessary for it. Against the background of the statement in other multilateral disarmament forums, including the Conference on Disarmament, the adoption of the protocol would gain even greater significance by demonstrating the determination of the international community to counter the threat posed by the proliferation of weapons of mass destruction."

15 March In The Hague, OPCW Director-General José Bustani addresses a luncheon meeting of the Netherlands Press Association on the financial crisis currently affecting the Organization. He describes the crisis as "a critical one, which may impact the future of our organization." While presenting the successes achieved since the entry into force of the CWC, Bustani says that the funding system laid down in 1997 has outgrown the original budget: "The budget is fictitious ... If we don't restructure, we simply cannot operate."

15 March The OPCW Technical Secretariat issues a new version of the paper entitled *General Obligations under the Chemical Weapons Convention and Related Tasks: Prioritised Checklist for non-possessor States Parties*. As before, the Standing Obligations section of the paper makes no mention of the tasks, save in regard to scheduled chemicals, required under Article VI, paragraph 2. The section does, however, recall for states parties such general injunctions of the CWC as the "Priority of safety and protecting the environment".

15 March In the UK, the CWC National Authority transmits its statutory annual report, for the year 2000, to Parliament.

15 March The UK House of Commons debates the report of the Foreign Affairs Committee on weapons of mass destruction [see 25 Jul 00 and 15 Oct 00]. While most speakers focus on the US plans for missile defence, there is also mention of the CWC and BWC. With respect to the former, the minister responsible, Brian Wilson, says: "The CWC remains a landmark arms control treaty — the first occasion on which an entire category of weapons was prohibited on a verifiable basis. It has proved successful. Only four years after coming into force, 143 states are party to it. The Foreign Affairs Committee urges the pursuit of universality and the Government agree. We continue to urge all non-signatories to ratify the convention, especially those in areas of tension such as the middle east. The European Union is conducting a renewed round of diplomatic lobbying to that end."

At least two speakers mention the ongoing BWC Protocol negotiations in their interventions, including the Liberal Democrat foreign affairs spokesman, Menzies Campbell: "It is imperative that the British Government use all their political influence to try to ensure a satisfactory outcome to the negotiations on the convention. Doubtless the Minister will be able to give the House some assessment of the likelihood of success." However, the minister's only reference to the negotiations is limited, in his final remarks, to the following: "The chemical weapons convention is a good model. Its success has prompted the international community to open negotiations on a protocol to the biological and toxin weapons convention to improve confidence and compliance and to deter potential violators."

15 March The US Energy Department posts its Chemical and Biological National Security Program Strategic Plan on the internet. During 2000, the programme had been renamed from the Chemical and Biological Nonproliferation Program and had been incorporated into the newly established National Nuclear Security Administration's Office of Nonproliferation Research and Engineering. The role of the CBNP is described in the plan thus: "to develop, demonstrate and deliver technologies and systems that will lead to major improvements in the US capability to prepare for and respond to chemical or biological attacks." The programme is underpinned by four areas of technology development—namely chemical and biological detection, modeling and prediction, decontamination and restoration and biological foundations—which feed into "domestic demonstration and application programs". There are currently two such programmes, one piloting technologies and analysis tools to support the protection of a subway system in a major metropolitan area and the other which is developing a portable bio-sensor for deployment in urban areas. The total budget for the programme in FY 2000 had totalled some \$40 million, a marked increase on the \$18.5 million FY 1999 budget.

15 March In California, the Center for Nonproliferation Studies of the Monterey Institute of International Studies posts on its website a detailed *Chronology of Aum Shinrikyo's CBW Activities* since April 1990 that is closely documented from open sources of information. The data presented come from the Monterey WMD Terrorism Database.

16 March In Berlin, the Bundestag rejects a PDS motion which would have labelled the 1988 Iraqi attack on Halabja [see 18 Mar 88] as genocide. The motion also called for the federal government and German companies, in the light of their alleged indirect and direct responsibility for the attack, to provide humanitarian aid to the surviving victims [see 1 Mar]. Specifically, the motion calls for the construction of a hospital and therapy

centre in Halabja. In addition, the motion requests the government to support the demands of international human rights organizations that UNSCOM and UNMOVIC publish their data on the companies which supplied the Iraqi CW programme.

Speaking in response to the PDS motion, members of the other parties acknowledge that the Halabja attack ranks among the worst crimes committed by the Iraqi regime against its own population, but they do not accept its definition as genocide. In addition, no other party supports the PDS contention that the German government or German companies should be held responsible for the attack. Therefore, there is no support for the motion's provision requiring Germany to provide compensation, in the form of humanitarian aid, to the victims of the attack.

16 March In the UK, Sussex Police announces its decision to provide its officers with a chemical weapon known as Captor, which is a hand-held spray device using "synthetic pepper". The Sussex force had been one of only two in the country not to issue CS spray weapons and is the first to opt for a pepper spray. Captor is reportedly used by police forces in Belgium, Germany, the Netherlands and Switzerland. The active chemical in the weapon is Nonivamide, otherwise known as PAVA [see 25 Feb], which is dissolved in aqueous ethanol. According to a police press spokesman, "this is directional, like a liquid jet. It should go right where it's aimed, not hang in a cloud like CS gas. It is the next generation of incapacitant. It is much less serious than hitting someone with a metal baton."

16 March In Washington, the Congressional Human Rights Caucus, the Washington Kurdish Institute and the Human Rights alliance convene a panel discussion to mark the 13th anniversary of the CW attack on Halabja in Kurdish Iraq. Speaking are CBACI President Michael Moodie, former UNSCOM Deputy Executive Chairman Charles Duelfer, Professor Christine Gosden of the University of Liverpool, and former Halabja resident and agronomy professor at the University of Suleymania, Dr Hama Dostan, the author of *Like Black Wind* (1999), a novel about Halabja.

20 March In Kosovo, Yugoslav security forces in Vrtogos include chemical warheads in their shelling of the buffer-zone Albanian village of Muhovic, according to Albanian electronic media. The charge is next day denounced by the Yugoslav/Serb State Coordination Body for Southern Serbia as a lie aimed at destroying the peace process and normalization of relations.

20 March In Washington, the director of special projects in the OPCW Technical Secretariat, Serguei Batsanov, speaks on *The CWC: Issues for the First Review Conference* at a meeting organised by the Monterey Institute Center for Nonproliferation in its 2001 briefing series [see 13 Mar]. In comparing the CWC review conference with other such conferences, Batsanov notes that the CWC is the first disarmament treaty with its own "complete implementing mechanism", as opposed to the BWC or the IAEA's task to oversee only some of the NPT. He predicts that while other review conferences have had preparatory committees, the OPCW is unlikely to follow this example, instead setting up a group under the umbrella of the Executive Council. Batsanov expects that, rather than attempting an article-by-article read-through of the CWC, the review conference will identify a number of key areas. His suggestions are: the application of international supervision to past and current chemical weapons programmes; the destruction of chemical weapons; the non-proliferation of chemical weapons; the effectiveness of the verification regime; challenge inspections; national implementation; and scientific and technological developments.

20–22 March In Washington, there is the first of the statutory trial visits [see 29 Nov 99 President Clinton] to assess the national security implications of the on-site measures being considered for the BWC Protocol. The trial takes place at the Armed Forces Institute of Pathology. The institute is described by a “senior defense official” as “a small facility that currently submits annual reports under BWC-related ‘confidence-building measures.’” Defense Department officials form two teams, one playing the role of an OPBW visit team exercising “notional protocol provisions” and the other acting as the host team while also assessing whether “the notional provisions adequately allowed for the protection of national security information.” According to Seth Brugger writing in *Arms Control Today*, the Pentagon’s assessment of the trial will be factored into a report to Congress assessing the need for visits and investigations under the Protocol. Brugger also says that the Defense Department is considering conducting another trial later this year.

20–29 March In Budapest, there is a second NATO Advanced Studies Institute on the BWC Protocol [see 6-16 Jul 97]. The subject of the 10-day meeting is *Scientific and Technological Aspects of the Implementation of the Protocol to the Biological and Toxin Weapons Convention*. The ASI is co-directed by Professor Gyorgy Granasztói (Teleki Laszlo Institute) and Professor Malcolm Dando (University of Bradford). Attending are 76 participants from 25 NATO, NATO Partner and non-NATO countries. An exercise, simulating the first session of the projected OPBW Conference of the States Parties, is organized by one of the lecturers, Marie Chevrier of the University of Texas at Dallas. There are 18 lecturers from 9 countries (France, Germany, Hungary, Netherlands, Poland, Romania, South Africa, UK and USA). In addition, BWC Ad Hoc Group chairman Tibor Tóth addresses the opening of the meeting and speaks again on the final day to inform participants that he has just completed his “composite text” of the Protocol which will be delivered in the capital cities of AHG participants the following day. The ASI had provided opportunity for some final consultations on the text.

21 March In the US House of Representatives, the Armed Services Committee conducts a hearing on the report of the US Commission on National Security/21st Century, otherwise known as the Hart-Rudman commission after its chairmen [see 31 Jan]. Testifying before the committee are Gary Hart a co-chairman of the commission, Newt Gingrich who was a member of the commission, John Hamre [see 30 Sep 99], now the president of the Center for Strategic and International Studies and William Kristol, the chairman of the Project for the New American Century. Hamre observes in his prepared statement: “Second, the greatest threat we face, I believe, comes from the proliferation of dangerous materials and knowledge amassed during the Cold War. The Soviet Union built massive inventories of chemical, biological and nuclear weapons, and created an extensive intellectual-industrial complex to manufacture these terrible weapons. As the Soviet Union collapsed, these dangerous weapons and technologies began to proliferate to other countries and potentially to international terrorist organizations. The growing technological sophistication of scientific and industrial establishments around the world bring chemical and biological weapons within the reach of virtually any country with a competent university. We now think some 14-15 countries harbor chemical or biological weapons. And with the proliferation of inventories comes the risk that these terrible devices will fall into the hands of terrorist organizations.”

22 March In Viet Nam, Vice President Nguyen Thi Binh, speaking in Hanoi at the launch of a campaign for support of disabled children, calls on international organizations and individuals to help children who are victims of Agent Orange. He is

joined by Nguyen Trong Nhan, the president of Vietnam Red Cross, who estimates that approximately one million Vietnamese were affected by Agent Orange, among that number being 150,000 children with birth defects. The campaign launched today intends to garner financial aid, initially for a period of five years, and is supported by national bodies such as the Fund for Vietnamese Children and the Agent Orange Victims Fund.

22 March In Virginia, Hadron Inc announces that a subsidiary has been awarded a one-year \$2.6 million contract by the US Army Medical Research and Materiel Command to study and develop new medical defences against anthrax. The subsidiary is Advanced Biosystems Inc, whose president is Dr Ken Alibek.

25 March In Egypt, the director of the Department of Chemical Warfare, Lt-Gen Muhammad Hilal, tells the Cairo *Al-Wafd* that there have been no cases of unexplained illnesses among Egyptian veterans of the Kuwait Liberation War.

27 March From the US Defense Department, the Office of the Special Assistant for Gulf War Illnesses, Medical Readiness and Military Deployments publishes three new papers. One is an updated version of the information paper, *The Fox NBC Reconnaissance Vehicle*. The other two are interim case narratives — *Chemical Warfare Agent Release at Muhammadiyah Ammunition Storage Site* [see 9 Jul 96] and *The Gulf War Air Campaign – Possible Chemical Warfare Agent Release at Al Muthanna, February 8, 1991* [see 9 Jul 96].

27 March In Atlanta, Georgia, at a Sam Nunn Policy Forum at Georgia Tech, the general director of the Russian State Research Centre of Virology and Biotechnology (VECTOR) [see 13 Oct 00], Dr Lev Sandakhchiev, presents a multimillion-dollar plan, developed with support from the US National Institutes of Health, to transform VECTOR into an International Center for the Study of Emerging and Re-emerging Infectious Diseases (INCERID).

27 March In Albuquerque, New Mexico, the Nuclear Security Decisionmakers’ Forum hears that the United States should develop a new class of small satellite-guided nuclear weapon so as to be able to deter use of weapons of mass destruction by countries such as Iraq. This proposal is made by the director of Sandia National Laboratories, C Paul Robinson, summarizing an argument which he had earlier presented in a “white paper” posted on the Sandia website. The paper addresses “how nuclear deterrence might be extended—not just to deter Russia—but how it might serve a continuing role in deterring wider acts of aggression from any corner of the world, including deterring the use of nuclear, chemical or biological weapons.” In the paper, Robinson goes on to say: “I believe that we would desire primarily low-yield weapons with highly accurate delivery systems for deterrence in the non-Russian world. Here, I’m not talking about sub-kiloton weapons ..., but devices in the low-kiloton regime, in order to contemplate the destruction of some buried or hidden targets, while being mindful of the need to minimize collateral damage.”

28 March Iraq informs UN Secretary-General Kofi Annan that it plans to renovate the Foot and Mouth Disease Vaccine Institute at Daura, near Baghdad, because of the outbreak of the disease in neighbouring states. The Secretary-General is put on notice that he will be asked to approve the financing of the renovation under the UN oil-for-food programme, and he is warned “against attempts by the United States and the United Kingdom to obstruct this process”. In 1996, UNSCOM had overseen destruction of plant at the facility following the admis-

sion by Iraqi officials that it had been used for production of botulin toxin [see 22 Apr 99]. Further, UNSCOM had reported that the facility had also been used for research on candidate viral warfare agents, including infective haemorrhagic conjunctivitis. This history is subsequently rehearsed by the London *Sunday Times* in an article asserting that the renovation project is a ruse to rebuild bioweapons production capacity. Replying to a question in Parliament, Minister of State for Foreign and Commonwealth Affairs Brian Wilson responds as follows: "In the continuing absence of UN monitors, the United Kingdom has opposed this request for reactivation of a plant known to have been used for biological weapons production in the past."

28 March In Chechnya, Russian forces have been using banned weapons according to a report by Chechen Health Minister Umar Khambiyev posted on the website of the Kavkaz-Tsentr news agency. The report includes the following: "Along with ordinary weapons, the Russian armed forces have used weapons of mass destruction in the Chechen settlements. These weapons are banned by the Geneva conventions." The weapons mentioned in the report include surface-to-surface missiles and rockets with fragmentation warheads, vacuum bombs and landmines.

28 March In the US Defense Department, the Chairman of the Defense Science Board, William Schneider, transmits to the Principal Deputy Under Secretary of Defense (Acquisition, Technology & Logistics) the executive summary of the DSB 2000 Summer Study, *Protecting the Homeland*, describing the study as being "aimed at assisting the Department of Defense and the Intelligence Community in defining their roles in protecting the nation from unconventional attacks on the United States". The study is in four volumes documenting the work of four DSB Task Forces, including one on *Defense Against Biological Weapons* that had been led by George Poste [see 28-29 Nov 00]. The DSB is planning additional studies for the series, including one on *Defense Against Chemical Warfare Attack* [see 6 Mar] and a further study of BW issues. The conclusions of the initial BW study, which had leaked to the press six months previously, are reported in this executive summary as follows: "The task force on Defense against Biological Warfare concluded that the United States is ill-prepared for a BW attack, asserting that 100 to 1,000 cases of one of these diseases in a single city would tax the nation's health care system. The task force paints a grim picture of the effectiveness of biological warfare. For example, an attack on a city with 100 kilograms of bioagent would kill one to three million people, twice the number of fatalities that would result from a one megaton nuclear weapon. Moreover, because of the commercial nature of the ingredients needed to manufacture viruses and pathogens, biological weapons are harder for governments and monitoring regimes to track and control than nuclear weapons development. This task force recommends that the Defense Department develop a database of biological weapons, a computer chip to automatically diagnose the diseases in patients, and a computer network that will rapidly warn health care centers about man-made outbreaks. ... At the same time, the task force is recommending that the Pentagon invest heavily in research and development for bioagent drugs and vaccines, and work with the Food and Drug Administration to accelerate the review process. It also recommends the Pentagon fund a \$50 million to \$100 million manufacturing facility for vaccines or after-exposure drugs in order to speed production. To provide oversight for all of the development, the task force then recommends the establishment of a new organization that it calls the Joint BioDefense Organization (JBDO). The JBDO would direct the military response to a bioagent outbreak and would coordinate efforts with the civilian sector and media, and would report di-

rectly to the president and the defense secretary through the chairman of the Joint Chiefs of Staff. The task force estimates that the above recommendations would require the investment of \$3.2B over the FY2002 Future Years Defense Program."

29 March In Germany, the annual report of the Verfassungsschutz (the domestic security service) is published. It states that, during 2000, China, India, Iran, Iraq, Libya, Pakistan and Syria all sought to buy German technology or know-how for weapons of mass destruction. Alongside these states, the report also includes North Korea and Sudan in its listing of "proliferation-relevant" countries.

29 March In Geneva, a symposium on *Facing the Challenge of Disease in the 21st Century* is co-hosted by the Quaker United Nations Office and the Bradford University Department of Peace Studies. Dr Guenaël Rodier of the World Health Organization speaks on "Preventing disease: the challenge for WHO"; Professor Graham Pearson speaks on "Preventing deliberate disease: the Protocol contribution"; and there is a message from the Surgeon-General of the South African National Defence Forces, Lt-Gen Jansen van Rensburg, on "Countering disease in Africa. The general theme is the complementary nature of the projected BWC Protocol and the work of WHO in combating disease, and the opportunities and benefits that such cooperation could bring to all countries, whatever their state of development.

Chairing the meeting is Ambassador Tibor Tóth, the chairman of the BWC Ad Hoc Group. He says that, next day, he will be submitting to delegations, via their capitals and then directly, a "composite text" for the BWC Protocol. He had announced this in Budapest earlier in the day when speaking at the close of the NATO Advanced Studies Institute on the Protocol [see 20-29 Mar].

29 March In the UK, the government publishes a consultation paper on draft legislation, *The Export Control and Non-Proliferation Bill*. The bill is based on the 1998 *Strategic Export Controls White Paper* [see 1 Jul 98] which responded to the recommendation of the Scott Inquiry [see 15 Feb 96] that a comprehensive review of the primary legislation governing export controls was needed and also on the reports of the Quadripartite Select Committee [see 14 Dec 00]. The bill would replace the export control provisions of the 1939 *Import, Export and Customs Powers (Defence) Act*.

One of the consultation paper's six "key objectives" is "to prohibit involvement in developing, producing or using weapons of mass destruction or in military preparations or preparations of a military nature intending to use such weapons." Provisions to implement this objective are not included in the published draft bill but will be included in the version to be introduced to Parliament. As recommended in the 1998 White Paper, the bill would add to the provisions of the 1996 Chemical Weapons Act by making it an offence for anyone in the UK or a UK person abroad to aid, abet, counsel or procure a foreigner overseas to develop, produce or use a chemical weapon. The draft bill also incorporates the suggestion in the White Paper that it be made an offence for anyone in the UK or a UK person abroad to aid, abet, counsel or procure a foreigner overseas to engage in military preparations or preparations of a military nature, intending to use a chemical weapon. With respect to biological weapons, the bill would introduce measures equivalent to those already in the 1996 Chemical Weapons Act, together with these two additional offences. In addition, the bill would also allow the government to impose controls on the transfer of technology by intangible means and on the provision of technical services. The bill would thereby serve to implement into UK

law the provisions of European Council Regulation 1334/2000 and EU Joint Action 2000/401/CFSP [see 22 Jun 00].

The consultation period is due to end on 24 May.

29 March In Washington, German Chancellor Gerhard Schroeder and President Bush issue a joint statement following their talks. The statement includes the following on weapons of mass destruction: "Together we are resolved to undertake new efforts in countering the proliferation of weapons of mass destruction (WMD) and increasingly sophisticated missiles for their delivery. ... We will work together toward a post-Cold War strategy that increases our common security and that encompasses the appropriate mix of offensive and defensive systems, and that continues nuclear arms reductions and strengthens WMD and missile proliferation controls as well as counter-proliferation measures." Schroeder reinforces these comments in an article in *Die Zeit* a few days later, particularly in relation to Russia: "We must make new efforts to prevent the spread of weapons of mass destruction and the increasingly more mature delivery systems. Russia itself faces difficult problems due to the residual nuclear, biological and chemical contamination on its territory and in the adjoining waters. Solutions must also be found for this, for the future of our common European house."

29 March In the US Senate, John Bolton, President Bush's nominee for the post of Under Secretary of State for Arms Control and International Security Affairs [see 21 Feb], appears before the Foreign Relations Committee. In his prepared statement, he says the following: "Multilateral diplomacy and managing international organizations play an increasing role in arms control, and several existing problems require attention. For example, the Organization for the Prohibition of Chemical Weapons (OPCW), is experiencing a series of financial and management difficulties that threaten the very integrity of the Chemical Weapons Convention. If confirmed, I would work, as a priority work, closely with Congress and like-minded countries to try to resolve these issues and help the OPCW play its role in helping to ensure a world free of chemical weapons."

Later, in answer to a question from Committee Chairman Jesse Helms, Bolton says: "I think that the effective implementation of the Chemical Weapons Convention requires a technical secretariat that's both effective and perceived not to be out for national agendas, and not out for agendas of the staff, or particular member states. And as I have come back into this question of the OPCW, ... it's become pretty clear that for a variety of reasons, some of which are nobody's fault, some of which I think are, unfortunately, this country's fault, that implementation of the creation and formation of the technical secretariat has not gone well, and that in the next year, in particular, we face a number of potential, very difficult bumps in the road, in terms of getting this new organization off to a functioning start. ... As a supporter of this convention, I personally think that if it were to collapse in its operational stages, it would not only threaten the integrity of the CWC itself, it would make more difficult any other subsequent arms control agreement."

On 26 April, the Committee votes 10-8 to approve the nomination, which now passes to the full Senate.

29 March–1 April In Oxford, England, a Halabja Post-Graduate Medical Institute (HMI) seminar is hosted by the Washington Kurdish Institute and Professor Christine Gosden [see 16 Mar] of the University of Liverpool. Participating are representatives of the regional health ministries in Iraqi Kurdistan, deans of three regional medical colleges, doctors, and representatives of non-governmental organizations providing health care in northern Iraq. A summary of the meeting is subsequently published by the Washington Kurdish Institute.

There are presentations of clinical video studies and data collected in the HMI medical survey of 2000 households (one per cent) throughout Iraqi Kurdistan [see 27 Nov 00]. The high incidence that has been found of cancers, cardiopulmonary disease, congenital anomalies and other major medical disorders is assessed in relation to regional demographic structures. The seminar learns that HMI researchers have identified 250 villages and towns in northern Iraq, and 31 other uninhabited strategic areas, that appear to have been attacked with weapons of mass destruction by the Iraqi regime in 1987 and 1988. The preliminary evidence suggests that, in addition to chemical weapons including nerve agents, both biological and radiological weapons may also have been used, apparently with genocidal intent. Participants discuss the preparation of papers setting out the HMI observations for submission to peer-reviewed scientific journals.

The preliminary survey data and clinical studies are regarded by participants as a basis for medical treatment, research and environmental-safety pilot programmes. Participants consider diagnostic and treatment capacities in relation to the UN Oil-for-Food programme and other available medical and health resources. Discussion of programme development focuses on priority areas, these being identified as cancer; maternal and child health, including congenital abnormalities; and general medical disorders. Working partnerships between the ministries of health, the medical colleges, NGOs and local doctors are being strengthened better to secure international support and to implement programmes at the primary, secondary and tertiary care levels effectively.

Participants review the ongoing treatment and research programs supported by HMI for survivors of unconventional weapons attacks in Iraqi Kurdistan. In order further to address urgent medical needs in Halabja and elsewhere, participants agree to support:

- Establishment of a community centre to assist disabled persons in Halabja.
 - Continued employment of three medical specialists in the Halabja hospital.
 - Providing an anaesthesia machine, slit lamp (for ophthalmology), coronary care and other medical supplies for Halabja hospital.
 - Providing a functional bronchoscope for physicians in Erbil.
- Participants emphasize the urgent necessity of further measures building upon initial steps, given the scale of health problems facing a civilian population that has been exposed in varying degrees to weapons of mass destruction. There is agreement that urgent appeals should be made to the international community to support continued development of medical treatment, research and environmental-safety programmes throughout the region.

30 March BWC Ad Hoc Group Chairman Tibor Tóth releases his long-awaited "composite text" of the BWC Protocol [see 29 Mar]. The text is delivered to governments by Hungarian ambassadors in capitals of AHG participants. At 1600 hrs CET the text is also released to delegations in Geneva. The text reportedly elaborates upon the "building blocks" [see 23 Feb] which Tóth had distributed to delegations at the last two Ad Hoc Group sessions.

In a video statement posted on the website of the University of Bradford Department of Peace Studies, Tóth says: "It is my hope and belief that all delegations will recognize that the composite text is based on language that has already been agreed by consensus in the negotiations to date. It is my hope and belief equally that all delegations will recognize that the suggested compromise solutions on unresolved issues are based on a carefully judged balance of the views of all delegations. In doing so the text I submitted is, in my view, one that intends to

achieve the mandate of the Ad Hoc Group and to strengthen all the provisions of the Convention, thus maintaining the integrity and overall 'meaningfulness' of the Protocol." He goes on to say: "When considering this compromise text, I would like to request each and every State Party not only to focus on what it has not gained, but also what it has received in the overall process of give and take. I understand that the flexibility required in asking any State Party to consider this text as the basis for final agreement is great, but such flexibility is not required only from one country, but from every single delegation participating in the negotiations in Geneva."

The text itself is 210 pages long, with 30 main articles, three annexes and nine appendices. The text will be formally introduced at the forthcoming twenty-third session of the Ad Hoc Group in Geneva.

30 March In London, the UK Foreign and Commonwealth Office hosts a session of the HSP London CBW Seminar [see 21 Jun 00] at which the topic for discussion is the impending 5th BWC Review Conference. The main presentation is by Nicholas Sims of the London School of Economics. It is later published by the Bradford University Department of Peace Studies as the second paper in its new occasional paper series *Review Conference Papers* under the title "The functions of the BTWC Review Conferences: maximising the benefits from the Fifth Review Conference".

31 March In Burundi, chemical weapons are reportedly used by government forces against rebels in rural Bujumbura, and again two days later, so the Rome-based Missionary Service News Agency reports, citing an unidentified "source of the Burundian civil society contacted in Nairobi". According to that anonymous source, the chemicals are disseminated from truck-mounted rocket launchers using missiles that had arrived in Burundi during the early hours of the previous day by aircraft from Libya.

31 March In Cuba, Vice President Mose Myar tells a visiting group of Iranian parliamentarians that Cuba is keen to upgrade its cooperation with Iran in the field of biotechnology. This cooperation had begun six years previously, particularly in the field of medical biotechnology.

3 April In Colombia, a people's suit (as provided for in the Constitution of 1991) is brought before the Court of Cundinamarca by two environmental lawyers, Claudia Sampedro Torres and Hector Alfredo Suarez Mejia, seeking suspension of the "fumigation" — spraying with biocide — of illegal crops such as coca on the grounds that fumigation, which has been practised since 1994, without an environmental management plan is a violation of the Constitution and of the law. About 250,000 hectares of illegal crops have been sprayed thus far, mostly with glyphosate, and Plan Colombia [see 1 Sep 00] envisages an additional 120,000 hectares. A recent report from the Office of the Attorney General discloses an episode in which fumigation had affected five farms even though they were at least 2.5 kilometres from illegal crops. In mid-March, the governors of four provinces in the south of country had visited Washington, DC, to ask policymakers there to seek to stop the fumigation in favour of manual crop-destruction combined with development programmes that offer farmers reasonable alternatives to drug-plant cultivation.

3–4 April In Washington, the US Defense Intelligence Agency and the National Military Intelligence Association join in convening *National Intelligence Symposium 2001: Asymmetric Threat*. It is classified SECRET, US ONLY. The publicity for the symposium had stated that "the high priority topics that consti-

tute the Asymmetric Threat to the United States include critical infrastructure protection and information assurance, information warfare, terrorism, weapons of mass destruction, the foreign intelligence threat, the threat to spaceborne assets, and foreign concealment and deception".

3–6 April In The Hague, the OPCW Executive Council convenes for its twenty-fourth formal session. [For further detail, see *Progress in The Hague* above]

4 April In Moscow, at an extraordinary meeting of shareholders in the Russian joint-stock company Biopreparat, general director Yuriy Kalinin [see 13 Oct 00] is voted out of office. He is replaced by Ramil Khabriyev, who is the head of the Department for Quality Control of Drugs and Medical Technology in the Russian Ministry of Health. Reporting this, the Moscow *Kommersant* notes that the All-Union Industrial Association Biopreparat had been created in 1937, and that it became a joint-stock company in 1994.

4 April In Bosnia-Herzegovina, chemical weapons, as well as conventional weapons of all sorts, are available for purchase from arms dealers based in the Serb Republic, so it is reported on the Madrid *El Mundo* website with attribution to television journalists who had posed as intermediaries for a Latin American guerrilla movement. A display of the merchandise had included what the dealers described thus: "Look at these cartridges. They're chemical cartridges. It's banned ammunition, but we can get hold of it for you."

4 April In Pretoria High Court, where the trial of Brig Dr Wouter Basson continues, the defence team begins its argument for dismissal of the human-rights-related charges. [For further detail, see *Proceedings in South Africa*, above]

4 April In California, the Centre for Nonproliferation Studies of the Monterey Institute of International Studies publishes the Spring 2001 issue of *The Nonproliferation Review*. This contains a special section entitled "New approaches to compliance with arms control and nonproliferation agreements". Its papers had originated in presentations made at a CNS-CBACI conference [see 9–10 Jul 98]. Among them are three detailed case-studies of episodes of CBW-treaty noncompliance, real or supposed. They are the Yellow Rain allegations, the chemical warfare of the Iraq-Iran War [see also 7 Mar], and post-1975 Soviet/Russian BW programmes. [Note: The second of these studies is striking for its assertion that chemical weapons were used repeatedly, not only by Iraq, but also by Iran. In contrast to much else in his paper, the author has chosen not to document this statement, though he does cite, via a secondary source, the report of an investigation by the UN Secretary-General [see 25 Apr 88] which found that 111 Iraqi military personnel present in a Baghdad hospital on 8–9 April 1988 had certainly been affected by mustard gas. However, that report also states that it "was not possible to make an independent determination" of how the soldiers came to be exposed to the mustard gas. The two other case studies are meticulous in their citation of authorities on contentious matters.]

The USSR/Russia BW case-study, by CBACI President Michael Moodie, concludes thus: "The United States, and the international community as a whole, has devoted far more attention to negotiating arms control agreements than to implementing and enforcing them. The impact of how those agreements are implemented and enforced will only be felt over time as results accumulate. Prudence suggests that some greater attention and evaluation should be given to the potential consequences of noncompliance. Doing so may prevent the worst."

5 April In Russia, Prime Minister M Kasyanov signs Government Order No 484-r, which, in accordance with the federal law *On Social Protection for Citizens Engaged in Working with Chemical Weapons* [see 7 Nov 00], sets out the list of toxic chemicals that are to be classified as chemical weapons for purposes of "granting privileges and compensation to citizens engaged in working with chemical weapons, as well as establishing a link between the illnesses of citizens and said jobs, regardless of the time said work was conducted". The list comprises seven chemicals. It also indicates the "year of termination of production" of each chemical and whether the chemical is or is not still stockpiled. The list is as follows: sarin (1982), soman (1987), O-isobutyl 2-diethylaminoethyl methylphosphonothiolate (1986), which the list calls "VX", mustard gas (1957), lewisite (1946), phosgene (1946) and hydrogen cyanide (1946). Stockpiles still exist of all but hydrogen cyanide.

5 April In Canada, the House of Commons Agriculture Committee learns from the Executive Vice President of the Canadian Food Inspection Agency, Andre Gravel, that the RCMP (the Mounties) and the Canadian Security Intelligence Service are assessing the threat of bioterrorists bringing foot-and mouth disease into the country. The committee is told about the precautions being taken to ensure that the disease does not spread in from the United Kingdom, where it is currently devastating both agriculture and tourism. For example, two days previously a British ship had been expelled from a port in Quebec after inspectors had discovered dirt on the tyres of military vehicles bound for Alberta.

6 April In Russia the Munitions Agency announces that construction of the chemdemil facilities at Gornyy [see 2 Feb] has resumed and that Germany has shipped equipment for processing CW agents there.

6 April In Washington, President Bush announces his intention to nominate Douglas Feith [see 21 Mar 96, 9 Sep 96 and 9 Apr 97] to serve as Under Secretary of Defense for Policy. Feith had previously served in the Reagan Administration as Deputy Assistant Secretary of Defense for Negotiations Policy and was also Special Counsel to Assistant Secretary of Defense Richard Perle.

8 April In Namibia, President Sam Nujoma reportedly states that Americans had created HIV/AIDS as part of the US biological-warfare programme at the time of the Vietnam War. The US embassy in Windhoek subsequently makes no official comment on the statement, but is reported to be interested in having "correct information on scientifically better grounded theories about the origin of the deadly virus and disease provided to the President".

8 April In Britain, the *Sunday Express* suggests that the current outbreak of foot-and-mouth disease among the country's livestock might have been "an act of sabotage by a rogue worker", possibly using a "test tube containing the foot-and-mouth virus" that was said to have gone missing from Porton Down two months before the outbreak was first reported. The newspaper quotes an unidentified "senior military source close to Porton Down" as saying: "A phial appears to have gone missing from one of the labs following a routine audit last year. Ministry officials were informed immediately and an investigation was launched by Special Branch and then by MI5, who are interested in the activities of animal rights protestors". In response to a parliamentary question about the allegation, junior defence minister Lewis Moonie, responds as follows: "There have been no losses of viruses from the Chemical and Biological Defence Sector of DERA at Porton Down in the past year.

... No foot and mouth viruses have been stolen from CBD Porton Down, nor have samples of foot and mouth virus been held at CBD Porton Down in the past year."

9 April The UK Defence Ministry, addressing concerns expressed by former participants in the Service Volunteer Programme at Porton Down, tells the House of Commons that it has now sought advice from the Medical Research Council on the feasibility of conducting an epidemiological study to determine whether volunteers had suffered unusual mortality or illness [see 27 Feb].

10 April In Viet Nam, the Hanoi *Quan Doi Nhan Dan*, which is the daily newspaper of the Vietnamese People's Army, reports that since December 1998 "there have been seven cases of evil people scattering poisons in 13 schools in Dac Lac Province" in the central highlands, affecting 547 students and teachers. The army had been sent into the region in February, following unrest among the region's mainly Christian ethnic minorities.

10 April In China, 72 poison-gas shells in five varieties were found in early March during an excavation at Huiyang in Henan Province, so Xinhua reports, describing the munitions as having been abandoned by the Imperial Japanese Army, which had occupied Huiyang from September 1938 until August 1945. The news agency also reports that workmen who had dug up the shell said that a "stinging, white smoke" had spewed from the site.

10 April In India, the Chennai *Hindu* comments on recent the talks between External Affairs and Defence Minister Jaswant Singh and visiting officials of the new US administration. "The Indian side felt that the possession of nuclear weapons alone did not necessarily threaten a nuclear war. Poor governance, political instability at home and undue external dependence could also encourage use of nuclear arms. In fact, the clash between two stable nuclear powers, the former Soviet Union and China, in 1969 along the Ussuri river did not threaten a nuclear war. The remedy for preventing a nuclear clash in South Asia therefore does not lie in the Kashmir issue, but on ensuring that Pakistan emerged as a nation-state at peace with itself. India and the US, in fact, had a common agenda in encouraging democracy and economic well-being in Pakistan. A moderate democratic Islamic state was necessary and could emerge in Pakistan, if Islamabad, in its self-interest, reined in terrorism. India was also not averse to Pakistan's positive economic contribution to the South Asian Association of Regional Cooperation. ... On weapons of mass destruction, India's view was that chemical and biological warfare was a bigger danger than nuclear weapons. These dangers have been enhanced because the procurement of these weapons by international terrorists is easier. Both countries have been concerned at the developments in China. Economic engagement should deepen but Beijing's evolving military capability also needs to be actively monitored."

10 April From Asmara, the Sudan People's Liberation Army issues a statement denouncing "the close cooperation between the Khartoum and Baghdad regimes in developing Sudan's military industry, including chemical weapons". The statement, signed by SPLA spokesman Yasser Arman, attributes its information to "SPLA sources within the Sudanese armed forces", but presents no further detail on the alleged chemical weapons.

10 April The British government expresses support for the composite text of the projected BWC Protocol that has recently been produced by BWC Ad Hoc Group chairman Tibor Tóth [see 30 Mar]. Responding to a parliamentary question from the

Liberal Democrat foreign affairs and defence spokesman, Menzies Campbell, the cognizant Foreign & Commonwealth Office minister, Brian Wilson, writes: "We welcome the appearance of the text and are currently assessing this [*sic*] overall content. A successful outcome [to the Protocol negotiation] by the time of the BWC Review Conference remains a possibility but will depend upon the reaction to the text from all countries involved over the coming months. An effective BWC Protocol remains an important arms control objective for the United Kingdom as it will help fill the last remaining gap in treaty provisions designed to stem the proliferation of WMD".

10 April From New York, Russian emigré Lev Navrozov publishes an essay on NewsMax.com about research in China on biological weapons. He speculates that an important part of this work is 'National 863 Project', described in a Chinese publication as seeking new advanced warfare technologies and as having been approved by Deng Xiao Ping in March 1986. He notes a *New York Times* report from China in October 2000 that had expressly attributed the country's progress in genetically modified foodcrops to the 863 Project.

11 April In Japan, stronger steps to cope with possible bioterrorist attacks are advocated in a report to the Defence Agency from its Director-General's advisory panel. According to Kyodo, the report states that cheap easily produced biological weapons are spreading worldwide and are being acquired by terrorists, constituting a new threat. The report identifies 20 varieties of bacterium and virus, including smallpox virus, as potential bioweapons. The Defence Agency is planning to expand the education and training of the anti-CW units of the Self Defence Forces, to expand research, and to increase supplies of anti-BW equipment [see also 13 Dec 00]. The report of the advisory panel concludes thus: "Establishing a system concerning measures to be taken on biological weapons is an important government-wide issue. The current infrastructure covering personnel resources, information, facilities, and equipment of the Defense Agency and Self-Defense Forces relative to biological-weapons measures is fragile, and a considerable amount of time will be required to build an adequate system."

11 April Russian foreign minister Ivan Ivanov visits OPCW headquarters while on an official visit to the Netherlands. After holding talks with Director-General José Bustani, he makes a brief statement to the press, in which he expands on Russian plans to adapt its chemdemil programme: "... we are adjusting our federal targeted programme of chemical disarmament. We are elaborating on proposals aimed at reducing costs and complying with the deadlines for the destruction of CW stockpiles in my country. We are planning to considerably increase the budget and budget allocations to this end." However, he goes on to highlight the problems, particularly financial, which Russia has encountered and states that: "We believe that we can expect additional assistance in chemical disarmament given the assurances of the willingness to help us which we received at the stage when Russia was still pondering on its capabilities and was making the decision on whether or not to participate in the Convention." Ivanov also emphasizes that "important for Russia is the support for Russia's conversion requests aimed at re-orienting facilities to peaceful purposes. We will rely on such support in the future in order to preserve the economic capability of my country."

12 April From Manchester University, further findings [see 1 Jul 00] are published from research led by Professor Nicola Cherry into illnesses among UK veterans of the Gulf War [see 5 Mar]. There is no evidence of any illness unique to Gulf War veterans, but the findings do include observation of association

between reported ill health and multiple vaccinations or handling of pesticides. In a statement commenting on the publication (two papers in *Occupational and Environmental Medicine*), the Ministry of Defence says: "Research is currently underway which covers all the main points raised by the Manchester work. The King's Medical School team [see 18 May 00] have completed: a neuromuscular study of Gulf veterans, immunological work on blood samples taken from Gulf veterans (testing the hypothesis that multiple vaccinations may have triggered physiological changes) and a clinical follow-up to their questionnaire-based earlier work. The Ministry ... expects papers on all this work to be published this year. In addition, the Ministry of Defence is already undertaking research at CBD Porton Down into the health effects of possible interactions between all of the vaccines in the 1990/91 immunization programme, as well as pyridostigmine bromide (PB), the active ingredient in nerve agent pre-treatment tablets. The first phase of this work has been completed and showed no remarkable health effects from the combined administration of these immunizations and PB to guinea pigs. The current phase of this study is being conducted in a small primate, the marmoset, using a complex experimental design. a number of sensitive indices will be monitored for eighteen months following the co-administration of the ten vaccines and PB. These studies are expected to be completed in mid 2003.

12 April From Dallas, Dr Robert Haley [see 21 Jan 97 and 16 Jun 99] of the University of Texas Southwestern Medical Center defends, in a letter now published by *Nature*, the quality of his work on Gulf War Syndrome. The findings of his team had, he wrote, "passed rigorous peer review before publication in respected scientific journals". It was this, "in the politically charged environment of Gulf War research", that mattered, not the fact that the work had been supported by the Congress [see 19 Oct 00] and by other "non-peer-reviewed grant funds" outside the channels of official government support that had spurned it. He draws particular attention to the articles he has published "establishing that there is a new syndrome with three variants in Gulf War veterans of a naval reserve battalion".

13 April In France, there is an emergency evacuation of people living in the vicinity of an ammunition depot in the village of Vimy near Arras in Flanders. Some 12,500 people have been instructed to leave their homes and to stay away for 10 days while old munitions, including phosgene and mustard gas projectiles, are taken away for destruction at Suippes military camp, east of Paris in the Marne. The Vimy depot [see 12 Feb 98] reportedly contains around 173 tonnes of munitions, including 16,000 shells and bombs which had been uncovered in the surrounding Pas-de-Calais region after the first and second world wars. A recent survey had found some of the munitions to be in an alarming state of disrepair. On 15 April, one phosgene-filled shell is noticed to be leaking, but is quickly dealt with by army experts. The same day, French Prime Minister Lionel Jospin visits Vimy as army teams prepare to move the munitions to Suippes during the night. The convoy, consisting of nearly 60 vehicles carrying 40 tons of munitions and escorted by around 475 police and four helicopters, arrives on 16 April at Suippes, 240 km to the southeast. The munitions are to be stored in a former nuclear missile silo, where they will await destruction. It is envisaged that there may have to be a second such convoy to take away any remaining chemical munitions that may still be in the Vimy depot. However, France currently lacks a facility at which the munitions can be destroyed [see 12 Feb 98].

14 April In New York the UN Secretary-General's spokesman, Fred Eckhard, confirms that the UN has postponed its

projected second round of high-level talks with Iraq [see 26-27 Feb] because members of the Security Council "are not expected to complete their policy reviews on Iraq by the end of May".

17 April In Washington, a meeting on *Bioterrorism: Legal Initiatives for Prevention/Deterrence* is convened by the Monterey Institute Center for Nonproliferation Studies in its 2001 briefing series [see 20 Mar]. The meeting is addressed by Barry Kellman of DePaul University and Susan Spaulding from the National Commission on Terrorism [see 5 Jun 00]. In her presentation, Spaulding deals with four components of the legal aspect of bioterrorism, namely foreign intelligence, law enforcement, military and public health. In his presentation, Kellman proposes that "international legal initiatives must include the criminalization of the release of pathogens with intent to cause harm. In addition, the unauthorized possession, transnational movement of weapons agents, precursors and critical equipment as well as the provision of material, financial or intellectual support in the endeavor should be a crime. Regulation of pathogens and critical equipment should cover the 'registration' of the legal possession or use of regulated items, prohibit transfers to unregistered persons, and require the tagging or tracing of equipment." Kellman also suggests that there should be much closer cooperation between international organizations such as INTERPOL, the WHO and the World Customs Organization.

18-20 April At UN headquarters in New York, the Group of Governmental Experts to Prepare a United Nations Study on Disarmament and Non-Proliferation Education convenes for its first session. It is chaired by Ambassador Miguel Marín Bosch of Mexico. A further session is scheduled for 8-10 August, in Monterey, California.

19 April In Kazakhstan, the director general of the National Biotechnology Centre in Stepnogorsk, Gennadiy Lepeshkin, tells reporters that there are to be talks with visiting officials of the US administration during 21-23 April on the matter of further US aid for the dismantling and clean-up of the former bioweapons production facility at the Centre [see 12 Sep 00]. He says that about \$12 million are needed to complete the work. Three days later he talks with reporters about Vozrozhdeniye Island [see 7 Jul 99], which had been used as a BW test area during 1936-37 and 1954-92, saying that urgent safety checks are needed there.

19 April Iranian President Khatami and President Putin of Russia have reportedly agreed that Tehran would be informed of any development in Iraq that could threaten Iran. This is said to have happened in the course of their meeting in Moscow last month, during which they signed an "agreement of principles to expand co-operation between the two countries". President Khatami also appealed to President Putin to bring pressure on President Saddam Hussein of Iraq to renew international arms inspections.

19 April In Moscow, government preparedness for bioterrorism is the subject of an interview given by the Chief Public Health inspector of the Russian Federation, Gennadiy Grigoryevich Onishchenko, now published in the government daily newspaper *Rossiyskaya Gazeta*. He says that the Federal Antiterrorist Commission has established a working group on biological security issues, headed by the chairman of the government and that the Ministry of Health, with security departments, has prepared an "Antiterrorist activity concept for the federal organs of power in the area of environmental protection and public health". In addition, a centre for special laboratory diagnostics and treatment of dangerous and exotic infec-

tions has been created, based at the Defence Ministry's Microbiological Scientific Research Institute Center for Virology. Onishchenko says that: "Biological security is a component of our country's national security. The vaccines, antibiotics, and individual means of protection that we have at our disposal need to be replaced with newer ones. The funding of the program for combating biological terrorism is not up to the mark, however. Last year only R47 million instead of the promised R280.9 million was provided for its implementation. Russia today is among the most vulnerable countries as for as biological terrorism is concerned."

19 April In Yugoslavia, the French contingent of the NATO Kosovo Force uses tear gas to repel Serbs who are blocking roads in northern Kosovo in protest at the collection of excise taxes on goods vehicles coming from elsewhere in Yugoslavia.

19 April President Bush announces that the United States will sign the Stockholm Convention on Persistent Organic Chemicals [see 4-9 Dec 00] when it is opened for signature on 23 May.

19 April The US National Academy of Sciences Institute of Medicine publishes *Veterans and Agent Orange: Update 2000*, which is the third [see 11 Feb 99] of the statutory two-yearly updates of the report that, in accordance with Public Law 102-4, it had published in 1994, *Veterans and Agent Orange: Health Effects of Herbicides used in Vietnam* [see 27 Jul 93]. Among the conclusions of the new update is that acute myelogenous leukaemia in the children of veterans warrants inclusion in the category of health outcomes with limited/suggestive evidence of association with exposure to herbicides and/or the dioxin TCDD. The same conclusion had earlier been reached with regard to type 2 diabetes [see 11 Oct 00].

20-22 April In Albuquerque, New Mexico, Sandia National Laboratories hosts the eleventh annual international arms control conference, *Looking Ahead: New Horizons and Challenges in Arms Control*, chaired as usual by Dr James Brown. There are some 300 participants from 40 countries. There is a panel on "The century of biology: implications for global security and arms control".

20 April In The Hague, the Netherlands government hosts delegates from the BWC Ad Hoc Group for meetings regarding the Dutch bid for the seat of the OPBW. While in the city, the ambassadors also visit the OPCW and receive a briefing from the Director of Verification, Ron Manley.

21-27 April In Dubrovnik there is the seventh in the series of Chemical and Biological Medical Treatment Symposia [see 7-12 May 00] and the second CBMTS-Industry meeting [see 25-31 Oct 98], which are combined into the *World Congress on Chemical and Biological Terrorism*. The event attracts around 177 participants from 42 countries. There is also an exercise staged by units of the Croatian Interior Ministry and Army.

22 April Iraqi importers had some 6,000 contracts with overseas exporters entering the vetting procedures used in the UN oil-for-food programme during the 18-month period that ended in February, and 965 of these had been challenged, according to a confidential list reported in the London *Sunday Times*. The newspaper states that British and US officials had been responsible for most of the challenges, on grounds that the goods in question had possible application in weapons of mass destruction. As an example, the newspaper cites a £30,000 deal by Rohm & Haas France to supply Iraq with water-treatment chemicals, a deal that had been blocked because the chemi-

cals were "dual use". The 6,000 contracts total about £10 billion. Egyptian companies account for the largest share (£1 billion) and Russian companies the second largest (£975 million). Of the £972 million for French exports, 117 contracts worth £200 million had been blocked, including a £0.9 million purchase of chemicals for insecticide and a £4.6 million sprinkler irrigation system. British and American companies account for £12 million and £8 million respectively.

22 April In Panama, the report is still being written on the investigation that the police had conducted in February to determine whether any hazards remained from the trials of chemical weapons conducted on San José Island during 1944-47 by Britain, Canada and the United States. The island is some 60 km off the Pacific coast of Panama and is now the location of an eco-tourist resort, Hacienda Del Mar, which had opened in November. An estimate made from US records that there could be as many as 3100 chemical bombs still left on San José [see 31 Jul 98] had caused Panama to declare to the OPCW the presence on its territory of abandoned chemical weapons [see 17 May 00]. The Foreign Affairs official who is handling the issue, Juan Mendez, is now quoted in *The Ottawa Citizen* as saying that, if Panama is able to produce firm evidence that weapons and chemicals still remain on the island, it will request the countries involved in the San José Project remove or properly dispose of the munitions: "We want to get hard evidence of chemical contamination – we don't want to start crying wolf when we don't have the wolf by the neck" [see also 29 Jan].

The newspaper quotes Francis Furtado, acting director of arms and proliferation control at the Canadian Department of National Defence, as saying: "At this stage we're not willing to close the door on the idea that there may be weapons down there that are of Canadian origin. If further investigation on this determines there are Canadian weapons down there, we do have obligations under the treaty and of course we intend on fulfilling them." The Department has reportedly provided the Panamanian authorities with technical information and pictures of the Canadian chemical munitions. In contrast, Mendez says of US cooperation: "The fact is they are not very forthcoming at all in providing us with information. We have had a great deal of trouble getting all the pertinent information from the US military." The newspaper also quotes a Canadian Department of Foreign Affairs and International Trade spokesman as saying that the US, UK and Canada are currently pulling together information on the CW testing program and hope to have it ready "in the near future".

The Ottawa newspaper also reports from its own inquiries that two types of Canadian chemical weapon had been tested during the San José Project, one being a Canadian design of mustard-gas cluster bomb.

22 April The *Los Angeles Times* publishes an op-ed piece by former UNSCOM Deputy Executive Chairman Charles Duelfer. This includes information augmenting the data on Iraqi CBW weapons in the big UNSCOM report of 25 January 1999, notably that Iraq had acknowledged using 101,000 chemical munitions in its war with Iran. Duelfer also writes of the long-term health and environmental consequences of the use of chemical weapons in northern Iraq, citing the work of Professor Christine Gosden of Liverpool University [see 29 Mar–1 Apr]: "Gosden's early work is beginning to suggest that it may be possible to trace discernible genetic effects back to the specific agents that caused them. The evidence suggests that Saddam Hussein's army used more than simply nerve agent and mustard gas against the Kurds."

23 April In Manama, the EU-GCC Joint Ministerial Council concludes its eleventh session. The final communiqué says:

"The two sides called upon all members of the international community to cooperate to combat the proliferation of chemical, biological and nuclear weapons or systems for the delivery of such weapons". Both sides also called for all countries that had not yet done so to sign and ratify the BWC and the CWC.

23 April In Geneva, the Ad Hoc Group of states parties to the BWC reconvenes for its twenty-third session [see 12 Feb]. Participating are 56 states parties (the same as those that participated in the twenty-second session, but with Bangladesh, Jordan, Slovenia, Thailand and Tunisia participating instead of Portugal, Singapore and Yemen) and two (Morocco and Egypt) of the three signatory states as in February. The session is due to end on 11 May.

AHG chairman Tibor Tóth formally introduces his "composite text" of the BWC Protocol [see 30 Mar] to the Group. Much of the three-week session is taken up by Toth explaining the compromises and balances which he has incorporated into the text. [For further detail, see *Progress in Geneva* above.]

23 April In Washington, Mikhail Gorbachev, in his capacity as president of Green Cross International, meets with President Bush, Vice President Cheney, Secretary of State Powell and National Security Adviser Rice. Following the meeting, Gorbachev is drafting a letter to Powell and Rice asking for US support in destroying the Russian CW stockpile. According to Global Green USA sources, the letter will request that the Defense Department release FY 1999 funding for the Shchuch'ye chemdemil facility and that the administration requests \$120 million in Cooperative Threat Reduction funds for Russian chemdemil in FY 2002.

23 April US State Department officials say that the new high-level review of US policy toward the Biological Weapons Convention [see 9 Mar] has not yet been concluded, according to *Chemical & Engineering News*, which also reports, however, that "the Bush Administration has rejected the latest draft of a verification protocol intended to strengthen the Convention". The week previously, *The ASA Newsletter*, in an article by Barbara Hatch Rosenberg, reported that the review had been completed, adding that the "Bush Administration has not officially announced the results ... but there is abundant evidence that any Protocol, regardless of text, will be rejected".

23–26 April In Geneva, to coincide with the start of the twenty-third session of the BWC Ad Hoc Group, there are several international civil-society meetings on issues relating to biological weapons.

On 23 April, the Sunshine Project co-sponsors a briefing for NGOs new to the field of biological weapons. The briefing covers the history of biological weapons, dual use technology, the BWC, BWC Protocol negotiations and threats to the scope of the BWC including anti-materiel weapons and the (proposed) use of pathogenic fungi in the war on drugs [see 28 Feb].

On 24 April, there is a lunchtime briefing for delegations, hosted by the Sunshine Project, which focuses on potential loopholes in the BWC, such as the use of biological agents to kill drug-producing plants, and warns that such loopholes could result in the scope of the Convention being threatened. During the briefing, AHG chairman Tibor Tóth is presented with a civil society resolution [see 21 Feb] calling on governments to urgently conclude the Protocol negotiations.

On 25 April, there is an EU-NGO lunchtime meeting hosted by the Swedish CD delegation (as current holder of the rotating six-month EU presidency). The meeting continues an initiative begun by the French EU presidency [see 20 Nov 00] and is attended by delegates from most EU member states and representatives of a number of NGOs. The meeting hears presenta-

tions from Jim Leonard (Federation of American Scientists), Graham Pearson (University of Bradford Department of Peace Studies), Daniel Feakes (Harvard Sussex Program), Oliver Meier (VERTIC) and Marie Chevrier (University of Texas at Dallas). The presentations are followed by discussion on the current status of negotiations within the Ad Hoc Group and on the contents of the recently released "composite text" of the BWC Protocol [see 30 Mar].

On 26 April, a further [see 16 Feb] briefing is provided by the Quaker United Nations Office in conjunction with the University of Bradford Department of Peace Studies. At the briefing two new papers in a new series, Review Conference, are presented: no 1, *The Fifth BTWC Review Conference: Opportunities and Challenges*, by Graham Pearson and no 2, *The Functions of the BTWC Review Conferences: Maximizing the Benefits from the Fifth Review Conference*, by Nicholas Sims [see 30 Mar]. Also presented is a new Evaluation Paper: no 20, *The Composite Protocol Text: An Effective Strengthening of the Biological and Toxin Weapons Convention*, by Graham Pearson, Malcolm Dando and Nicholas Sims. The briefing is attended by 55 people from 28 delegations.

Also on 26 April, UNIDIR and the Bradford University Department of Peace Studies host a meeting of the Geneva Forum on *An Analysis of the Chairman's Composite BTWC Protocol Text*. The meeting is chaired by the Director of UNIDIR, Patricia Lewis. Speaking to the meeting are Jim Leonard, Jenni Rissanen (Acronym Institute), Graham Pearson, Malcolm Dando (University of Bradford Department of Peace Studies) and Marie Chevrier. The meeting is attended by around 100 people, both Ad Hoc Group delegates and representatives of NGOs.

The London-based Acronym Institute publishes on its website dispatches about the AHG proceedings written by Jenni Rissanen, its researcher based in Geneva.

24 April In France, Defence Minister Alain Richard and Health Minister Bernard Kouchner announce a series of decisions concerning the health of French veterans of the Gulf and Balkans wars. The decisions include the launching of an exhaustive inquiry into health status of all of the 25,000 Gulf war veterans. This is in response to the recommendations of a report, published today, from the working group established by the two ministries last October for the purpose of analysing health data on those veterans. The doctor who headed the study, Roger Salamon of Bordeaux University notes that French veterans showed fewer signs of illness linked to their Gulf War service than US or UK counterparts, probably because they were subjected to fewer vaccinations. All three armies used pyridostigmine bromide to protect troops against chemical attack, although the French used less than the US or UK. The full study of all veterans will take up to three years to be completed.

24–25 April In Washington, Green Cross International holds its 7th Annual Legacy Forum, *Towards a Sustainable and Secure World: Advancing Russian and US Initiatives in Control of Weapons of Mass Destruction*. The second day of the conference concentrates on CW arms control and demilitarization. There are panels on "the Chemical Weapons Convention: Problems and Prospects" and "Russian and American Chemical Weapons Destruction". In addition, there is also a keynote presentation by OPCW Director of Verification Ron Manley.

25 April In the US Senate, the Subcommittee on Defense of the Committee on Appropriations conducts a hearing on the *Chemical Demilitarization Program*. Testifying on behalf of the US Army are Acting Secretary of the Army Dr Joseph Westphal, Program Manager for Chemical Demilitarization James Bacon and Program Manager for Assembled Chemical Weapons

Assessment Michael Parker. Westphal provides an overview of the current status of the US chemdemil programme, which has to date destroyed over 22 per cent of the original US stockpile of 31,496 tons of chemical agent, and emphasizes that "the program continues to meet or exceed requirements of the Chemical Weapons Convention."

As to individual facilities, Westphal says that closure activities at the Johnston Atoll facility [see 29 Nov 00] should be completed by the fourth quarter of FY 2003. To date, over 5,000 tons of GB have been destroyed at Tooele and all GB munitions should be destroyed in 2001 with closure activities beginning in the fourth quarter of FY 2004. Construction of destruction facilities at Anniston and Umatilla is almost complete with operations scheduled to begin in the third and fourth quarters of FY 2002 respectively. Construction of the Pine Bluff facility is half-way complete with destruction activities expected to begin in the fourth quarter of FY 2003. Following pilot testing of alternative technologies at Newport and Aberdeen Proving Ground in 2004, both plants are due to start full destruction activities in the first and second quarters of 2005 respectively. Finally, activities at both the Pueblo and Blue Grass plants are on hold pending the results of the Congressionally-mandated ACWA programme.

The Chemical Weapons Working Group makes public an internal Army memo which states that the US will be unable to meet the 2007 destruction deadline set out in the CWC [see also 8 May 00]. In fact, the memo seems to imply that six of the nine chemdemil facilities will need to continue operating after the 2007 deadline and that of those six, five would still be operating after the possible five-year extension to the CWC deadline has run out in 2012. According to a PMCD spokeswoman, the memo is authentic but represents a "worst-case scenario". She adds that "we still believe the 2007 deadlines are achievable."

25–27 April In Geneva, the preparatory committee for the fifth BWC review conference convenes under the chairmanship of Ad Hoc Group chairman, Tibor Tóth. [For further detail, see *Progress in Geneva* above.]

26 April President Putin signs presidential decree no. 487 establishing the State Commission for Chemical Disarmament [see 19 Jan]. The commission is a high-level body created to coordinate the activities of various government agencies in the Russian chemdemil programme, to draw up proposals for state policy in this area, to coordinate work with local populations where chemical weapons are stored and to monitor the progress of the chemdemil programme and the use of funds allocated to its implementation. The commission will likely meet twice a year. It is headed by Sergei Kiriyenko, the former prime minister and current presidential plenipotentiary for the Volga region, where many CW facilities are located. Other members of the commission include Zinovy Pak, director-general of the Munitions Agency, Anatoly Kvashnin, head of the General Staff, representatives of several government agencies, heads of the regions in which CW are stored and to be destroyed and the president of the Russian Green Cross.

26 April In Washington, the Monterey Institute's Center for Nonproliferation Studies holds another [see 17 Apr] seminar in its 2001 briefing series. The meeting, *The Chemical Weapons Convention: Implementation Challenges and Solutions*, is intended to launch the CNS report of the same name, edited by Jonathan Tucker. The 72-page report includes contributions from researchers from the Peace Research Institute Frankfurt, CNS, the Stimson Center, the Carnegie Moscow Center, Dupont Company, the Harvard Sussex Program and the Chemical and Biological Arms Control Institute.

27 April In Abuja, Nigeria, at the African AIDS summit, Libyan leader Mu'ammar Al-Qadhafi includes the following in his address: "How did this disease appear? The answer is serious. What is the answer? The answer is that the laboratories of the US secret service, the CIA, have used viruses in biological wars which led to the birth of the AIDS virus. Yes, this is the astonishing truth." [see also 8 Apr]

27 April In the UK House of Commons, the government answers a question on the authorization for use and deployment of CR. According to Minister of State for the Armed Forces John Spellar, CR was first authorized for use by British forces in October 1968, although authorization for its use in Northern Ireland, "in special circumstances only", was not given until October 1973. The Minister adds that strict guidelines govern both deployment and use of CR. According to the Minister, CR was available in both aerosol form and for use in water cannon in 1973. A wheeled dispenser was introduced in December 1974, a vehicle-based version was deployed in 1976 and a projectile delivery device was authorized for use in 1977.

Later, this question is followed up by another asking what form the aerosol version of CR took and what authorization was given for aerosol CR weaponization. The government responds that in both 1968 and 1973, CR was authorized for use in aerosol form as a hand-held squirt device known as a self-protection aid device (SPAD). The response adds that authorization for CR to be held in readiness for use has always been subject to ministerial approval.

28 April In Kazakhstan, the Agricultural Research Institute at Gvardeysk in Zhambyl Region is the subject of a report on Khabar Television, which states that the institute, founded in the late 1950s, was formerly a top-secret biological-weapons establishment where anti-animal and antiplant agents were developed. The present director, Saydigappar Mamadaliyev, speaks to camera about foot-and-mouth disease. A few days later another report about the institute – by the same reporter, Sergey Ponomarev — is screened in Russia on NTV International television. The report includes the suggestion that "actual biological sabotage could have been the cause of the foot-and-mouth epidemic in western Europe".

30 April From the US State Department, the Office of the Coordinator of Terrorism releases its twentieth annual terrorism report [see 1 May 00], *Patterns of Global Terrorism 2000*. The report says there were 423 terrorist incidents in 2000 as compared with 392 during 1999. In 2000, 405 people were killed and 791 wounded in such attacks, compared with 233 killed and 706 wounded. The list of state sponsors remains as before: Cuba, Iran Iraq, Libya, North Korea, Sudan and Syria. On WMD terrorism, the report says: "At the dawn of a new millennium, the possibility of a terrorist attack involving weapons of mass destruction (WMD) — chemical, biological, radiological, nuclear (CBRN), or large explosive weapons — remained real. As of the end of 2000, however, the most notorious attack involving chemical weapons against a civilian target remained Aum Shinrikyo's sarin nerve agent attack against the Tokyo subway in March 1995. Most terrorists continued to rely on conventional tactics, such as bombing, shooting and kidnapping, but some terrorists — such as Usama Bin Ladin and his associates — continued to seek CBRN capabilities."

30 April–3 May In Melbourne, the government, the Royal Australian Chemical Institute and the OPCW Secretariat co-host a regional workshop on the CWC, *Promoting Regional Cooperation in Southeast Asia and the South Pacific*. The representatives of the 14 participating states (11 states parties and three signatory states) emphasize the need for increased support, from both the Secretariat and other states parties, in establishing National Authorities, preparing declarations and drafting implementing legislation. Discussions also focus on the importance of education and awareness of the CWC and chemical weapons-related issues. Singapore proposes a regional meeting of National Authorities in the region, mirroring the annual meetings convened in the Latin American and Caribbean group [see 27-29 Mar].

This Chronology was compiled by Daniel Feakes and Julian Perry Robinson from information supplied through HSP's network of correspondents and literature scanners.

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Forthcoming events

27–28 June, The Hague — Twenty-fifth session, OPCW Executive Council (subsequent session: 24–28 September)

5–6 July, Gent (Belgium) — *International Conference on Chemical Munition Dump Sites in Coastal Environments*, Renard Centre of Marine Geology, enquiries to fax: + 32 9 264 4967

23 July–17 August, Geneva — Twenty-fourth session, BWC Ad Hoc Group

4–7 September, Norfolk, VA — *First Biennial Threat Reduction Conference*, Defense Threat Reduction Agency, details on www.dtra.mil

28–30 September, Wiston House, Sussex — Wilton Park conference on *Control regimes for chemical and biological materials: towards a safer and more prosperous world*, details on www.wiltonpark.org.uk

19 Nov–7 Dec, Geneva — Fifth BWC Review Conference

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