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IMPLEMENTING ARTICLE X OF THE BTWC: AVOIDING DUPLICATION

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The Biological and Toxin Weapons Convention (BTWC) was opened for signature on 10 April 1972 and entered into force on 26 March 1975 with the United Kingdom, the United States and the former Soviet Union as the depositary governments. The Convention is to eliminate biological weapons and prohibit their development, production, stockpiling, acquisition and retention. It has 15 articles. The initial ones address the prohibition. Article X addresses the peaceful uses of biology and the minimizing of the impact of the Convention on peaceful activities.

It is apparent that whilst the purpose of the Convention is to eliminate and prohibit biological weapons, the Convention was drafted so as to strike a balance between the effective elimination of biological weapons on the one hand and avoiding the hampering of peaceful activities in biology on the other. There is consequently an undertaking in Article III to do nothing to aid the proliferation of biological weapons:

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

This is balanced by the undertakings of Article X to avoid hampering and, indeed, to facilitate the peaceful uses of biology:

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

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THE UN SPECIAL COMMISSION AND CBW VERIFICATION

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The United Nations Special Commission (UNSCOM), established as part of the cease-fire following the Gulf war to monitor the elimination of Iraq's weapons of mass destruction and long range ballistic missiles, has seen great successes in its investigation. Undisclosed weapons programmes have been discovered, chemical and biological weapons production sites have been destroyed and rendered harmless, and thousands of proscribed weapons destroyed. But more than five years into its work, the Commission is still chasing the Iraqi weapons programmes. Even now after more than 150 on-site inspections, several hundred U-2 surveillance flights, countless meetings with supporting governments and supplier companies, and a host of other investigative efforts, UNSCOM cannot certify that Iraq has complied with its obligations with regard to the disarmament requirements of the cease-fire agreement — Security Council resolution 687 (1991).

Council resolutions make it clear that the burden of responsibility for disclosing and eliminating its chemical and biological weapons programmes rests on Iraq. This is an unyielding requirement, and one that the Security Council and Special Commission are always mindful of. For the arms control community, however, the greatest interest lies in the ability of the Commission to uncover information, without direct Iraqi support, and to verify Iraqi statements and declarations.

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

Third Review Conference

The BTWC has review conferences at five year intervals at which the operation of the Convention is reviewed with a view to assuring that the purpose of the preamble and the provisions of the Convention are being realised. In these Review Conferences, each article of the Convention is considered in turn and the final document agreed by consensus at the end of the Conference contains language on the state of realisation of each article.

At the Third Review Conference, in September 1991, the conclusions in respect of Article X were that:

The Conference emphasise the increasing importance of the provisions of Article X, especially in the light of recent scientific and technological developments ... which have vastly increased the potential for cooperation between States to help promote economic and social development, and scientific and technological progress, particularly in the developing countries, in conformity with their interests, needs and priorities.

The Conference, while acknowledging what has already been done towards this end, notes with concern the increasing gap between the developed and the developing countries in the field of biotechnology, genetic engineering, microbiology and other related areas. The Conference urges all States Parties actively to promote international cooperation and exchange with States Parties in the peaceful uses of biotechnology, and urges the developed countries possessing advanced biotechnology to adopt positive measures to promote technology transfer and international cooperation on an equal and non-discriminatory basis, in particular with the developing countries, for the benefit of all mankind.

The Conference also called upon “the Secretary General of the United Nations to propose for inclusion on the agenda of a relevant United Nations body, not later than 1993, a discussion and examination of the means of improving institutional mechanisms in order to facilitate the fullest possible exchange of equipment, materials and scientific and technological information regarding the use of bacteriological (biological) agents and toxins for peaceful purposes”.

The Third Review Conference mandated an Ad Hoc Group of Governmental Experts (VEREX) to identify, examine and evaluate potential verification measures for the Convention from a scientific and technical viewpoint. The mandate for VEREX also said that the potential verification measures could be examined in terms of six main criteria which included: “Their impact on scientific research, scientific cooperation, industrial development and other permitted activities, and their implications for the confidentiality of commercial proprietary information”.

VEREX met four times in 1992 and 1993 and produced a final report {BWC/CONF.III/VEREX/9} which evaluated 21 potential verification measures against the six main criteria. This report was circulated in late 1993 to all states parties. It included the following on Article X:

The Group examined the potential verification measures in terms, inter alia, of their impact on scientific research, scientific cooperation, industrial development and other permitted activities. In that context, delegations recalled Article X of the Convention according to which States Parties “undertake to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials, and scientific and technological information for the use of bacteriological (biological) agents and toxins for peaceful purposes”, and the related provisions of the Final Document of the Third Review Conference, in particular those on the examination of means of improving related institutional mechanisms and those on the adoption of positive measures to promote technology transfer, consistent with all the other Articles of the Convention. Delegations recalled as well that the provisions of the Convention should not be used to impose restrictions and/or limitations on the transfer for purposes consistent with the objectives and the provisions of the Convention.

A majority of the states parties requested that a Special Conference be held to consider the VEREX report.

Special Conference

The Special Conference was held in Geneva in September 1994. A number of states parties presented working papers and made contributions to the debate on how to take forward the work of VEREX. Thus emerged the mandate agreed by the Special Conference for an Ad Hoc Group to consider appropriate measures to strengthen the Convention.

Among the papers presented at the Special Conference were ones on how steps should be taken to strengthen the Convention. Brazil emphasized the necessity of integrating a package of verification measures into a coherent system. It stated that:

The purpose of strengthening the BWC is to help achieve the mutually reinforcing objectives of “excluding completely the possibility of bacteriological (biological) agents and toxins being used as weapons” (Preambular 9) and facilitating “the fullest possible exchange of equipment, materials, and scientific and technological information for the use of bacteriological (biological) agents and toxins for peaceful purposes” (Article X).

Brazil noted that “whilst the first objective is the primary aim of the Convention, progress towards the second would be important for approaching the first”. It went on to say:

Careful consideration of the issue demonstrates clearly that, far from hindering each other, the two tracks of the work of the organization which will be in charge of the BWC (verification and technical development) are mutually reinforcing. The provision of technical assistance and the establishment of a cooperative relationship with national authorities is the only practical cost-effective way of amassing information on the hundreds, or even thousands, of biological facilities potentially relevant to the Convention. Conversely, cooperation with the verification regime could

help national authorities, inter alia, in their efforts to upgrade biological safety standards and practices and to participate in the fullest possible technological interchange for peaceful purposes. {BWC/SPCONF/WP.5}

The second Brazilian paper {BWC/SPCONF/WP.4} provided further elaboration on the way in which Brazil saw technical assistance and technological development being part of a strengthened regime. The paper noted that because it is possible to engage in activities forbidden under the Convention with minimum equipment and resources, it would not be surprising if a large number of facilities around the world would have to be declared under a future BTWC regime. This would place a heavy burden on national authorities responsible for compiling declarations. Furthermore, the relatively low participation in the existing CBMs was seen as a good indicator of the difficulties faced by many countries — especially, but not only, developing countries — in keeping track of their industry. Brazil rightly identified this as a problem that will not disappear in the near future, even if national declarations are made mandatory.

Brazil was thus suggesting that the solution lies in the development of a cooperative relationship between the national authorities and the projected BTWC verification organization. That organization could usefully help national authorities to prepare declarations (which would aid transparency) and to assist national authorities in the training of personnel for monitoring national biological activities and for establishing and managing the databases needed to prepare the national declarations. Such assistance could also help in the improvement of national biological safety practices in order to upgrade them gradually in connection with multilaterally agreed standards (which would help to build confidence).

Such a cooperative approach was identified as having several advantages. First, it would help the BTWC organization to gain a clearer appreciation of relevant biological activity in each state party and around the world. Second, it would be of great utility to many countries that are trying to improve their national biosafety standards and practices and thereby also help to accomplish the goals of Article X. Third, it would provide a framework for donor countries who might be interested in providing additional assistance for the improvement of biosafety practices in other countries — which is a mutually beneficial form of cooperation as it helps to contain the spread of diseases as well as building confidence about biosafety practices in the state party. Fourth, it would provide a strong incentive for many countries to sustain active participation in the implementation of the Convention and would thereby increase political and practical support for the overall biological disarmament regime of the BTWC.

These ideas were reflected in the mandate agreed at the Special Conference for the new Ad Hoc Group (AHG), namely that the AHG was “to consider appropriate measures, including possible verification measures, and draft proposals to strengthen the Convention, to be included, as appropriate, in a legally binding instrument”. More particularly, the AHG is mandated, among other things, to consider:

Specific measures designed to ensure effective and full implementation of Article X, which also avoid any restrictions incompatible with the obligations undertaken under the Convention, noting that the provisions of the Convention should not be used to impose restrictions and/or limitations on the transfer for purposes consistent with the objectives and the provisions of the Convention of scientific knowledge, technology, equipment and materials. {BWC/SPCONF/1}

The Ad Hoc Group

The AHG met to consider procedural matters during 4–6 January 1995 and for its first two substantive sessions during 10–21 July and 27 November–8 December. Two further meetings are planned for 15–26 July and 16–27 September 1996. At the first substantive session, four Friends of the Chair (FOCs) were appointed to assist the Chairman on, respectively, Definition of Terms and Objective Criteria; Confidence-Building and Transparency Measures; Measures to Promote Compliance; and Measures Related to Article X.

Ambassador Jorge Berguno of Chile was appointed FOC on Article X measures. At the July 1995 meeting, a FOC paper entitled *Elements for a Structured Discussions on Article X on the BWC* {pp 38–47 of BWC/AD HOC GROUP/28} was produced which identified some possible elements for consideration under a variety of headings: general remarks; mandate; international context of a BWC compliance regime; scope and content of possible scientific and technical exchanges; possible institutional arrangements; possible additional ways to enhance international cooperation; financial arrangements; scientific areas which could be promising for cooperation under Article X; reporting, administrative and review procedures; safeguards and limitations; relationship between Article X and other articles of the BWC; and the role of Article X within a compliance assurance regime. In essence this paper sought to list all possible topics which might be discussed in future sessions of the AHG relating to Article X. At the November/December 1995 meeting, a further FOC paper on Article X was produced, *Further Notes on the Elements for Structured Discussion on Article X* {pp 64–69 of BWC/AD HOC GROUP/29}. This did not replace, modify or improve the July paper but aimed at reflecting the AHG discussion and identifying where further analysis was required.

The new FOC paper recognises that some aspects overlap “with matters being discussed in other fora”. This question of overlap is elaborated in respect of cooperation regarding (a) International Public Health and Disease Control, and (b) Network for Exchange of Epidemiological Data. It was noted that whilst specific items in these areas are within the competence of several international organizations (WHO, IOE and FAO), it is the WHO that plays a primary role in the implementation of its International Health Regulations. The FOC also recognised that there was a system of double reporting of disease outbreaks due to infective agents or toxins both to the WHO and to the BWC (under CBM B) in which the WHO (jointly with IOE and FAO) receives a larger amount of information and possesses the expertise required to adequately process such information. It is suggested that *inter alia* existing WHO

declarations might be processed in a manner relevant to the BWC in a special office of the WHO.

Likewise in respect both of data-banks and a clearing-house, the FOC noted that there are several existing capabilities such as the Global Bioinformatics Network, the network of the International Centre for Genetic Engineering and Biotechnology (ICGEB) and the clearinghouse of the 1992 Convention on Biological Diversity (CBD) currently in a pilot phase, as well as proposals for new data-banks and networks. The FOC paper ends by noting that it has introduced “a note of caution and a dose of realism” with regard to the July 1995 FOC paper and recognising the need to concentrate on “core areas” relevant to the BWC.

The wider dimension

Any consideration of Article X of the BTWC needs to take place against a background of the wider aspects relating to the peaceful uses of biotechnology and microbiology. The UN Conference on Environment and Development held in Rio de Janeiro during 5–14 June 1992 (the Rio Summit) produced a *Declaration of Principles* and *Agenda 21*, a series of aspirations, relating to all aspects of the environment and development. In addition, two legally binding treaties — the CBD and the Convention on Climate Change — were opened for signature. Both *Agenda 21* and CBD are important steps in promoting the peaceful uses of microbiology and biotechnology — and thus, as both are concerned with all living species, are much broader than BTWC Article X, which is effectively limited to “the use of bacteriological (biological) agents and toxins”.

Whilst the *Declaration of Principles* and *Agenda 21* are voluntary, they represent an agenda shared by developed and developing countries for a wide variety of topics relating to the environment and to the development (including economic and technological) of world states. The *Principles* include:

Principle 1. Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.

Principle 3. The right to development must be fulfilled so as to equitably meet development and environmental needs of present and future generations.

Principle 6. The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority. International actions in the field of environment and development should also address the interests and needs of all countries.

Principle 7. States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem.

Principle 9. States should cooperate to strengthen endogenous capacity — building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies including new and innovative technologies.

Principle 17. Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on

the environment and are subject to decision of a competent national authority.

These clearly promote health, protection of the environment and the right to development.

Chapter 16 of *Agenda 21* is entitled “Environmentally sound management of biotechnology” and includes sections on: Increasing the availability of food, feed and renewable raw materials; Improving human health; Enhancing protection of the environment; Enhancing safety and international mechanisms for cooperation; and Establishing enabling mechanisms for the development and the environmentally sound application of biotechnology. It is thus apparent that Chapter 16 covers a broad range of activities which embrace the peaceful uses referred to in Article X of the BTWC.

A joint initiative taken by the UK and the Netherlands following the Rio Summit has been to develop guidelines on safety in biotechnology. These are now being taken forward by the United Nations Environment Programme (UNEP) as their “International Technical Guidelines on Safety in Biotechnology”. These guidelines “recognise that adequate mechanisms for risk assessment, risk management, exchange of information, and capacity building at national, regional and international levels, can contribute significantly to safety in biotechnology” (no 8). They also “address the safety of biotechnology in all types of research and development and including the marketing of living products, with a view to the protection of human health and the environment” (no 9). They “recognise that before biotechnological products are placed on the market, they may also need to comply with specific product requirements, such as food safety or efficacy or quality, but these are not addressed in the Guidelines”. In addition to the multilateral UNEP approach, these guidelines have also formed the basis of a UK bilateral agreement with Argentina — which in respect of *Agenda 21* (and the CBD) is a member of the G77.

The Convention on Biological Diversity entered into force in December 1993. Its purpose is set out in Article I:

The objectives of this Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

Several sections of the Convention are directly relevant to the peaceful uses of microbiology and biotechnology such as Article 5 (Co-operation), Article 12 (Research and Training), Article 14 (Impact Assessment and Minimizing Adverse Impacts), Article 16 (Access to and Transfer of Technology), Article 17 (Exchange of Information), Article 18 (Technical and Scientific Co-operation) and Article 19 (Handling of Biotechnology and Distribution of its Benefits). Biotechnology is defined broadly in Article 2 as meaning “any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use”. Technology is defined to include biotechnology. Two specific mea-

asures of relevance to Article X of the BTWC are being implemented that arise from specific requirements under the CBD.

One is the clearinghouse mechanism. In CBD Article 18 it is stated that the “Conference of the Parties, at its first meeting, shall determine how to establish a clearing-house mechanism to promote and facilitate technical and scientific cooperation”.

The other specific measure is the biosafety protocol. In CBD Article 19 it is stated that the “Parties shall consider the need for an modalities of a protocol setting out appropriate procedures, including, in particular, advance informed agreement, in the field of the safe transfer, handling and use of any living modified organism resulting from biotechnology that may have adverse effect on the conservation and sustainable use of biological diversity”.

At the second annual Conference of Parties to the CBD held in Djakarta in November 1995, action was agreed to implement both of these measures. On the clearinghouse mechanism, the Secretariat of the CBD was instructed to initiate a two-year pilot phase which will concentrate on utilising existing data bases in a neutral, transparent, cost-effective, efficient and accessible manner to promote the transfer of technology through exchanging and disseminating information. On the biosafety protocol, an open-ended Ad Hoc Working Group was established to negotiate in “the field of the safe transfer, handling and use of living modified organisms, a protocol on biosafety, specifically focusing on transboundary movement, of any living modified organism resulting from modern biotechnology that may have adverse effect on the conservation and sustainable use of biological diversity”. The decision makes it clear that the UNEP International Technical Guidelines on Safety in Biotechnology may be used as an interim mechanism during the development of the protocol and to complement it after its completion.

It is therefore apparent that two CBD initiatives — the clearinghouse and the biosafety protocol — which are relevant to BTWC Article X are being progressed satisfactorily under the auspices of the CBD. It is not evident that there is a compelling reason why another treaty (the BTWC) needs to duplicate or augment the CBD initiatives. In addition, there are extensive and sizeable national foreign aid programmes between the developed and developing worlds, generally on a bilateral basis, which are focussed on providing assistance to developing countries to promote improved health of people, animals and plants as well as tackling environmental problems. Although these all contribute to the same objectives as those of Article X, there is no argument to suggest that these existing arrangements should be changed to one involving a BTWC organisation. However, there would be benefits from the BTWC Organization being fully aware of the activities on *Agenda 21* and to implement the CBD including, as the FOC on Article X has recognised (in BWC/AD HOC GROUP/WP.23 of 30 November 1995), an exchange of views with Parties to the CBD to explore possible coordination and if ways and means could be found to enable the BTWC to become aware of the experience arising from the CBD work on a clearinghouse.

Render unto Caesar

There is a broad range of international activities related to the BTWC Article X undertakings regarding peaceful uses of microbiology and the prevention of disease arising from the Rio Summit, *Agenda 21* and the Convention on Biological Diversity and which are being carried out as part of national aid programmes to developing countries. There is no compelling argument why the BTWC should duplicate or compete with these ongoing activities which are being carried out in a transparent manner. The AHG mandate in respect of Article X measures should be focused on measures that would be of direct relevance to the BTWC. It is suggested that emphasis should therefore be given to measures — such as international biocontainment standards and international licensing procedures for pharmaceutical drugs and vaccines — which would improve transparency and build confidence that activities being carried out are indeed in compliance with the BTWC and which would complement the international safety guidelines on biotechnology and the protocol for the safe handling, use and transfer of living modified organisms in respect of transboundary movement.

Such measures need to be devised so as to complement and facilitate the compliance measures being compiled as part of the legally binding instrument to strengthen the BTWC. A parallel to the existing initiative in which some governments in the developed world help developing countries to meet their obligations under the CBD in respect of a strengthened BTWC could be valuable.

It is evident that in all international negotiations today, whether these be related to arms control such as the strengthening of the BTWC or in the promotion of the environment and development such as the CBD, there is a universal recognition of the need to make optimum use of scarce resources and to avoid unnecessary duplication. Whilst it is undoubtedly true that increased international transparency in biotechnology and microbiology would help to build confidence in compliance with the BTWC, it is doubtful whether states parties will agree to the provision of resources in respect of BTWC implementation to promote peaceful uses of biotechnology and microbiology unless there is a clear linkage to measures to strengthen compliance with the Convention, and that such activities are not already being carried out under the auspices of other agreements.

It is therefore essential in considering Article X of the BTWC that a pragmatic and realistic approach be taken in answering such questions as:

- (a) Is the proposed activity to implement Article X central to the purposes of the BTWC as expressed in its preamble?
- (b) Is it essential that the proposed activity be carried out by a BTWC organization — or is some other existing organization carrying out the activity already or is better equipped to do so?
- (c) Does the proposed activity directly complement and augment/enhance measures to strengthen compliance with the Convention?
- (d) What is the most cost-effective way of carrying out the proposed activity?

The FOC papers on Article X prepared for the Ad Hoc Group have identified a wide range of possible measures and, as the FOC has indicated, there is a need to concentrate “on ‘core areas’ relevant to the BWC”. It is suggested that the above questions could be used to identify which of those measures identified by the FOC offer the most promise.

Consideration of the two FOC papers reveals that, whilst many of the possible elements for discussion identified in July 1995 are much broader than the Convention (and hence are better addressed elsewhere such as under *Agenda 21* and the CBD), there are some that are specific to the Convention and which are not already the subject of politically binding CBMs. They include:

- IV.4(c): Assistance in the preparation of declarations and reports required or relevant to the Convention.
- XII 2(a): Some of the cooperative measures could be implemented in connection with validation or information visits, during which information may be gathered on biotechnological activities at one or several geographically close facilities.
- XII.2(b): Validation or information visits could be preceded by regional or national seminars on implementation of the BWC, conduct of inspections, biosafety, identification of agents, diagnostics, vaccine production, etc., organised in conjunction with other multilateral organizations.
- XII.3(b): Emphasis on the study of deviant patterns, on particular interests of the BWC and on the comparative advantages of the Convention’s framework to deal with a matter pertaining to Article X, rather than entrusting it to a global programme.

There will also clearly be benefit for the projected BTWC Organization in its being fully aware of ongoing activities carried out under the auspices of international organizations such as WHO, FAO, IOE and ICGEB, as well as on the implementation of *Agenda 21* and of the CBD as all of this will help the organization to gain a clearer appreciation of biological activity in each state party and hence obtain, over time, a better pattern and understanding of the biological activities, approaches and standards in individual states parties.

Specific measures that merit further consideration as Article X measures in a legally binding regime to strengthen the Convention may therefore be listed as follows:

- (1) The BTWC Organization should provide assistance to states parties in drawing up the legislation that is likely to be required to implement the legally binding regime.
- (2) The BTWC Organization should provide assistance to states parties in preparing their declarations both for a future strengthened regime and for the continuing politically binding CBMs.
- (3) The BTWC Organization should conduct regional or national seminars on implementation of the BTWC, conduct of inspections, biosafety, identification of agents, diagnostics, vaccine production, &c, organized in conjunction with other multilateral organizations. Those on biosafety, for example, might advantageously

be coordinated with the *Agenda 21* and CBD initiatives on biosafety guidelines.

- (4) The BTWC Organization, in carrying out its regional or national seminars and/or non-challenge visits, could also involve, as appropriate, representatives of other international bodies and thereby facilitate the resolution of matters pertaining to Article X.
- (5) The BTWC Organization should on a continuing basis be made fully aware of the activities being carried out under the auspices of international organizations such as WHO, FAO, IOE and ICGEB, as well as on the implementation of *Agenda 21* and of the CBD as all of this will help the organization to gain a clearer appreciation of biological activity in each state party.
- (6) The BTWC Organization, in carrying out its regional or national seminars and/or non-challenge visits, should draw upon its knowledge of activities being carried out under the auspices of international organizations such as WHO, FAO, IOE and ICGEB, as well as on the implementation of *Agenda 21* and of the CBD, in order to promote the fullest possible exchange of scientific and technological information for the use of biological materials and toxins for peaceful purposes, and thereby aid in the implementation of Article X.
- (7) The BTWC Organization, in its analysis of information provided to it by international organizations (such as WHO, FAO, IOE and ICGEB), should be required to make recommendations based on its understanding of the biological activities in a state party as to how the objectives of Article X might be fostered by actions taken by the international organizations.

Such participation by the BTWC Organization in Article X activities would bring benefits to the Organization and to the States Parties collectively through the improved confidence gained from the additional information, increased transparency and enhanced understanding of the national pattern of activity in microbiology within States Parties.

It is concluded that the way forward in respect of Article X is to focus on possible measures that would directly facilitate the purposes of the BTWC as expressed in its preamble. Consideration should also be given to adopting a parallel approach in respect of a strengthened BTWC to the existing initiative in which some governments in the developed world aid developing countries meet their obligations under the CBD. The move of the FOC on Article X to focus on “core areas” relevant to the BTWC is strongly welcomed as it will be more effective for more general measures on biological and biotechnological coöperation to be progressed under their existing non-arms-control agreements such as *Agenda 21* and CBD. Specific activities to be undertaken by the future BTWC Organization that will both strengthen the BTWC and improve the implementation of Article X are identified.

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Both sides in the debate over the efficacy of arms control verification are finding evidence for their positions in the investigations and experiences of the Commission. Supporters of verification methodologies point to the aspects of the Iraqi programmes that the Commission has been able to identify and destroy. Observers who are less optimistic about the effectiveness of disarmament verification see continuing concern over the scope and depth of the Iraqi WMD programmes as evidence that more global inspection regimes and other verification efforts will have difficulty in meeting their objectives.

The most valuable lessons of UNSCOM appear in the examination of what has been achieved and what is still to be resolved. The Commission has thus far shown what is possible in highly intrusive verification as well as what is hardest to accomplish.

The chemical weapons investigation

In the chemical weapons investigation the Commission has experienced some of its biggest accomplishments. But despite its successes, the Commission continues to pursue a more detailed understanding of the Iraqi programme, because without additional information investigators cannot confidently state that Iraq has complied with Council resolutions or that the ongoing monitoring regime is effective.

The initial Iraqi disclosure on its CW programme, provided in May 1991, was far smaller and limited in scope than the current version. The recent draft declaration, provided in May 1996, is the direct result of the Commission's continuing investigation. UNSCOM has discovered extensive research and development efforts for a range of undeclared chemical agents, including Soman, incapacitants, nitrogen mustard, and a host of rare nerve agents. It is also now known that Iraq conducted research and trials of true (mix-in-flight) binary munitions.

UNSCOM has identified a number of new, undeclared sites associated with the chemical weapons programme. In addition to fully investigating the enormous Muthanna State Establishment site, Commission investigations have searched and cleared of proscribed items, a long list of precursor and munitions storage sites.

A notable example from the chemical investigation has been the Commission's inquiry into the Iraqi V-series agent programme. Until 1995 Iraq maintained that it had only produced laboratory scale quantities of VX (in less than gram quantities) in the late 1980s. Using supplier information, field inspection reports, sensitive information from supporting governments, and Iraq's own declarations, the Commission has concluded that the VX nerve agent programme, in sharp contrast to Iraqi statements over the last four years, was significantly more advanced and more successful. The V-programme is now declared to have run, uninterrupted, from 1985 to 1991. In the course of the VX programme, Iraq now declares that it produced 3.8 tons of the agent. But even with this vast increase in the admitted scale of the VX effort, the Commission is still working to account for the fate of nearly 700 tons of VX precursors and to refine its understanding of the level of technical competence achieved.

Perhaps most important, the chemical weapons investigation has been able to maintain suspicions about the scope and extent of the Iraqi programme. Commission investigators have evaluated five "full, final, complete, disclosures" by Iraq on its chemical programme. In each case the analysts have successfully proven that Iraqi statements are incomplete in scope and do not adequately meet the requirements of Council resolutions. Specifically, the Iraqi declarations have not been sufficiently complete to allow UNSCOM investigators to determine if there is a mass balance between proscribed items procured and produced by Iraq and those verified as destroyed. While the analysts have not been able to explain exactly what or how much Iraq's CW programme produced, they are able to state with confidence that the declarations presented are inaccurate.

Despite the successes of the CW investigation there are areas that continue to be difficult to resolve in the absence of full disclosure by Iraq. The Commission has always had difficulty in determining when it has complete information on a particular issue. This uncertainty over the completeness of information means that the UNSCOM chemical inspectors have been unable to come to a conclusion on the level of production and weaponization technology achieved by Iraq. They have also been unable to achieve a mass balance for the CW programme. In order to come to closure on these two paramount issues investigators must assure themselves that they have the full scope of information, both chronologically and substantively, independent of Iraqi statements. The investigative capabilities and processes used by UNSCOM have not been able to provide this level of understanding thus far.

The biological weapons investigation

Like the chemical investigation the biological group at UNSCOM has had enormous successes in its pursuit of the Iraqi BW programme, but it too has been unable to independently bring a close to the investigation. For four years Iraq steadfastly maintained that it had no offensive, military biological weapons programme. In fact the first disclosure by Iraq on its BW programme, in a letter to the UN Secretary-General dated 18 April 1991, simply said "Iraq does not possess any biological weapons or related items as mentioned" in resolution 687. With only subtle variations, this was Iraq's position on the BW issue throughout twenty-five inspections and countless technical talks with Commission experts.

The biological experts at UNSCOM were in the uniquely difficult situation of investigating a programme that Iraq insisted did not exist. While fears and vague information from supporting governments abounded, the biological inspection teams were unable to find the "smoking-gun" proof for an Iraqi bio-warfare programme. Despite their inability to discover this sort of hard evidence, the effort to uncover the Iraqi BW programme was not terminated prematurely. Investigators succeeded in maintaining sufficient suspicion about the scope and depth of the Iraqi BW programme even in the face of consistent Iraqi denials and limited information. The suspicions were based on Commission analysis, sensitive data supplied by supporting governments, on-site inspections, and, most notably, by Iraq's own declarations. In 1993 and 1994 Iraq submitted

declarations on its legitimate biological activities and industries. These declarations covered sites and activities such as breweries, vaccine production, and bio-pesticide production. The declarations also included information on Iraq's import of 39 tons of complex growth media. When pressed, Iraq could not reasonably account for the fate of 17 tons of this material. Commission investigators spent a year proving that various Iraqi assertions on the possible use or destruction of the media were not credible.

In 1991 the second biological inspection team visited the Al Hakam site, declared to be a single cell protein animal feed production facility. While the team did not find conclusive evidence of proscribed activities at the site, the inspection report reflects the team's unwillingness to give the facility a clean bill of health. The isolation and military layout of the site, the secrecy surrounding its construction and operation, the organization of the buildings and their contents, all implied an illicit purpose or use not consistent with the facility declaration. While this was not enough to prove that the site was related to a BW effort it served to maintain suspicions.

Using the media and Hakam issues the Commission pressed Iraq and made it clear that their suspicion was sufficient to keep the investigation open. This resulted in Iraq's declaration of a limited offensive BW programme on 1 July 1995.

Iraq admitted in July 1995 that its biological weapons programme, offensive in nature, operated from April 1986 to September 1990. It revealed that large quantities of anthrax and botulinum toxin had been produced, but continued to deny any weaponization activities.

With continued pressure from UNSCOM, the newly disclosed BW programme has been revealed in ever increasing scope and detail. In the fall of 1995 Iraq presented to Commission experts an account of its biological warfare programme, which included weaponization, additional agents and additional sites involved in the programme.

Iraq has declared the production of at least 19,000 litres of concentrated botulinum toxin (nearly 11,000 litres were filled into munitions), 8,575 litres of concentrated anthrax (some 5,000 litres were filled into munitions) and 2,200 litres of concentrated aflatoxin (1,565 litres were filled into munitions). Iraq has declared that its BW stocks, specifically anthrax, botulinum toxin, and aflatoxin, were weaponized in 25 Al Hussein ballistic missile warheads and 157 R-400 aerial bombs.

Despite these successes biological investigators have, even after the admissions by Iraq and despite more than 35 inspections, never seen a filled BW weapon or bulk agent. Iraq asserts that all of these weapons have been destroyed but can offer no verifiable evidence. Also, like their chemical weapons colleagues the BW investigators have been unable to come to a comprehensive understanding of the level of technical sophistication achieved by the Iraqi programme. For example, investigations continue on whether Iraq succeeded in drying BW agent, a process that would significantly extend its shelf life.

The biologists have also been unable to achieve a credible mass balance for Iraqi BW production efforts or weaponization activities. Without complete information,

independently collected by the Commission, or in the absence of honest cooperation from Iraq, UNSCOM will not be able to establish that all of the proscribed biological warfare related items in Iraq have been accounted for and eliminated.

The continuing UNSCOM approach

Advances in the Commission's understanding of the Iraqi chemical and biological weapons programmes have come through cyclical use of supporting state information, on-site inspections, Iraqi declarations, and expert analysis. This process has uncovered, and verified large aspects of the proscribed programmes. However a number of issues remain, despite consistent Commission investigative efforts.

The Commission process has worked particularly well for developing, maintaining, and sometimes resolving, suspicions about a given site or activity. But the process has, thus far, usually yielded only qualitative understandings. The Commission has not been able to resolve the quantitative aspects of the chemical and biological weapons programmes, particularly the mass balance issues. In an effort to address these challenges the Commission continues to pursue Iraq's original documentation as a way of developing a confident quantitative understanding of the proscribed programmes. Acquisition of original documents, either provided by Iraq or obtained by inspection teams, would be a major step forward for the investigations.

The Commission is also pursuing on-site inspection of every location suspected of holding proscribed items or related documentation. Many of these sites, like Republican Guard bases, identified as part of the Commission's ongoing investigative efforts, are considered by Iraq to be "politically sensitive." Iraq's refusals in March and June to allow immediate and full access to these and other facilities, in violation of its obligations, not only calls into question the extent of its compliance with Council resolutions, but also prevents the Commission from resolving its suspicions.

It is often said that UNSCOM shows the limits of intrusive arms control verification. Clearly, it is easier to establish that prohibited activities are taking place than it is to learn their full scope. But while the Commission has used more investigative techniques and performed on-site inspections that are much more intrusive than any WMD agreements are likely to undertake, these efforts are still evolving. The Commission is working to identify new approaches to difficult problems. Even after five years of diligent investigation, UNSCOM, using the full scope of its rights and privileges, has not reached the bottom of the proscribed programmes. The Commission, along with its may successes, has shown the most difficult aspect of an investigation of an allegedly ended CW or BW programme. History will show if UNSCOM can overcome its present challenges and independently uncover the still hidden aspects of Iraq's proscribed chemical and biological weapons programmes.

** The opinions expressed here are those of the author and are not necessarily shared by the Special Commission.*

Building the Organization for the Prohibition of Chemical Weapons

On 20 March 1996, following lengthy negotiations, agreement was finally achieved on the contracts for the construction of the headquarters building for the OPCW. Apart from the practical need to commence construction, the breakthrough also represented an important symbolic step towards effective implementation of the Chemical Weapons Convention. Following the official signing ceremony held during the thirteenth plenary session of the Commission, a ground breaking ceremony was held on 9 May. The Secretary-General of the Dutch Ministry of Foreign Affairs, Mr D J van den Berg delivered an address at the ceremony as did the Executive Secretary, Mr Ian R Kenyon. A Director of Provastgoed Nederland BV (the developer), Mr H C de Lint, in his address, described the building as more than a composition of brick and mortar, it was also a symbol for the pursuit of international order through justice. In addition to officials of the Host Country, the ceremony was attended by the Chairman of the Preparatory Commission, Ambassador Salehuddin Abdullah of Malaysia, the Executive Secretary and representatives of those involved in the development and design of the building. Representatives of CWC signatory states and senior staff of the Provisional Technical Secretariat also enjoyed the occasion. Following the ceremony, construction work started in earnest and is due to be completed in February 1998.

Actions by the Preparatory Commission

The thirteenth session of the Preparatory Commission, attended by 87 member states, was held during 18-22 March. Significant progress was made not only in relation to the headquarters building but also in other areas. The Commission adopted the draft *OPCW Financial Regulations* as well as the draft *OPCW Health and Safety Regulations*, agreeing to apply them as the Health and Safety Regulations of the Preparatory Commission. The Executive Secretary was authorized by the Commission to conclude, on its behalf, on a bilateral basis, arrangements with those member states providing inspector training for the General Training Scheme.

The Executive Secretary reported to the Commission on activities since the last session, in December. He noted that, despite some significant achievements, most expert groups had recorded only modest progress. He commented on the inter-relationship between progress in The Hague and progress in the national preparations by individual states. In The Hague, the slower than anticipated pace of ratifications and resulting uncertainty as to the date of the trigger point makes planning difficult and hampers progress. Correspondingly, member states report that lack of progress in certain key areas causes delays and creates problems for their internal implementation. The Executive Secretary expressed the hope that the increased time for informal consultations set aside for the current intersessional period would enable delegations to resolve outstanding issues.

Method of work The Executive Secretary's proposal to amend the current method of work to allow more time for discussion, outside expert group meetings, was addressed by many delegations in the course of their statements. While some delegations expressed concern at the lack of progress by the expert groups, others questioned any moves to make the existing method of work more informal.

National implementation issues Many delegations took the opportunity to update the Commission on their progress towards national implementation of the Convention, particularly on their domestic legislation and the establishment or designation of National Authorities. Many states are nearing completion of their preparations and should be in a position to deposit their instruments of ratification shortly. Other preparations included preparing surveys on potential declarable facilities, running training programmes for industry, and establishing coöperative programmes among National Authorities of the same region.

US and Russian ratification Many delegations expressed concern at the prospect of neither the United States nor the Russian Federation being among the first 65 states to ratify the Convention, and called on these two states to ratify. Some statements reflected the view that should they fail to do so the Convention would lack much of its sense and significance. One delegation suggested that in the event neither ratified before the Convention enters into force, the start of the entire verification system should be rethought.

Article XI Article XI (Economic and Technological Development) issues featured prominently during the plenary session. Several states stressed the importance of the article to the overall balance of the Convention and noted its significance for developing countries. Specifically, the delegation of India, in an official statement, referred the Commission to its paper *Chemical Trade and International Cooperation under the Chemical Weapons Convention* {PC-XIII/B/WP.7}. The paper restated the Indian position that once the CWC enters into force, existing trade restrictions ought to be abandoned as far as they relate to states parties to the Convention, because to continue them would be incompatible with the Convention. The paper also addressed the need to promote free trade, including identifying sources and markets and establishing conditions to enhance trade. The paper suggested that the Provisional Technical Secretariat propose a list of specific promotional activities designed to increase the freedom of trade in chemicals. In terms of international coöperation, the paper further proposed preparing a draft programme and budget for activities under Articles VI, VIII.21(g) and XI for consideration at the first session of the Conference of the States Parties. The paper also proposed that a fund be established within the OPCW for the promotion of international coöperation.

The delegation of Australia, referring to the on-going debate within the Commission on the relationship between national export licensing measures and obligations under the Convention, presented a working paper {PC-XIII/B/WP.9} rejecting the view that all previous trade restrictions ought to be abandoned when the CWC enters into force and affirming that nothing in the text of the CWC suggests that export licensing practices should be restricted to the trade-restriction provisions in the Verification Annex. The paper argued that these provisions were included in the Convention to provide an incentive in the form of trade restrictions, not to define the trade measures that a state party would need to put in place to ensure compliance with Article I. The paper further argued that in fact a failure to apply national export controls in certain circumstances could constitute a failure to honour the Article I obligation never to assist, in any way, the manufacture of chemical weapons. The paper showed how non-scheduled chemicals can be used to make chemical weapons by recalling how, when Iraq had found increasing difficulty in importing supplies of the scheduled chemical-weapon precursor thiodiglycol, it had sought instead to purchase chemicals from which to manufacture thiodiglycol, namely 2-chloroethanol and sodium sulphide, neither of which is on the schedules. The paper went on to commend the “potentially useful” idea of exchanging views and experiences and reviewing national regulations in the field of trade. Australia restated its willingness to share its experience in operating export licensing procedures and advised that, while the Convention imposed no deadlines for this work to be completed, it was intending to complete a review of all relevant national regulations by entry into force.

Chemical Weapons Production Facilities Many delegations in the course of their statements lamented efforts to reinterpret the provisions of the Convention in relation to the declaration, verification and destruction of chemical weapons production facilities. The statements did not mention the Russian Federation by name but it would seem that they were referring to the Russian position. The prevailing view was that, regardless of the present condition of facilities, they must be declared and destroyed or converted in accordance with the clear provisions of the Convention. Some delegations also expressed a readiness to take into account possible economic concerns which may underlie the contrary view. The issue remains unresolved.

Actions by the Provisional Technical Secretariat

The Executive Secretary visited Italy during the reporting period to meet with officials involved in the national implementation process. He also presented a paper on destruction of chemical weapons at the *Dismantlement and Destruction of Chemical and Nuclear Weapons* conference in Bonn on 19-21 May {see *News Chronology*, below}. In Vienna on 24 April, he briefed the OSCE Forum for Security Cooperation on the Convention generally and on the activities of the Preparatory Commission. He also participated in the regional seminar held in Tehran, and attended meetings in Paris, London, New Delhi and Dublin. Senior officials of the Secretariat visited Morocco, Tunisia

and Algeria to discuss issues of national implementation of the Convention, and visited Paris to consult on preparing for the first session of the Conference of the States Parties.

Training The Secretariat conducted the second Trainee Performance Evaluation Workshop on 6-7 March in the course of which participants prepared guidelines for conducting performance evaluations of trainees for Module 1 and 2 courses. The next step is to discuss ways to implement these guidelines and, to that end, Secretariat staff will meet with managers of the training centres during the next intersessional period. Meanwhile, the Secretariat continues to work on preparations for Module 3 training.

Austrian regional seminar A regional seminar hosted by the Government of the Republic of Austria and organized jointly by the Austrian National Authority and the PTS, was held during 6-8 March. It was preceded by a one-day course for personnel of the National Authority of Austria. The seminar was attended by 23 Eastern and Western European states as well as senior staff of the Secretariat. The seminar was structured on the basis of two workshops — the first covering legal aspects, ratification and implementation issues and the second dealing with chemical industry and the role of the National Authority. There was a demonstration inspection at a multipurpose chemical plant in Linz on the final day.

Iranian Regional Seminar In coöperation with the Government of the Islamic Republic of Iran, the Secretariat organised a regional seminar on national implementation of the CWC for the Persian Gulf and Central Asian regions in Tehran during 22-25 April. The seminar was attended by 15 countries from the region as well as by people from the PTS, SIPRI and the Harvard Sussex Program. In conjunction with the seminar a course for personnel of National Authorities was organised on 22 April and on 25 April. The participants of the seminar attended a demonstration inspection at a multipurpose chemicals plant.

Maltese regional seminar A regional seminar, jointly organized by the Multilateral Affairs Directorate of the Maltese Ministry of Foreign Affairs and the PTS, was held in Gozo during 12-14 June 1996. The seminar was for countries from the Mediterranean region and was attended by representatives of 13 countries and people from the PTS, the University of Brussels, the Foundation for International Peace Studies of Malta and the Harvard Sussex Program. Participants discussed various aspects of national implementing legislation, the establishment of National Authorities, issues relating to declarations, inspections, trade in scheduled chemicals and international co-operation on the various provisions of the Convention. The seminar also aimed to inform the non-signatory states of the region about the goals and objectives of the Convention. A workshop for personnel of National Authorities was also conducted.

Training courses for National Authority personnel The Secretariat held a training course for personnel of National Authorities in Gwalior, India from 15 April to 3 May. The course, organized jointly by the Defence Research and De-

velopment Establishment (DRDE) and the PTS, was attended by 22 participants and two observers.

The Secretariat also conducted a course at the Netherlands Defence College, Ypenburg during 13-31 May in which 26 people from 23 countries participated. Besides introductory sessions on the Convention, the course dealt with subjects such as data handling and confidentiality, identifying declarable activities and facilities, communicating with the future OPCW as well as issues relating to chemical weapons and chemical defence. The Harvard Sussex Program gave a presentation on dissemination of information about the Chemical Weapons Convention.

Inspector recruitment process Six candidates selected for Training Group A have been withdrawn on medical grounds and five candidates withdrew for personal reasons. In addition, three candidates have not confirmed their acceptance of the training offer. There are still 17 medical examination results which have yet to be received and evaluated by the Health and Safety Office, and so it is possible that there will be further withdrawals. Accordingly, the Secretariat has not been able to finalize the full list of inspector trainees for Training Group A. To compensate for the losses, the Secretariat has moved six candidates from the Reserve List into the Active List. Interviews are being conducted in Algiers, Mexico City, Sao Paulo and Beijing. The remaining vacancies for Group A will be filled with candidates selected from these interviews. Candidates who are judged to be suitable for inspector training in this interview process but not selected for Training Group A will automatically be included in Training Group B.

For Training Group B, 342 applications have been received for the 80 trainee positions (56 Chemical Production Technologists and 24 Chemical Production Logisticians). Of the 342 applications, 98 are still being considered. As at least 200 suitable candidates are needed to allow a good selection for Training Group B and to fill in Training Group A shortages, the PTS is continuing to encourage applications.

First session of the Conference of the States Parties

With the number of deposited ratifications now (mid-June) standing at 53, the Secretariat has started preparing in earnest for the first session of the CSP which, according to Article VIII.10 of the Convention, is to be convened not later than 30 days after entry into force. The first session is important in a number of respects. It marks the start of the functioning of the OPCW. The Director General of the Technical Secretariat will be appointed, as will the Executive Council. The first session will also consider and approve any draft agreements, provisions and guidelines developed by the Preparatory Commission.

The extensive preparatory tasks can be divided into two groups of issues. There are the logistical arrangements for the Conference itself including determining the division of responsibilities between the Host Country and the Preparatory Commission. And there are the substantive issues, which include agreeing on rules of procedure and on how decisions of the Preparatory Commission are to be put to the Conference for approval.

Actions in Brussels

During the reporting period, outreach activities continued in Brussels with the aim of involving those delegations with embassies in Brussels but not in The Hague. The Vice-Chairman of the OPCW Preparatory Commission from the African regional group, Mr N'zi N K Anet of Côte d'Ivoire, proposed that the Joint Assembly of the 70 African Caribbean Pacific (ACP) countries and 15 countries of the European Union (EU) to be held in Windhoek, Namibia, in late March should adopt a resolution supporting the effective implementation of the Convention. Such a resolution was adopted by the Joint ACP-EU Assembly on 22 March. Stressing the importance of regional and international coöperation in encouraging a climate of mutual trust, the resolution called on all ACP and EU countries that have not yet done so to ratify the Convention as soon as possible.

The Vice-Chairman also held meetings to prepare a resolution of support for the CWC to be presented at the summit of Heads of State and Government of the countries of the Organization for African Unity which will take place during 8-10 July 1996 in Cameroon.

Brussels action also included promoting the participation of Central Asian CIS member-states in the activities of the Preparatory Commission.

Actions by member states

Five further instruments of ratification have been deposited by member states during the reporting period, those of Brazil, Papua New Guinea, the United Kingdom, Ethiopia and Costa Rica. Many other states are expected to deposit shortly. {See box on page 37.}

Algerian technical workshop on the CWC Organized by the Ministry of Foreign Affairs as the acting coördinator of the National Committee for the National Authority and held on 3 March, this workshop on national implementation of the CWC was attended by over 80 people, the majority being senior representatives of government institutions, chemical industry companies and related sectors, universities as well as associations and unions of private and public enterprises.

The workshop focused on further disseminating information about the Convention, issues related to the universality of the Convention and its wide scope, the future organizational structure of the OPCW, and the Executive Council. It also addressed strategies for identifying declarable facilities and collecting data. On-site inspections, inspection procedures and some issues related to technical coöperation and assistance were also covered.

Argentinian Training Course The Argentine Ministry of Defence with the support of the Argentine Ministry of Foreign Affairs, International Trade, and Worship organized a training course for escorts for the inspection teams of the OPCW during 4-29 March. Participants attended from Brazil, Chile, Colombia, Cuba, Mexico, Peru, Senegal, Spain and Uruguay. There were also participants from governmental agencies, the armed forces, and chemical/phar-

maceutical associations of Argentina. PTS people assisted in teaching the course as did personnel from the United States, the United Kingdom and the Netherlands. The Argentinian lecturers are involved in the implementation of the Convention in their respective governmental agencies and chemical industry associations. The course included an inspection exercise in a chemical facility using the simulation of one organic product as a Schedule 3 chemical, and a challenge inspection exercise which was carried out in a military depot.

Trial inspection of industrial facilities in Japan During 27-29 March, the Japanese Ministry of International Trade and Industry (MITI) and Japan Chemical Industry Association jointly conducted sequential trial inspections of Schedule 2 and Schedule 3 industrial facilities. The objectives were to prepare for future inspections, to train MITI officials to act as on-site escorts, to test inspection procedures including pre-and post-inspection activities, to identify issues which need further consideration or refinement and finally to discuss how to ensure the timely and effective discharge of the inspection team's mandate avoiding undue intrusion into industrial activities.

Actions by subsidiary bodies of the Commission

Expert Group on the OPCW Headquarters Agreement This met on 20 and 21 May to consider the report on the consultations between the Host Country and the Secretariat regarding the draft *OPCW Headquarters Agreement*. The Group considered the draft of 13 May together with a draft Separate Arrangement which would constitute an integral part of the Agreement. The draft covers such issues as the legal personality of the OPCW, privileges and immunities, the inviolability of the headquarters, public services to the OPCW and taxes and duties. While much of the draft agreement has been tentatively approved by the group, some provisions still require consensus.

Consultations on Visa Matters These were held for the fourth time on 23 May. Discussions focused on a revised Chairman's paper which analysed the unresolved issues and suggested solutions to them. Agreement was reached on the visa procedure for inspector candidates (attending the General Training Scheme) and the visa procedures for OPCW inspectors and inspection assistants. The Secretariat is to provide, by mid-June, the relevant data on all inspector candidates to the 14 member states offering training. In turn, member states are to instruct their respective embassies or consular sections in the Netherlands to process entry visas without delay. The Host Country is to provide, free of charge, the necessary multiple entry visas to all inspector candidates. As it is also expected that the countries providing training courses will issue the visas free of charge, the entire process should be without financial consequences for the Commission budget. For OPCW inspectors and inspection assistants, the agreement was that states parties should proceed in accordance with part II.10 of the Verification Annex, which requires that each state party provide multiple entry/exit/transit visas, valid for at least two years, for each inspector and inspection assistant within 30 days of ac-

knowledging receipt of the list of inspectors and inspection assistants from the Secretariat.

Consultations on the type of travel documents to be used by OPCW officials, inspectors and inspection assistants arrived at no final conclusion. However, there was a general convergence of views that the United Nations *laissez passer* may provide a solution. It was agreed that the PTS should approach the United Nations Secretariat to clarify the financial and legal conditions on which the OPCW might use the *laissez passer*.

Working Group A

Finance Group This group met during 20-24 May. It worked on the draft *OPCW Financial Rules on Procurement*, considering a revised draft prepared by the Secretariat on the basis of earlier comments. Having made further amendments, the group recommended that the draft be referred to Working Group A and the Commission for consideration and approval. The group, holding the view that the selection of consultants should not be a personnel issue alone, recommended that the Secretariat be requested to draft an administrative directive on consultants.

The group reviewed the Secretariat paper setting out the basic parameters of the 1997 draft budget of the Commission and a preliminary 1997 Part I draft budget of the Commission. The group made detailed observations and noted that it would be reviewing a final draft budget for 1997 at a later meeting. Commenting on the budget overall, the group stated that the budget should be structured so as to show for each programme and object of expenditure the amounts required in 1997 for Phase I and Phase II, according to the likely trigger date starting Phase II. The group also commented that when the draft budget for the Commission is being reviewed, the group should have available to it a draft OPCW budget so as to facilitate a better understanding of the transitional period.

The group examined the 1995 audited financial statements of the Commission and the Provident Fund and recommended that the Commission note the opinion of the External Auditor that the financial statements present fairly the financial position of both the Commission and the Provident Fund as at 31 December 1995.

The group received and reviewed the Secretariat discussion paper on the Information Systems Branch's presentation on the "minimum" IMS (described below under Expert Group on Data Systems) and noted the Secretariat's intention to cover the shortfall of Dfl 2 000 000 out of the 1996 Part I and Part II budgets, but also noted that this is complicated by the fact that the date of the trigger point is uncertain. In the event that trigger point is not reached by mid-1996, the goals of the IMS will be reduced and the major part of the costs (Dfl 3 600 000) deferred to the 1997 budget.

The group considered again possible underfundings in Part I of the 1996 budget and reviewed a Secretariat paper of 22 May on the issue. The group was of the view that the paper did not provide sufficient analysis to allow the group to make any decisions on its proposals and asked the Secretariat to submit a formal request for transfer of funds to its next meeting. The group also considered a Secretariat paper

on the budgetary and financial issues related to the transition from the temporary institution of the Preparatory Commission for the OPCW into the final Organization for the Prohibition of Chemical Weapons. The group felt that while the paper presented useful solutions, it should also address other questions and potential problems.

Expert Group on Administrative, Financial and Personnel Matters This met on 6, 7 and 9 May. Having completed its work on the draft *OPCW Financial Regulations* in the course of the last inter-sessional period, the group had a preliminary discussion on the consistency of the draft *OPCW Financial Rules* with the *Regulations*. The group also discussed the top structure of the OPCW and received two further proposals by delegations. The group held preliminary discussions on the transition from the Preparatory Commission to the OPCW. A PTS background paper raised such questions as how to allocate expenditure between the Commission and the OPCW during the transitional period; how the Commission will be liquidated; how and when staff will be appointed to the Technical Secretariat, and treatment of accrued benefits of staff members who will continue their service with the OPCW; transfer of the Commission's remaining assets and liabilities to the OPCW and treatment of unpaid contributions to the Commission; and financing the initial activities of the OPCW. Following discussions, the group requested the Secretariat to define these issues more precisely, taking into account its discussions.

Expert Group on Data Systems This group met on 13-14 May to consider the Secretariat's proposal for establishing a "minimum" Information Management System (IMS) for entry into force by the end of this year. The group concluded that the Secretariat's discussion paper {PC-XIV/A/WP.1} represented a satisfactory basis for establishing a "minimum" IMS and requested the Executive Secretary to initiate implementation of the plan and inform Member States of progress.

The discussion paper prepared by the Secretariat sets out the implementation plan and resource requirements of a "minimum IMS" which was defined as being "capable of performing all critical IMS functions that the Executive Secretary deems necessary at entry into force". The IMS system will provide an automated environment whereby the OPCW can process the required data at entry into force. The paper identified in detail the time frame and tasks required. The paper also describes the resource requirements of implementing the plan, showing a total cost of Dfl 4 335 586. This represents a shortfall of Dfl 2 000 000 in Parts I and II of the 1996 Budget. The group in its report, requested the Executive Secretary to present any necessary budgetary proposals to the Finance Group and the Expert Group on Programme of Work and Budget.

Expert Group on Programme of Work and Budget This met on 3-6 and 10-13 June. Although the group was unable to consider the preliminary draft 1997 Budget of the Commission because Part I of the draft was incomplete and Part II was not available at all, it recommended that the *Basic parameters of the 1997 Draft Budget of the Commis-*

sion annexed to the group's report, be endorsed by the Commission. These parameters include: the budget should reflect maximum economy; any variance from the 1996 budget should be allowed only to reflect changes in statutory staff costs, to cover tasks not previously foreseen or sufficiently identified but which are essential to fulfil the Commission's objectives until entry into force or to provide resources necessary to make the OPCW fully operational; and the relevance of zero-based budgeting should be re-examined to determine if that would allow further cost decreases.

The group had available to it a Secretariat paper on *Transfer of Funds* which proposes intra and inter programme transfers to cover possible underfundings in Part I of the 1996 budget in relation to non-discretionary expenses in the areas of salary and common staff costs, information management systems and security requirements. The group requested the Secretariat to prepare an up-to-date paper on transfers of funds within Part I and Part II of the approved 1996 budget to be available for the meeting of Working Group A at the fourteenth session of the Commission.

The group recommended that the Secretariat be requested to update the Secretariat background paper of 2 May on budgetary issues related to the transition from the Preparatory Commission to the OPCW by taking into account the comments of this group, the Expert Group on Administrative, Financial and Personnel Matters, and the Finance Group.

Working Group B

Expert Group on Challenge Inspection Following informal consultations on 3 April, this group reconvened formally on 15-16 April but did not issue a report. The group agreed that Ian Mundell of Canada should be elected its new chairman and discussed several outstanding items from its agenda. The first related to operational requirements for inspection equipment used in challenge inspections. Differing views were expressed as to whether the group has finalized its consideration of the issue.

The second item discussed by the group related to cost aspects in case of abuse of the right to request a challenge inspection. The chairman issued a non-paper to facilitate the work of the group. Taking as the starting-point CWC Art IX.23 (which stipulates that, in cases of abuse, the Executive Council shall examine whether the requesting State Party should bear any of the financial implications of the challenge inspection), the non-paper suggests factors that might be included in "financial implications": directly incurred inspection-generated expenses, additional expenses incurred through the modification of planned activities, and the cost of providing the necessary facilities and support in the course of the challenge inspection. The group reviewed the non-paper and some delegations suggested that "financial implications" should also include direct economic losses caused to the inspected facility by the inspection activities. A revised non-paper is being prepared.

The third item discussed by the group related to the timing of the notification of challenge inspections. CWC Art XI.15 provides that the Director-General shall transmit the inspection request to the inspected State Party not less than

12 hours before the planned arrival of the inspection team at the point of entry. Other than this, the Convention does not stipulate how much notice should be given by the Director-General. It has been suggested that the Director-General could be invited to consider guidelines when determining the precise timing appropriate in a specific circumstance. These guidelines might include: the specific circumstances of each inspection, the nature of the compliance concern, the type of site and activities involved, the distance of the point of entry from The Hague, the location of the site in relation to the point of entry, whether travel is by a scheduled or chartered flight and the amount of equipment being taken. Divergent views confirmed that the issue needs further discussion.

Expert Group on Chemical Weapons Issues This met on 1–2 May. It achieved substantial progress on the issue of levelling out and discussed inspection procedures relating to chemical weapons production facilities. There was also a general discussion on the future programme and course of work of the group.

The Friend of the Chair on chemical weapons production facilities conducted consultations on the destruction of production facilities and inspection activities at the facilities. Following these consultations, the group was able to agree to guidelines for “levelling out”, which will allow each state party to destroy their chemical weapon production facilities at the same rate. The guidelines set out the relative weighting to be given to the production capacity of the facilities and to the buildings/equipment. The group recommended that the document entitled *Destruction of CWPFs*, setting out these guidelines, be forwarded to the Commission for adoption. The group also held consultations on inspection activities to be performed at chemical weapons production facilities.

The group discussed the continuing lack of a permanent Chair and the need to resolve outstanding issues as quickly as possible. In that regard, it was proposed that to make the work of the group more manageable, it might be split. To aid the discussion, the group received a Secretariat non-paper on the status of outstanding issues, identifying those issues which it believes most urgently need to be resolved in order to ensure the smooth implementation of the verification regime at entry into force of the Convention.

Despite further informal consultations, the group was unable to report any progress on the draft *Model Facility Agreement for Chemical Weapons Destruction Facilities* or on Section D of the *Declaration Handbook*.

Expert Group on Chemical Industry Issues This met during 22–25 April and 28–30 May. It made significant progress on Sections A, B and C of the draft *Declaration Handbook*. As a result of consultations conducted by the Friend of the Chair, the group concluded that the declaration forms in Annex A of Section A of the draft handbook (‘Forms for General Reference Data’ and ‘Primary Declaration Identification’), Annex C of Section B (‘Industrial Declaration Forms’) and Annex C of Section C (‘Schedule 1 Declaration Forms’) are in a final stage of acceptance and the forms are almost ready for use by National Authorities. The group has not yet been able to give final approval be-

cause agreement has not been reached on how the “precise location” of a plant site ought to be declared. Despite this problem, the Secretariat will issue the forms as they now stand, which member states may elect to use to continue their preparations for entry into force. Having made some further editorial changes to other parts of Sections A, B and C of the draft *Declaration Handbook*, it was agreed that the Secretariat would also make available the current (fifth) version of the handbook for use by delegations, although not yet formally approved.

The group continued work on the draft *Model Agreement for Schedule 2 Plant Sites* revised on the basis of the chairman’s proposals from the group’s meeting in February. The draft specifies the general structure and content for a facility agreement to be concluded between a state party and the OPCW in relation to a Schedule 2 plant site subject to on-site verification. It will be used during the initial inspection for the preparation of a draft facility agreement unless the inspected state party and the Technical Secretariat agree that a facility agreement is not needed. While much of the text has been discussed, an issue which remains to be resolved by the group is which costs should be paid directly by the inspection team and which costs should be paid by the inspected state party and then reimbursed by the OPCW. The precise duration of a facility agreement also needs to be determined. The group agreed that provisions on inspection equipment for particular types of inspection and issues of liability fall outside the purview of the group’s mandate. Accordingly, the chairman of the group was requested to report to Working Group B highlighting the need for speedy resolution by the appropriate expert groups.

As requested by the group during the last intersessional period, the Secretariat prepared a “Chairman’s Initial Version of a Draft Model Agreement for Schedule 1 Facilities” which the group discussed during its May meeting. Proposals on the draft by member states are to be forwarded to the Secretariat to allow a revised draft to be prepared.

With a chairman’s paper before it, the group discussed unresolved issues concerning chemical industry declarations. The paper suggested a number of criteria that might be applied to all of the issues, which would allow the group to reach solutions in a comprehensive and consistent manner. These include that any agreement should not extend the scope of declarations disproportionately beyond what is normally considered to be “chemical industry”; an agreement should not create a loophole such that the Convention could be circumvented; transparency and verifiability should not be compromised; and any agreements reached should not foreclose further developments. Solutions should also be practical to implement.

There seems to be tentative agreement that the guidelines related to low concentration would set out a concentration limit below which declarations are not required. The numerical value of those limits remains to be resolved and whether any exceptions above or below those limits should be allowed. A decision is still required on how to aggregate national data for Schedule 2 and Schedule 3 chemicals, that is, whether data from facilities above the declaration thresholds only should be used or whether the national aggregate data should include all data regardless of whether the individual facilities are above or below the thresholds.

A related issue is how to deal with exports and imports of mixtures and whether they should be included in export and import aggregate data and if so, whether the same concentration limits as for the low concentration guidelines should be applied. The group also addressed a previous tentative understanding on the definition of a discrete organic chemical, which is that "while industrial products have a purity that is less than 100 per cent, industrial chemicals produced by synthesis can for all practical purposes be considered as discrete organic chemicals only if they are characterized by one chemical structure, a chemical name and a CAS number (if assigned)". The group could not reach consensus on the precise language of the agreement. The group has also yet to agree on whether processes involving biological organisms are or are not covered under the term "production by synthesis" and therefore declarable.

Expert Group on Inspection Procedures This did not meet during the period under report; a formal session is scheduled for 17, 18 and 20 June. The specialist task force on the OPCW analytical database met during 17-19 April and will report to the expert group. The task force discussed the evaluation of NMR spectra, reviewed the synthesis programme by the various member states to fill the gaps in the OPCW Analytical Database and reviewed the re-submission of evaluated and approved spectra. The task force commented on the lack of progress in creating the electronic database pending the decision on the computer hardware for the OPCW Laboratory. The task force continued discussing the evaluation of the GC retention index data and agreed upon the documentation of the data evaluation for the certification of the OPCW Analytical Database and upon the format of the compilation containing the approved NMR spectra.

The specialist task force on inspection equipment issues met during 5-6 June. The task force discussed the issue of the hydrogen concentration measurement (HCM) non-destructive evaluation (NDE) equipment, and as a result of this discussion developed operational requirements and technical specifications and forwarded them to the expert

group for consideration. The task force also developed operational requirements and technical specifications for X-ray equipment and discussed its use for inspection of old and abandoned chemical weapons and alleged use investigations. The task force discussed acetylcholinesterase activity testing and recommended that it be considered under the issue of occupational health. The US delegation gave a presentation on a number of emerging technologies for inspection equipment including a field-portable air monitor for lewisite, a field-portable device for supercritical fluid extraction of soil/water samples, and an improved device for munition NDE, based on swept-frequency interferometry. The task force recommended that procedures be considered for identifying emerging technologies and evaluating their potential use by the future OPCW.

The expert group, when it meets, may or may not adopt all the recommendations of its task forces.

Expert Group on Old and Abandoned Chemical Weapons This met on 29 April but did not issue a report. The group discussed further the guidelines for determining the "usability" of old chemical weapons, having before it a discussion paper prepared by the German delegation entitled *Checklist for the usability of OCW produced between 1925 and 1946*. The group discussed the declaration of old chemical weapons and the verification and destruction requirements for old chemical weapons produced between 1925 and 1946.

Costs of verification were also discussed, some experts indicating that their countries would have no problem, in principle, with bearing their share of the verification costs associated with old and abandoned chemical weapons. However, the extent of the verification regime required for old chemical weapons remains to be resolved and until that happens, the issue of costs of verification cannot be determined.

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

US Senate Action Soon?

There is little doubt that the CWC will receive the support of well over the required two-thirds majority when it finally comes up for a vote by the full United States Senate. When, on 30 April, the Foreign Relations Committee reported favourably on the Convention [see *News Chronology*, 25 April], it became up to the Senate Majority Leader to schedule the vote. The then Majority Leader, Robert Dole, had said he intended to put the treaty to a vote within a "reasonable time period" after the Foreign Relations Committee acted [see 7 Dec 1995]. But in mid-June Dole left the Senate to concentrate on his campaign for the presidency, leaving the scheduling up to the new Majority Leader, Senator Trent Lott. Asked when a vote on the Convention might be expected, Majority Leader

Lott told the Senate on 13 June: "The Chemical Weapons Convention is something that we are all concerned about. I think it should be given proper consideration...It is not my intention to withhold this convention, but I do want to understand what the problems are, how much time we would be talking about in bringing it up...we have a limited number of days in which to do a lot of important work...I cannot make a commitment on a date certain at this time because I do not know what the situation is. If you will give me the benefit of a few days, I will try to give a more responsive answer at that time."

As the *Bulletin* goes to print (20 June), nothing more has been heard.

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

1 February In the UK, the country's past and now-abandoned capabilities to develop, produce and maintain stocks of chemical weapons are described in a closely documented Defence Ministry journal-article. {*RUSI Journal* Feb} Included is an account of the decision by Prime Minister Antony Eden in July 1956 to "eliminate all offensive development from the chemical warfare programme", to abandon the plans for a 50 ton/week nerve-gas factory at Nancekuke, and to dispose of all holdings of chemical weapons. The article goes on to record that, some six years later, this policy was reappraised; the Chiefs of Staff "identified a possible future need for a chemical warfare capability based on nonlethal psychotomimetic incapacitating agents and recommended that lethal agents such as Sarin and VX be available for tactical use in limited war". The article then describes how, in May 1963, Prime Minister Harold Macmillan "authorised the Ministry of Defence to proceed with a five year programme of offensively orientated research and limited production of chemical agents". Acquisition of sarin-filled 105-mm artillery shell and VX spraytanks for aircraft was specified in staff requirements and targets during 1963–65, but under the new administration of Prime Minister Harold Wilson these plans remained unimplemented: "By 1968 it was clear that the matter had been deferred indefinitely. In later years the question of whether the UK should acquire retaliatory chemical warfare capability was reviewed periodically...but proposals were never again put before the Cabinet."

2 February In Russia, Lt-Gen Anatoliy Kuntsevich has said in an interview now published in the New York newspaper *Forward* that a faction of the Russian army and government has been seeking to void the country's treaty undertakings to renounce chemical weapons. He has consequently become the victim, he claims, of a political intrigue in which charges of smuggling nerve-gas precursor to Syria [see 16 Jan] have been laid against him in a struggle for control of the funding which he says the United States has been providing for destruction of Russian chemical weapons under the Nunn-Lugar programme: "I think that some people didn't want to build [chemdemil] plants... They just wanted to transfer money to Russia". Colleagues had to this end, he says, accused him of taking payments from the winners — Bechtel, Westinghouse and Battelle — of the competitive bidding which he had organized among American firms in late 1993 "for a \$35 million contract to build two pilot weapons destruction plants" [see also 21 Aug 92 and 1 Feb 94]. As for the smuggling, he has told *Forward* that the charges concerned a shipment he had arranged of 80 [sic] kilograms of "a form of phosphoric acid" [see also 16 Jan] to the Pan-Arabian Ecological Center near Damascus. He says that the chemical could be used as a precursor for a number of nerve gases, but the shipment was "not enough to create chemical weapons" and was in fact for ecological research — "like cleaning water and creating special filters for the disinfection of soil, water and air". He is later described as having spoken,

during the interview, "to save his skin". {*Wall Street Journal* 29 Apr}

2 February In the UK, the Porton Down Volunteers Association [see 19 Nov 94] has recently lodged a complaint with the European Commission on Human Rights. Lawyers acting for the chairman of the Association, Michael Roche, a former soldier who volunteered as a "guinea pig" for tests of mustard and nerve gases at Porton in the early 1960s, are arguing that the UK government is in breach of the European Convention on Human Rights because Roche has been denied access to Porton's experimental records and because there was no medical follow-up that might now allow him to claim the disability pension for which he believes his present health condition entitles him. {*London Guardian* 2 Feb}

6 February In Denmark, following "Gulf War Syndrome" rumours, military personnel who served with UN forces in Kuwait and northern Iraq after the 1991 Gulf War are to receive medical examinations, so Defence Ministry medical chief Maj-Gen Knud Jessen tells reporters. {*Reuter* 6 Feb}

6 February Ireland has not yet prepared an instrument of ratification of the CWC for consideration by the Oireachtas, so Comdt Peter Daly of the Army Ordnance Corps tells a conference in Cork. The conference, on chemical emergencies, is also told by him that, although the threat of chemical weapons to Ireland is quite low, it does nevertheless exist, for example from old ocean-dumped chemical munitions being washed ashore [see 29 Mar 95, 18 May 95 and 6 Oct 95] or from a terrorist organization. {*Irish Times* 7 Feb}

6–19 February At the United Nations in New York, Iraqi and UN negotiators conduct a new round of talks on Security Council resolution 986 (1995) which would allow Iraq to resume limited exports of oil in order to buy medicine and food under international control [see 27 Jan]. Iraq has hitherto been objecting to some of the preconditions, notably those regarding food-distribution in northern (Kurdish) Iraq and the use of the trans-Turkey pipeline for the greater part of the oil-export. Agreement is not reached. {*Reuter* 5 and 26 Feb}

8 February At Harvard University, in the Kennedy School of Government, the Director for External Relations of the OPCW Provisional Technical Secretariat, Serguei Batsanov, addresses a session of the HSP Cambridge Colloquium. He speaks of the current status of the CWC and of problems arising therefrom. {*Arms Control Reporter* at 704.B.603-605}

9 February In South Korea, a report issued by the Agency for National Security Planning states that North Korea has a stockpile of about a thousand tons of chemical weapons held in six locations including Pyongyang and Sariwon. {*Yonhap* 9 Feb in *BBC-SWB* 12 Feb}

9 February In Bulgaria, the Foreign Ministry releases a declaration which the government had made on 1 February: "There have not been stockpiles of chemical and [sic] biological weapons on the territory of Bulgaria in the past 50 years". The Ministry explains that the declaration had been requested by the 28 member countries of the Australia Group, to which Bulgaria had applied for membership. {BTA 9 Feb in BBC-SWB 11 Feb}

9 February In Italy the government acknowledges, apparently for the first time in public, that Italy had used chemical weapons in Ethiopia during 1935–36. A Defence Ministry letter to a member of Parliament states that, during one part of the Ethiopian campaign, 1020 500-kilogram mustard-gas bombs had been used. During other occasions, phosgene bombs and smaller mustard-gas bombs had also been used, as had arsine. {London *Daily Telegraph* 9 Feb}

9 February On Johnston Atoll in mid-Pacific, the US Army chemdemil facility completes, ahead of schedule, the destruction of all the sarin nerve-gas aircraft bombs in storage there. JACADS has now safely incinerated more than 1000 tons of CW agent [see also 22 Jan], an Army spokeswoman says. {Gannett 9 Feb} The next phase of operations, due to begin on 26 April if the US Environmental Protection Agency does not withhold approval, is the incineration of 105-mm and 8-in sarin-filled artillery projectiles. {Radio Australia external 10 Apr in BBC-SWB 12 Apr}

9 February The US Defense Department, which has a World Wide Web site on the Internet called *Gulflink* through which it makes publicly available a data-base of declassified Gulf War documents [see 3 Aug 95], ends public access to the "Intelligence Collection" part of the data-base. The CIA had reportedly been complaining that too much was being disclosed about US intelligence sources and methods. Four days later, public access is restored, but the data-base has been much depleted during the interim. {Gannett 13 Feb}

10 February In Moscow, *Nezavisimaya Gazeta* publishes a lengthy commentary by retired Army colonel Boris Sibirsky on problems of Russian compliance with the Chemical Weapons Convention. The article advocates Russian ratification subject to several provisos, some of which would require that the convention actually be amended. A recurrent theme is the presence in the Convention of what Colonel Sibirsky calls "prejudices against Russia which, to put it mildly, attest to the miscalculations and myopia of the Soviet and Russian diplomats". His argument seems to be that Russia should therefore not move too hastily in destroying its CW stockpiles, for, compounding the asymmetry, are (a) the lead which the United States has established in such technologies as binary munitions and nonlethal weapons, and (b) something which he suggests was manifest during the Vietnam War, namely US political will to resort to chemical warfare.

10 February The UK government response to the House of Commons Defence Committee report on *Gulf War Syndrome* [see 7 Nov 95] is released by the Committee. The response, by the Ministry of Defence, states in its introduction that the government is "disappointed with the overall tone of the Committee's report, which it finds unhelpful", and continues: "It remains of the view that the resources allocated to investigations by the Ministry of Defence have been appropriate, and that these investigations have been pursued with scientific rigour." The response presents detailed comments on the Committee's report, addressing such matters as the secrecy

surrounding the anti-BW vaccination programme and the "cocktail" of vaccines and drugs administered to service personnel in the Gulf. Its conclusions describe the Committee's criticism of Defence Ministry investigations of the health effects of Gulf-War service as "largely unjustified". One of its other conclusions is as follows: "The Government believes that the Committee's report does not give adequate recognition to the very similar results emerging from the investigations in the UK and the USA. With nearly 400 UK veterans and 17,000 US veterans fully assessed under the respective programmes, there is no evidence to suggest the existence of a medical condition uniquely linked to Gulf service." {HC papers (1995–96) 187}

The response had been delivered to the committee on the day the government announced its intention to commission the full-scale epidemiological inquiry [see 30 Jan] which the report had recommended.

12 February In a US federal court in Miami, a plea of guilty is entered by the person formerly in charge of the FBI's less-than-lethal weapons research program at Quantico, Thomas Ward. He admits to having taken kickbacks from the company which, since 1989, had been selling 'Cap-Stun' pepper sprays to the FBI: Luckey Police Products of Fort Lauderdale. He is due to be sentenced on 26 April. {*Miami Herald* and Fort Lauderdale *Sun-Sentinel* 13 Feb, *Tampa Tribune* 10 Mar}

12–21 February In the United States, near Aberdeen Proving Ground, there is a working-group meeting of the Russian-American Joint Evaluation Program (RAJEP) that is assessing the Russian two-stage process for destroying organophosphorus CW agents [see 13 Dec]. The purpose is to discuss progress immediately prior to a two-day high-level RAJEP meeting in Washington [see also 15 Dec 95, GAO]. *ASA Newsletter* {8 Feb} reports: "US and Russian scientists have jointly and conclusively demonstrated that the Russian chemical neutralization destroys the chemical agents and works well".

14 February President Clinton accepts the interim report of the Presidential Advisory Committee on Gulf War Veterans' Illnesses [see 12 Jan] and announces that he has asked the Secretaries of Defense, Veterans Affairs, and Health and Human Services to develop an action plan for implementing its recommendations. {White House press release 14 Feb} These range from ways to improve record-keeping on the health of veterans and outreach to them to the development of improved CBW agent detectors.

In its future work, the committee says it will investigate alleged incidents of exposure of *Desert Shield/Storm* personnel to CBW agents, now that so much more information has become available about Iraqi CBW programmes. The interim report notes that the Defense Department and the CIA have reopened their investigations into whether CBW agents were in some way used or accidentally spread during the war. The committee's final report is due at the end of the year.

15 February In Baghdad, a meeting of Iraqi security and intelligence officials chaired by President Saddam Hussein's youngest son Qusay draws up a plan to assassinate UNSCOM Executive Chairman Rolf Ekéus with slow-acting poison, so the London newspaper *Al-Sharq al-Awsat* {25 Feb in BBC-SWB 27 Feb} later reports, citing Iraqi opposition sources.

15 February The German Federal Government Commissioner for Disarmament and Arms Control, Ambassador Hartmann, during an address to the Conference on Disarmament in Geneva, speaks of the progress which the Ad Hoc

Group is making on strengthening the Biological Weapons Convention. He says: "Nevertheless, it is obvious that negotiations must be stepped-up if we want to achieve timely results. It is our hope that the fourth review conference in December will give new impetus to these negotiations." And he speaks of "our conviction that a BTWC verification regime is vital in order to successfully deter potential violators and to establish lasting confidence in treaty compliance". {CD/PV.725}

15 February In the UK, the independent judicial inquiry into the export to Iraq of defence equipment and dual-use goods [see 6 Apr 95] set in motion more than three years previously [see 10 Nov 92] publishes its report. By Sir Richard Scott, who is now the Vice-Chancellor, the report is in five volumes, and is unprecedented in its disclosure of the inner workings of government in the UK. No overall conclusions are presented, but a recurrent theme of the report is the failure of government to "discharge the obligations imposed by the constitutional principle of Ministerial accountability". However, in its treatment of the numerous steps taken by officials and ministers to prevent dual-use goods from entering the Iraqi chemical-weapons programme, the report is invariably commendatory.

The Scott Report states that intelligence had confirmed, by January 1984, that Iraq was using chemical weapons against Iran. The report details several episodes in which British companies had been prevented from exporting CW-agent precursors, or production plant for them, to Iraq, sometimes via Jordan or Egypt. And it throws light on the entry of certain chemicals into what later became the CW precursor control list of the Australia Group.

The Scott Report also describes the genesis and application of the so-called 'NBC Guidelines' that were issued in January 1988 to cover any overseas promotion or supply of, among other things, antichemical protective equipment or training. One of these guidelines was as follows: "The supply of any item which might assist Iran or Iraq to wage chemical warfare will not be authorised. Therefore current policy is to prevent the sale or diversion of defensive CW equipment to Iran or Iraq." {HC Papers (1995-96) 115} The report does not address the compatibility of such guidelines with the provisions, then under negotiation, of what has since become Article X of the Chemical Weapons Convention.

With regard to the Import, Export and Customs Powers (Defence) Act of 1939 [see 6 Apr 95], the Scott Report includes the following: "I recommend that Government publish as soon as practicable a Consultation Paper with proposals both for the content for new empowering legislation in place of the 1939 Act and for an export licensing system and export licensing procedures suitable for the peacetime requirements of a trading nation in the post cold war era."

15 February At Harvard University, in the Kennedy School of Government, Professor John van Courtland Moon speaks on "United States BW policy and planning in World War II" at the HSP Cambridge Colloquium.

16 February In Brussels there are two workshops on National Implementation and Legislation of the Chemical Weapons Convention. Both workshops are organized by the HSP Brussels researcher, Mitslral Kifleyesus, under the auspices of the OPCW Provisional Technical Secretariat. Both workshops are for people from states whose representation to the OPCW Preparatory Commission is from Brussels rather than The Hague. The first, held at NATO Headquarters, is attended by representatives of Slovakia, Slovenia and Ukraine. The second is attended by

representatives of Benin, Cameroon, Central African Republic, Chad, Congo, Côte d'Ivoire, Fiji, Gabon, Lesotho, Mali, Nepal, Papua New Guinea, Paraguay, Sierra Leone, Swaziland, Togo, Uganda, Zambia and Zimbabwe, as well as representatives of two non-signatory states, Angola and Eritrea. Both workshops include presentations by people from the PTS, the HSP and the SSF Group. {PTS press release 19 Feb}

18 February In Hanoi, the 10-80 Committee — which is the Vietnamese government panel investigating medical problems that may have been caused by US herbicide-warfare operations during the Vietnam War [see 23 Jul 95 and 3 Sep 95] — is finding that the rate of birth defects among children born to women who lived in sprayed areas is significantly greater than among those who lived in areas that were not sprayed, according to a member of the panel quoted in the Florida newspaper *St Petersburg Times* (18 Feb). The Vietnamese government is not, however, emphasizing the work of the panel for fear, so the newspaper reports, of thereby damaging relations with the US government during the current rapprochement.

18-21 February In the Philippines, counter-terrorism is the subject of a conference in Baguio attended by 120 experts and officials from 19 countries: Australia, Canada, Egypt, France, Germany, Indonesia, Israel, Italy, Japan, Malaysia, New Zealand, Pakistan, the Philippines, Russia, Spain, Thailand, Turkey, the UK and the USA. The participants issue a communiqué in which they say they will increase coöperation and coördination in sharing intelligence and in "preventing the illicit traffic in and use of explosives, weapons and nuclear, chemical and biological materials". {AFP, Kyodo and Xinhua 22 Feb}

19 February In Germany, police had found instructions for bomb and poison-gas production during a search of neo-nazi premises in Görlitz during the previous August, so the Saxony Landeskriminalamt has just announced. {*Frankfurter Rundschau* 19 Feb}

20 February In Iraq, the Revolutionary Command Council announces a pardon for Hussein Kamel [see 27 Jan] and his brother Saddam Kamel who today return to the country from Jordan after their defection six months previously. {Reuter 20 Feb} Both UNSCOM and US Defense Department officials publicly reject suggestions that the information which Saddam Kamel had provided about Iraqi weapons programmes must now be treated as disinformation. {AFP 20 and 21 Feb}

Three days later, after an announcement that the two returnees have been divorced by their wives, who are daughters of President Saddam Hussein, they, their father and another brother are shot to death. A television station controlled by the President's son Uday reports that "the traitors have been executed". {London *Observer* 25 Feb}

22 February In Bosnia-Herzegovina, no evidence of chemical-weapons-use in the north-east of the country has been found by an NBC defence unit from the US component of the NATO Implementation Force [see also 22 Dec 95, Croatia] operating out of Tuzla, so US Army expert John Miller tells reporters. {AFP 22 Feb}

22 February In the United States, Director of Central Intelligence John Deutch includes the following in a prepared statement before the Senate Select Committee on Intelligence: "Chemical weapons programs are active in 18 countries [see also 19 Jan], including most major states of the Middle East. Libya, for example, is now building the world's largest underground chemical weapons plant in a mountain near Tarhunah

[see 11 Jul 95]. Chemical weapons countries are also developing more and longer-range delivery systems, including ballistic and cruise missiles and UAVs. Biological weapons, often called the poor man's atomic bombs, are also on the rise. Small, less developed countries are often eager to acquire such weapons to compensate on the cheap for shortcomings in conventional arms. Small quantities of precursors, available on the open market, can produce a deadly chemical or biological weapon." He also observes that "the prospects for chemical and biological terrorism will increase with the spread of dual use technologies and expertise".

Also testifying is the Assistant Secretary of State for Intelligence and Research, Toby Gati. According to her prepared statement, there is no "imminent WMD proliferator" in Latin America and the Caribbean region; nor, in contrast to Iran, Iraq, Libya and Syria, is Sudan in such a category.

The Director of the Defense Intelligence Agency, Lt-Gen Patrick Hughes, includes comments on Iraq's weapons programmes in his prepared statement: "Some discovered capabilities, particularly in nuclear and biological warfare, exceeded our earlier estimates in both scope and level of progress... We now have this information because of the invasive UN inspection regime and because of disclosures by Iraq, and not through traditional intelligence sources."

23 February India submits a paper to the OPCW Preparatory Commission on *Chemical Trade and International Cooperation under the Chemical Weapons Convention* {PC-XIII/B/WP.7}. The paper, which makes no express reference to the Australia Group, calls for work to commence immediately "to ensure an adequate trade regime which will ensure compliance with the provisions of the Convention in terms of both trade restrictions and the promotion of free trade in chemicals for the enhancement of scientific and technological development". The paper also proposes that a fund be opened for fostering international cooperation for peaceful purposes in the field of chemical activities. The paper is distributed on 5 March.

23 February In California, a death sentence is executed in San Quentin prison by lethal injection. It is the first time the state has resorted to this form of capital punishment. {London *Daily Telegraph* 22 Feb} The gas chamber had previously been relied upon, but a Federal appeals court has just ruled that it violates the constitutional prohibition of cruel and unusual punishment. {London *Independent* 23 Feb}

24 February–1 March In Iraq, UNSCOM conducts its 33rd biological-weapons inspection, UNSCOM 139. The team of seven inspectors is led by Richard Spertzel of the United States. {AFP 25 Feb} The purpose is to conduct detailed discussions with Iraqi authorities on past production of BW agents. UNSCOM later describes the mission as less fruitful than the January one: "Iraq did not provide additional documentation. For the year 1990, Iraq had earlier presented documents to support its stated production figures. However, production data for earlier years presented to the team by Iraq was assessed by the team as too low. The team's view was that their Iraqi counterparts tended to change production data to accommodate newly discovered facts related to Iraq's biological weapons programme. Changes were introduced by Iraq without any documentary support or convincing explanations." {S/1996/258}

24 February–10 March In Iraq, UNSCOM continues its 26th chemical-weapons inspection, UNSCOM 129B [see 9-15 Dec 95]. The team of 19 inspectors (26, according to other reports) is led by Cees Wolterbeek of the Netherlands. {AFP 25 Feb} It

excavates bombed-out buildings at Al Muthanna in a search for additional documentation on Iraq's chemical-weapons programme. UNSCOM later describes this work as follows: "During this dangerous and demanding mission, the team discovered and retrieved some 5,000 pages of printed materials. These included numerous bound volumes, memoranda, organizational papers, booklets, letters, archive records, approximately 100 computer discs, books, catalogues and published journals. Some articles were intact, while others were in fragments. In addition, the team removed some 80 munitions and components, including 122 mm artillery chemical warheads and 155 mm "binary" artillery shells. Iraq contributed to the success of the inspection through the provision of technical support, including labour and heavy engineering equipment. This assistance was given without any problems or delays." {S/1996/258}

26 February In Russia, former Soviet Army chemical-weapons officer Vladimir Petrenko is awaiting trial on a charge of premeditated assault against an army officer who, so human-rights activists are quoted by *US News & World Report* {26 Feb} as saying, had picked a quarrel with him. Petrenko had been awarded damages against the army some months previously in regard to health consequences of his exposure to a novel CW agent [see 19 Mar 93].

26 February Libya issues a statement denying a recent *New York Times* report that it has almost finished building a huge underground chemical-weapons factory at Tarhunah. The statement characterizes the report as "part of the malicious campaign led by American circles to defame the Jamahiriya and frame it up on false charges". {DPA 26 Feb} The *New York Times* {25 Feb} report cited the recent Congressional testimony of CIA director John Deutch [see 22 Feb] and also referred to copies of construction plans and building specifications said to have been obtained by German intelligence services from German and Austrian companies contracted to build a tunnel at Tarhunah. "Informed sources" in Germany are subsequently quoted by DPA {26 Feb} agreeing that "German intelligence agencies possess construction blueprints for a big chemical weapons factory" being built in Libya, but disagreeing that the plant would be the world's biggest and that it might become operational as early as 1997.

It later transpires that the US government has again embarked upon a campaign of "public diplomacy" against what its intelligence community perceives to be a continuing CW armament programme by Libya. {*Los Angeles Times* 12 Apr} As in the campaign of 1988-89 directed against the facility at Rabta [see 26-27 Oct 95], this one too includes hints of impending US military action as well as leaked intelligence information, most notably, following the *New York Times* story, in articles in German newspapers {*Die Welt* and *Berliner Zeitung* 27 Feb} and *Time* magazine {1 Apr, pub 24 Mar}. The latter reports: "In 1990 Gaddafi shut down the Rabta plant after Washington threatened to attack it with warplanes and publicly identified European companies that had provided equipment. But US satellites soon discovered that Rabta's equipment had been moved and stored in underground bunkers a mile away." *Time* goes on to say that the equipment was to be reinstalled in the Tarhunah tunnels alongside new equipment, but, starting in 1992, "CIA and State Department officials persuaded governments in Italy, Switzerland, Japan, Denmark, Austria, Britain and Poland to stop deliveries of equipment Libya had bought from their companies." Libya had since been seeking supplies from China, India and southeast Asia, so *Time* magazine re-

lates, and the "White House now believes the factory could be operating by the end of this decade". A London newspaper (*Sunday Times* 31 Mar) reports that "the £335 million factory will be capable of producing at least 2500 tons of mustard gas and other deadly nerve agents every year".

Libyan Information Minister Fawziyah Shallabi characterizes the *Time* article as "lies by the CIA aimed...to prevent Arabs, and Libya in particular, from obtaining modern technology in industry". {AFP 25 Mar in FBIS-NES 26 Mar}

26–28 February In The Hague, the OPCW Provisional Technical Secretariat convenes its first Inspection Logistics Workshop. The primary purpose of the workshop is stated as follows by the Executive Secretary Ian Kenyon in his opening remarks: "to examine the multitude of tasks which will have to be dealt with together by the inspection team and the representatives of the inspected State Party". The workshop is thus examining core practical problems that must be resolved if the division of labour between the OPCW Technical Secretariat and the CWC National Authorities in operating the treaty's verification system is to function adequately. PTS Verification Division Director John Gee says that the Secretariat is currently planning to conduct about 400 inspections in the first year after entry into force. He also says that revised estimates now put the worldwide number of declarable facilities at about 200 for chemical-weapons and Schedule-1 facilities, at about 750 for Schedule-2 plant sites, and at about 1000 for Schedule-3 plant sites. Thirty member states participate in the workshop. [For further details, see *Progress in The Hague* above.]

27 February Finland may participate in the Dutch project for aiding the Russian chemdemil programme [see 3 Nov 95], so Defence Minister Agnelli Taina told his Netherlands counterpart, Dr Joris Voorhoeve, during the latter's recent visit to Finland.

Reporting this, *NRC-Handelsblad* {27 Feb} also writes: "Later this year, Minister Voorhoeve, in conjunction with Foreign Minister Hans van Mierlo and Environment Minister Margreet de Boer, intends to invite a number of interested countries to hammer out a joint plan of action, aimed at eliminating the quantities of combat gases and chemical substances in Russia. The project is expected to require a total investment of several billions of guilders, according to present estimates." [See also 15 Jan]

28 February In Ireland, the Joint Oireachtas Committee on Foreign Affairs is told by Minister of State for the Marine Eamon Gilmore that the government is seeking a joint Anglo-Irish management plan for the Beaufort's Dyke munitions dump [see 8 Jan]. The minister says that information received from the UK Scottish Office had satisfied him that the recent beaching of old phosphorus munitions from the dump had indeed been caused by seabed gas-pipeline work, and that some munitions had been dumped outside the official dump zone [see 8 Jan]. He also says that the government's new Dumping at Sea Bill would enable ratification of the OSPAR Convention for Marine Environment Protection, and that exemptions from controls for military purposes would no longer be valid. Both Ireland and the UK would be responsible for preparation of a quality status report for the entire Convention area by the year 2000. (*Irish Times* 29 Feb)

29 February Iraq has by now transmitted to UNSCOM the fourth and latest version of the "full, final and complete disclosure" of its past chemical weapons programme. The declaration is in draft form. It includes as an attachment an account of

past radiological-weapons activities [see 15 Dec 95]. UNSCOM later reports: "Some areas of the declaration have improved but the latest draft is still incomplete in important respects. These include the level of expertise achieved in research and development activities on chemical weapons agents, synthesis methods, large-scale production techniques, weaponization and delivery systems. Full disclosures on precursor production capabilities and dual-use equipment located within the civilian chemical industry are also absent, as well as complete information on foreign suppliers to the programme." The UNSCOM report also comments on, in effect, Iraq's continuing failure to demonstrate that hidden VX capability does not exist: "[A]t the beginning of 1989, Iraq had in its possession the necessary quantities of precursors for the large-scale production of VX [see 16–20 Sep 95]. These precursors were stated by Iraq to have been unilaterally destroyed but until Iraq produces more evidence to substantiate this destruction, the Commission cannot be fully confident that VX production capabilities, stocks of precursors and appropriate munitions do not remain in Iraq." {S/1996/258}

29 February In Kuwait, doctors have observed an increase, since the Gulf War, in the incidence of asthma, pneumonia, hypertension, cardiovascular disease, diabetes and allergies. But there is no record of so-called Gulf War Syndrome. (Reuters 29 Feb)

1 March Chinese Premier Li Peng agrees to a proposal by Japanese Prime Minister Ryutaro Hashimoto that intergovernmental talks between their countries should begin at an early date in order to discuss ways to dispose of the chemical weapons abandoned by Japan in China [see 3 Jan]. This exchange takes place in Bangkok, in the margin of ASEM. {Jiji 1 Mar}

1 March The OPCW Provisional Technical Secretariat in The Hague now has a staff of 117 people from 47 states working on fixed-term contracts. As for the recruitment process for future OPCW inspectors, of the 158 candidates chosen for Training Group A from the 341 that were shortlisted from the 1692 applicants [see 17 Jan], countries of the Africa Group account for 13, the Asia Group 42, the Eastern European Group 30, the Latin American and Caribbean Group 13, and the West European and Others Group 60. These selectees, who will begin their training once 65 CWC ratifications have been deposited, come from a total of 58 member states, only 30 of which, however, have yet deposited their ratifications. Selection of the requisite 80 Group B trainees must be finalized by the time the CWC enters into force. {*OPCW Synthesis* Mar}

1 March In the UK, 18 of the country's 43 Home Department police forces begin the long-awaited [see 18 Jan] street-trialling of "CS incapacitant spray". This weapon is a small hand-held pressurized device that can squirt 30 ml of a solution of agent CS, the incapacitating irritant chemical, in a tight jet to a distance of three metres, to be aimed at the target-person's face: a weapon conceived as "one step up from the truncheon and one down from the gun". The CS is in 5 percent solution in methyl isobutyl ketone. The weapon is in use in France, where it is manufactured, and in Belgium, and is now being issued for a six-month trial period to 2500 police officers across the UK. There are said to be strict guidelines on the use of the spray, and instructions are also issued on how to treat people suffering from its effects. It is the first time that police on routine patrols in the UK have been equipped with a chemical weapon. {London *Daily Telegraph* 1 and 2 Mar, London *Times* 2 Mar, *Hansard (Commons)* 22 Mar and 3 Apr, *New Scientist* 30 Mar}

The first reported use occurs three days later, when Greater Manchester police employ the spray to subdue a 110-kilogram professional rugby player outside a nightclub {London *Times* 4 Mar}. The first instance of someone dying after being sprayed occurs two weeks later: a Ghanaian asylum-seeker arrested following a domestic disturbance and sprayed after being handcuffed. Whether the CS contributed in any way to his death is not yet established. {London *Sunday Telegraph* 17 Mar, *Guardian* 18 Mar and 14 May, *Independent* 24 Apr}

1–2 March In Bangkok, heads of state and government of 10 Asian countries and of the 15 European Union states assemble for ASEM, the first Asia–Europe Meeting [see 20 Feb]. The chairman’s statement issued at the close of the meeting records agreement that ASEM “emphasized its commitment to the non-proliferation and prohibition of biological and chemical weapons, in particular to the early entry into force of the Chemical Weapons Convention”. {BBC-SWB 5 Mar}

3 March In Algeria, the Ministry of Foreign Affairs (which is the acting coördinator of the National Committee for the CWC National Authority) conducts a technical workshop on implementation of the CWC. Participating are some 80 people from government institutions, chemical industry companies and related sectors, universities as well as associations and unions of private and public enterprises. [For further details, see *Progress in The Hague* above.]

4 March The UK government, asked in Parliament to make public details of the involvement of British companies in Iraqi weapons programmes as discovered by UNSCOM, responds: “UNSCOM has communicated to us in confidence the names of a number of British companies which may have been involved in supplying items found at sites associated with Iraqi programmes to develop weapons of mass destruction. UNSCOM does not make this information public, and it is important that we respect its confidence. UNSCOM considers that a high degree of confidentiality is essential to the successful performance of its work.” {*Hansard (Commons)* 4 Mar}

4 March In Washington, the Congress is urged to halt the US Army’s chemical-weapons incineration programme at a press-conference convened by the Chemical Weapons Working Group after its annual general meeting. The Group is a coalition of activist groups from communities living near the sites of the eight actual or planned chemdemil incinerators in different parts of the United States. It is advocating the development of alternative chemdemil technologies. {*BNA Chemical Regulation Daily* 6 Mar}

4 March The US Supreme Court rules that manufacturers of Agent Orange may not sue the Federal government to recover their costs of defending and then settling lawsuits by Vietnam-War veterans claiming damage from exposure to the herbicide [see 3 Apr 95]. With a 6–2 opinion, the court is upholding a 1994 ruling by the Court of Appeals. {*Washington Post* and *New York Times* 5 Mar}

4 March The US Army has just awarded a nine-year, \$575 million contract to Westinghouse Government and Environmental Services Company to destroy the 2250 agent-tons of chemical weapons held in Anniston, Alabama. Westinghouse will be building an incinerator at the storage site, with Bechtel National Inc as the prime construction subcontractor. Actual work is scheduled to begin on 1 August, with completion in early 1999. {AFP 4 Mar, *Montgomery Advertiser* 6 Mar}

4–29 March In Argentina, the government hosts an international training course for escorts for OPCW inspection teams. [For further details, see *Progress in The Hague* above.]

5 March In Cambodia, eight government soldiers engaged in the advance on the Khmer Rouge stronghold at Pailin, near the Thai border in Battambang province, have recently died after drinking water thought to have been poisoned by the rebels. {AFP 5 Mar}

5–9 March In Iran, military manoeuvres are conducted over a 200 square-kilometre region of Sistan va Baluchestan province with the participation of armour, heavy artillery, air defence and air force units, so the official news agency announces. Included is “repelling chemical attacks”. {IRNA 5 Mar}

6 March In Georgia the Supreme Council approves accession to the 1972 Biological Weapons Convention. {IPRINDA 6 Mar in FBIS-SOV 7 Mar}

6 March The Czech Republic deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 48th signatory state to do so.

6 March In the US Senate, the Judiciary Committee holds a hearing on inter-state transportation of human pathogens. It receives testimony on the ease with which individuals who have no legitimate scientific or medical objective can obtain pathogenic materials. Deputy Assistant Attorney General Mark Richard, in his prepared statement, provides details of the case of Larry Wayne Harris, who had been able to obtain bubonic-plague bacteria under false pretences [see 31 May 95]. He proposes that a register should be established listing every commercial and research laboratory that may legally handle biological agents, and that sale/shipment records should be kept that would be immediately available to the FBI and other agencies. He also proposes that the law implementing the Biological Weapons Convention in the United States should be strengthened to include an attempt, threat and conspiracy prohibition within its scope. The committee had previously received testimony on the bipartisan Kennedy–Kasich–Markey legislation now before the House of Representatives which is also aimed at strengthening that law. {Reuter 6 Mar} Afterwards, Chairman Orrin Hatch, joined by members of the Subcommittee on Terrorism, Technology and Government Information, calls for action in a letter to President Clinton: “Given the serious potential for diversion of harmful biological agents for terrorist purposes, we ask that you direct the Centers for Disease Control and Prevention to implement on a priority basis emergency procedures which will protect the American people against the threat of dangerous, diverted pathogenic materials.”

6 March US National Security Adviser Anthony Lake, during an address at George Washington University, enunciates principles governing US use of force. He starts from “one underlying and enduring principle: we will always be ready to use force to defend our national interests”. He then cites seven circumstances that may call for the use of force, among them: “To prevent the spread of weapons of mass destruction, terrorism, international crime and drug trafficking”. {London US Embassy *Official Text* 8 Mar}

6–8 March In Austria, a regional seminar on the CWC and its national implementation is hosted in Vienna by the government in coöperation with the OPCW Provisional Technical Secretariat. [For further details, see *Progress in The Hague* above.]

7 March In Jordan, a government spokesman announces that a consignment of spare parts and equipment for military aircraft bound for Iraq from Warsaw via Amsterdam and Amman has been impounded as a violation of UN sanctions. The shipment had been consigned to Al-Eiman Investment Group, whose chairman says that the goods were not of a military nature but were instead “agricultural sprinklers” destined for the Iraqi Ministry of Agriculture. They were to be used for spraying insecticide, and had been exported by the Pezetel company in Poland, which specializes in agricultural helicopters. This is the fourth time in five months that Jordan has announced that it has seized illegal goods bound for Iraq. {Compass 7 Mar, AFP 8 Mar}

7 March In the United States, at Palm Beach Circuit Court in Florida, an arbitration panel has now awarded \$0.4 million to a former Army sergeant, James Stanley, in compensation for prolonged physical, emotional and psychological problems caused in 1958 when he was unwittingly exposed to LSD during an Army/CIA experiment at Edgewood Arsenal. He had initially sued for damages in 1978, but the US government had taken the case right up to the Supreme Court, winning a 5–4 ruling on the grounds that the military enjoyed immunity. Congress passed a private claims bill in 1994 to redress his case. {*Palm Beach Post* 31 Jan, *Baltimore Sun* 7 Mar}

7 March The UN Security Council conducts its 30th 60-day review of the sanctions imposed on Iraq [see 5 Jan], leaving them in place. The US representative, Ambassador Madeleine Albright, had told the Council that there was “little indication that Iraq wishes to rejoin the community of nations”, for which reason the Security Council “must continue to hold Saddam Hussein to a rigorous standard”. She had also said: “We have ample and incontrovertible evidence that Saddam and his regime will break promises, disavow signatures, lie, cheat, bully, murder and put the interests of a select and privileged few over millions of desperate and oppressed citizens. That is why we don’t trust Iraq to give up its ultimate designs on Kuwait.” {*Reuters* 7 Mar, *Washington Times* 9 Mar}

7 March US Arms Control & Disarmament Agency Director John Holum, speaking to reporters about US ratification of the CWC, addresses the possibility of the CWC coming into force without the United States: “more likely”, he says, “is that the treaty will not go into effect until we ratify”. {*Federal News Service* 7 Mar}

7–11 March In Baghdad, UNSCOM Deputy Executive Chairman Charles Duelfer conducts consultations with senior Iraqi officials on the overall status of the Commission’s work. He welcomes Iraq’s continuing provision of documentation on its now-proscribed weapons programmes but cautions that stricter compliance with monitoring requirements is needed. During the period of his visit, there are two crises in Iraq–UNSCOM relations as Iraqi authorities deny access to sites chosen for unannounced inspection by UNSCOM 143. This mission, led by Nikita Smidovich of Russia, is the 39th ballistic-missiles inspection and is directed at a number of facilities suspected of being involved in efforts by Iraq to conceal items which should be declared to UNSCOM. In both instances — the first at a building in Baghdad belonging to the Ministry of Irrigation and Agriculture, the second at the Presidential Guard training camp at Sarabady — the stand-off is eventually resolved after meetings of the UN Security Council and telephone conversations between UNSCOM Executive Chairman Rolf Ekéus and Iraqi Deputy Prime Minister Tariq Aziz. {S/1996/258}

8 March China fires three East Wind 15 missiles from mobile launchers on the coast of Fujian province into the Strait of Taiwan, and has announced further military exercises in the same maritime region over the coming two weeks. The Taiwanese presidential elections are to take place at the end of this period. The further exercises will include live firing by navy and air force units. According to Taiwanese authorities, the missiles fired are of a type based on the old Soviet Scud missile and have a 600-km range with a half-ton warhead, which may be nuclear, chemical or conventional — though in this case all three missiles fired are said by Japanese authorities to have been carrying telemetry payloads. {*Reuters* 10 Mar}

8 March Chinese companies are “providing Iran with several virtually complete factories suited for making deadly poison gases” reports the *Washington Post* {8 Mar}, citing unidentified US officials. The report continues: “For more than a year, Washington has been monitoring a steady flow of Chinese chemical-related equipment to Iran, where it is being installed in new factories ostensibly meant to produce industrial chemicals for commercial use. But US officials say the factories have a covert military use and have already complained to Beijing about the assistance without avail... US officials said certain sensitive precursor chemicals...have been sold directly by Chinese firms to Iranian organizations affiliated with the military or the Revolutionary Guards... They said the sensitive equipment Iranian military-related organizations are buying from China includes glass-lined vessels...as well as special air filtration equipment.”

The officials are also reported as saying that the issue will be raised by White House national security adviser Anthony Lake during his meeting later in the day with Liu Huaqiu, the foreign affairs director of the Chinese State Council, who is on a seven-day visit to the United States. They note the possibility that the Chinese government may not in fact be fully aware of the extent of exports to the Iranian chemical-weapons programme [see also 27 Dec 95].

During the daily news briefing at the State Department, spokesman Nicholas Burns describes the *Post’s* story as “interesting” and expresses belief that Iran is engaged in acquiring chemical weapons; but he does not confirm the reported Chinese assistance. {*Federal News Service* 8 Mar} Nor does he do so on National Public Radio {15 Mar} a week later.

8 March Iraq transmits to UNSCOM a new version of the “full, final and complete disclosure” of its past biological weapons programme. The declaration is in draft form for UNSCOM comment, just as the latest chemical FFCD had been [see 29 Feb]. UNSCOM later reports: “In a number of important aspects, information contained in the recent draft does not match the current findings by the Commission. Unless rectified by Iraq in a convincing manner, such a situation will cause great problems in the verification of Iraq’s formal declaration.” UNSCOM also observes gaps, saying that it “is now particularly interested to receive from Iraq a final coherent statement on the integration of its biological weapons programme into Iraq’s military posture and a substantiated material balance of biological warfare agents and munitions from production to destruction”. {S/1996/258}

8 March US Arms Control & Disarmament Agency Director John Holum, speaking at the annual meeting of the Arms Control Association, touches on the present funding predicament of his agency. Congress has still not passed the FY 1996 State Department appropriations legislation, meaning that ACDA has

been running on a continuing resolution. This, Director Holum says, "provides just 47 percent of what the president requested for us to do the missions assigned to us". He continues: "We've taken crisis measures. No hiring. No overtime. No consultants. No training. No orders of new paper supplies. Strict controls on travel. This has meant shortchanging such matters as...expert support for UNSCOM's work in Iraq; verification expertise for CWC preparations in The Hague... So we have warded off efforts to make us disappear — only to face efforts to make us feeble." The continuing resolution expires on 15 March. {Federal News Service 8 Mar}

9 March Former UK prime minister Margaret Thatcher, speaking at Fulton, Missouri, to mark the fiftieth anniversary of Winston Churchill's "iron curtain" speech there, warns that the West is facing "the single most awesome threat of modern times" in the post-cold-war world. By this she means the danger of nuclear and CBW weapons falling into the hands of "rogue" nations led by "megalomaniacs and strongmen of proven inhumanity". She says: "In some instances, the potential capabilities at the command of these unpredictable figures is either equal to — or even more destructive than — the Soviet threat to the West in the 1960s. It is that serious." The control which the USSR had exercised over states such as Syria, Iraq and Libya had ended, so that they "have in effect been released to commit whatever mischief they wish". She calls for the West to protect itself with a global anti-ballistic-missile system. {PA 10 Mar}

10 March In Taiwan, harbour police in Kaohsiung acting on a tip-off have intercepted and impounded a shipment of chemicals consigned from North Korea to Pakistan, according to a local newspaper. Customs officials later say that the shipment had been found to include 15 tons of ammonium perchlorate, a rocket fuel. {DPA 10 and 12 Mar}

11 March In Kazakhstan, President Nursultan Nazarbayev receives Ambassador James Collins, coördinator of US policy in the CIS countries, who subsequently tells reporters that Washington is seeking to increase its investment in the Kazakh economy. He says that one of the projects under consideration is the conversion of what was once a large chemical weapons production facility in the central Kazakh region of Akmola, at Stepnogorsk. {Interfax 11 Mar}

11 March In the United States, the Centers for Disease Control and Prevention issues an advisory notice to the American Society for Microbiology warning of the possibility of terrorist activity involving biological agents and requesting increased vigilance against illicit access to them. The advisory says that the CDC will, after wide consultation, be proposing new federal regulations for acquisition and transfer of certain biological agents. In the meanwhile the CDC is asking that voluntary safeguards be applied by all those who authorize the acquisition or transfer of biologicals, namely that they should: (a) review all requests prior to transferring pathogens or toxins, particularly requests involving the agents of anthrax, botulism, brucellosis, plague, Q-fever or tularemia and any agents classified for work at Biosafety Level 4; (b) determine whether the agents to be transferred will be used for legitimate medical or scientific purposes; and (c) immediately report any suspicious inquiries or transactions to the CDC Office of Health and Safety. {PROMED 16 Mar} [See also 6 Mar]

11 March In the US House of Representatives, the Subcommittee on Human Resources and Intergovernmental Relations of the Committee on Governmental Reform and Oversight

holds the first of what is to be a series of hearings to examine the responses of the Department of Veterans Affairs to the unexplained illnesses afflicting thousands of Gulf War veterans. Subcommittee chairman Christopher Shays had said when announcing the hearings: "I want to make sure that the government is not dragging its feet on this matter for fear of the financial consequences as it did in the Agent Orange case following the Vietnam War". {FDCH Congressional Press Releases 15 Feb} For this first hearing there are three panels of witnesses. The first is a panel of Gulf War veterans. On the second are represented the National Persian Gulf War Resource Center, the President's Advisory Committee on Persian Gulf Veterans Illnesses, and the Institute of Medicine Committee to Review the Health Consequences of Service during the Persian Gulf War. Veterans organizations are represented on the third panel: The American Legion, Disabled American Veterans, Vietnam Veterans of America, Veterans of Foreign Wars, and Vietnam Veterans Agent Orange Victims Inc. {FDCH Congressional Hearings Summaries 11 Mar}

11–18 March At the United Nations in New York, Iraqi and UN negotiators conduct a second, and again inconclusive, round of talks on implementation of Security Council resolution 986 (1995) [see 6–19 Feb]. {Reuter 5 May}

12 March In South Korea, the cabinet approves a motion to ratify the Chemical Weapons Convention. The motion will be placed before the 15th National Assembly, after the general elections in April. The expectation is that the motion will be carried and the ratification process completed during the latter half of the year. {Yonhap 5 Mar in FBIS-EAS 7 Mar, Xinhua 12 Mar}

12 March In the United States, the National Research Council panel that is evaluating five different alternative chemdemil technologies [see 24–25 Apr 95 and 13 Nov 95] for the army is visiting stockpile locations where the technologies might be applied. The panel is now in Newport, Indiana, to hear from local citizens and for meetings with state officials. A week later it is in the neighbourhood of Aberdeen Proving Ground, repository of much bulk mustard gas. The Alternative Technology Panel is required to report by August on whether, when judged against baseline incineration chemdemil technology, any of the five alternatives should be advanced to pilot-project stage. {Indianapolis Star 11 Mar, Baltimore Sun 17 Mar}

12 March The US General Accounting Office releases an interim version of its assessment of the CBW defence preparedness of early-deploying Army and Marine Corps units {T-NSIAD-96-123}. It has found that these units all have shortages of critical equipment; that CBW defence research and development projects are often far behind schedule; that Army and Marine forces are inadequately trained for CBW defence; and that Army medical units are often deficient both in training and in equipment (such as vaccines). The GAO suggests that these problems stem from a lack of emphasis on anti-CBW preparedness that is likely to continue unless the Defense Secretary and the Chairman of the Joint Chiefs specifically assign a higher priority to it. The final GAO report is due in April. The study had been requested by the Research and Development Subcommittee of the House National Security Committee, which is today conducting hearings on the Defense Department's CBW defence work, in particular to review how well the measures to strengthen CBW defence included in the FY 1994 Defense Authorization legislation [see 30 Nov 93] have actually worked.

12 March The US Defense Department chemical and biological defence programme is described by its civilian and military leaders — Dr Theodore M Procviv and Maj-Gen George E Friel — during testimony before the House National Security Research and Development Subcommittee. And Rear-Admiral Scott A Fry of the Joint Staff describes progress in the Department's implementation of its strategy for countering the proliferation of weapons of mass destruction.

Dr Procviv, whose position is Deputy Assistant to the Secretary of Defense (Nuclear, and Chemical and Biological Defense Programs) (Chemical/Biological Matters), details the organizational changes that have been made following the FY 1994 authorization act and its requirement for closer integration and greater central direction of the CB defence activities of the different services [see 30 Nov 93]. He says in his prepared statement that the FY97 budget request for the Defense Department CB defence program — by which he means “all DOD RD&A efforts which develop and procure systems providing US forces the ability to deter and defend against chemical and biological agents” — is approximately \$505 million: \$297 million for RDT&E, and \$208 million for procurement. This request he explains as follows: “Important CB defense deficiencies were reported during and after Operation Desert Storm. Our overall CB defense program is focused on developing and fielding improved systems which overcome these deficiencies. BW detection is limited to basic point detection for fielded forces, with limited coverage of key air fields, and sea ports and logistics staging areas. Our current program concentrates on fielding early warning and improved point detection (better sensitivity and identification). CW detection is limited to nerve agent detectors with current technology limitations. The current program focuses on improved chemical detectors (point and stand-off) for full coverage of individuals, ships, and aircraft with better reliability, sensitivity, and additional agent detection capability. The current reporting and warning system is limited to manual systems with no integration into C³I systems and limited battlefield awareness software for incident display. An aggressive and innovative program to provide needed digitized & automated warning and reporting capabilities is in place. Individual protection places heavy heat and mobility burdens on the warfighter and current suits are at the limit of shelf life. Our current program will field suits with improved comfort and protection, and improved masks compatible with weapons systems' optical and comms systems. There are limited numbers of collective protective shelters. Current collective protection systems are based on outdated technology, with heavy logistics burdens. Technology is addressing needed improvements in collective protection with reduced logistical burdens. Medical countermeasures for both chemical and biological threat agents are limited; we currently have a limited vaccine production capability. Vaccines are the most effective and least costly protection from BW agents. Our FY97 budget request responds to these documented deficiencies and CinC requirements.” Dr Procviv then goes on to describe the modernization strategies that have been adopted for each of the defined CB defence missions: contamination avoidance (“visualization”), force protection, medical support, and decontamination (“restore combat power”). He closes with comments on the state of the industrial base on which the acquisition programmes rest. He concludes: “We are on the right azimuth for progress in fielding needed improved CB defense equipment to our forces”.

General Friel, who leads the US Army Chemical and Biological Defense Command, says in his prepared statement that the seriousness with which the threat of CBW is now taken is “re-

shaping our national military strategy and has resulted in a counterproliferation strategy that has, as a key component, a robust NBC defense capability to deter both development and use of these weapons”. The deterrence referred to here is not one that operates through threat of retaliation in kind (which has been expressly excluded from the national policy ever since May 1991 [see 13 May 91]), but works, he says, as follows: “If potential enemies know that our troops are well protected, then the use of such agents will be high risk with low payoff. This capability is vital to protect US Forces if deterrence fails and we encounter these weapons on future battlefields.” His statement goes on to detail the actions being taken to provide and update that capability within his command and through joint service structures.

Admiral Fry, who is Deputy Director, Strategy and Policy, in J-5 of the Joint Staff, says in his prepared statement that the regional commanders-in-chief “have been assigned the mission of countering the proliferation of weapons of mass destruction in their theaters”. Nearing completion is “an over-arching contingency plan for counterproliferation”. The plan is a combined effort by the Joint Staff, the CinCs and the Services: “It will provide the regional CinCs with the operational objectives and tasks that will guide the development of their theater strategies and contingency plans.” Meanwhile, the CinCs and the Joint Staff have established 14 priorities in order to “focus acquisition programs and prioritize funding with our warfighting CinCs' requirements”. These priorities he then lists, as follows: “(1) detection & characterization of BW & CW agents; (2) intercept cruise missiles; (3) defeat underground targets; (4) characterization & identification of underground targets; (5) collect & analyze intel; (6) passive defense enabling operations; (7) support for operations in NBC environment; (8) production of BW agent vaccine; (9) planning and targeting for above-ground infrastructure; (10) agent defeat; (11) detect & track shipments; (12) prompt mobile target kill; (13) support for Special Operation Forces; and (14) locate, detect, & disarm weapons of mass destruction in CONUS and OCONUS.” He explains briefly what each of these covers.

12 March In the US House of Representatives, the National Security Research and Development Subcommittee takes evidence on Defense Department and interagency planning and preparedness for response to terrorist use of CBW weapons within the United States. Among the governmental and other agencies providing testimony is the Federal Bureau of Investigation, which has been directed by the president to be the lead agency for crisis management of a terrorist event. The responsibility of the FBI is thus for all the measures required to confirm the threat, investigate, gather evidence, locate and capture the terrorists and their weapons, and prosecute the terrorists under federal law. In the prepared statement of Robert M Blitzer, its acting section chief for domestic terrorism, the FBI testifies that “our investigations in the United States reveal no intelligence that state sponsors of terrorism, international terrorist groups, or domestic terrorist groups are currently planning to use these deadly weapons in the United States”. It details several past incidents, however, including numerous hoax threats. One incident was the attack with *Salmonella* bacteria by two members of the Rajneesh religious sect, for the purpose of influencing a local election, on restaurants in Oregon in 1984 in which 715 people were affected, none fatally. Another was the 1992 ricin plot, which led to the first set of prosecutions under the BWC implementing legislation [see 20 Dec 95]. The FBI testimony goes on to explain at length how the CWC implementing legis-

lation will substantially augment existing law-enforcement efforts to fight chemical terrorism.

Also testifying is the Federal Emergency Management Agency, in charge of consequence management. This means that the FEMA is responsible for coordinating federal resources to assist state and local governments in responding to a terrorist event, and for measures to restore essential government services, to protect public health and safety, and to provide emergency assistance to affected governments, businesses and individuals. In the prepared statement of G Clay Hollister, the deputy associate director of the FEMA Response and Recovery Directorate, FEMA testimony includes reference to an exercise called CIVEX conducted in 1993 in which federal, state and city officials had worked through a simulated terrorist incident involving the release of anthrax germs in the New York City subways.

The Defense Department testimony, in the prepared statement of Brigadier Thomas Swain, Deputy Assistant Secretary of Defense for Policy and Missions, includes a caution against exaggerating the nature of the CB terrorist threat: "The ability to create mass casualties by using chemical and biological weapons depends on many factors. Finding the right agent, weaponizing the agent, delivering the agent in an effective manner, and waiting for the optimal meteorological conditions would be a challenge to any terrorist group. We just need to keep in perspective the reality of recent and potential events." The Department, which is required both by law and by executive order to have an effective Combatting Terrorism Program, pursues both Antiterrorism and Counterterrorism: AT means defensive measures employed to protect personnel and facilities against a terrorist incident, while CT refers to offensive capabilities. Policy and planning for both rest with the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict. There is a substantial CT-technology R&D effort largely funded by the Department. Furthermore, according to the testimony, CT response capabilities "are routinely exercised from the tactical to the national level", and Defense Department special mission units "frequently train and exercise with foreign CT units". The Department treats chemical and biological terrorism as separate and distinct threats in order to ensure that its preparedness for either one of them is properly responsive.

13 March The Executive Secretary of the OPCW Preparatory Commission issues a paper {PC-XIII/5} listing tasks that will fall to the first session of the OPCW Conference of States Parties; it had been requested by the Commission during its twelfth plenary session. He also issues a paper {PC-XIII/6} on the status of the Commission's work in which he identifies and categorizes all the tasks assigned to the Commission by the Paris Resolution and records what remains to be done on each one by the Secretariat and by the Commission.

13 March In the US Senate, the Foreign Relations Committee begins its new round of hearings on the Chemical Weapons Convention, abruptly rescheduled so that the main administration testimony will come last rather than first. The committee has invited testimony for what is now the opening session from four nongovernmental witnesses: Amoretta Hoerber, former Deputy Under Secretary of the Army, Baker Spring of the Heritage Foundation, Dr J D Crouch II, former Principal Deputy Assistant Secretary of Defense for International Security Policy, and Michael Moodie, President of CBACI. All but the last speak strongly against the treaty.

13 March The US Senate Governmental Affairs Permanent Subcommittee on Investigations, which is chaired by Senator Roth and of which Senator Nunn is ranking minority member, resumes its examination [see 1 Nov 95] of the threat posed by the proliferation of weapons of mass destruction. It conducts the first of a series of three further hearings, the topic of this opening one being the dangers of leakage of weapons of mass destruction from the former Soviet Union. Several mechanisms are examined, ranging from actual illegal trafficking in nuclear materials to weapons scientists finding employment abroad. Testifying are people from the General Accounting Office, the National Academy of Sciences, and nongovernmental research institutes. The testimony is mostly on nuclear weapons, as with Graham Allison, director of the Center for Science and International Affairs, Harvard University, presenting his institute's new policy study, *Avoiding Nuclear Anarchy: Containing the Threat of Loose Russian Nuclear Weapons and Fissile Material*.

Also among those testifying is Glenn Schweitzer, formerly Executive Director of the International Science and Technology Center in Moscow [see 31 Mar 95], which exists for the express purpose of, as he puts it, "providing challenging civilian alternatives for former weapon scientists", not just nuclear ones. In his prepared statement he presents an estimate developed in consultation with Russian colleagues that, of the million or more scientists and engineers who participated in USSR programmes to develop weapons of mass destruction and delivery systems for them, "about 60,000 should be of proliferation concern because of their unique knowledge of weapon systems", that 60,000 being made up of "on the order of 30,000 from the aerospace industry, 20,000 from the nuclear industry, and 10,000 from the biological/chemical warfare programs". Dr Schweitzer testifies further that most of those "core 60,000" remain affiliated with state institutions. "Only a very small number have emigrated from Russia — primarily to Israel, Western Europe, and the United States... The overwhelming majority...have no interest in participating in proliferation activities which are not sanctioned by their governments, and they could not be tempted to collaborate on their own with rogue states regardless of their financial plight." But, he continues, economic conditions continue to decline, and "only a handful of disaffected specialists could cause grave problems with global implications".

13 March Brazil deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 49th signatory state to do so.

14 March In Iraq, the ruling regime in Baghdad has transferred thousands of documents on CBW weapons in sealed boxes to prisons throughout the country in an attempt to hide them from UNSCOM, according to a report by the Supreme Assembly of the Islamic Revolution in Iraq. {BBC-SWB 16 Mar}

14 March The US House of Representatives finally adopts its version of the anti-terrorism legislation [see 30 Nov 95] originally proposed by the administration in the aftermath of the Oklahoma bombing. The legislation now passes to House-Senate conference. The House bill no longer empowers the military to aid the civil power in cases involving CBW weapons as the military currently may for nuclear weapons, but it would federalize crimes involving the transfer or acquisition of biological weapons. This provision derives from a bipartisan amendment taking in the Kennedy-Kasich-Markey bill [see 6 Mar] seeking to amend the BWC implementing legislation — the 1989 Biological Weapons Anti-Terrorism Act [see 22 May 90] — so as to make it illegal to develop, acquire or attempt to pur-

chase biological agents with the intent to kill or injure or use them as a weapon {*Congressional Record* 6 Mar 96 pp E290-1}. The basis for an analogous amendment to the Senate version exists in a similar bill, S.1606, recently introduced by Senators Hatch, Feinstein, Thurmond, DeWine, Kohl and Biden [see also 6 Mar] {*Congressional Record* 12 Mar pp S1862-5}.

14 March The Washington embassy of the Argentine Republic organizes a colloquium in conjunction with CBACI on *Chemical Security in the Americas: The Importance of CWC Ratifications*.

16–17 March In Riyadh, the foreign ministers of the Gulf Cooperation Council member states (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the UAE) convene for the 58th session of the Ministerial Council. In the statement issued at the close of the session, the Council includes an accusation that Iraq is “still producing bacteriological epidemic-causing weapons liable to inflict heavy losses on Iraq itself and the region”. The Council also “expresses concern over attempts by the Iraqi regime to exploit some border corridors to smuggle in material to develop weapons of mass destruction”. The statement urges the international community to “continue exerting pressure on the Iraqi government until Iraq completes the implementation of Resolution 687 and other relevant resolutions of international legitimacy”. {SPA 17 Mar}

18 March In Saratov oblast, where local environmental-protection authorities have long been resisting Russian Defence Ministry plans for the chemdemil facility in Gornyy [see 6 Jul 95], the two sides have just reached a compromise and signed an agreement. The initiative for securing further progress in the destruction of the Gornyy mustard gas and lewisite now passes back to Moscow, in particular to the State Duma. {Russia TV 18 Mar in BBC-SWB 20 Mar}

18 March In Chechnya, separatist leader Dzhokhar Dudayev says in a television address that the war of secession may move onto Russian territory and that all types of weapon may be used in it, “including chemical and bacteriological weapons”. He states: “I will bear no responsibility for what means of warfare are used, even if they go beyond the bounds of international conventions”. {Interfax 19 Mar in FBIS-SOV 20 Mar}

In Moscow, the commander of Russian RKhB Troops, Col-Gen Stanislav Petrov, tells reporters that there have not been and are no chemical weapons in Chechnya, and that Dudayev’s threats to use them are therefore groundless. {ITAR-TASS 18 Mar}

18 March In the UK House of Lords, the bill to implement the CWC reaches the report stage, having been through committee on 27 February. Once again with a view to securing further transparency for the operation of the new legislation while at the same time safeguarding commercial confidentiality, the opposition spokesman, Maurice Peston, proposes a further amendment to the bill, one that would expand its provisions for the statutory annual report to Parliament [see 6 Dec 95]. The Royal Society of Chemistry, the Chemical Industries Association and the Department of Trade & Industry have in the meanwhile agreed a common position on the issue {*Chemistry in Britain* Apr}, and this is duly reflected both in the speech of Lord Peston and in the government’s express acceptance of the principle underlying the amendment. {*Hansard (Lords)* 18 Mar} The substance of the legislative process enabling UK ratification of the CWC is now complete; only formalities remain to be finished.

18 March The US Army has awarded a \$9.48 million 3-year contract to Fibertek Inc for two prototypes of the Short Range Biological Standoff Detection System. This is a vehicle-mounted LIDAR system for detecting and tracking biological aerosol clouds. {*Defense News* 18 Mar}

18 March The US government believes that North Korea would use chemical weapons and long-range artillery if it were to attack South Korea, but it does not currently regard such an attack as likely, according to an unidentified administration official. He says that North Korea has “a fairly sizable stock of...chemical munitions that could greatly complicate any sort of battlefield scenario for us, our key allies and also for the Japanese”. He says, further, that the chemical munitions are probably “in the form of warheads” for loading on such arms as Scud missiles; “I don’t know if they’re deliverable, but [North Koreans] have the potential to do that”. {Kyodo 18 Mar}

18 March In the US Department of Commerce budget for FY 1997, the Bureau of Export Administration is asking for \$3.6 million and 38 people for CWC implementation. Explaining this, given that the US has still to ratify the treaty, the department’s Under Secretary for Export Administration, William Reinsch, tells reporters about the CWC obligation to submit data-declarations within 30 days of entry into force: “We’re looking at a 7–8 month window for getting ready. Getting ready is significant for chemicals; this is a serious convention that imposes on chemical companies in this country, which we estimate now is a universe of about 3000, a significant reporting and data-collection responsibility.” He explains that BXA is charged with domestic outreach and compliance [see also 5 Apr 95]; its duties here include receiving and processing data from companies, and also accompanying international inspectors on site visits. {*BNA Daily Report for Executives* 19 Mar}

18–22 March In The Hague, the OPCW Preparatory Commission reconvenes for its thirteenth plenary session [see 11–14 Dec 95]. Representatives of 87 of the 160 member states participate. [For further details, see *Progress in The Hague* above.]

19 March In China, US Deputy Assistant Secretary of State Robert Einhorn arrives for talks with Foreign Ministry and other officials. {Kyodo 19 Mar} He reportedly raises the issue of Chinese sales to Iran of CW-related goods [see 8 Mar], an issue which is closely intertwined with Chinese–Pakistani nuclear and missile coöperation; but is later said to have “got nothing”. {*International Herald Tribune* 25 Mar}

19 March In Uganda, where President Yoweri Museveni tells a press conference of his intention to crush the Lord’s Resistance Army (which is an insurgent movement in the north of the country led by former Roman Catholic catechist Joseph Kony), the LRA issues a statement accusing the president of planning to use chemical weapons. The statement cites “reliable intelligence information” to assert that chemical weapons have already arrived at Dar es Salaam, in neighbouring Tanzania, for the Ugandan army. {AFP 19 Mar} The consignment, later reported to be from China and to include “anthrax gas”, is said to have been transported to 4th Division headquarters at Gulu in northern Uganda. {*Indian Ocean Newsletter* 20 Apr}

20 March UNSCOM Executive Chairman Rolf Ekéus briefs, for the first time, a committee of the US Congress — the Senate Governmental Affairs Permanent Subcommittee on Investigations, which is today conducting the second of its new series of hearings on the *Global Proliferation of Weapons of Mass De-*

struction [see 13 Mar]. He speaks of the work of UNSCOM in disarming Iraq of its weapons of mass destruction. He could not yet be certain that this task was complete, for Iraq had said that it had unilaterally destroyed some of these weapons after the Gulf War and had not yet successfully demonstrated that it had in fact done so. Examples included 50 CW warheads and 25 BW warheads for Scud missiles. Moreover, "at least 6 and up to 15 or 16" of the missiles produced by Iraq (as opposed to the 880 Scuds which Iraq imported from the USSR) remained unaccounted for; UNSCOM suspects that they may be hidden on special trucks that are frequently moved in order to escape detection. Ambassador Ekéus says: "I think that they put enormous value to the option of keeping or acquiring NBC weapons and the capability to deliver them". He points to the \$75 billion in oil revenues which Iraq has forgone these past five years by choosing not to disclose the full extent of its weapons programmes in order to end the UN sanctions. {UPI, Reuter and DPA 20 Mar}

21 March In Manila, the Chief of the Armed Forces of the Philippines, General Arturo Enrile, denies an allegation that his forces have been using nerve gas against the Moro Islamic Liberation Front. He says: "There is no nerve gas in the inventory of the AFP. The AFP also abhors the use of such weapons." {Manila *Business World* 22 Mar}

21 March In Russia, the government issues an edict formally adopting the federal programme for the destruction of chemical weapons in the Russian Federation that had earlier been approved in draft [see 26 Oct 95]. The edict designates the Ministry of Defense as the state procuring agency for the chemdemil programme, and requires the Economics and Finance Ministries to include the programme in the list of those that are to be funded from the federal budget. {*Krasnaya Zvezda* 27 Mar} The programme itself is set out in detail in an attachment to the edict.

21 March In the US Senate, the Foreign Relations Committee continues its new round of hearings on the Chemical Weapons Convention [see 13 Mar]. The committee has invited testimony today from four witnesses, two of whom speak against the treaty: Douglas Feith, Deputy Assistant Secretary of Defense for Negotiations Policy during the Reagan administration, and Kathleen Bailey of Lawrence Livermore National Laboratory but presenting her own views. Testifying in support of the treaty are Brad Roberts of the Institute for Defense Analyses, and Fred Webber, President of the Chemical Manufacturers Association.

22 March In Moscow, US Secretary of State Warren Christopher and Russian Foreign Minister Yevgeny Primakov conclude two days of talks. Among the matters discussed were questions both of biological weapons and of chemical weapons.

22 March In Windhoek, Namibia, the ACP–EU Joint Assembly, which has been in session all week, adopts resolutions on arms issues, one of them {ACPEU/1785/96/fin} being on chemical weapons. This urges African, Caribbean and Pacific countries, and European Union member-states, to take the actions required for signing, ratifying and implementing the Chemical Weapons Convention. To this end, it calls upon EU member-states "to provide the necessary technical, legal and financial assistance to the ACP countries". {Agence Europe 1 Apr}

22 March US Under Secretary of Defense for Acquisition and Technology Paul Kaminski, in a letter to senior service officials, assigns to the Marine Corps lead responsibility for coördinating

the development and acquisition of "non-lethal weapons" for all the military services.

Dr Kaminski also directs the services to reprogramme \$5.2 million of FY 1996 funding into particular NLW development and procurement projects, for, although the FY 1996 authorization had included \$37.2 million for NLW, this has not been appropriated. Among the projects supported by the reprogramming directive is the procurement of several chemical NLWs: 1392 Mk46 OC Riot Extinguishers at \$246 each, mostly for the Marine Corps; 12,127 Mk9 OC Riot Dispensers at \$15 each, mostly for the Army; 16,233 Mk4 OC Riot Dispensers at \$8 each, solely for the Marines; and 1200 "CS OC grenades" at nearly \$31 each, solely for the Air Force. {*Jane's Defence Weekly* and *Defense Daily* 27 Mar} [Note: 'OC', standing for oleoresin capsicum, designates a formulation of capsaicin, which is the active ingredient of red pepper. In that capsaicin is a toxic substance of biological origin, OC is a toxin within the meaning of the Biological Weapons Convention — though, of course, provided it is intended for peaceful purposes, it may legitimately be developed, produced or stockpiled by parties to the Convention.]

22 March US government support for Russian chemdemil and conversion of former Soviet BW facilities is described by Principal Deputy Assistant Secretary of Defense for International Security Policy Frank Miller in testimony to the Senate Governmental Affairs Permanent Subcommittee on Investigations, which is today conducting the third of its new series of hearings on the *Global Proliferation of Weapons of Mass Destruction* [see 20 Mar]. In his prepared statement, Miller testifies that the Defense Department "intends to provide assistance in the form of equipment, services, and training" for the creation of a chemdemil facility for destroying artillery munitions charged with organophosphorus agent; he outlines something of what has thus far been achieved in joint US-Russian work on the project. He also testifies that the US and Russia are "discussing working together to permanently convert the Khimprom Chemical Complex production facilities at Volgograd in accordance with the CWC". On BW conversion, he mentions the recent US proposal to the Kazakhstan government for a cooperative project to eliminate biological-weapons production infrastructure at the BioPreparat complex at Stepnogorsk [see 13 Nov 95]. All these projects are Cooperative Threat Reduction (Nunn–Lugar) initiatives.

23 March The US National Academy of Sciences Institute of Medicine has just published a report which suggests that US troops exposed during the Vietnam War to Agent Orange may be at greater risk of developing neurological disorders and of having children with spina bifida. Also, the report confirms the results of a 1994 study which showed that veterans have a higher risk of non-Hodgkin's lymphoma, Hodgkin's disease, soft-tissue sarcoma and chloracne. One of the report's authors, David Tollerud, says: "We still do not know the precise degree of risk from Agent Orange exposure for individual Vietnam veterans, but the base of research has improved. The newest studies give us hope that researchers are getting closer to answering the lingering questions about the health effects of herbicide exposure". {*New Scientist* 23 Mar}

25 March In Suva, Fiji, representatives of France, the United Kingdom and the United States sign protocols to the 1985 Treaty of Rarotonga. The three nuclear-weapon states thereby join China, Russia and the regional states parties as accepting the obligations of the South Pacific nuclear-free zone. {*Interna-*

tional *Herald Tribune* 26 Mar} They have thus committed themselves to refraining from any use of nuclear weapons in the region, even against states parties that have used or threatened to use other weapons of mass destruction.

26 March The Irish government, in its new *White Paper on Foreign Policy*, indicates its hope that Ireland will ratify the CWC [see also 6 Feb]. {*Irish Times* 27 Mar}

26 March In the US Senate, the Foreign Relations Committee meets in closed session to receive an intelligence-community briefing on the verifiability of the CWC [see also 21 Mar]. The briefers are John Lauder, chief of the DCI Arms Control Intelligence Staff, and Maj-Gen John Landry, National Intelligence Officer for General Purpose Forces.

27 March In Japan, Tokyo District Court passes sentence on the first of the 13 members of Aum Shinrikyo thus far indicted in connection with the Matsumoto and Tokyo-subway nerve-gas attacks [see 16 Jul 95]. Seiji Tashita receives a seven-year prison sentence for his part in the preparation of six litres of sarin at a facility in Kamikuishiki on the night of 19 March 1995. {*Japan Times* 27 Mar}

27 March UK Gulf War veterans with unexplained illnesses, in 14 cases studied and compared with civilian controls, are suffering from a form of nerve damage, according to a paper published in the *Journal of Neurology, Neurosurgery and Psychiatry* by Dr Goran Jamal of the Institute of Neurological Sciences at Southern General Hospital, Glasgow. Dr Jamal, who began his study of the so-called Gulf War syndrome in December 1994, speaks to a television interviewer of his suspicion that an important contributory factor could have been the nerve-agent pretreatment tablets containing pyridostigmine taken in large numbers by UK (but not French) service personnel during the Gulf War, a theory which he is examining more closely in the second phase of his study. There is no immediate comment from the UK Defence Ministry. {London *Guardian* and DPA 27 Mar, *USA Today* 28 Mar}

27 March In New York, the UN Security Council adopts resolution 1051 (1996) which approves an export/import monitoring mechanism to ensure that Iraq does not reconstitute its programmes for weapons of mass destruction and demands that Iraq meets its obligations under this 'EXIM regime' [see 6 Dec 95]. The resolution also approves the establishment of a joint UNSCOM/IAEA unit at UN headquarters to operate the regime and to receive any other pertinent information that states may wish to transmit. States are called upon to adopt national measures to implement the mechanism as soon as possible. Iraq is required to submit its first notifications (of dual-use imports) to the Joint Unit within 60 days. {SC/6197}

27 March In the United States, the director of the intelligence community's Nonproliferation Center, Gordon Oehler, reports to the Senate Armed Services Committee on *The Continuing Threat from Weapons of Mass Destruction*. A major theme of the report is developed from the experience of the Japanese Aum Shinrikyo sect: "Extremist groups worldwide are increasingly learning how to manufacture chemical and biological agents, and the potential for additional chemical and biological attacks by such groups continues to grow". Data on Iraq's CBW weapons programme — mostly already familiar from UNSCOM reports — are presented as a country study of the complexities faced by international efforts to curb the spread of CBW weapons. The report also sets out, in general terms, ways in which

the intelligence community is planning to contribute to efforts to counter the threat.

27 March In the US Senate, the Governmental Affairs Permanent Subcommittee on Investigations conducts the final hearing in its new series on the *Global Proliferation of Weapons of Mass Destruction* [see 22 Mar]. Witnesses have been invited to address US preparedness for dealing with a nuclear or CBW terrorist incident or terrorist threat at home or abroad [see also 12 Mar, House of Representatives]. Among those testifying is Dr Billy Richardson, predecessor in office to Dr Ted Procvic [see 12 Mar]. In his prepared statement he proposes mechanisms for bringing the experience and resources of the Army's CBW defence laboratories, Edgewood Research and Development Center, more fully to bear on antiterrorist preparedness.

28 March Libyan leader Muammar Gaddafi, in a public speech, says that Arab countries have a right to possess both chemical and biological weapons [see also 26 Feb] "as long as the Israelis own these internationally banned arms and nobody can force them to abandon their destructive arsenal". {JANA in Reuter 30 Mar}

28 March In Belgium, the House of Representatives adopts a bill to ratify the Chemical Weapons Convention. The Senate had done so on 25 January. The parliamentary stages of the Belgian CWC-ratification process are now complete.

28 March The UK Parliament receives the first annual report from the Intelligence and Security Committee which was established under the Intelligence Services Act 1994 to examine the expenditure, administration and policy of the UK's three intelligence and security agencies, namely the Special Intelligence Service, Government Communications Headquarters, and the Security Service, and to report directly to the Prime Minister and, through him, to Parliament. The report comments approvingly on the way in which the "reductions in the Agencies' work on the former Soviet Union...have released resources to work on the newer 'functional' targets such as proliferation and serious organised crime". {Cm 3198}

28 March In the UK House of Commons, the Defence Committee publishes the report of its inquiry into the nature and extent of current and potential threats to NATO emanating from its southern flank. One of its recommendations is: "If chemical and biological weapon proliferation cannot be controlled — and production is not particularly difficult — the current low risk of attack may increase substantially in future years. We recommend that NATO countries should pay close attention to the long term threat of terrorist use of biological and chemical weapons and should develop appropriate counter measures." The committee also recommends "that the Government continues its own work on ballistic missile defence and seeks to promote the consideration of a multi-national approach within the NATO forum". {HC papers (1995–96) 300} The government later says it welcomes the report and is studying its recommendations. {HC papers (1995–96) 407}

28 March In the US House of Representatives, the Shays subcommittee holds a further hearing on Gulf War veterans' illnesses [see 11 Mar]. Testimony is taken from Dr Howard Urnovitz [see 14 Dec 95] who presents findings from a new study indicating that some veterans of the Gulf War do not show the expected antibody response to oral polio vaccine, which may indicate damage to their immune system. {Gannett 27 Mar}

28 March In the US Senate, the Foreign Relations Committee concludes its new round of hearings on the Chemical Weapons Convention [see 26 Mar], finally taking evidence from the administration. {*Arms Control Today Mar*} Testifying are Secretary of State Warren Christopher, Secretary of Defense William Perry, and Lt-Gen Wesley Clark, Joint Staff Director of Strategic Plans and Policy, on behalf of the Chairman of the Joint Chiefs of Staff, General John Shalikashvili. Accompanying them are USACDA Director John Holum and Assistant Defense Secretary for International Security Policy, Ashton Carter.

Secretary Perry, in his prepared statement, reaffirms the national policy renouncing chemical warfare set by President Bush in May 1991, and he also promises that his department "will maintain a robust chemical defense capability supported by aggressive intelligence collection efforts". In his oral statement he says: "as we stated during the Gulf War, if any country were foolish enough to use chemical weapons against the United States, our response would be absolutely overwhelming and devastating", and, in determining the response, the "whole range [of military capabilities] would be considered".

On the position of 'riot control agents' under the Chemical Weapons Convention, Secretary Perry reaffirms the interpretations which, after interagency review, President Clinton had transmitted to the Senate nearly two years previously [see 23 Jun 94], including the question of what the ban on use of RCAs "as a method of warfare" contained in Article I.5 of the treaty actually means. The administration had decided that the prohibition applied only to international and internal armed conflict; it did not restrict the use of RCAs in peacetime operations. The Defense Secretary's prepared statement says: "[T]he CWC does not prohibit the use of RCAs in riot control situations in areas under direct and distinct US military control, to include controlling rioting prisoners of war, and in rear echelon areas outside the zone of immediate combat to protect convoys from civil disturbance, terrorist and paramilitary organizations. The CWC does prohibit the use of RCAs solely against combatants and, according to the understanding of our allies and treaty signatories, even for humanitarian purposes in situations where combatants and noncombatants are intermingled." The statement reaffirms what President Clinton had said about that "understanding", namely that, if it were to change, "the United States would not consider itself bound by this position". General Clark testifies to the Committee that, although the Joint Chiefs of Staff, who had last considered the question on 19 July 1995, "would have preferred to preserve all four options for the use of riot-control agents which were contained in Executive Order 11850, we agreed with the administration that the benefits of the treaty outweighed the importance of preserving the two disputed options". General Clark adds: "[T]here are still many opportunities for the use of these riot control agents, for example in Somalia. In peacekeeping operations under Chapter VI, Chapter VII UN operations, of course, the provisions of this convention don't apply, and we would be able to use riot control agents...it's my understanding that we could use riot control agents in Bosnia."

USACDA Director Holum says he expects that the Office of the National Authority [see 23 Nov 93], for which his agency is to be responsible, will need a staff of 10–15 people and an annual budget of about \$1.7 million. {FDCH Political Transcripts 28 Mar}

28–30 March In Hungary, a NATO Advanced Research Workshop on *The Technology of Biological Arms Control and Disarmament* takes place in Budapest under the co-direction of

Michael Moodie of the Chemical and Biological Arms Control Institute, Alexandria, and Ambassador Tibor Tóth, Deputy Secretary of the Ministry of Defence.

29 March US involvement in Russian CBW-related demilitarization activities is the subject of testimony before the Senate Armed Services Subcommittee on Strategic Forces. Deputy Assistant Secretary for Threat Reduction Policy Susan Koch refers in her prepared statement to the US–UK–Russia trilateral process on biological weapons [see 13 Dec 95, US Congress], which is still seeking agreement on how to implement the agreed visits to military biological facilities. In speaking of her department's Cooperative Threat Reduction Program, Dr Koch says that the US government intends "to provide assistance in the form of equipment, services and training for the creation of a CW destruction facility to destroy artillery munitions with organophosphorous agent" [see also 22 Mar US government]. She also says that the Russian–American Joint Evaluation Project has now validated the effectiveness of the Russian two-stage chemical agent destruction process [see 12–21 Feb]. The FY 1997 budget request includes \$78.5 million in additional funding for chemical-weapons destruction in Russia, a programme which Congress had cut back in its action on the FY96 budget [see 13 Dec 95].

29 March The US Defense Department's chemdemil programme accounts for about \$933 million of the FY 1997 budget request, according to the prepared statement of Dr Theodore Prociv before the Senate Armed Services Subcommittee on Strategic Forces: \$49 million for research, development and testing support; \$274 million for procurement requirements; \$478 million for operations and maintenance; and \$132 million in the military construction account. The chemdemil programme comprises four projects: the Chemical Stockpile Disposal Project (CSDP), the Chemical Stockpile Emergency Preparedness Project (CSEPP), the Non-Stockpile Chemical Material Project (NSCMP) including binary-munitions chemdemil, and the Alternative Technologies and Approaches Project.

29 March The US Defense Department's arms control budget for FY 1997 includes \$77.8 million in direct support of planning, preparations and implementation of the two CW agreements, namely the June 1990 Bilateral Destruction Agreement (not yet in force) and the Chemical Weapons Convention (expected, for "planning purposes" to enter into force by March 1997), according to the prepared statement of Dr Kent Stansberry, the Deputy Director for Arms Control Implementation and Compliance in the Office of the Under Secretary of Defense for Acquisition and Technology, before the Senate Armed Services Committee. Another \$2.4 million is budgetted for BW arms control.

30 March In Thailand, the white paper on the Royal Thai Armed Forces includes this: "Even though nuclear, biological and chemical weapons are not widespread nor developed in this region, some countries may acquire biological and chemical weapons in the future because of their low price and devastating effect. Therefore preparation of equipment and training in nuclear, biological and chemical warfare protection must be undertaken." {*Bangkok Post* 31 Mar}

1 April The UK Chemical and Biological Defence Establishment at Porton Down, which is now becoming an increasingly commercial enterprise, is renamed the "Protection and Life Sciences Division" of the Defence Evaluation and Research Agency. It now subsumes the Centre for Human Sciences at Farnborough as well as the Defence Radiological Protection

Service based at Alverstoke. The Ministry of Defence tells Parliament that the function of the establishment "remains unchanged", but it then goes on to state that the "mission for the new division will be to provide a comprehensive and integrated approach to protecting the human being in military environments and optimising their [*sic*] military effectiveness". The statement makes no mention of any future role for Porton in connection with the Chemical Weapons Convention or the Biological Weapons Convention. {*Hansard (Commons)* 2 Apr}

2 April The US Defense Department publishes a new report from its Comprehensive Clinical Evaluation Program (CCEP) for Persian Gulf war veterans [see 1 Aug 95 and 4 Jan]. It reports on the results of medical evaluations of 18,598 of the 27,000 people enrolled in the programme. Assistant Defense Secretary for Health Affairs Stephen Joseph tells reporters: "One key finding is that, to date, we have found no clinical evidence for a previously unknown serious illness or 'syndrome'". He says that the Department is now building upon knowledge gained from the CCEP study to conduct "cluster analysis, epidemiological studies and other research projects in an effort to further our understanding of the exposures, symptoms and illnesses experienced by Gulf War veterans". And he says: "There is absolutely no persuasive evidence that chemical or biological weapons are associated" with the condition of those veterans [see also 14 Feb]. {DoD News Briefing 2 Apr}

2-3 April In Vienna, representatives of the 28 states participating in the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies [see 18-9 Dec 95], now joined by Argentina, Romania and South Korea, convene for their inaugural plenary session. Russia declines to join a consensus whereby participating states would notify one another of export licences within 60 days of issue. The meeting is thereupon suspended until July, and the projected Wassenaar secretariat remains unestablished. {*Arms Trade News* Apr}

2-4 April In Cairo, US Defense Secretary William Perry is visiting for high-level talks with the Egyptian government on regional security issues. He tells reporters as he arrives that he will be "voicing our concern with Libya's development of chemical weapons", continuing: "I want to be sure the Egyptian government understands what our assessment is and what our concern is about the factory". Reporters are told that US intelligence officials have for more than three years watched via spy planes and satellites a tunnel being bored into the side of a Libyan mountain in order to house and protect a chemical-weapons factory [see 26 Feb, see also 28 Mar]. {UPI 2 Apr}

After meeting with President Hosni Mubarak, Secretary Perry says to reporters: "I showed him photographs and they demonstrate that the Libyans are not now producing chemical weapons but they have an extensive program underway to develop a chemical weapons production facility and I provided him with some evidence to support that... I offered to provide him with a detailed intelligence briefing in the weeks ahead." He also tells reporters that the United States would not allow the new factory to open, saying that he would not rule out the use of force. {*New York Times* 4 Apr} He amplifies this to reporters travelling with him from Egypt: "There are many ways we have of keeping that plant from being opened, and as with every other defense problem we work on, we use several lines of approach, the first being our diplomatic approach". He states that US covert agencies have watched Libya transfer much of the equipment used at Rabta into the new Tarhunah facility; other

equipment being moved in is new, supplied by foreign companies. {UPI 4 Apr, AFP 6 Apr}

President Mubarak later confirms at a news conference that Secretary Perry had raised with him the subject of an underground Libyan chemical-weapons factory, continuing: "But the information is not complete and I asked him to give us information and pictures which confirm the truth of what has been rumoured. When we get the information we will talk with the Libyan side. I can't possibly take any decision on this subject without definite information on this matter." {Reuter 7 Apr}

The Arab League General Secretariat issues a statement deploring the timing of Secretary Perry's remarks to reporters, for these had come at a moment of "intense international efforts by peacemakers". The statement recalls that "Libya has repeatedly said it has no intention to produce chemical weapons and had denied having such a programme". {MENA and Reuter 7 Apr}

3 April UK tests of LSD on military volunteers had commenced in 1954, much earlier than the Ministry of Defence had previously told Parliament, according to a television documentary screened on Channel 4 *Dispatches*. {*London Independent* 3 Apr}

4 April In Washington, the Chemical Weapons Working Group [see 4 Mar] announces that a new chemdemil study has concluded that it would be two thousand times safer to dispose of chemical weapons by draining and then neutralizing the CW agent, with subsequent storage of product, than to incinerate the weapons as currently planned. The new study, *Comparative Risk Assessment of Alternative Management and Treatment Options for the Army Chemical Weapons Incineration Program*, is by Douglas Crawford-Brown, director of the Department of Environmental Science, University of North Carolina at Chapel Hill, and was done for the Kentucky Environmental Foundation, which funds the CWWG. He describes his study as a "screening assessment" using "highly simplified assumptions", adding that the issue cannot "be resolved properly until a full-scale and rigorous risk assessment is performed". {*BNA Chemical Regulation Daily* 9 Apr, *Chemical & Engineering News* 22 Apr}

7 April President Mubarak of Egypt responds to a question from reporters about the US concerns regarding Libyan chemical weapons [see 2-4 Apr]: "In order to avert the use of force we will talk to the Libyan side and maybe we will agree with them that a European team can come with us to see the place that is said is for production of chemical products". {Reuter 7 Apr} He is speaking in Cairo at a joint press conference with visiting French President Jacques Chirac, to whom the question had originally been directed and who had responded by saying that he and President Mubarak had not discussed the subject.

8 April In Kobe, Japan, police arrest a trading-firm employee on charges of unlicensed exporting of chemicals to North Korea some two months previously. The chemicals were hydrofluoric acid and sodium fluoride, 50 kg of each. {*Jiji* 8 Apr}

8 April The US Army is contracting competitors for its new Automatic Chemical Agent Detector Alarm, a portable device using ion-mobility spectroscopy to detect blister and nerve gases. One of the three contracts it is awarding, worth \$1.2 million, has just gone to Environmental Technologies Group Inc of Maryland for the supply of 30-40 demonstration models. {*Defense News* 8 Apr}

8–24 April At the United Nations in New York, Iraqi and UN negotiators conduct a third, and again inconclusive, round of talks on implementation of Security Council resolution 986 (1995) [see 11–18 Mar]. {Reuter 5 May}

9–12 April The Preparatory Committee for the Fourth BWC Review Conference convenes in Geneva. An agenda is agreed for the Review Conference, which will take place during 25 November through 6 December. Michael Weston of the UK is to preside. {BWC/CONF.IV/PC/2}

11 April In Cairo, the Egyptian government hosts the signing ceremony for the Treaty of Pelindaba, which will establish Africa as a nuclear-weapon-free zone once a majority of OAU member states (i.e. at least 28) have deposited instruments of ratification. Protocol I, addressed to the nuclear-weapon states, provides an undertaking not to use or threaten to use nuclear weapons against any party to the treaty or against any territory within the zone. China, France, the UK and the USA all sign Protocol I, but Russia declines to do so on the grounds that the zone does not include the island of Diego Garcia. {London *Financial Times* 12 Apr} The United States, however, reportedly declares an understanding that the protocol will not limit the options available in response to an attack by a state party that uses weapons of mass destruction. {Reuter 3 May}

11 April The UN Security Council receives a report from UNSCOM on its work in Iraq during the period since it last reported [see 15 Dec 95], this one, in accordance with resolution 1051 (1996) [see 27 Mar], starting the integration of the two series of six-monthly reports [see 13 Oct 95] which UNSCOM had hitherto been submitting. Its principal findings are that “Iraq has yet to provide sufficient evidence that it does not still possess proscribed weapons”, whether chemical, biological or missile, but that “with sincere cooperation by the Government of Iraq” all outstanding issues could be resolved.

On chemical weapons the new report records that, in a “further effort to verify Iraq’s declarations, the Commission has...held consultations with the Government of Iraq’s former suppliers of chemical weapons-related materials”, noting that some aspects of Iraq’s latest draft for its chemical FFCD [see 29 Feb] can only be verified by such means. And: “Starting in May, the Commission will...conduct a series of tests with new types of sensors and sensor methods to assess their potential application” in the system for ongoing monitoring and verification now being run out of the Baghdad Centre [see 15 Dec 94].

On biological weapons, the report notes new information received in January by UNSCOM 133: “Iraq revealed that Al Hakam [see 15 Dec 95] had been intended to be a specialized filling facility for biological warfare munitions and that the R-400 air bombs for biological warfare purposes were actually assembled there. It also declared that some weapons trials had been conducted at Al Hakam.” However, the problem of verifying Iraq’s claimed covert destruction of BW missile warheads remained unresolved [see also 8 Mar]. There are now 82 biological sites in Iraq that are being monitored through the OMOV system, three of them having emplaced cameras. {S/1996/258}

UNSCOM Executive Chairman Rolf Ekéus, after briefing the Security Council on his new report, later tells reporters that UNSCOM feared that proscribed items were still being imported into Iraq, and also that UNSCOM had sensitive and confidential information about funds paid to middlemen and businesses which Baghdad had not been able to explain. {Reuter 16 Apr}

11 April US Defense Secretary William Perry releases *Proliferation: Threat and Response*. What the new publication does,

he says, “is to pull together, and make available to the public, comprehensive information on proliferation threats, just as the old [Reagan-era annual] *Soviet Military Power* did about the old Soviet missile threat and our responses to those threats”. On CBW proliferation, the publication has something to say about chemical and biological weapons programmes only in North Korea, China, Iran, Iraq, Libya, Russia, India and Pakistan, much of it already published, but not all:

- On Libya, it includes a depiction — subsequently much reproduced in the press — of a satellite image of the “underground chemical warfare plant near Tarhunah”. It says: “Libya is one of the few nations in the last decade to have employed chemical weapons, having dropped chemical agents from a transport aircraft against Chadian troops in 1987”, adding that “Iran supplied the agents in exchange for naval mines”.
- On Russia, it suggests that compliance with the Biological Weapons Convention may not yet be complete, despite President Yeltsin’s decree requiring compliance [see 11 Apr 92]: “Russia may be retaining capability for the production of biological warfare agents”.
- “India and Pakistan are capable of developing chemical weapons. India, a signatory of the CWC, has never admitted to having an offensive chemical warfare program. India’s large chemical industry produces many dual-use chemicals that could be used as precursors, and could support a chemical warfare program of considerable size. Like India, Pakistan has signed the CWC, and can produce chemical agents and munitions. It has procured dual-use chemical precursors from foreign sources and hopes to achieve self-sufficiency in producing precursors. While India possesses the infrastructure necessary to support an offensive biological warfare program, including highly qualified scientific personnel and industrial production facilities, it apparently has given priority to research and development applicable only to biological warfare defensive measures. Pakistan has the resources and capabilities appropriate to conducting research and development relating to biological warfare. Both countries have signed [*sic*] the Biological Weapons Convention.”

11 April Libya and its supposed new chemical-weapons factory are spoken of by US Defense Intelligence Agency Director, Lt-Gen Patrick Hughes, during the Defense Department news briefing to release *Proliferation: Threat and Response* [see 11 Apr US Defense Secretary]. Displaying the Department’s depiction of a satellite image of the Tarhunah project, he says: “From all-source intelligence information, we believe we have clear evidence that this is indeed a chemical weapons production facility that Libya is in the process of constructing, equipping and putting into action. We believe that this chemical plant represents a potential threat in the future. It is not now in full operation. It will be sometime beyond one year’s time from now.” Asked how it compares with the reported CW facility at Rabta [see 26 Feb], General Hughes says: “I would characterize it as roughly the same size, not significantly larger, but certainly not significantly smaller.” He continues: “The nature of the plant is clear, however, and it is to produce weaponized chemical materials... [S]everal countries are involved, people from various countries throughout the world who may not be representing national entities, I may add, but indeed are representing commercial interests or in some cases individual interests.” {Federal News Service 11 Apr} [See also 2-4 Apr]

Libyan Foreign Minister Omar Mustafa al-Montasser says at a news conference in Cairo: "There is no chemical weapons factory in all Libya, either above or below ground. I challenge the US Defense Secretary and the Pentagon to prove the existence of anything that even looks like a factory in any tunnel in Libya." He says that Libya is willing to discuss the allegations with Washington: "We are ready to conduct dialogue without preconditions with any country who will agree to talk to us". {Reuter and AP 11 Apr}

Quoting engineers working in the Tarhunah project, the Cairo newspaper *Al-Ahram* two days later reports that the project is part of the second phase of the Great Man-Made River in Libya, aiming to supply Tripoli, and towns and villages on the western Libyan coast, both with potable water and with irrigation water: hence the two tunnels through the Tarhunah Mountains. {MENA 13 Apr}

12 April Sudan is constructing a chemical weapons factory in Khartoum North, for which components have been purchased from several different countries and flown in on SudanAir passenger aircraft, so Sudanese opposition radio reports. {BBC-SWB 15 Apr}

12 April From Canada, the new 'Penetrant Protective Carbon' now in full production by Racal Filter Technologies Inc as loading for its recently introduced C7 gas-mask canister is described in *ASA Newsletter* {12 Apr}. The carbon is impregnated with an organic amine so as to provide protection against field-achievable concentrations of toxic organofluorine mask-penetrants, such as PFIB and its congeners. An alkaline pretreatment enhances its shelf-life.

15 April Libyan leader Muammar Gaddafi says on CNN television that Libya would allow an international team to inspect the suspected CW factory site at Tarhunah [see 7 and 11 Apr] under certain conditions, to be stated when the time comes. He also says that Libya has the right to arm itself with chemical weapons [see also 28 Mar], "but we have no capability".

He describes his conditions during a subsequent speech in Benghazi: "America...wants to search over Libya... We told them search over the Israelis first. They said the Israelis cannot be searched. We then tell them 'you are wasting effort and time and it is useless to discuss'". {JANA in Reuter 15 May}

15 April In the US Congress, the House-Senate conference on the controversial terrorism-prevention legislation that had been initiated in the aftermath of the Oklahoma bombing [see 14 Mar] achieves agreement. The compromise bill is soon afterwards passed by the Senate and then the House. President Clinton signs it into law on 24 April, as the *Antiterrorism and Effective Death Penalty Act of 1996*. Section 511 of the new law extends and strengthens the existing legislation that implements the Biological Weapons Convention. Section 521 criminalizes unauthorized use, attempt to use, or conspiracy to use, chemical weapons, these being defined not as they are in the CWC but as "any weapon that is designed or intended to cause widespread death or serious bodily injury through the release, dissemination, or impact of toxic or poisonous chemicals or precursors of toxic or poisonous chemicals". This section also requires the President to establish an interagency task force to produce a study of establishing a training facility for anti-CB-terrorism. {House report 104-518}

15 April-3 May In India, at the Defence Research and Development Establishment Gwalior, the government hosts an international training course for CWC National Authorities

personnel, in cooperation with the OPCW Provisional Technical Secretariat. [For further details, see *Progress in The Hague* above.]

16 April Within NATO a study, *Nonlethal Weapon Technologies for Peace Support Operations*, is published and then reportedly approved at a semi-annual meeting in Brussels of NATO national armament directors; it will now go to the North Atlantic Council. The study is said to recommend that NATO countries should collaborate to develop 'nonlethal weapon' technologies [see 22 Mar] for future missions analogous to those of IFOR in Bosnia. The study considers ten categories of technology having potential for such collaboration, but CBW weapons are not among them, having been ruled out, so *Defense News* {29 Apr} reports, for legal reasons.

16 April The UK government tells Parliament that it expects the CWC to enter into force in late 1996 or early 1997. It says, further, that it expects the chemical weapons of the USA and Russia to be brought under international control "once they have ratified the convention". {*Hansard (Lords)* 16 Apr}

16 April President Clinton's Advisory Committee on Gulf War Veterans' Illnesses [see 14 Feb] reconvenes in Atlanta. A presentation by former Senate staffer James Tuite, now a consultant to the Gulf War Research Foundation, uses newly acquired satellite and meteorological data to show that, contrary to earlier studies, US and allied forces "in the downweather area [of the Gulf War theatre] were exposed to chemical warfare agents" that had been mobilized by the bombing of Iraqi facilities. {*Gannett* 15 Apr} He says that those people, including Science Applications International Corporation, who had developed the official fallout predictions had considered only surface wind patterns, neglecting the upper atmosphere winds which, on his reckoning, had carried high plumes of chemicals over to the troops. {*Hartford Courant* 25 May}

A preprint is released of a paper soon to be published in *The Journal of Toxicology and Environmental Health* in which researchers from Duke University Medical Center and the University of Texas Southwestern Medical Center postulate that the combination of three chemicals that was used to protect Gulf-War troops from nerve-gas poisoning and insect-borne diseases — namely pyridostigmine and the pesticides DEET and permethrin — was responsible for 'Gulf War syndrome'. It had been found that hens were harmed only if given the chemicals in combination, not singly; perhaps the pyridostigmine inhibits an enzyme, such as butyrylcholinesterase, which would otherwise neutralize the pesticides before they did damage in the nervous system. The main author of the paper is Dr Mohamed Abou-Donia [see 9 Apr 95]. {*New York Times* 17 Apr, *Chemical & Engineering News* 22 Apr, *New Scientist*, 27 Apr}

16 April In California, the pharmaceutical company Allergan Inc of Irvine discloses that it is under federal investigation for having exported botulinum toxin under a general export licence rather than under the special licence that became a requirement in 1992 after special export controls on the toxin had been agreed by the Australia Group. As 'Botox', a treatment for muscle cramping, the company has been selling a formulation of the toxin since 1989, its sales in 1995 being \$48.9 million. It contends that its product cannot be converted into a CBW weapon and should therefore have been exempt from the special licensing requirement. {*Los Angeles Times* 17 Apr, *Orange County Register* 18 Apr}

17 April In Tokyo, US President Clinton and Japanese Prime Minister Hashimoto sign a *Joint Declaration on Security*. It includes the following: "The two governments recognized that the proliferation of weapons of mass destruction and their means of delivery has important implications for their common security. They will work together to prevent proliferation and will continue to cooperate in the ongoing study on ballistic missile defense." {London US Embassy *Official Text* 18 Apr} In another joint statement, *Meeting the Challenges of the 21st Century*, they say: "The two governments emphasized the importance of bringing the Chemical Weapons Convention into force at the earliest possible date to prohibit chemical weapons and to reduce the threat of their use as instruments of war or terrorism. They agree on the need for prompt ratification of the Convention by the United States and other signatories." The statement goes on to speak of cooperation in multilateral mechanisms to counter nuclear and CBW terrorism. {*Mainichi Daily News* 19 Apr}

17 April Ukrainian Defence Ministry officials have asked Russia to investigate the dumping of chemical weapons off the Crimean coast by ships of the USSR Black Sea Fleet during or soon after World War II [see also 10 Sep 93]. The head of the ministry's environmental department, Colonel Ihor Mazur, is reportedly claiming that there has been \$20-billion worth of environmental damage. {*Jane's Defence Weekly* 17 Apr}

17 April Papua New Guinea deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 50th signatory state to do so.

17 April President Clinton appoints Dr Lori Esposito Murray as Special Advisor to the President and ACDA Director on the Chemical Weapons Convention [see 13 Dec 95]. Her previous job was ACDA Assistant Director for Multilateral Affairs. {US Newswire 18 Apr}

18 April The UK Defence Ministry corrects information it had given to Parliament in 1994 on the number of volunteers exposed to LSD [see 3 Apr] at the former Chemical Defence Experimental Establishment, Porton Down. Rather than a total of 72 volunteers, the Ministry now believes there to have been 136 exposures to LSD "in the whole programme of work on LSD". {*Hansard (Commons)* 18 Apr}

18–19 April In Baghdad, UNSCOM Executive Chairman Rolf Ekéus conducts talks with Iraqi authorities. They draw up a plan for accelerating efforts to resolve remaining problems [see 11 Apr]. Ambassador Ekéus tells reporters at the close of his visit that what he has proposed "obliges Iraq to furnish a final and comprehensive, detailed declaration of its chemical, biological and missile arms programmes and missing information on these areas". He also says: "I was not totally satisfied. I felt there were differences of assessment", especially on whether UNSCOM had the right to enter any site in Iraq. With him during the talks had been Nikita Smidovich of Russia, the Chief Inspector for the UNSCOM mission that had recently been denied access, temporarily, to Presidential Guard and other such facilities [see 7–11 Mar]. {AFP and Reuter 19 Apr}

Also accompanying the chairman are teams of UNSCOM experts on chemical and biological weapons who are working to clarify Iraqi declarations. They leave on 22 April. {AFP 19 and 22 Apr}

21 April In Moscow, where the Russian government has just been hosting a weekend summit meeting in which leaders of the G7 countries joined with President Yeltsin in addressing is-

ues of nuclear safety, including the smuggling of fissile materials, there are bilateral talks between President Clinton and President Yeltsin. US Ambassador Thomas Pickering had beforehand told reporters that problems associated with both biological and chemical weapons would be on the bilateral agenda. {ITAR-TASS 16 Apr, London *Financial Times* 22 Apr}

22–25 April In Iran, a regional seminar on the CWC and its national implementation is hosted in Tehran by the government in cooperation with the OPCW Provisional Technical Secretariat. Representatives of 15 countries — Afghanistan, Armenia, Azerbaijan, Belarus, India, Iran, Kazakhstan, Oman, Pakistan, Russia, Saudi Arabia, Turkey, Turkmenistan, Ukraine and Yemen — participate, as well as people from the PTS, SIPRI and the Harvard Sussex Program. The first day is occupied by a course for personnel of CWC National Authorities and others who will be involved in implementation work; 70 people from the participating states attend the course. The seminar itself is conducted in three workshops, one on National Authorities, one on Legal Issues, and one on Industry. The final day includes a trial routine inspection at the Shahid Razakani multipurpose chemicals plant in Tehran. {PTS press release 7 May} Because there is no production of any scheduled chemicals at this factory, which is owned by Darou Pakhsh Pharmaceuticals Company, the inspection focuses on a simulated Schedule-2 chemical, namely methyl salicylate.

Opening the seminar, Iranian UN representative Kamal Kharrazi speaks of the use of chemical weapons by Iraq on 252 occasions during its war with Iran, injuring about 50,000 people. He says: "Our nation, inspired by the lofty teachings of Islam, never resorted to retaliation in kind, and, in spite of the silence maintained by most countries and international forums in the face of such extensive use, directed its efforts towards...conclusion of...[the] Chemical Weapons Convention... Iran, as the greatest victim of chemical weapons attacks in the past 50 years, is prepared to cooperate in every way, on an international and regional level, towards the eradication of all weapons of mass destruction including chemical weapons." A subsequent Iranian presentation describes one particular Iraqi CW attack, that on Halabche and Khormal on the afternoon of 18 March 1988: it states that nearly 5 tons of toxic chemicals had been released then from aircraft bombs: 9 blister-agent bombs, 19 nerve-agent bombs and 21 blood-agent bombs.

The delegate of Pakistan, in his national paper, observes: "Let me also reiterate that, even before the CWC was opened for signatures, Pakistan and India, in 1992, had bilaterally declared their intention to abolish the use, production and stockpiling of chemical weapons. This declaration indicates our willingness to support the actual substance of this Convention." [See also 11 Apr, US Defense Secretary] The paper also says: "The Pakistan Government attaches great importance to the ratification and implementation of the Convention. It is mobilizing various governmental resources to prepare for the ratification and implementation of the Convention."

The problem of international technology-transfer controls, as evidenced in the work of the Australia Group, is addressed in several of the presentations. A paper from the Iranian chemical industry refers to specific instances in which such controls have had "some hindering effects on the intermediate chemical industry of Iran", have "misinfluenced the production plan of pesticides and herbicides", and "have made problems for Iran chemical industry and have caused some losses to the economy of the country".

23 April In Italy, police announce that, in January, a cargo bound for Pakistan and lacking proper documentation had been seized from a ship in Naples, and that the local head of a major multinational pharmaceutical company, which dispatched the cargo, had been placed under investigation. The police say that the cargo contained equipment that could be used to make chemical weapons {ANSA in Reuter 23 Apr}, though it had been declared as equipment for the production of antibiotics.

24 April In the New Zealand Parliament, the Foreign Affairs and Defence Committee, which has now received submissions on the Chemical Weapons (Prohibition) Bill [see 12 Dec 95] that would implement the CWC in the law of New Zealand, deliberates on the clauses of the bill and agrees several amendments. The amended bill now goes forward for its second reading.

24 April In Tokyo District Court, the trial begins of Shoko Asahara [see 4 Dec 95], leader of Aum Shinrikyo [see 27 Mar], the apocalyptic cult believed responsible for the nerve-gas attacks in Matsumoto [see 28 Jun 94] and the Tokyo subway [see 20 Mar 95] which, in all, killed 18 people and put more than 5000 others into hospital. He faces 17 charges ranging from murder and attempted murder (12 other Aum cultists face these charges too) to illegal production of firearms and psychoactive drugs; 8 of the charges carry the death penalty. {Reuter 20 Apr, *New York Times* 25 Apr} Jurists say that the proceedings, including appeals, could take ten years to run their course {Reuter 22 Apr}.

25 April In Beijing, President Jiang Zemin and visiting Russian President Boris Yeltsin issue a joint statement which includes the following: "Both sides...value a speedy coming into effect of the Chemical Weapons Convention and call for accelerated progress in further improving the effectiveness of the Biological Weapons Convention." {Xinhua 25 Apr}

25 April The US Senate Foreign Relations Committee acts on the Chemical Weapons Convention. It votes 13–5 to reject a proposal by committee chairman Jesse Helms that would condition ratification, its deposit, or implementation on such prerequisites as prior ratification by all states possessing chemical weapons. {*Washington Post* 26 Apr} It votes 12–6 in favour of a resolution of ratification offered by Senator Lugar {*Inside the Pentagon* 2 May}.

29 April Iraq had "designed and prepared for firing a [Scud] chemical warhead, which basically consisted of a bunch of little containers", so UNSCOM found according to US Assistant Defense Secretary Ashton Carter, quoted in *Aviation Week & Space Technology* {29 Apr}.

29 April In Washington, a conference on chemical/biological terrorism is sponsored by the Chemical and Biological Arms Control Institute. {*Defense News* 29 Apr}

30 April–2 May In La Jolla, California, a conference on *NBC Modeling & Simulation* is sponsored by the US Defense Nuclear Agency and the US Army Chemical and Biological Defense Command.

1 May President Clinton's Advisory Committee on Gulf War Veterans' Illnesses [see 16 Apr] assembles in Washington. It receives a generally positive response to recommendations contained in its interim report [see 14 Feb] from the Persian Gulf Veterans Coordinating Board on behalf of the Department of Defense, of Veterans Affairs, and of Health and Human Services {PR Newswire 1 May}. The Committee is told by the Defense Department's chief "Gulf War syndrome" investigator,

Colonel Edward Koenigsberg, USAF, that he is scrutinizing about 50 instances during the Gulf War where CW agents were recorded (in incident reports, for example, and military logs) as having been detected [see also 2 Apr] {Gannett 1 May}. The commander of the Army's Walter Reed Medical Center, Maj-Gen Ronald Blanck, recalling that French and Czechoslovak units in the Gulf theatre had also recorded detections of chemical agents, says: "From my perspective, and it's me talking not the US government or the [Defense Department], I think the presumption of presence must be made" (Health Line 3 May). Colonel David Moore of the Army's Medical Research Institute of Chemical Defense speaks of twenty studies done since 1972 in reportedly concluding that there are "no observable long-term effects to humans from exposure to low levels" of CW agents {Gannett 2 May}. The Committee also receives a presentation from the General Accounting Office on issues concerning US anti-CBW protection which had been raised in its interim report {GAO/T-NSIAD-96-154}.

2 May Iran is building tunnels along its south-west coast that could be used to launch or store long-range missiles says the US Defense Department, confirming a report in *Jane's Defence Weekly* {1 May}. An Iranian spokesman denies the report, characterizing it as "a simple-minded justification to sell advanced American arms to the Zionist regime". {Reuter in London *Financial Times* 3 May}

3 May In Belgrade, *Politika* reports that Bosnian Serb military experts have concluded, after months of investigation and analysis, that the weapons used by NATO last year in its bombing of Bosnian Serb targets [see 10–12 Sep 95] included toxic chemical weapons that can incapacitate people. {Xinhua 3 May} [See also 1 Aug 94]

3 May The US Defense Department publishes an interim report on the status of its Chemical Stockpile Disposal Program. It estimates the costs of this element of its overall chemdemil programme [see also 29 Mar], over the 16 years of its anticipated life-cycle through 2004, as totalling \$12.4 billion [see also 13 Jul 95]. {DoD news release 3 May}

6 May The UN Security Council conducts its 31st 60-day review of the sanctions imposed on Iraq [see 7 Mar], leaving them in place. {AFP in *International Herald Tribune* 7 May}

6 May The US Air Force is outfitting its *Argus* KC-135E electro-optical testbed for the Nonproliferation Airborne LIDAR Experiment, which is a one-year effort sponsored by the Department of Energy to adapt existing equipment and technology into an aircraft-mounted system for detecting airborne CW agents at ranges of up to 100 km. Two variants are to be tested against releases of simulant aerosols this coming autumn. {*Aviation Week & Space Technology* 6 May}

6 May US forces with IFOR in Bosnia are shortly to have a variety of "non-lethal" weapons [see 2 May] available to them, so *Inside the Army* {6 May} reports, quoting an Army Materiel Command spokesman. The weapons are to comprise personnel dyemarkers, 40mm multiple-rubber-ball rounds, 40mm foam-baton rounds, and XM1006 rifle-launched sponge grenades. {*Defense Week* 20 May}

7 May In the United States, 76.6 percent of a poll sample of 1016 Americans agree that the "Senate should ratify a treaty which would ban the production, possession, transfer, and use of poison gas worldwide". The poll had been conducted during 1–5 May by ICR Survey Research Group for National Security

News Service {7 May}. Disagreeing were 15.0 percent of the sample, the remainder expressing no opinion. A similar poll conducted during 21–25 April 1995 had shown 80.0 percent agreeing and 13.0 percent disagreeing.

7 May The US Defense Department denies recent suggestions that it is contemplating a nuclear attack on the underground construction at Tarhunah in Libya [see 15 Apr]. Spokesman Kenneth Bacon briefs the regular departmental press conference as follows: “[O]ur first line of defense against that plant is to prevent it from being built, using diplomatic and economic means. We’ve started to do that [see 26 Feb, 2–4 and 11 Apr]. We have...at least a year before we believe that plant’s in operation, so we have plenty of time to work on diplomatic and economic initiatives before we even consider using military options. Should military options be necessary, we can accomplish this with conventional means. There is no consideration to using nuclear weapons, and any implication that we would use nuclear weapons against this plant preemptively is just wrong. And that’s what the Secretary [of Defense] said [in his speech on nuclear nonproliferation issues] at Maxwell Air Force Base [on 26 April].” {Federal News Service 7 May}

Dr Harold Smith, Assistant to the Secretary of Defense (Nuclear, and Chemical and Biological Defense Programs), had told reporters at a Defense Writers Group breakfast on 23 April that an earth-penetrating nuclear warhead would be procured later this year, and a conventional earth-penetrating warhead after two years, in order that US forces could become able to destroy buried chemical and biological weapons facilities. He had said, further, that the underground chemical weapons plant in Libya was currently of primary concern, and that it could not at this time be destroyed by non-nuclear weapons. The new nuclear warhead was a modification, Mod 11, of the 10–350 kiloton selectable-yield B-61 bomb {*Defense Daily* 24 Apr}, a weapon once under development ostensibly as a retrofit to replace the old 9-megaton B-53 {*New Mexico Business Journal* Dec 95}.

7 May USACDA Director John Holum testifies before a House Appropriations Subcommittee on the funding requested for his agency in the FY 1997 budget, namely \$43.9 million in core funding (which is \$1.8 million below the FY96 request) plus \$4 million in special funding related to the projected nuclear-weapons Comprehensive Test Ban Treaty and \$0.525 million for the US share of the costs of the imminent Fourth BWC Review Conference. He says: “We will seek to close out the remaining issues under the Wyoming MOU and work to bring the Bilateral Destruction Agreement into force”.

As for ACDA’s current-year programmes [see 8 Mar], for which the Appropriations Committee and the administration had ultimately agreed to make \$41.3 million available, Director Holum says that “the series of Continuing Resolutions, leading up to the final FY 1996 Appropriation passed by the House and Senate last month, had a significant and adverse impact on ACDA” — including reduced US expertise in OPCW Preparatory Commission and international BWC-related work. The \$8.6 million in the FY96 budget for US contributions to the OPCW Preparatory Commission (including the anticipated Part II assessment of \$4.8 million) has been shifted from ACDA to the State Department’s International Organizations account. {Federal News Service 7 May}

7 May In Texas, in Brazoria County District Court, sick Gulf War veterans have filed suit against manufacturers of pyridostigmine, the drug which they had been required to take

as a nerve-gas prophylactic during the war and which, on the basis of recent studies [see 27 Mar and 16 Apr] and other evidence, they now believe to have been responsible for their illnesses. They are represented by the Houston law firm of Pitts & Associates, which, with two other law firms, is also representing the same veterans in a suit against 83 US and foreign corporations allegedly involved in supplying the Iraqi CBW-weapons programme [see 9 Sep 95]. {*Hartford Courant* 8 May}

Meanwhile, public interest groups — Public Citizen and National Gulf War Resource Center — are calling upon the Food and Drug Administration to revoke the interim rule it issued at the time of the Gulf War waiving the informed-consent requirement which the Defense Department would otherwise have been obliged to satisfy before troops could be ordered to take pyridostigmine, this being classified as an investigational drug. The FDA is currently considering whether to make the interim rule permanent, so that soldiers can always be given experimental drugs quickly during any military crisis. {AP in *Washington Post* 8 May}

8 May The UK Defence Ministry tells Parliament that no studies have been carried out at the Porton Down CBW establishment specifically to evaluate the long-term health effects on human beings of short-term exposure to sarin nerve-gas. But it refers to the soon-to-be-published findings of a research project initiated at Porton in 1983 in which eight volunteers had been exposed to dosages of sarin sufficient to reduce their red-cell acetylcholinesterase activity by 40 percent, after which single fibre electromyography measurements were taken at intervals upto 30 months: “Small changes in SFEMG were seen at 3 hours and 3 days... [They] were not accompanied by any clinical neuromuscular symptoms or signs and had returned to normal two years after exposure.” {*Hansard (Commons)* 8 May}

8 May In the US Senate, the bill to implement the CWC which the administration had resubmitted a year previously [see 25 May 95] is formally introduced, as S.1732, by Senator Lugar and Senator Pell. It receives its first and second reading, and is referred to the Committee on Foreign Relations. {*Congressional Record* 8 May pp S4851-56}

9 May In The Hague, municipal, national and foreign dignitaries participate in a ground-breaking ceremony to mark commencement of construction work for the OPCW Headquarters Building [see 20 Mar]. A team of representatives of signatory states, led by Preparatory Commission Executive Secretary Ian Kenyon, drives the first pile for the building, using what the PTS External Relations Division Media & Public Affairs Branch calls “a classical Dutch construction method”. {PTS press release 9 May} The ceremony is hosted by the lead developers of the building project, Provastgoed Nederland BV.

10 May The US Defense Department and a contractor are charged by citizens’ groups with violating federal environmental legislation because of the “imminent and substantial danger to public health and the environment” inherent in the chemdemil incinerator at Tooele that is now about to become operational [see 28 Nov 95]. The lawsuit is brought in Salt Lake City Federal District Court by the Chemical Weapons Working Group [see 4 Apr] joined by the Sierra Club and the Vietnam Veterans of America Foundation. The plaintiffs are asking the court, on several counts, to declare violations of the Resource Conservation and Recovery Act, the National Environmental Policy Act, the Administrative Procedure Act, the Clean Air Act and the Toxic Substances Control Act, and to require the Army to cease

all activities at the Tooele incinerator. The plaintiffs' emphasis is on neglect of dioxin-emission risks. {*Inside the Pentagon* 2 May, *Salt Lake Tribune* 11 May, *BNA State Environment Daily* 17 May}

10–11 May In Indonesia, during a meeting of the 19-nation ASEAN Regional Forum, CBW weapons are on the agenda. {AFP 10 May}

11 May From a Tokyo hospital, a report is published describing the retrograde amnesia and personality changes still evident in a victim of the March 1995 sarin attack in the Tokyo subway. {*Lancet* 11 May} Since the victim had displayed generalized convulsions, been comatose and needed artificial respiration, he had presumably been exposed to a rather large dosage of the nerve gas.

11–15 May In Russia, a NATO Advanced Research Workshop on *Chemical and Biological Technologies for the Destruction of Chemical Warfare Agents* takes place in Moscow under the co-direction of Professor J R Wild of Texas A&M University and Professor A M Boronin of the Russian Academy of Sciences Institute of Biochemistry and Physiology of Microorganisms, Pushchino.

13 May In Germany the "Iraq poison gas" trial resumes in Darmstadt after its adjournment more than two years previously [see 21 Feb 94]. The case against WET managers on charges of exporting materials into the Iraqi chemical-weapons programme had been suspended until the European Court had ruled that German export-control laws conformed with European Union law. {*Frankfurter Rundschau* 13 and 14 May}

13 May The United Kingdom deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 51st signatory state to do so. The instrument had been signed on 1 May, the enabling legislation [see 18 Mar] having received royal assent on 3 April.

13 May Ethiopia deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 52nd signatory state to do so. The instrument had been signed by the President on 6 May.

13–31 May In the Netherlands, a basic course for personnel of National Authorities of CWC signatory states takes place at the Defence College in Ypenburg. [For further details, see *Progress in The Hague* above.]

14 May The UN Security Council is alerted by UNSCOM Executive Chairman Rolf Ekéus that projected inspections in Iraq "sooner rather than later" may cause problems with Baghdad because they will be directed at sensitive sites [see also 7–11 Mar and 18–19 Apr]. {AFP 16 May}

14 May In California, ICN Pharmaceuticals Inc of Costa Mesa announces the formation of a joint venture with Allen & Associates International Ltd [see 5 Apr 95] to convert a former BW-related complex in Kazakhstan [see 22 Mar] into a drug manufacturing plant. The plant is expected to be operating by September, with an initial staff of 250. {Reuter 14 May}

14–15 May The US House of Representatives debates and passes its FY 1997 Defense Authorization Bill, which adds \$13 billion to the president's budget request. It considers an amendment to increase Army funding for research into innovative chemdemil technology. It cuts Nunn-Lugar funding from \$328 million to \$303 million, but does not adopt a proposed

amendment that would have effectively blocked the funds. {*Defense Daily* 14 May, DPA 15 May}

14–17 May In Russia a public hearing on the chemdemil programme takes place in Ishevsk and Kambarka.

14 May–3 June In China, a visiting team of 32 Japanese government officials and private-sector experts continues work on the problem of old chemical weapons abandoned by the former Japanese Imperial Army [see 1 Mar]. The mission, which is the sixth of a series [see 16 Sep–1 Oct 95], is led by a divisional director of the Japanese Foreign Ministry Bureau of Asian Affairs, Shigekazu Sato. Its task is to assess the content and environmental impact of a large chemical-weapons dump site high in the mountains near Dunhua in northeastern Jilin province where Chinese authorities have said there may be as many as 1.8 million abandoned chemical munitions [see 18 Feb 92]. The mission also has the tasks of considering how best to get rid of the weapons, having regard to the imminent entry into force of the CWC, and of conducting discussions with Chinese authorities on future excavations and other work. {Reuter and Jiji 14 May} Several enterprises in different countries are known to be interested in bidding for this chemdemil work, including the Russian government {Jiji 13 May, ITAR-TASS 3 Jun}. At a closing press conference in Beijing, mission chief Sato says that the survey has confirmed the presence of an estimated 700,000 munitions including 75-mm artillery and 90-mm mortar rounds, the munition-fills including mustard-lewisite mixture. The estimate is based on sampling, and is reportedly disputed by Chinese authorities. A seventh survey mission, to five other locations including Heilongjiang province, is planned, possibly for the Autumn. {Kyodo 2 Jun, Jiji 3 Jun, *Mainichi Daily News* 4 Jun}

15 May In South Africa a parliamentary committee, the Public Accounts Committee, is seeking an explanation of why the South African National Defence Force had written off Rand 21.8 million when closing down 'Project B', also known as 'Project Coast'. There has been newspaper speculation that substantial state assets were transferred into private hands when two front companies set up in the 1980s for Project B — named as Roodeplaat Research Laboratories and Delta G — were privatized after closure of Project B. In a written submission to the Committee, Defence Force chief General Georg Meiring states that the project had been abandoned in 1993 when South Africa signed the Chemical Weapons Convention and certain "substances" were destroyed [see 27 Feb 95]. He declines to provide further information about the project without instructions from the Cabinet, which has recently authorized an investigation of it by the Office for Serious Economic Offences. The head of OSEO, Jan Swanepoel, tells the Committee of a \$1.6 million payment made in 1992 by the apartheid-era government into an account in Croatia for a sanctions-breaking consignment of "a sensitive substance" needed for the project. An SANDF memorandum to the committee describes the project as part of "a program for the defense against chemical weapons [which] included research into the protection against incapacitating agents". A Defense Department memorandum states: "Because of the nature of the chemicals, the world-wide control over these chemicals, as well as the international implications that could result from knowledge of such transactions, an intricate delivery and payment structure had to be created". {SAPA and Reuter 15 May}

15 May The US Department of the Army and Tooele County, Utah, sign a memorandum of agreement whereby the Army will

pay the county \$970 per ton of lethal CW agent destroyed in the chemdemil incinerator at Tooele Army Depot [see 10 May]. There are 13,603 tons of such agent at the Depot. Payments are to begin once the incinerator starts to burn hot agent. That is scheduled for early June, provided the Army receives all the requisite state permits in time. The \$13 million payment is seen as hazard pay to compensate, as one local newspaper puts it, "for the economic, social and emotional burden of living with the nation's largest stockpile of chemical weapons". {*Salt Lake Tribune* 23 May}

16 May In the US Senate, the Veterans' Affairs Committee holds a hearing on Gulf-War veterans' illnesses, with testimony from the Department of Defense and of Veterans' Affairs and, outside government, from Dr Mohamed Abou-Donia [see 16 Apr]. {*Gannett* 16 May}

19–21 May In Germany, near Bonn, there is an international conference on *The Dismantlement and Destruction of Chemical and Nuclear Weapons*, sponsored by NATO, the Federal Foreign Office and North-Rhine Westphalia, in which more than a hundred people from 16 countries participate. It is opened by Federal Foreign Minister Klaus Kinkel, and a keynote dinner address is given by NATO Secretary-General Javier Solana. {*ITAR-TASS* and *AFP* 21 May}

20 May Netherlands Defence Minister Joris Voorhoeve announces further details of his government's projected assistance to the Russian chemdemil programme [see 27 Feb] during his address to an international conference in Germany [see 19–22 May]. He says that the assistance is to be financed by the ministries of Defence and Foreign Affairs at a rate of Dfl 5 million per year for five years. The Netherlands will participate in four projects: a mobile environmental laboratory to monitor destruction efforts, a decontamination system for chemdemil workers, a station for transferring the 6500 tonnes of bulk-stored lewisite into more manageable containers, and destruction of the lewisite. {*ANP* 21 May}

20 May Iraq accepts a plan for implementing UN Security Council resolution 986 (1995), after a fourth round of talks with UN negotiators in New York [see 11–18 Mar] during 6–15 May. The resolution allows Iraq to sell \$2 billions-worth of oil over six months and buy food and medicine for distribution under international supervision. Some 30 percent of the revenue is to go into an account to pay claims against Iraq, and between \$130 million and \$160 million are to go every 90 days to the Kurds. {*London Guardian* 21 May}

21 May In the United States, at Aberdeen Proving Ground, companies interested in bidding for work in the Russian chemdemil programme are briefed by the Army on programme requirements. The Defense Department will shortly be requesting proposals in regard to a \$400 million programme funded from Nunn–Lugar monies to design and build a chemdemil facility for nerve-gas weapons at Shchuch'ye, east of the Urals [see 26 Sep 94], using the Russian two-stage process for agent detoxification [see 12–21 Feb]. Whoever gets the initial \$12 million contract, which is to be awarded in late October, will be required to recruit Russian subcontractors to build the facility. The Defense Department is also seeking bidders on another Nunn–Lugar chemdemil project: a \$30 million contract to redesign and equip a Central Analytical Laboratory in Moscow, to be awarded in September. {*Defense News* 20 May, *Chemical & Engineering News* 13 May}

Recently Deposited CWC Ratifications

since 1 January 1996

Czech Republic — 6 March

Brazil — 13 March

Papua New Guinea — 17 April

United Kingdom — 13 May

Ethiopia — 13 May

Costa Rica — 31 May

As of 19 June 1996, 53 of the 160 signatory states had deposited instruments of ratification. A list of non-signatory states appears in CWCB 31, at page 27.

Earlier deposited ratifications are (in date order):

Fiji, Mauritius, Seychelles, Sweden,

Norway, Australia, Albania, Maldives, Cook Islands,

Spain, Bulgaria, Germany, Sri Lanka, Mexico,

Turkmenistan, Uruguay, Paraguay, Lesotho, Greece,

Tajikistan, Mongolia, Armenia, Finland, Oman,

Romania, France, Switzerland, Croatia, Monaco,

Netherlands, Denmark, Peru, Algeria, Austria, Poland,

Ecuador, South Africa, Japan, Canada, Argentina,

Slovak Republic, El Salvador, Georgia, Namibia,

Italy, Côte d'Ivoire and Morocco

Imminent Deposits

Belarus, Belgium, Benin, Bolivia, Cameroon, Gabon, Ghana, Hungary, India, Ireland, Kenya, Latvia, Mali, New Zealand, Nigeria, Philippines, Portugal, Saudi Arabia, Togo, United Arab Emirates

22 May The Executive Secretary of the OPCW Preparatory Commission announces {PC-XIV/B/2} that the secretariat now has a permanent World Wide Web site on the Internet, as authorized by the Commission during its thirteenth session. The URL is <http://www.opcw.nl/>.

22 May President Clinton, speaking in Groton at the US Coast Guard Academy commencement, calls for immediate US ratification of the Chemical Weapons Convention. {*Federal Department and Agency Documents* 22 May}

23 May In Washington, members of Congress and senior administration officials participate in a conference co-sponsored by Los Alamos National Laboratory and the Harvard University Center for Science and International Affairs, the stated purpose of which is to "help forge a national consensus in response to the threat of nuclear, biological, and chemical proliferation and terrorism". Assistant Defense Secretary Ashton Carter describes the biological threat as a "sleeping dragon". {*Defense Daily* 28 May} Professor Matthew Meselson of Harvard University discusses possible international legal agreements that would make production of CBW weapons a "crime under international law".

23–24 May In Iran, large-scale military manoeuvres involving 200,000 troops backed by warplanes and helicopters take place near Qom. Chief of Staff General Ali Shahbazi tells reporters that the exercises will include defence against chemical weapons [see also 5–9 Mar]. {Reuter 23 May}

24 May In Geneva, a committee of the World Health Organization decides unanimously to recommend that the world's last stocks of smallpox virus be destroyed [see 23 Jan]. The recommendation is approved two days later by the World Health Assembly, so the destruction will now happen on 30 June 1999, unless disapproved by the Assembly during its May 1999 session. The stocks are at the US Centers for Disease Control and Prevention in Atlanta and at the Russian State Research Centre of Virology and Biotechnology in Novosibirsk. {London *Independent* and *Chicago Tribune* 25 May}

The decision is attacked by the British member of parliament who has the Porton Down CBW establishment in his constituency, Robert Key. He argues as follows: "It is naive to assume that only Moscow and Atlanta hold stocks of the smallpox virus and it is dangerous if we destroy the only means of making a vaccine against smallpox". {PA 25 May}

25–29 May In Egypt, President Mubarak and visiting Libyan leader Moamer Gaddafi have five sessions of private talks {DPA 28 May}. Cairo officials have let it be known that US concerns about the Tarhunah facility [see 7 May] are on the agenda {MENA 25 May}. Colonel Gaddafi refers to the matter during a speech he gives early in his visit in which he accuses the United States of double standards: "America speaks about Tarhunah but not about Dimona. It speaks about Libya making chemical weapons while it knows that the Israelis have chemical and biological weapons and nuclear bombs and it doesn't speak about them at all." He continues: "Tarhunah is a tunnel for the Great Man-made River [a pipeline to bring water north from aquifers under the southern desert]. Egyptian journalists visited it and took pictures a while ago and saw the tunnel was empty, awaiting the pipes." {Reuter 26 May}

In subsequent press interviews, President Mubarak says: "We have already sent people to Tarhunah and there is nothing to see inside the tunnels. There is no chemical installation for the time being and there is no activity there." {AFP 28 May} He also says: "There are tunnels but no installations, no equipment. I think the Americans know very well that there is no activity in these tunnels... I spoke with him [Gaddafi], told him to find a way to show there is no intention to install equipment for chemical production. I think he agreed with that and we are

working on it. I explained to him the situation...it would be very difficult to defend it, and what do you need chemical weapons for? I had long talks with him until he understood it very, very well. And I think he will not go through with it." President Mubarak says Col Gaddafi told him: "All right, I am not going to do it, but why are they concentrating on me and leaving nuclear weapons in Israel?" {*Washington Times* 28 May} During a joint press conference with Col Gaddafi at the end of the visit, President Mubarak says he has urged the Libyan leader to permit international inspectors to verify the conclusions reached by the Egyptian team. {*International Herald Tribune* 31 May}

Commenting on these remarks, US State Department spokesman Nicholas Burns tells reporters: "We remain sceptical that any inspection of the facility at Tarhunah, still under construction,...could establish that it will not be used for chemical weapons purposes... Unfortunately, we believe that the Libyan government is intent upon building a chemical weapons capability." {Reuter 30 May}

27 May In Moscow, the Prime Minister of the Chuvash Republic, Enver Ablyakimov, and the Prime Minister of the Russian Federation, Viktor Chernomyrdin, sign a *Treaty on Socio-Economic Projects of Federal Importance on the Territory of Chuvashia*. According to a TASS report {27 May}, this agreement makes provision for "the destruction or conversion to civilian uses of facilities for the production of chemical weapons at Khimprom joint-stock company and the elimination of the consequences of chemical weapons production in Chuvashia".

27 May Iraq now becomes subject, under the terms of UN Security Council resolution 1051 (1996) [see 27 Mar], to the export-import control regime for dual-use goods that is an integral part of the ongoing monitoring and verification system devised by UNSCOM to promote Iraq's compliance with its obligation not to rearm itself with weapons of mass destruction.

28 May In Ohio, the trial begins of Larry Wayne Harris on charges of wire and mail fraud associated with his purchase of plague bacteria by mail order from American Type Culture Collection [see 6 Mar]. Searching his home, investigators had found rifles, grenades, blasting caps and white-separatist literature. A federal judge had subsequently rejected a proposed plea-bargain agreement. {*Washington Post* 29 Jan, *Boston Globe* 4 Apr, *Newsweek* 6 May}

29 May In Washington, a panel of lawyers convened by the Lawyers Alliance for World Security and the Committee for National Security provides a briefing on the Chemical Weapons

Forthcoming events

The BWC Ad Hoc Group will reconvene in Geneva on 15–26 July and 16–27 September, with the Fourth Review Conference scheduled for 23 November–6 December 1996 in Geneva.

The fourteenth plenary session of the OPCW Preparatory Commission will be held in The Hague during 22–26 July 1996,

with the fifteenth scheduled for 9–13 December.

The second Pugwash workshop on *Strengthening the Biological Weapons Convention* will take place in Geneva during 21–22 September 1996.

A Wilton Park conference on "Deterring Biological Warfare: What Needs to be

Done", will take place at Wiston House, England during 27–29 September 1996. Enquiries about participation to Elisabeth Harris, fax **44-1903 815931, e-mail: wilton@pavilion.co.uk

The Pugwash workshop on *The Chemical Weapons Convention in its North-South Context*, will take place in Noordwijk during 11–13 October 1996.

Convention. Panellist Lori Murray, who is President Clinton's Special Advisor on the Convention [see 17 Apr], suggests that the Senate vote on ratification may have become delayed because of the decision by Majority Leader Bob Dole to retire from the Senate in order to run for the presidency: "Dole made a gentleman's agreement that the treaty would go on the Senate agenda [see 7 Dec 95]. Since he stepped down to run for office, the treaty has been somewhat forgotten." Panel chairman John Rhinelander says that a vote on the treaty could happen any time, but is not very likely to happen soon: "It might be one of those things where the treaty ends up on the Senate floor sometime before the end of the legislative session". {BNA *Chemical Regulation Daily* 31 May}

31 May In regard to Libya and the construction at Tarhunah [see 25–29 May], the news media are continuing to carry un-attributed information apparently in furtherance of the US "public diplomacy" campaign [see 26 Feb]. The *Washington Post* quotes an unidentified US intelligence official as saying that "the Libyans are still completing the boring and lining of the tunnel complex" and will not begin installing equipment to manufacture poison gas until that work is completed {*International Herald Tribune* 31 May}. The German television programme, ZDF

Kennzeichen D, had reported a month previously that German companies had delivered mining equipment and laboratory materials to "Rabta 2" {Berlin *tageszeitung* 30 Apr and 2 May}. And before that the Chicago *Sun-Times* {19 Apr} had carried a story from a British journalist saying: "Excavations at Tarhouna started in 1992, and it is thought that a specialist Austrian firm was involved without realizing that its work in Libya was connected with a factory intended to produce mustard gas and the nerve gases sarin and tabun. At least two small Swiss firms arranged the supply of construction equipment for Tarhouna, and a number of German and French companies are also understood to have been involved, although mainly with the supply of non-military construction equipment and materials." The story adds that, according to US officials, "the US campaign has succeeded in bringing the project to an abrupt halt".

31 May The Executive Secretary of the OPCW Preparatory Commission publishes {PC-XI/7/Rev.1} revised model legislation for national implementation of the CWC [see 18 Jul 95].

31 May Costa Rica deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 53rd signatory state to do so.

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