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BOLSTERING COMPLIANCE WITH THE BIOLOGICAL WEAPONS CONVENTION PROSPECTS FOR THE SPECIAL CONFERENCE

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On 19 September 1994 states parties to the Biological Weapons Convention (BWC) will convene the first special conference in the history of the agreement. The purpose will be to consider a report of an ad hoc group of governmental experts established to identify and examine potential verification measures for the Convention from a scientific and technical standpoint. The outcome of the conference will have a significant impact on the BWC's future effectiveness as a policy tool in responding to the challenge of biological weapons proliferation.

The 1994 special conference has its origins in the post-Cold-War realization that the threat of biological weapons is as great today as when the BWC entered into force in 1975. The experience with Iraq during the war in the Persian Gulf and the conclusion of the United Nations Special Commission (UNSCOM) that Baghdad had been pursuing an offensive biological weapons capability transformed the biological weapons problem for many states from a not very interesting theoretical issue into a very real security challenge. Analysts continue to argue that between ten and twelve nations are pursuing a biological weapons capability, a threat that could foster profoundly destabilizing dynamics in regions of tension. The United States and the United Kingdom also had lingering concerns about the biological weapons program of the Soviet Union, concerns that were validated by the decree which Russian President Boris Yeltsin issued in April 1992, belatedly calling for implementation of the BWC in Russian domestic law.

These developments fostered the view that the BWC had been less than completely successful and needed to be strengthened. This perspective was reinforced by the inadequate participation of states parties in the voluntary confidence building measures that had been agreed at the 1986 BWC Review Conference. In particular, many states parties — but not all — saw the absence of a verification re-

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ENTRY INTO FORCE OF THE CHEMICAL WEAPONS CONVENTION ACTIVITIES AND PROSPECTIVE TIMETABLE

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The Chemical Weapons Convention (CWC) will enter into force 180 days after the deposit of the 65th instrument of ratification, but not earlier than two years after it was opened for signature. At the time of the signing ceremony in Paris in January 1993, there was an expectation that at least 65 states would have deposited their instruments of ratification with the Secretary-General of the United Nations (the Depositary of the Convention) by July 1994, triggering entry into force in January 1995. However, at the time of writing only 14 states have deposited such instruments [see box on p. 5].

Upon entry into force, the Convention will be administered by the new Organization for the Prohibition of Chemical Weapons (OPCW). The development of detailed regulations and procedures, and the establishment of the necessary infrastructure for the OPCW is not a trivial task, in part because of the necessity of retaining the essential aspects of a number of carefully balanced deals which were struck in the final months of negotiation. Indeed, this was seen at the time as the major task in the lead-up to entry-into-force. The complementary responsibility of individual states preparing the necessary administrative and legal steps

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gime in the Convention as a major shortcoming that had to be rectified.

The issue of verification became the single most contentious question at the 1991 BWC Review Conference. The majority of states parties argued that they should incorporate verification measures into the BWC even if those measures were not completely effective since such measures would contribute to deterring BW proliferation. The United States, however, argued that the BWC was not verifiable and it had not identified a way to make it so. In simplistic terms the argument was between those who contended that “some verification was better than none” and the United States which argued that “bad verification was worse than none”.

The outcome of this clash of competing approaches was a compromise establishing an ad hoc group of government experts to identify and examine potential verification measures, the so-called “VEREX” exercise. This decision flowed from the shared recognition that new approaches may become possible because of changing international political circumstances or novel technologies. The group’s mandate was carefully drawn, however, restricting its examination to the scientific and technical aspects of potential measures. It was strongly felt that only when these aspects were understood by all states parties could critical political decisions be considered.

The experts group had a series of meetings throughout 1992 and 1993 under the chairmanship of Ambassador Tibor Tóth of Hungary. In their report to states parties, the experts concluded that some of the potential verification measures would “contribute to strengthen the effectiveness and improve the implementation of the Convention, also recognizing that appropriate and effective verification could reinforce the Convention”. The report also concluded that no single verification measure would be completely effective, but that only in some combination would such measures have an impact.

The VEREX report was circulated to BWC states parties in late 1993. A majority of states parties responded with a request to the depositories — the United States, Russia and the United Kingdom — to convene a special conference to consider the report.

What Should We Expect of the Special Conference?

Although all states parties found the VEREX effort to be worthwhile, the dispute over verification at the 1991 Review Conference has not been resolved. The US, for example, remains reluctant to promote an intrusive BW verification regime, and it continues to have an aversion to an approach based on the identification of quantity thresholds and agent or component lists. Nevertheless, the prevailing expectation is that the special conference will take steps to strengthen the BWC. Those steps may not be as far in the direction of intrusive verification as some states parties prefer, but they are likely to go beyond the voluntary approach that has characterized past confidence building measures.

One should not expect, however, that in the two weeks of the special conference the specifics of the next steps will be completely worked out. Rather, the special conference is likely to establish a group charged with drafting new mandatory measures in the form of a protocol that will be added to the BWC. It would not be surprising if this group were given a deadline for delivering a new draft protocol to states parties for consideration at the next BWC Review Conference scheduled for 1996.

Substantial support appears to be building for an approach that includes the following package of measures:

- mandatory declarations of specified activities and facilities;
- a limited number of visits to validate the declarations; and
- some form of inspections on request.

This combination of measures, for example, was proposed in a recent study by the Federation of American Scientists (FAS),¹ and seems to correspond to the thinking of a number of nations who will likely play key roles during the special conference.²

As with all arms control agreements, however, the “devil is in the details”, and it is not clear what the final form of any new BWC protocol will be, if any. It is particularly unsettled whether the demands of some states parties for “verification” will be met.

Questions Remain

The final outcome of the September conference will be determined in an environment of lingering conceptual and operational questions. Among the key questions are:

What is “verification”?

Some of the dispute over the need for a verification regime for the BWC turns on different understandings of what constitutes verification, particularly as it relates to deterrence and detection. The risk of detection must exist to a significant degree, although different people, or nations, may disagree about the extent of that risk. Given continued uncertainty that the measures identified by the VEREX effort pose a high enough risk of detection, there remains a reluctance to label such measures “verification”. Rather, the language now generally in use discusses these measures as “bolstering confidence in compliance” so as to avoid a debate about what degree of detection is required to consider a measure as providing genuine “verification”.

Does “validating declarations” constitute verification?

Related to this issue is the concern expressed by some analysts that an approach focusing on validating declarations through visits as its central feature will come to serve as a surrogate for verification of compliance when, in fact, they are very different functions. Indeed, the question has been raised whether such a validation approach provides much real substance in the verification realm. The experience of the International Atomic Energy Agency (IAEA) with Iraq suggests that such an approach has serious short-

comings. In particular, the IAEA validated Iraq's nuclear declarations in a routine visit just months before Iraq invaded Kuwait and it was subsequently discovered that Baghdad was pursuing not one, but several routes to acquiring nuclear weapons, none of which were the object of IAEA attention. The potential problem is that visits might validate declarations, but they do not necessarily validate compliance. This issue is further complicated in the BWC context by the way the treaty is drafted, particularly the fact that the treaty's prohibitions turn on intent rather than capability. Those uneasy about the declaration/validation visit approach worry that it is an inadequate means of evaluating intent.

There is also concern that validation visits contribute less than their potential expense warrants. The amount of enhanced confidence in compliance with the Convention provided by, for example, the one hundred annual visits proposed by the FAS, may not be worth the cost of creating the mechanisms to conduct them, particularly since those who support this approach favour creation of a dedicated international inspectorate of the kind established for the Chemical Weapons Convention (CWC).

Advocates of this approach agree that declarations and validation visits alone are not adequate, but that some form of inspection on request is necessary. The issue then becomes whether it would be more valuable and more cost effective to concentrate on developing an effective "challenge" inspection regime rather than establishing the more "routine" procedures as is likely to be the case if the entire package is adopted. Admittedly, such an approach is politically more adversarial and not supportive of the cooperative multilateral approach now generally endorsed as the most beneficial mode for future arms control efforts.

What are the political tradeoffs?

Some policy makers are also concerned about the potential price that might have to be paid to secure agreement for proceeding on new measures. In particular, they worry that representatives of the developing states might demand concessions in the areas of trade and technological assistance in return for support of a protocol drafting effort. Some western participants, however, are reluctant to open the assistance issue, arguing that the special conference has been called to consider the VEREX report and it is not appropriate to raise other issues. Rather, consideration of assistance and trade questions is part of the agenda for the 1996 review conference. Although this argument is perhaps legally correct, the political dynamics of the special conference could make it moot. To take further action, the special conference will require a consensus among states parties attending, and some states might threaten to break consensus if they do not get something in return on issues of importance to them, whether specifically related to the VEREX effort or not.

What will be the impact on pharmaceutical, biotechnology, and other businesses?

Concerns about proprietary business information, industrial competitiveness in the biological and biotechnology arenas, and other business considerations are likely to be

important factors in the dynamics of the special conference. These concerns are especially strong in the United States which is the recognized world leader of the biotechnology revolution. For example, the United States is keenly aware that there might be some interest in carrying over provisions of the CWC relating to protecting proprietary business information during inspections to the BWC, when, in fact, the situations are quite different. Chemical companies tend to patent their products and procedures while biotechnology companies do not, given that the patent procedure itself can reveal information regarding the nature of novel organisms and biological products with potentially damaging impact on a company's competitive position. The relative importance of the information that would be necessary to show to an inspector is also significantly different. The desire to protect the competitive position of its biotechnology industry will also shape the US approach to the issue of assistance and technological cooperation if it is raised during the special conference.

One of the central concerns in addressing the details of how intrusive an inspection regime must be to enhance confidence in compliance with the BWC will be how much business information is at risk during inspections. The worry is that in order to promote a reasonably high degree of certainty regarding a facility's compliance, especially in the context of a challenge inspection and the need to determine intent, a degree of intrusiveness beyond that provided in the CWC would be required. Such a level of intrusiveness may be neither politically feasible (in that the CWC represents the degree of intrusiveness states are currently willing to accept) nor conceptually viable (in that it puts too much confidential information at risk). This concern, however is not universally shared. On the basis of four trial inspections, for example, the British have concluded that effective inspections can be conducted at industrial facilities without unacceptable risk to key commercial and proprietary information through the use of managed access techniques.

Former Chairman of the US Joint Chiefs of Staff, General Colin Powell, has observed that of all of the various weapons of mass destruction, biological weapons are of greatest concern to him. The BW challenge is significant and growing, and the policy tools for dealing with it, including the BWC, must be honed. The September 1994 special conference of states parties to the BWC is an important opportunity for the international community to strengthen its hand. It is one more example of the reality that if arms control tools are not adapted to evolving security challenges they quickly become relics of a past age.

Notes

1. "Beyond VEREX: A Legally Binding Compliance Regime for the Biological and Toxin Weapons Convention", Report of the Federation of American Scientists Working Group on Biological and Toxin Weapons Verification, July 1994.
2. See, for example, Graham Pearson, "Strengthening the Biological Weapons Convention: The Need for a Verification Protocol", *Industry Insights* [Chemical and Biological Arms Control Institute] no 3, September 1994. Pearson is Director General of the UK Defence Ministry Chemical and Biological Defence Establishment, Porton Down.

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to ensure national readiness for implementation was seen as a simpler, less time-consuming process.

Thus, in 1993 the major interest in the progress towards entry into force was the work of the Provisional Technical Secretariat (PTS) in conjunction with the Preparatory Commission (PrepCom). It is therefore somewhat ironic in mid-1994 to realize that, after what can only be described as a frantic effort in the PTS and the PrepCom to be ready for entry into force by the earliest possible date, 13 January 1995, the rate of ratification makes it inevitable that entry into force will take place at a later date.

An unfortunate consequence of the slippage is that some observers are interpreting the slower than anticipated rate of ratification as indicative of either a prevailing impasse in the PrepCom process, or still worse, a lack of commitment by PrepCom member states to the CWC. For example, at the Seventh Session of the PrepCom on 27 June 1994, it was suggested by one delegation that "the delay in the ratification by such a large number of Signatories" was a consequence of unresolved issues in the PrepCom.

In our view there has been very respectable progress in the PrepCom, especially when taking into account the complexity of the range of issues to be resolved, many of which were not resolved in the Geneva process. We are confident that these outstanding issues can be resolved in a reasonable manner. Against this background, the rate of ratifications is not an indication of lack of interest in the CWC or a consequence of the Commission not yet having resolved all of the outstanding issues. Rather it is an indication primarily of the longer than anticipated time required for prospective states parties to undertake the necessary measures to prepare for domestic implementation of the Convention prior to ratification. This is evident from the experience of Australia, which we now relate.

Time required for ratification: Australia's experience

Preliminary Preparations

At the Government-Industry Conference Against Chemical Weapons held in Canberra in September 1989, the Australian Foreign Minister, Senator Evans, announced that the Department of Foreign Affairs and Trade was establishing a national secretariat as the nucleus for the future National Authority. He stated that the secretariat, in consultation with appropriate federal and state government departments, would review existing laws and regulations covering the activities of the chemical industry, and would look for ways of introducing and adapting the prospective requirements of the CWC into the current regulatory matrix.

The work of the secretariat proceeded along two fronts. First, there was the need to assemble data on which chemicals relevant to the CWC are produced and used in Australia. To this end, a survey was designed and a questionnaire developed, based on the CWC Schedules.

The survey, conducted in December 1991, was sent to more than 2000 organizations, including chemical manufacturers, industrial chemical users, government agencies and laboratories, hospitals and universities. Following the processing of these data, Australia was in a much better position to address the question of resources required for its National Authority.

Second, there was a need to examine how the CWC could best be implemented in Australia, in terms of national laws, regulations and administrative structures. A review of existing legislation and administrative structure was undertaken. Following completion of this review, a package was designed to implement the CWC in Australia. This included legislation giving effect to many Convention obligations and the Ministerial decision to establish a National Authority empowered to collect production and other relevant data, and with the ability to facilitate international inspections of chemical-related industries in the country.

Australia's domestic legislation, the Chemical Weapons (Prohibition) Bill, was introduced into Parliament on 16 December 1993 and passed by both Houses of Parliament in February 1994. *The Chemical Weapons (Prohibition) Act* became law with the Royal Assent in April 1994. Australia deposited its instrument of ratification in May 1994.

Australia's National Authority

Australia's National Authority, which will be called the Chemical Weapons Convention Office (CWCO), is being established within the Department of Foreign Affairs and Trade. The CWCO will be closely associated with the Australian Safeguards Office, which is responsible, amongst other things, for implementation of Australia's safeguards obligations under the Nuclear Non-Proliferation Treaty. The Safeguards Office is headed by a statutory director, who is responsible to the Foreign Minister.

The Director of Safeguards will also be appointed Director of the CWCO. This arrangement recognizes the institutional and administrative similarities between the chemical weapons prohibition regime and the nuclear non-proliferation regime, and enables the most effective use of available senior executive and administrative support resources. Specialist staff will be recruited for the CWCO. Apart from the Director, two full-time staff are envisaged, with part-time expert support drawn as required from other areas of the government and possibly the private sector.

Based on our experience, it should be emphasized that the setting up and operation of a National Authority need not be expensive, and should not be seen as an onerous administrative burden by a prospective State Party. In particular, for a country with no chemical weapons and a very modest chemical industry, the size of the National Authority may be very small — possibly only requiring an existing small section in the foreign ministry (or other appropriate ministry) to be designated as the relevant authority. For many small states, including those in South East Asia and the South Pacific with no chemical weapons and no declarable chemical industry, an individual governmental official

with access to the appropriate expertise of other officials on an “on-call” basis may well be sufficient to fulfill the requirements of the National Authority.

Temporal Perspective

From the start, the Australian Government had advantages in working towards ratification. We were very familiar with the CWC text, and already had a good idea of its implications for national implementation. Our bureaucracy had begun preliminary preparations for entry into force well before the CWC was completed. We already had the advantage of a long and constructive dialogue with industry to prepare for implementation. We possess no CW or CW related facilities, and our chemical industry is a fairly modest one. Nevertheless, even with a highly favourable environment for ratification it took some 16 months after signing the CWC for Australia to ratify. Consequently, from our perspective, the current number of ratifications is neither surprising nor disappointing.

Prospects for entry into force

The conclusion of the negotiations for the CWC and the subsequent signing ceremony did not herald the end of the entire process, but the transition from one stage to another in the overall process towards an effective CWC. While there has been substantial progress in the PrepCom, there is still a lot to be done before we have an operational CWC and a world free of chemical weapons. That said, we consider that the world is already benefiting from the conclusion of the Convention — an increasing number of governments are citing the achievement of the CWC as a positive factor in the process toward a more secure international environment — a sentiment which underlines the growing effectiveness already of the CWC in establishing a global norm against chemical weapons.

Looking back over the last eighteen months, there is no doubt that the PrepCom’s task of setting up an international organization within a two-year period was a very ambitious undertaking, necessitated by the presumption that 65 ratifications could have been deposited with the UN Secretary-General by July 1994. This placed the PrepCom process, and the PTS in particular, under enormous pressure. The negotiators in Geneva, who were responsible for this minimum two-year implementation period, greatly underestimated the effort involved in setting up a completely new international organization of approximately 500 personnel, including 200 trained inspectors.

It has become clear that the expectation, in some quarters, of 65 ratifications within 18 months of opening for signature was based on unrealistic estimates of the time needed for states to prepare for national implementation and ratification of the CWC. However, there are many positive signals on the progress of the ratification process. For example, a large number of states, including several Western developed states with significant chemical industries, have stated that they intend to have implementing measures in place and to ratify before the end of 1994. It is anticipated that a number of member states will complete their ratification in the remainder of 1994. Of particular interest

CWC Non-Signatory States

as of 29 August 1994

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

157 states have signed the CWC 14 of which have deposited instruments of ratification

Deposited CWC ratifications

as of 29 August 1994

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

are Germany and the United States — two of the signatory states possessing the largest chemical industries (and USA possessing the second largest CW stockpile). Germany ratified in August 1994. We anticipate that this and the expected ratification by the US will be interpreted as a “hurry

up” message to other member states, including those having large chemical industries.

A question mark still hangs over the date of ratification by the Russian Federation. In the Sixth Session of the Commission, a message from the Russian Foreign Minister Kozyrev stated that the Russian Duma had begun preparations for ratification. While it is unlikely that Russia will complete its ratification process in 1994, the USA has not made its own ratification subject to prior Russian ratification, and it is expected that Russia will ratify in time to be an Original State Party. In a summit meeting in Moscow in January 1994, President Yeltsin and President Clinton declared their “resolute support for the Convention of the prohibition of Chemical Weapons and their intention to promote ratifications as rapidly as possible and entry into force of the Convention not later than 1995.”

Based on a number of very supportive statements made by many member states during PrepCom plenaries and outreach seminars, we are confident that other states are taking

their future obligations seriously and are developing the necessary detailed preparations for entry into force in good faith. For example, there are more than eighty member states actively involved in the PrepCom outreach activities, including regional seminars.

In conclusion, it is still difficult to predict when the CWC will enter into force, but reports from signatory states on their progress toward ratification suggest that there will be a rising trend in the number of ratifications in the latter part of 1994 and the early part of 1995, and that entry into force is likely some time between the latter part of 1995 and mid-1996. Based on the complexity of the PrepCom process and the detailed requirements for national implementation, it is now clear that it was unrealistic to have expected an earlier date.

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

The former test and evaluation site on Pulau Tenggol

In 1953, during the period of British rule in what is now Malaysia, a test facility was established on an island off the coast of Trengganu in order to evaluate a novel weapon based on the irritant agent α -bromobenzyl cyanide, otherwise known as ‘BBC’. In January of that year the British Cabinet had authorized General Sir Gerald Templer to use BBC in his operations against communist insurgents in Malaya. Such use does not in fact seem to have happened; nor is it clear from information immediately available whether the 25 tons of BBC ordered by General Templer’s staff following the trials were in fact dispatched from the UK. A point of departure for further inquiry into these matters is the file of UK Air Ministry papers now open as AIR 23/8593 in the UK Public Record Office, from which the present Note draws.

The genesis of the Pulau Tenggol project is described in the first trials report in the following terms: “Largely as a result of a visit by the Scientific Advisers’ party to Malaya in 1952 a Ministry of Supply team came to Malaya in April 1953 to conduct experiments on the efficiency of BBC...as a barrier to bandit movement”. The purpose of ‘Operation Crusoe’ (initially ‘Hercules’), as the trials were designated, was twofold: “to establish whether BBC dispersed from improvised break-up bombs can present an effective barrier to the passage of determined opponents in Malayan terrain, and, if this proves to be the case, to determine the required spacing of the bombs to produce the effect”. The test venue was the small island of Tenggol, 15 miles east of Dungun, described as uninhabited and almost entirely covered in primary jungle. “British, Malay and Chinese volunteer military observers” were the “guinea pigs”. The bombs were 30-kilogram devices comprising square-section tins each charged with 20 litres of BBC. Dropped in sticks from aircraft they were found to penetrate the jungle canopy satisfactorily, each one breaking open on impact to scatter its payload over an area of some 200 square metres. The trials report concluded that “BBC will not stop a determined man who knows the

physiological characteristics of BBC and the extent of the contamination”; but it continues: “If it be decided to use BBC operationally [this] will require roughly 500 bombs per mile of barrier and should be effective up to seven days”. The concept of use subsequently developed by General Templer’s staff reflected the fact that BBC was no longer in production, and that the stockpile available in the UK amounted to 180 tons: General Templer, his staff wrote, “has decided that we could make best use of BBC by employing it as a delaying agent, on a pin point target, such as a Bandit Camp”.

BBC had first appeared as a military weapon 35 years previously when France introduced it onto the battlefields of World War I, using it as a persistent harassing agent during the final five months of combat. The US designation for it, ‘CA’, derives from the original French one, ‘Camite’. The agent is an incapacitating chemical, disabling primarily through its powerful lachrymatory action. Its relatively low volatility militates against lethal concentrations building up at all readily in the field, but its median lethal inhalation dosage in man is reckoned to be midway between that of phosgene and that of chlorine, the two main killer gases of the Great War. British production of BBC is described in Ministry of Supply files in the UK Public Record Office, notably SUPP 5/1003 and SUPP 5/1008 (where the agent is referred to as ‘larmine’). Authorized in December 1939, a 100 ton/month plant was established at Ministry of Supply Factory Randle, near Runcorn, which was primarily a mustard-gas production facility. How long the BBC plant was kept open after World War II is not immediately apparent, but Randle mustard-gas plant was maintained in stand-by status until September 1956. Over the years since then, after a period of large-scale chemdemil operations at the plant-site, the factory has been demolished; essentially nothing now remains. *JPPR*

This is the first in a series of historical research notes bearing upon current or impending policy questions.

Building the Organization for the Prohibition of Chemical Weapons

Actions by the PrepCom

The Preparatory Commission for the Organization for the Prohibition of Chemical Weapons (OPCW) reconvened for its seventh plenary session in The Hague during 27 June–1 July. It was able to complete its business one day early, the session thus closing on 30 June. It took action on a range of matters that had been deliberated upon by its two working groups (A on Administrative and Organizational Matters, and B on Verification and Technical Cooperation and Assistance) and, during the previous intersessional period, by a newly simplified structure of expert groups (four of which report to Working Group A, and six to Working Group B). Its more significant decisions were as follows:

- Adoption of a list of general and specific operational requirements for inspection equipment.
- Partial resolution of the standing question of the character of the planned OPCW Laboratory.
- Adoption of a draft *Model Bilateral Agreement Concerning the Procurement of Assistance*, as well as a list of categories of information on assistance that could be made available by states parties.
- Adoption of a range of understandings on chemical industry issues, including a restrictive reading of the scope of the term “alkyl”; treatment of the activities of sub-distribution, packaging and waste disposal; procedures for reporting changes to annual declarations; a set of understandings in relation to Part IX of the Verification Annex; the treatment of mixed plants; and transfers of Schedule I chemicals.
- Pending approval of the Confidentiality Policy as a whole, the provisional approval of procedures for the release of information by the OPCW and for breaches and alleged breaches of confidentiality.
- Adoption of a set of understandings on the temporary conversion of chemical weapon production facilities (CWPFs) to chemical weapon destruction facilities (CWDFs).
- Adoption of criteria for inspection frequency and duration at chemical weapon storage facilities (CWSFs).

The Seventh Session early heard a statement from the Iranian delegation presenting a catalogue of items from the original list of substantive issues which the Paris Resolution had tasked the Preparatory Commission to resolve but on which, in the delegation’s view, there had been little progress. The statement asserted that it was likely that a considerable amount of time would be needed to resolve these issues, and suggested that the slow pace of ratification might be attributed to the difficulty of answering many of the questions national legislatures might have about the Convention. Noting that the most difficult issues were those

that states had earlier been unable to resolve in Geneva, the delegation’s statement proposed the establishment of a Committee of the Whole to negotiate a “package” that would produce compromises on these issues as a group.

Other statements by member states included one by Cuba reemphasizing the importance of ensuring that all documents intended for action by the plenary be issued in all of the official languages of the Commission at least three weeks before the beginning of the session. Concerns on this score were also voiced in Working Groups A and B.

Like earlier sessions, the Seventh was not without disagreements and disputes between states. These areas of contention included:

Article XI issues A statement made on behalf of the Asian Group less Japan emphasized the importance of “the legitimate developmental aspirations of States Parties through increased international cooperation and transparency”. It also strongly endorsed the view that Article XI of the CWC is inconsistent with the continuation of many Australia Group export controls, and that the obligation to eliminate export controls may not be complied with gradually, but must be “implemented in its entirety from the moment of its entry into force”. Some states and regional groupings made statements in support of this view; others expressed differing views. Japan said that it was “not in the position to fully associate itself with this statement of the Asian Group”.

Inspections The Asian Group statement also touched on a second important area of controversy. Expressing the view of certain of its members that the Convention’s inspection provisions, particularly its challenge inspection provisions, should be construed narrowly, the Group’s statement said that challenge inspections should be used “cautiously” and that “prudence” is required to avoid placing “an unbearable financial burden upon States Parties that could jeopardize [the Convention’s] universality”. Finally, the statement asserted in passing that states parties should not transfer the cost of CWC obligations to the OPCW, an apparent reference to attempts by some to construe the Convention in a way that would greatly expand the scope of the OPCW’s responsibility to pay inspection costs.

Participation The Asian Group’s statement also noted the importance of broad participation in the meetings of the Commission’s subsidiary bodies, and stated that the Commission should “consider measures to encourage this progress in practical ways”, presumably through outreach to experts from regions other than the Group of Western European and Other States. The Eastern European Group also addressed representation in subsidiary bodies, but did so by

asserting its willingness to accept “a greater share of the responsibilities of Chairs of such bodies”.

Staffing The Session also featured a continuation of past controversies over the staffing of the Secretariat. Reprising a theme sounded at past sessions, the Asian Group emphasized the importance of wide geographical distribution of posts in the Secretariat, and stated that the Group exhorts the PTS to “maintain and enhance the level of transparency in the recruitment by proper circulation of vacancies and particulars of successful candidates”. The Eastern European Group, too, called for greater transparency in the recruitment process, as well as calling for improved representation from its Group. Other states and regional groupings expressed generally similar views.

Decisions on a number of important questions were deferred. Prominent among the organizational issues left for a later decision was the question of the OPCW building, including the question of whether the Organization might be housed in an existing building rather than in a new purpose-built one. This question, originally scheduled for decision during the Seventh Session, has now been deferred until the Eighth. Similarly, faced with the difficulties encountered by the Expert Group on Data Systems in agreeing on the acceptance of national offers for the OPCW’s Information Management System, the Commission postponed decision on this matter. The latter question is particularly politically charged; the statement of the Asian Group at the Session included an oblique reference to the “objective assessment of national offers” that was presumably directed at this point. The Session also continued to approve new staff positions at a very slow pace, approving only three of the ten new posts requested by the Secretariat.

The apparent slowing of the pace of work may reflect the widespread recognition that initial projections that the Convention would enter into force by early January 1995 were overly optimistic. The report of the Executive Secretary stated that, as only eight of sixty-five ratifications required for entry into force had been deposited by late June, the initial assumption that sixty-five ratifications would be deposited by mid-July would have to be revised. Although the report, which remained optimistic on the whole, only stated that the PTS would for planning purposes assume that the sixty-fifth ratification would not be deposited before the Eighth Session in late September, the report also observed that many signatory states did not project that they would be able to ratify before early 1995.

The Seventh Session, like the Sixth, was attended by 79 of the 157 CWC signatory states, only one member above the level at which it would have been without a quorum. The Session was chaired by Ambassador Grigory Berdennikov of the Russian Federation; in his absence during the first two days of the session, Dr. Radoslav Deyanov of Bulgaria served as acting Chairman. In keeping with the principle of chair rotation among the five regional groups, Ambassador Miguel Marín-Bosch of Mexico, elected by this Session, will serve as Chairman for the period 8 August 1994 to 8 February 1995, as a representative from the Latin

American and Caribbean group. The newly elected Vice-Chairs are the representatives of Zimbabwe, South Korea, Colombia, Ukraine and, again, the United States.

Actions by the Member States

Signature and Ratification No additional states have signed the Convention since the Sixth Session, so that the total number of signatories stands at 157. As of 31 August (the end of the period under review here), fourteen ratifications have been deposited, three of them (Australia, Albania and the Maldives) during the sixth intersessional period and six (the Cook Islands, Spain, Bulgaria, Germany, Sri Lanka and Mexico) during the subsequent two months. There are reports that a number of other states are well advanced in the ratification process. Delays in ratification have variously been attributed to the complexity of the process, to scepticism on the part of some states with little to declare under the Convention about the value of ratification, and to competing domestic legislative priorities. There is also a widespread belief that some states are either withholding their ratification pending the US Senate’s action, or have not devoted as much attention to the matter as they would after a US ratification.

Contributions The report of the Executive Secretary at the Seventh Session noted that nearly half of the members of the Commission have not paid their assessments for 1993, and contributions for 1994 are falling behind. A review of the Executive Secretary’s report reveals, however, that, as a percentage of the dollar total, a very large fraction of the total 1993 contributions has been paid.

Meetings and Seminars From 18 July to 12 August, the Kingdom of the Netherlands conducted a four-week training course for future officials of National Authorities from developing countries; 48 officials attended the full series of courses, and an additional 27 attended a two-week subset of the full series; a number of states sent more than one individual for training. The all-day training sessions were conducted in small groups led by experts in the area under discussion; the instructors included Dutch government and industry experts, senior PTS staff, and outside experts flown in for the occasion.

The governments of Thailand and of the Czech Republic hosted regional seminars on the implementation of the Convention during 9–10 May and 1–2 June, respectively. Further seminars are planned for Peru during 1–3 September, for South Africa during 12–14 September, and for Indonesia during 28–30 November 1994. There are also tentative plans for a regional seminar in Kuwait in early November. The South African seminar is of particular interest. It will be the first Seminar to be held in Africa; participants from throughout Africa are invited, and the government of South Africa has generously offered to pay transportation expenses for one representative of each invited state. There was a very strong positive response from invited states; virtually all African state signatories agreed to send representatives to the seminar.

Other Activities Member states like Russia and Hungary continued to press for acceptance of their national offers for the OPCW's Information Management System. The African Group has been very strongly involved in the activities of the Expert Group on Technical Cooperation and Assistance, a valuable step towards the goal of broadening the representation of states active in the Commission's subsidiary bodies. In response to pressure to eliminate national export controls on chemical-related exports expressed in the plenary meetings of the Commission and in the Expert Group on Technical Cooperation and Assistance, a number of states announced that the review of national export control measures required by Article XI of the Convention had already begun. Finally, the government of Canada has donated to the PTS a complete set of the negotiating record of the CWC in the Ad Hoc Committee on Chemical Weapons of the Conference on Disarmament.

Progress in the Provisional Technical Secretariat

Staff and Budget As of the end of June, 98 of 120 positions authorized for Phase I of the 1994 budget had been filled and recruitment for an additional 11 posts was still underway. Mr. Oscar Fiestas-Tejada of Peru joined the PTS during the period before the Seventh Session, as head of the Information Systems Branch. The Executive Secretary's report noted that only five of fifty-three professional positions in the Secretariat were held by women, and requested that member states encourage qualified women to apply. His report also stated that 1,104 applications had been received for inspector positions from sixty member states. However, 82% of these applications were from member states in the Asian or WEOS groups, and only 8% of applicants were women. In budgetary matters, the Executive Secretary's report to the Seventh Session projected that the Preparatory Commission would have a budget surplus of almost 5 million guilders for 1994, which he attributed to the delays in spending associated with the slow pace of ratification and associated difficulties in recruiting staff.

Internal Policies The PTS continues to develop its internal policies and practices. At the request of the Expert Group on Confidentiality, the PTS is preparing a draft media policy for the OPCW as a whole.

Outreach Activities The PTS continued to maintain a high level of outreach activities. In the intersessional period, the Executive Secretary made official visits to Greece, Bulgaria, Malaysia, Pakistan, India, the Czech Republic, and the Slovak Republic. His activities included discussions of the progress of implementation and ratification and visits to military, industrial and academic facilities. Senior secretariat staff also engaged in significant outreach work, including attendance at regional seminars, meetings with the United Nations and other international organizations, and meetings with government and industry officials in a number of regions. At the request of UNSCOM, Secretariat staff also participated in technical discussions related to the inspection of Iraq's chemical weapons. A number of PTS officials also participated in two seminars held in the Netherlands in May, the first a NATO workshop during 22-

27 May on the destruction of military toxic waste, and the second a workshop on the implementation of the Chemical and Biological Weapons Conventions organized by Pugwash and the Harvard Sussex Program during 27-29 May.

Regional seminars on national implementation continued to be one of the Secretariat's principal outreach tools. Regional seminars to date have featured an address by the Executive Secretary, discussions by PTS senior officials and outside speakers, and the participation of a range of high-level regional government and industry representatives; this pattern is expected to continue at future meetings.

Official Publications In addition to continuing publication of its newsletter *OPCW Synthesis*, the PTS issued a report of the joint meeting between industry representatives and the Expert Group on Chemical Industry Facilities, denominated *Information Series B* no. 2, which summarizes the proceedings and the concerns voiced by participants. The PTS has also produced complete sets of the 1993 Commission documents in each of its official languages; they are available, for a fee of 200 guilders (plus postage), from the Conference Services Branch. The PTS has also issued two *Occasional Papers*: no. 2, summarizing the proceedings of its Seminar on National Implementation in December 1993, and no. 3, summarizing the proceedings of the regional seminar conducted in Warsaw in the same month.

Progress in Other PrepCom Structures

Committee on Relations with the Host Country. The Committee continued to work on plans for the long-term accommodation of the OPCW. The options of constructing a new building and of converting an existing structure both remained under active consideration during the period reported. The Commission had engaged three developers, to prepare proposals for new structures, and a real estate firm to investigate existing buildings. In July and August, the work of the Committee on evaluating these proposals was assisted by a new subsidiary body, the Task Force on the Accommodation of the Commission/OPCW, which met frequently during that period. The Committee decided not to pursue the existing building that had been identified by the consultant it had engaged, on the basis of a finding by the Executive Secretary's security adviser that the building was unacceptable for security reasons. The Committee did, however, retain the option of identifying some other existing structure for conversion.

As to the three proposals for new buildings, the Task Force analyzed these from a range of perspectives, including their suitability to the OPCW's practical needs, their "non-quantifiable" attributes, and possible financing methods. Planning for a new building was complicated significantly, however, by a letter from the municipality of The Hague requesting a commercial price for the land at the Catsheuvel site. The Committee authorized the Executive Secretary and Chairman of the Commission to respond to this letter with a letter expressing dissatisfaction with this position. It also authorized them to send a further letter to the Dutch Foreign Minister asserting that the prevailing practice in host countries providing a seat to an interna-

tional organisation is to provide a site on a long lease at a nominal cost, and stating that the member states do not expect to pay a commercial price for the use of the site. In light of continued uncertainty as to the land price, and the need for further analysis of the new building options, the Committee recommended deferring a decision on the new building to the Ninth Session of the Commission.

During the period reported, the Executive Secretary also presented the Committee with a detailed list of requirements for the conference facility for the first session of the Conference of States Parties when the CWC enters into force. As there will in theory be only six months' notice before EIF, and as the meeting is likely to be large and of some significance, the Kingdom of the Netherlands is anticipating some difficulties in reserving required conference facilities.

Working Groups A and B These convened during the Session to consider the reports of their Groups of Experts and to make recommendations for action to the Commission itself. The summaries below indicate the recommendations made by the Expert Groups during the sixth intersessional period (mid April to late June) and approved at the Seventh Session, and describe the work of the Expert Groups during the first two months of the seventh intersessional period (July and August). The first four Expert Groups reported to Working Group A, the others to Working Group B.

OPCW Headquarters Agreement The Executive Secretary presented this Expert Group with a proposed draft of the OPCW Headquarters Agreement with the Kingdom of the Netherlands for the Group's consideration. The Group, at its subsequent meeting, discussed proposed modifications to the draft, and requested the Secretariat and the representatives of the government of the Netherlands to begin consultations on the amended text as early as possible.

Administration, Finance and Personnel This Expert Group did not meet during the period reported.

Programme of Work and Budget In preparation for the Seventh Session, this Group recommended the filling of three posts in the PTS, of ten requested by the Executive Secretary; the Commission later approved this recommendation. (The three posts that the Executive Secretary identified as "priorities" were approved.) The Group, assisted by the work of the Finance Group, also conducted a close preliminary review of the PTS's proposed 1995 budget. Among the Expert Group's recommendations were that subsequent drafts not request more funds than did the 1994 budget, that non-personnel appropriations should be kept "well below" the 1994 levels, and that the Secretariat should take into account in its proposals the possibility of a delay in entry into force. The Expert Group also set specific requirements for presentation of information, issued a model structure for each section of the Programme of Work and for proposed appropriations, presented a set of model tables, requested additional and comparative data in a number of areas, and made specific comments on the proposed budget requests of a number of PTS divisions.

During the seventh intersessional period, the Expert Group finalised the Programme of Work and Budget of the Commission for 1995 and recommended its approval by the Eighth Session of the Commission. This process entailed a close review of the draft Programme of Work and Budget, and included both extensive editing of programmes of work and significant cuts in budgeted activities. As a result, the amount budgeted for 1995 activities (for that part of the budget available before the deposit of the 65th instrument of ratification) was significantly below that budgeted for 1994: 27.25 million guilders in proposed appropriations, as against 34.46 million in 1994. Because the Secretariat found that it would probably be unable to spend the 7.59 million guilders budgeted for inspection equipment procurement in 1994, and because of the difficulty of reallocating these funds to the 1995 budget directly, the Group authorized the establishment of a Special Account for the 1994 funds to permit some expenditures of these funds to occur in 1995. (The Group noted that this was "an exceptional departure from the Commission's normal budgetary procedures", and that it did not constitute a precedent.) It should be noted that, if the amount budgeted for inspection equipment is excluded from the 1994 budget, the 1995 budget does show a very slight increase over 1994, although less than enough to allow for inflation. The approved Part II budget for 1995 was 29.57 million guilders; this amount becomes available to the Executive Secretary only after the deposit of the 65th instrument of ratification.

Among the other activities of the Expert Group and of the Finance Group in this period were a review of the audited financial statements of the Commission for 1993 and a review of the 1993 audited statements of the Provident [pension] Fund, both generally positive. The Expert Group also endorsed a proposed set of accounting standards based on those employed by the United Nations. The Expert Group deferred consideration of a proposal by the Executive Secretary that the Commission implement a cash merit award system, and postponed a review of the General Services pay scales until the results of a survey of local salaries conducted by the International Court of Justice became available. The Expert Group once again recommended that the Commission draw the attention of member states to the low collection rate for assessed contributions. Finally, the Group recommended that the Commission truncate the December (Ninth) Session of the Commission, formerly planned for two weeks, to one week.

Data Systems Preparing for the Seventh Session of the Commission, this Expert Group agreed on the composition and mandate of the Specialist Task Force that it had decided to establish in its earlier sessions. The Task Force, which is to meet on an ongoing basis, is composed of Secretariat staff and specialists from member states, and will also commission reports from external consultants. Its mandate is to identify the needs of the Secretariat, especially of the Verification Division, with more precision; to suggest detailed specifications for the system design adopted by the Commission; to make recommendations on system security, including recommendations on standard software; and to assist the Secretariat in the evaluation of national offers.

The Task Force met frequently in July and August, and reached a number of conclusions on general principles for data security. It concluded, however, that it was not able to reach agreement on a security model for the OPCW's information management system (IMS). Dispute centered on whether a C2 security level (in the classification terminology of the European Union and of the US Department of Defense) would be sufficient for the OPCW, or whether, as suggested by some member states, a B1 level would be necessary. The latter option would have significant cost and operational implications, and would likely require the establishment of a second computer network. A Note by the Executive Secretary on these topics observed that it might be possible to address security concerns in other ways, for instance by keeping certain highly sensitive data entirely outside the computer system.

Failure to agree on this question would have a number of adverse effects, delaying the IMS's development and complicating planning for the IMS's budget for 1995. Accordingly, the Expert Group suggested that the Expert Group on Programme of Work and Budget not take a final decision on this question, and requested its Chairman to consult with interested delegations to resolve the matter before the Eighth (September) Session. At the Expert Group's request, the Executive Secretary issued the aforementioned Note, in the hope of focusing attention on the need to agree on an IMS security model. The Expert Group also recommended that the Expert Group on Confidentiality clarify the draft materials it was then considering on the handling and protection of confidential information, and noted their potentially significant operational implications.

Other activities of the Expert Group (and Task Force) in this period included a detailed review of the budget proposal for the Information Systems Branch; a decision to accept the Finnish national offer to serve as a component of the OPCW's IMS as a "stand-alone" system; and evaluation of the US national offer.

Inspection Procedures The Seventh Session adopted a list of general and specific operational requirements for inspection equipment proposed by this Expert Group. Work then began to develop a list of more precise technical specifications in order to permit the Secretariat to begin procurement. The Group also recommended a procedure for procurement of inspection equipment, for consideration by Working Group A. This Expert Group partially resolved the question of the character of the planned OPCW Laboratory. Endorsing an expert group finding that the budgetary implications of a high-containment laboratory were too severe, the Group adopted a set of broad specifications for "a small standard laboratory designed for receiving and handling small quantities or dilute solutions of Schedule 1 (toxic) chemicals in compliance with the national standards of the Host Country". This recommendation was endorsed by the Commission. Previous meetings of the Expert Group on Equipment had already established an equipment list for this laboratory, also endorsed by the Commission.

At its meeting during the seventh intersessional period, the Expert Group agreed upon a set of detailed technical specifications for inspection equipment drafted by its Specialist Task Force on Inspection Equipment Issues. The

specifications, which are over 50 pages long, are intended to ensure that inspections are effective but do not infringe on the confidentiality concerns of states parties. The Group also set forth a set of draft procedures for the inspection of inspection-team equipment by inspected states parties at inspection teams' points of entry and exit; these procedures permit states parties to exclude items of inspection equipment under defined circumstances. Finally, the Group agreed on a set of guidelines for the use of agreed equipment during on-site inspections. These guidelines include an (exclusive) list of the sets of rules that govern the use of inspection equipment during inspections, and provide the inspected state party with the right to take note of, or receive copies of, any information collected during use of that equipment. These recommendations will be submitted to the Eighth Session for approval.

Technical Cooperation and Assistance In its work during the sixth intersessional period, this Expert Group adopted a draft *Model Bilateral Agreement Concerning the Procurement of Assistance* and a list of categories of information on assistance that could be made available by states parties. The Group also adopted a list of information categories for the data bank on protection, and approved the content of the basic course for National Authorities personnel. The Group was not able to agree on a list of categories of information to be provided by states parties under Article X, paragraph 4, on national programmes related to protective purposes; it could not agree either to expand the list of mandatory information or to accept that the list as it stood was adequate. The Group also considered a draft list of protective equipment to be stored at the PTS storage facility, but did not approve such a list, and could not agree to what extent equipment should be purchased from the Article X voluntary fund and to what extent from the Organization's general fund. As to Article XI, the Group was torn by the same disagreements that surfaced during the Seventh Session. Many developing nations expressed the view that Article XI obliges states parties to review or eliminate national export control measures additional to those provided by the Convention, and that this obligation should take effect immediately upon its entry into force. By contrast, many exporting states associated with the Australia Group took the position that states parties are obliged under Article I to ensure that they do not "assist ... in any way, anyone to engage in any activity prohibited to a State Party under this Convention". In their view, they must wait until confidence in the workings of the Convention has increased sufficiently to ensure that eliminating national export controls will not lead to a violation of Article I.

At its meeting during the seventh intersessional period, the Group continued to disagree both as to Article X declarations on national programmes related to protection and as to the relationship between Article XI and national export control measures; disagreement was along essentially the same lines as at its previous meeting. The Group did discuss the possibility that a practical step to implement Article XI might be to establish a database to facilitate the exchange of information relating to economic and technological development in the field of chemicals, and requested the Secretariat to prepare a paper on this topic.

Chemical Industry Issues During the sixth intersessional period, the Expert Group adopted a series of definitions and agreements clarifying the reach of the Convention. These included: (1) a restrictive reading of the meaning of the terms “alkyl”, “cycloalkyl”, “methyl” and the like used in the Schedules on Chemicals, one excluding substituted alkyls, cycloalkyls, methyls and so forth; (2) a definition excluding sub-distribution and packaging from the activity of “processing” scheduled chemicals, which therefore excluded these activities from declaration requirements; (3) a definition limiting the scope of the terms “unscheduled discrete organic chemical” and “PSF chemical” to exclude oligomers, polymers and chemicals containing only carbon and metal. The Group also resolved certain accounting issues relating to calculating the aggregate amount of unscheduled DOCs produced at a facility, and agreed that the term “hydrocarbon” includes all chemicals containing only carbon and hydrogen, irrespective of the number of carbon atoms involved.

The Group found that the consumption of a Schedule 2 chemicals in a waste disposal system is declarable if the amount consumed exceeds the threshold for declaration. The Group set rules for declarations of changes at facilities, which addressed declaration of additional activities at facilities beyond those originally declared, as well as other issues. The Group adopted a series of understandings on “mixed” plants (plants regulated under more than one Part of the Verification Annex), both defining the term and providing rules for declaration and inspection. Finally, the Group declined to narrow the scope of the reporting requirements for transfers of Schedule 1 chemicals, and requested that the Secretariat prepare declaration forms for reporting such transfers for inclusion in the *Declaration Handbook*. All of the foregoing understandings were approved by the Commission.

At its first meeting during the seventh intersessional period, certain tentative understandings were recorded in a Chairman’s Paper. They are to be reviewed at a meeting of the Group on 14 September. One such understanding was that the term “unscheduled discrete organic chemical” excludes products that are mixtures by design, such as beer, wine, spirits and the like. Another was that facilities acquiring ricin (or other Schedule 1 chemicals) by extraction should be treated as Schedule 1 facilities, as their activity is of a similar nature to that of production, but that facilities that process a material containing a Schedule 1 chemical without isolating it should not be considered Schedule 1 facilities. The Chairman’s Paper also indicated that the Group was about to reach agreement on a preliminary understanding on the appropriate way to account for Schedule 2 chemicals repeatedly recycled through process streams. Briefly, the amount of such a chemical to be used for declaration purposes is the amount in the system at any one time plus the make-up amount added to replace losses in a given year. The Group failed to reach agreement in a number of areas, including: the proper interpretation of the phrase “production by synthesis”; the meaning of the phrase “a State Party” in paragraph 8(a)(i)(2) of Article II; and whether it was necessary to define the term “explosives” as used in paragraph 2 of Verification Annex Part IX further.

Confidentiality The Expert Group reached agreement on procedures for the release of information by the OPCW and for responding to breaches and alleged breaches of confidentiality. The two sets of procedures were approved provisionally by the Seventh Session, pending the adoption of a complete OPCW confidentiality policy. The Expert Group is also discussing the functions and procedures of a proposed new body, the Confidentiality Commission. The group has also produced a draft staff secrecy agreement and a set of recommended disciplinary measures, and endorsed the need for development of an OPCW media policy. However, a number of difficult issues remain. One revolves around the need to obtain jurisdiction in various member states over, or bring legal actions against, former Technical Secretariat staff, or other natural or legal persons, who divulge confidential information and whose immunity is waived by the Director General. Thus far, the Expert Group has merely recommended that member states consider how such jurisdiction could be obtained or actions brought within their own legal systems, a recommendation endorsed by the Seventh Session. Another concerns how to implement the obligation of all states parties to prosecute breaches of confidentiality. A final difficult question is how to implement procedures for the protection of confidential information, a question that must be resolved with the cooperation of the Expert Group on Data Systems.

At its meeting during the seventh intersessional period, the Group continued to address a range of issues from its previous meeting, including the establishment of general procedures for handling and protecting confidential information, the composition and procedures of the Confidentiality Commission, and the responsibility of states parties in relation to breaches of confidentiality. Although the group clarified some aspects of these problems, in particular noting the operational implications of the confidentiality policy for the Technical Secretariat, it was not able to reach agreement on any of these matters.

Chemical Weapons and Associated Issues The Group adopted a set of rules for the temporary conversion of CWPFs to CWDFs, addressing such issues as timing and contents of notifications, inspections, transitional facility agreements and subsequent inspections. The Group failed to reach agreement, however, on the issue of permanent conversion of CWPFs for non-prohibited purposes, disagreeing on the definition and status of standard equipment and standard buildings and even on the question of the extent of the Commission’s mandate to develop guidelines for the permanent conversion of CWPFs. On storage facilities, the Group produced a set of criteria on the frequency and duration of inspections. On old and abandoned chemical weapons, the Group made no progress, differing on the meaning of “usability”. The Group also did not make any progress on chemical-weapons-destruction issues. The Group requested the Secretariat to establish draft declaration formats and adapt the inspection manual based on the Expert Groups’ work to date, drawing on experience from the US-Russian bilateral agreement where appropriate. The Group discussed, but did not resolve, the scope of the “costs of verification” to be borne by certain states under Articles IV and V, agreeing that they included the direct

costs of inspections but disagreeing as to whether they also included such costs as that of on-site monitoring equipment or a portion of the overhead costs of the Organization. Finally, the Group set out some general principles for the drafting of model facility agreements, and noted that MFAs should be drafted with some detail, to permit FAs to be drafted during the comparatively short time period which the Convention provides.

Training In informal consultations during the sixth intersessional period, the Secretariat presented certain proposed expansions of the content of Module 2 specialist training courses, and the Group discussed the existing national offers to teach some sub-modules of the Module 2 program; there are not as yet offers extant to teach all of the sub-modules. The Group is also encountering difficulties in obtaining sites for Module 3 on-site training; as there are as yet no national offers of single small-scale facility sites or of old or abandoned chemical-weapon sites, the Group's report noted that it was unlikely that early trainees, at least, would have the opportunity to train at these sites. Certification of the initial Module 1 and Module 2 sites by the Secretariat is in progress. Three states have proposed small Module 1 pilot training programmes, to be offered in fall 1994.

At its meeting during the seventh intersessional period, the Group again discussed shortfalls in national offers for

Module 2 and 3 training. As to equipment for training of inspectors, the Group found that the Secretariat's stocks of inspection equipment, supplemented in certain instances by host states, should suffice for Module 1 training, but could not come to any conclusions as to Modules 2 and 3 because of the lack of detailed information on curricula for these modules. The Group also discussed ways of making planned training more cost-effective, in light of cuts to the Commission's 1995 Budget. Finally, the Group discussed a range of other matters, including methods of evaluating student performance and the status of certification of Module 1 and 2 training offers. It was reported by the Secretariat that one Module 1 training offer, that of India, had already been certified.

Challenge Inspection This Expert Group did not meet during the sixth intersessional period. The report which Working Group B adopted and transmitted to the Seventh Session "reaffirms" that the Expert Group will address the issues on its agenda that have not been referred to other Groups, but it scheduled no meeting for the Expert Group during the seventh intersessional period.

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

News Chronology

May through August 1994

What follows is taken from the CBW Events data-base of the Sussex Harvard Information Bank, which provides a fuller chronology and more detailed identification of sources. See Progress in The Hague (pp. 7-13) for further coverage of OPCW-related developments. The intervals covered in successive Bulletins have a one-month overlap in order to accommodate late-received information. For access to the data-base, apply to its compiler, Julian Perry Robinson.

2 May In Qatar, the Arms Control and Regional Security multilateral working group of the Middle East Peace Process convenes for the start of its sixth round. The fifth round had taken place in Egypt during February [see also 3-4 Nov 93]. There is participation from Israel, the Palestinians, and about a dozen Arab states (though neither Syria nor Lebanon), with more expected later. The co-sponsors of the Peace Process — Russia and the United States — jointly propose a draft *Declaration of Principles and Statements of Intent on Arms Control and Regional Security*. This envisages, as its final objective, "establishing a zone free of all weapons of mass destruction, including nuclear, chemical and biological weapons and their delivery systems". {Reuters 1 May; *Mideast Mirror* 3 May}

3 May In Burma, the State Law and Order Restoration Council may have been using biological weapons since last August against Karen guerrillas in the Thai border area, according to a compilation of data from on-site accounts assembled by a Canadian human-rights activist, and now reported by a Canadian news agency. {Southam News 3 May} The compilation had been given to foreign diplomats in Bangkok at the end of April, and then to officials of External Affairs Canada in Ottawa on 29 April. Sudden outbreaks of cholera-like disease have report-

edly been occurring within days of military airdrops of balloons containing a foul-smelling dark liquid.

4 May In New Delhi an Indian government spokesman announces that the consignment of phosphorus pentasulphide from Bombay which had been detained by Sri Lankan authorities [see 16 Apr] had now been cleared for onward shipment. [Note: the chemical is on the Australia-Group precursor control list. It has potential use in making amiton-type nerve gases.] The spokesman says: "This chemical is used in civilian chemical industries to make insecticide and lubricant oil additives. It is also not included as a dual purpose chemical under the Chemical Weapons Convention. There are some chemicals which have restrictions on them for military as well as civilian uses. This is not one of them. We took up the matter with the Sri Lankan authorities and the matter has now been satisfactorily resolved... We are strictly committed to nonproliferation of chemical weapons and both Sri Lanka and India are original signatories to the Chemical Weapons Convention. We hope that with the coming into effect of the CWC, the states who are parties to this will be able to do away with arbitrary and ad hoc trade restrictions on chemicals used for legitimate civilian purposes." {ISI Diplomatic Information Service 4 May in BBC-SWB 12 May}

5 May In Boston there is the fifth in the current series of briefings on the CWC which the US Arms Control and Disarmament Agency is sponsoring for US chemical and related industries. {*ASA Newsletter* 16 Jun}.

6 May Australia deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the sixth signatory state to do so.

6 May In the US Senate the Committee on Veterans' Affairs conducts a hearing on the theme "Is military research hazardous to veterans' health? Lessons from the cold war, the Persian Gulf, and today" to examine the results of a 6-month investigation by committee staff. The unexplained illnesses suffered by Desert Storm veterans [see 29 Apr–1 May] are the main focus. The chairman, Senator John D Rockefeller IV, lays emphasis on the possibility raised in the staff report that vaccines or drugs given to Desert Storm forces to protect them against CBW agents — namely pyridostigmine, a botulinum toxoid and an anthrax vaccine — "could be causing many of the 'mysterious illnesses' those veterans are now experiencing". Testifying are four afflicted veterans; scientists and officials from four federal agencies; and other experts. {*New York Times* 7 May; *Chemical & Engineering News* 23 May}

6 May The US Defense Department releases a report required by the 1994 Defense Authorization Act, *Report on Non-proliferation and Counterproliferation Activities and Programs*. Prepared under the leadership of Deputy Secretary John Deutch, the report identifies 14 priority areas for future effort, and calls for a \$400 million increase in counterproliferation spending during 1996 and beyond. {*Defense News* 23 May} A total of about \$4 billion has been programmed in this general field by US government agencies for Fiscal Year 1995, a quarter of it "uniquely" related to nonproliferation and counterproliferation programmes. Reportedly, the goal of the increase is to develop, by 2002, the ability to detect, locate and disarm nuclear, chemical and biological weapons worldwide. Development of airborne and ground-based sensors for CBW agents would receive a \$75 million annual increase. Another \$10 million of the increase would go into support for the BWC and CWC, and \$15 million for rapid production of BW vaccines. The CALIOPE (Chemical Analysis by Laser Interrogation of Proliferation Effluents) programme would be expanded beyond its present focus on nuclear effluents. The report notes that an airborne sensor capable of acquiring aerosol data at 30-100 km range was deployed during the Gulf war. It also refers to the infra-red LIDAR sensor currently deployed on a Black Hawk helicopter. {*Jane's Defence Weekly* 14 May; *Arms Control Today* Jun}

The Defense Department is concluding a memorandum of understanding with the Department of Energy about future counterproliferation work by US National Laboratories which, so Congress has been told by Energy Under Secretary Charles Curtis, will "provide a programmatic structure to fund these activities". {*States News Service* 3 May}

9–10 May In Bangkok there is a regional seminar on National Implementation of the Chemical Weapons Convention [see also 7–8 Dec 93] in which 70 people participate. The purpose is to provide a forum for signatory states to exchange views informally on preparations for entry into force and to gain a better understanding of the tasks involved. The seminar is organized by the Ministry of Industry of Thailand in coöperation with

the Department of Foreign Affairs and Trade of Australia and the OPCW Provisional Technical Secretariat. The participation is from fifteen countries in the region, from the PTS and from nongovernmental organizations including the ASEAN Chemical Industry Club, the Harvard Sussex Program, the International Human Rights Law Institute of De Paul University, USA, and SIPRI. A summary of the proceedings is to be published. {PC-VII/B/WP.14}

Some national delegations reported on the progress being made by their countries towards ratification of the CWC. Vietnam has an interdepartmental group studying the tasks that have to be completed before ratification. Progress in Thailand and Indonesia is being held up by translation of the CWC into the national languages. China and Japan are working towards ratification. South Korea hopes to ratify later in the year, but tensions in the region are for the moment making any sort of disarmament unpopular domestically.

10 May In the United States, a death sentence is executed in the state of Illinois by means of lethal injection. The toxic chemicals used are sodium pentothal, pancuronium bromide and potassium chloride, administered in succession through an intravenous tube at one-minute intervals. {*Daily Telegraph* (London) 11 May}

11 May Albania deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention.

11 May In Angola, during fighting in N'dalatando, the capital of Cuanza Norte province, government aircraft are dropping "internationally forbidden bombs containing phosphine, a toxic product, in addition to napalm and phosphorus bombs" according to a local UNITA broadcast. {*Voz da Resistencia do Galo Negro* 11 May 94 in FBIS-AFR 12 May} A few days later the Brussels office of UNITA releases a statement once again accusing the Angolan government of "using chemical weapons...to wage war on the population". {*Reuters* 19 May}

11 May The US Defense Department announces that, as an expert panel convened by the National Institutes of Health had recently recommended [see 29 Apr–1 May], it is planning an intensified medical investigation of ailing Desert Storm veterans: people whom the panel had confirmed were indeed sick, often seriously so, from unknown causes. The panel had not supported the theory that the ailing veterans were suffering from a single 'Gulf War syndrome' [see 6 May]. The Assistant Secretary of Defense for Health Affairs, Dr Steven C Joseph, tells the *New York Times* that US military medical centres around the world are to administer a series of some two dozen standardized medical tests to as many as possible of the US veterans of the Gulf War who appear to be suffering from unexplained illnesses. More than 20,000 of the 700,000 US veterans of the war have sought help in this regard from the Veterans Administration. {*New York Times* 12 May; *Chemical & Engineering News* 23 May}

In the United Kingdom, it is reported that fewer than 50 of the 42,000 British veterans of the Gulf War have complained of unexplained illness [see also 6 Mar]. {*Times* (London) 13 May}

12 May In the UK a draft report is issued on proof-of-principle experiments conducted at CBDE Porton Down demonstrating that the 'Silver II' electrochemical oxidation process can effectively destroy mustard and nerve gases. In one of the experiments, the process had been applied to VX and simulated

explosive contained in a scaled simulated M55 rocket: the containment had been dissolved and the nerve agent and simulated explosive destroyed. A conclusion drawn is that the current Silver II pilot plant at Dounreay, originally developed by the UK Atomic Energy Authority for destroying organic waste arising from nuclear-fuel reprocessing activity, appears to be a viable alternative to incineration in chemdemil operations.

12 May In Washington, the Assistant to the Secretary of Defense for Atomic Energy, Dr Harold Smith, speaks of US assistance for the Russian chemdemil programme at a seminar organized by the Henry L Stimson Center [see 8 Mar]. He says that the Administration will ask Congress to help fund construction of a \$500 million destruction facility if Russia continues to make progress toward compliance with the CWC [see also 15 Mar]. A second US-funded facility might follow. {*Defense News* 23 May}

13 May In the US Senate, the Foreign Relations Committee has a third session of its ratification hearings on the Chemical Weapons Convention [see 13 Apr]. Testimony is taken from Walter Slocombe, Acting Under Secretary of Defense for Policy, and from Dr Harold Smith, the Assistant to the Secretary of Defense for Atomic Energy, both of whom strongly urge early ratification. Secretary Slocombe presents an overview of the security significance of the CWC. He observes: "It is important to note that three quarters of the countries believed to have chemical weapons programs have signed the Chemical Weapons Convention. The remaining quarter have isolated themselves. Should they remain outside the Convention after it enters into force, they will be subject to the trade restrictions on specific chemicals under the CWC." On the renunciation of CW retaliatory capability he says: "as we stated during the Gulf War, if any country were foolish enough to use chemical weapons against the United States the response will be 'absolutely overwhelming' and 'devastating'. We do not need chemical weapons to deliver an effective response to CW."

Secretary Slocombe goes on to address other specific aspects of the treaty "of direct concern" to the Defense Department, including the matter of riot-control agents [see 13 Apr]: "The Convention does...prohibit the use of RCAs as a method of warfare. The Administration understands that this prohibition applies only to their use as a method of warfare in international and internal armed conflict. Use of RCAs for operations such as normal peacekeeping operations, humanitarian and disaster relief missions, and counter-terrorism and hostage rescue are unaffected by the CWC." He goes on to say that, for US forces, the use of RCAs in war is currently guided by Executive Order 11850 of April 1975. (This forbids "the first use of riot control agents in war except in defensive military modes to save lives".) Secretary Slocombe says that the Administration is still reviewing the matter of "how, if at all" the CWC's prohibition on RCA use as a method of warfare affects the Order. {Text of prepared statement}

Dr Smith says in his testimony that he believes many countries are closely watching the ratification actions of the United States, and will ratify as soon as they are convinced that the United States is serious about doing so ahead of the 17 July deadline. As Secretary Slocombe had done, he describes the CWC verification regime as "effective"; it is "the most intrusive of any existing bilateral or multilateral accord". He continues: "The CWC's verification provisions will help give us confidence that violations are not occurring. These verification provisions, however, are effectively balanced by certain safeguards and

we consider that the treaty strikes the proper balance between intrusiveness and the protection of privacy, proprietary information, and national security. He speaks of the support being provided by the Defense Department to the international CWC organization, observing that "it is possible that no fewer than one quarter of the international inspectorate serving the OPCW will have been trained and certified at DOD facilities in the United States". Again emphasizing a matter stressed by Secretary Slocombe, he says that "the Department of Defense Chemical Biological Defense Program will not be diminished in any way by entry into force of the CWC... American military forces will continue to be the best prepared and equipped in the world to deal with warfighting in a CW environment." {Text of prepared statement}

13 May In the United States, Fort Detrick is coming under challenge as the leading contender for the location of the projected US Army factory for BW vaccines [see 25 Mar]. Plans for the facility reportedly envisage expenditure of \$150 million, a total floor space of some 30,000 square metres, a civilian workforce of upto 200 people, and a "decontamination sewer" with a capacity of 150,000 gallons per day. Vaccine production would probably range up to 500 litres at a time. An Army spokesman says that no decision on the location has yet been made, and that, rather than a government site being used, the whole project may instead be put out to private industry. {*Sun* (Baltimore) 16 May} The Assistant Joint Program Manager for Biological Defense, Lt-Col Debra Krikorian, is subsequently reported as saying that, of the 36 companies and representatives of the pharmaceutical industry that had attended a Defense Department meeting on the project in April, 21 companies had afterwards expressed interest in participating in BW vaccine production. She says, too, that the governmental locations under consideration besides Fort Detrick are Edgewood Arsenal, Pine Bluff Arsenal, Dugway Proving Ground and, in Indiana, Jefferson Proving Ground. Defense Under Secretary John Deutch is scheduled to decide on the location by 5 August. {AP in *Washington Times* 21 May}

15 May In Bosnia-Herzegovina, the Army of the Serbian Republic announces from Zvornik that that "Muslim units have once again used chemical weapons" during their current attacks on Serb positions on Mount Majevisa and elsewhere. These reports continue over the next two days. The reported chemical weapons are variously identified as "large calibre chlorine-charged shells" and "shells filled with chlorine-based chemicals". {*Tanjug* 15, 16 and 17 May in BBC-SWB 17, 18 and 19 May}

16 May The first inter-laboratory comparison test for the analysis of CWC-relevant chemicals to be organized by the OPCW Provisional Technical Secretariat [see 8 Dec 93] begins. The samples for this fifth international round-robin [see 18-21 May 93] have again been prepared in the United States at Lawrence Livermore National Laboratory. Dr Marjatta Rautio and her team at the University of Helsinki will collect and collate the findings, starting 17 June. Participating in the trial are 25 laboratories in Australia, Austria, Belgium, Brazil, China, Czech Republic, Denmark, Finland, France, Germany, India, Indonesia, Japan, Kenya, the Netherlands, Norway, Poland, Russia, South Korea, Sweden, Switzerland, Ukraine, the UK, the USA and Zimbabwe. {*ASA Newsletter* 16 Jun}

16–19 May The Australia Group [see 6-9 Dec 93] meets in Paris. Its subsequent press release describes the proceedings as “informal consultations”. The Czech Republic is to join the Group in November. The press release makes no specific reference to the conflict which some governments have said they see between the Group and the CWC, but it does include the following: “Despite these international agreements [the BWC and the CWC], there are active chemical and biological weapons programs underway in some proliferating [*sic*] countries. Hence the continuing need for national measures to prevent civilian industry and traders from becoming unwitting contributors to CBW programs. Export licensing is consistent with, and indeed actively supports, the requirement under Article I of the CWC that States Parties never assist, in any way, the manufacture of CW. These measures are also consistent with the undertaking in Article XI of the CWC to facilitate the fullest possible exchange of chemical materials and related information for purposes not prohibited by the Convention, as they are focussed solely on preventing assistance to activities banned under the CWC. Similarly, such efforts also support existing nonproliferation obligations under the BTWC.” {Australia Group doc AG/May94/Press/Chair/13}

Further details are later released by the UK Foreign & Commonwealth Office: “The first joint meeting with MTCR licensing and enforcement experts took place, and there was an important discussion of the relationship between the Australia Group and the Chemical Weapons Convention. This discussion concentrated on the criticisms among non-aligned countries, led by Iran, which effectively blocked consensus on the uncontroversial resolution on the Chemical Weapons Convention in the United Nations General Assembly in 1993 [see 19 Nov 93]. It was agreed that Australia Group members needed to counter these criticisms by mounting a strong defence of export controls in general, and the Australia Group in particular. A common approach to relaxing export controls for chemical mixtures, when the mixtures did not present a proliferation risk was also agreed. The Group undertook to conduct a wider dialogue with non-members aimed at promoting the policies and objectives of the Australia Group. This dialogue would also be promoted at the various international seminars which are to take place.” {*Notes on Security and Arms Control* Jun}

17 May In the US Senate, the Foreign Relations Committee has a fourth session of its ratification hearings on the Chemical Weapons Convention [see 13 May]. Testimony is taken in open session from Maj-Gen John Landry, speaking for the Intelligence Community, and Donald Mahley, Acting Assistant Director of ACDA. General Landry addresses the ability of the US intelligence community to monitor the CWC, going into the subject in greater detail in a closed hearing later in the day. He says: “despite the strong verification regime embodied in the CWC, the intelligence monitoring of this agreement will prove to be a monumental task... That said, we believe that the transparency and verification provisions of the Convention will contribute to our ability to focus collection and analysis to detect and assess the most threatening CW programs.” {Text of prepared statement}

Donald Mahley addresses the verifiability of the CWC, also in both open and closed sessions. He observes: “The Intelligence Community monitoring effort is one element designed to provide evidence contributing to US verification and compliance judgements”. He explains how the Administration arrived at its assessment that the Convention is clearly in the interests of the United States. “That judgement rests in part on the veri-

fication regime analyzed in the [verification] report [submitted to the Congress in accordance with Section 37 of the Arms Control and Disarmament Act]. It also rests on the unique value of the Convention as a mechanism for rolling back CW proliferation and as a bulwark against further CW spread and use.” He closes: “Simply put, we are better off with the Convention than without it. There is no better alternative.” {Text of prepared statement}

17 May In the Russian Federation, the government of the Chuvash Republic decides that the nerve-gas factory of the Khimprom Production Association [see 8 Dec 93] is to be eliminated and that a plan to that effect should be drawn up by 1 September. Production of chemical weapons in Novocheboksarsk ceased in 1987, but the facility has been retained as a mobilization reserve. {Radio Russia 18 May in BBC-SWB 20 May}

18 May In the United States, the Defense Nuclear Agency awards a \$7.4 million contract to Bechtel National Inc of San Francisco for “Russian chemical weapons destruction support”. {*ASA Newsletter* 16 Jun}

22 May In Angola, UNITA calls for an investigation by UN Angola Verification Mission II of reports that government forces are continuing to use chemical warfare in the struggle for control of N'dalatando [see 11 May] “leaving behind a carpet of dead and wounded people, and destruction”. {*Voice of the Resistance of the Black Cockerel* 22 May in BBC-SWB 24 May}

22–27 May In Naaldwijk, Netherlands, there is a NATO Advanced Research Workshop on Destruction of Military Toxic Materiel.

24 May In Brussels the new NATO Joint Committee on Proliferation presents its draft policy framework document [see 10-11 Jan, and see also 6 May] at the half-yearly meeting of NATO defence ministers. {*Defense News* 23 May}

25 May In Armenia the Supreme Council ratifies the Chemical Weapons Convention. {Armenia's Radio 25 May in FBIS-SOV 27 May}

25 May Dr Vil Mirzayanov [see 24 Mar] publishes an article about the CWC in *The Wall Street Journal*, in both the European and the US edition. In the article he warns that “the treaty as it stands will help, not hinder, Russia's production of deadly chemical weapons”. This is because the Russian negotiating team “succeeded in inserting loopholes into the convention that allowed Russia to proceed with its secret program”. That program, he says, rested on two “major achievements” of 1990-91: the commencement of production of a binary weapon based on Substance 33 [see 31 Jan 93 and 8 Dec 93], and “the synthesis [*sic*] of a binary weapon based on Substance A-232 [which is]...part of the ultra-lethal ‘Novichok’ class [see 8 Dec 92 and 31 Jan 93]”. He says that neither of these substances, which he does not identify beyond their cryptonyms, is listed in the CWC (presumably he is referring here to the schedules in the Annex on Chemicals). Apparently he believes that these substances are somehow exempt from the general purpose criterion which defines the scope of the CWC's prohibitions, for his article continues: “If a weapon is not listed, then it cannot legally be banned, to say nothing of being controlled”. It is this — in fact flawed — line of reasoning that has stimulated Dr

Mirzayanov's warning: "The chemical generals are banking on this technicality... Our generals see the implementation of the treaty with its loopholes as a way to dispose of their obsolete and hazardous stockpiles with American taxpayers' help, while preserving their new classes of toxins and, even worse, permitting their sale abroad for hard currency". The article accordingly ends with a recommendation that the negotiations which produced the CWC now be reopened.

25 May The US Army Chemical and Biological Defence Command awards a \$1.34 million research and development contract to Geo-Centers Inc of Newton Centre, Massachusetts, for "characterization and synthesis of bioactive fluoroorganics". {*ASA Newsletter* 11 Aug}

25 May In the US Senate, the Committee on Banking, Housing, and Urban Affairs conducts a hearing on US export policy in relation to shipments of BW-related materials to Iraq by US companies prior to the Gulf War. Chairman Donald Riegle has called the hearing both to review export-control policies under the Export Administration Act [see 8 Mar] and as part of his continuing investigation into the so-called 'Gulf War Syndrome' [see 9 Feb, and see also 11 May]. He releases a lengthy staff report which presents evidence showing it to have been theoretically possible for there to have been widespread exposure among US forces in the Gulf area to low levels of CW agents, and perhaps even BW agents as well. The Committee hears testimony from Defense Department, DIA and CIA witnesses. {*Washington Post* 26 May}

Under Secretary of Defense (Personnel and Readiness) Edwin Dorn speaks of the efforts being made on behalf of Gulf War veterans by his Department and the Department of Veterans Affairs. He says: "DoD and VA doctors have treated thousands of Persian Gulf veterans for readily identifiable illnesses and injuries; but we know of about 2,000 people [see also 11 May] for whom a clear diagnosis continues to elude physicians." He also says: "We have concluded that Iraq did not use chemical or biological weapons during the war". {Text of prepared statement; *Chemical & Engineering News* 30 May}

The Director of the Nonproliferation Center at the CIA, Dr Gordon Oehler, testifies on the US intelligence community's assessments of Iraqi CBW capabilities prior to the Gulf War, on the means whereby Iraq acquired its CW weapons and other mass-destruction weapons technologies, and on the part played by US intelligence agencies in efforts to restrict CBW-related technology transfers to Iraq. In the course of his testimony he says that, by early 1990, US intelligence had calculated that the Iraqi CW-weapons production facility at Al-Muthanna was capable of producing more than 2000 tons per year of blister and nerve agents. Also: "With regard to biological weapons, we estimated, prior to the start of the war, that Iraq had a stockpile of at least one metric ton of biological warfare agents, including anthrax and botulinum toxin." {Text of prepared statement}

25–26 May In Finland, at Keuruu, there is an international symposium on NBC defence. It is cosponsored by three Finnish defence organizations: the Scientific Committee for National Defence, the Research Centre for the Defence Forces, and the School of NBC Defence. Nearly 200 people from 14 countries participate. {*ASA Newsletter* 16 Jun}

25 May–5 June In Iraq the sixteenth UN chemical inspection team, UNSCOM 75, led by Rod Godfrey of the United Kingdom

and numbering 10 people, "begin[s] to design the technical measures necessary to implement monitoring of Iraq's chemical plants", according to UN spokesman Roald Opsahl. {Reuters 23 May}

26 May In Germany the Bundestag unanimously approves the federal government's proposed legislation for implementing the Chemical Weapons Convention {*Deutscher Bundestag* 26 May, p 20024}, as slightly modified by the Bundestag Foreign Committee {BT-Drs 12/7712}, notwithstanding the dissent which the Bundesrat had expressed after the first reading [see 21 Apr] {BR-Drs 214/94 and 214/94 (Beschluss)}, dissent which, however, the federal government had opposed {BT-Drs 12/7617}. The legislation now passes, at the insistence of the Bundesrat, to a Bundestag/Bundesrat mediation committee {BR-Drs 541/94}. The Bundesrat is requiring a provision in the legislation whereby the federal government, not the Länder, would have to bear the costs of destroying any CW weapons found on German soil.

27 May In the US Congress the Office of Technology Assessment publishes a study of US *Export Controls and Nonproliferation Policy* {OTA-ISS-596}. This is the latest installment of the OTA assessment of the proliferation of weapons of mass destruction [see 21 Sep 93] that had been requested by several Congressional committees.

27 May The US Arms Control and Disarmament Agency transmits to the Congress the administration's draft legislation for implementing the CWC in the United States [see 23 Nov 93]. The draft is accompanied by a section-by-section analysis of the projected law. Commenting, a spokesman for the Chemical Manufacturers Association says: "In general, the draft legislation reflects input from industry and tries to address some of industry's concerns". He adds: "There are some areas — including the penalty provisions — that need additional attention in the legislative process." The Pharmaceutical Research & Manufacturers of America says that it does not oppose the legislation. {*Chemical & Engineering News* 20 Jun} The draft is later introduced into the US Senate as bill no S.2221 by the chairman of the Foreign Relations Committee, Senator Pell {*Congressional Record* (daily edition) 21 Jun, pp S7249-59}.

27–29 May The Pugwash Study Group on Implementation of the CBW Conventions holds its second workshop in the Netherlands, with the opening session in The Hague, at the Netherlands Foreign Ministry, and then in Noordwijk. The main agenda item is 'Law enforcement, domestic riot control, and the Chemical Weapons Convention'. Also considered are possible future relationships between the CWC and the BWC. {*Pugwash Newsletter* Jul}

28 May In Yemen, the deputy leader of the southern forces in the developing civil war, 'Abd-al-Rahman al-Jifri, has said in interview that victims of the offensive on the Shabwah Governorate have symptoms indicating the use of chemical weapons [see also 30 Mar]. {*Al-Yawm* (Al-Dammam) 28 May in FBIS-NES 6 Jun}

28 May–7 June In Iraq the fifth UN biological inspection team, UNSCOM 78, led by Dave Franz of the United States and numbering 10 people, continues "the assessment of the biological capability and [begins] construction of an inventory of equipment that can be used for legitimate purposes or for offensive

biological purposes, whether it be research, development or production”, as the team leader puts it to reporters upon arrival. The basic purpose is to develop the technical baseline for UNSCOM's ongoing monitoring and verification in the biological field. {Reuters 27 and 28 May 94} Upon departure, Chief Inspector Franz tells reporters that everything had gone smoothly and that a new UNSCOM team will be visiting in order to complete the tagging operation. {Reuters 7 Jun}

30 May In Bosnia-Herzegovina, Serbian positions at Teslic and Kozilo in the north come under a “cannonade of artillery shells charged with poison gas”, according to Bosnian Serb army sources [see also 15 May]. {Tanjug 1 Jun in FBIS-EEU 2 Jun}

30 May–1 June In Geneva the International Committee of the Red Cross holds an Expert Meeting on ‘Certain Weapon Systems and on Implementation Mechanisms in International Law’, as part of its preparatory work for the Inhumane Weapons Convention Review Conference [see 28 Feb–4 Mar]. Among the presentations given is one on ‘Developments in “non-lethal weapons” involving chemicals’.

31 May The Maldives deposits with the UN Secretary-General its instrument of ratification of the CWC.

31 May In Moscow, US and Russian parliamentary delegations conclude two days of working meetings on defence and security matters, including the question of nuclear and CBW weapons proliferation. The US team of seven senators had been led by Senator Sam Nunn, chairman of the Senate Armed services Committee. The Russian side had been led by Sergey Yushenkov, chairman of the State Duma Committee for Defense. {ITAR-TASS 31 May in FBIS-SOV 1 Jun}

31 May–3 June In Cairo, the 11th Ministerial Meeting of the Non-Aligned Movement takes place. The meeting adopts a final document, Part V of which is about disarmament and international security. Of its 21 paragraphs, one expressly addresses the CWC, as follows: “The Ministers took note of the resolve of the Non-Aligned countries signatories to CWC to participate actively in the Preparatory Commission in the Hague, and to form a group to coordinate their positions. They called upon all developed countries to adopt measures to promote the transfer of technology, materials and equipment for peaceful purposes in the chemical field and to remove all existing unilateral, discriminatory ad hoc restrictions.” {CD/1261}

31 May–14 June In Iraq, the activities of the UNSCOM Chemical Destruction Group [see 23 Jun 92 and 18 Aug 93] at Al Muthanna are brought to a conclusion by UNSCOM 76 and UNSCOM 77 — the 17th and 18th UN chemical inspection teams, respectively, led by Richard Soilleux of the United Kingdom and Jurgen Mihm of Germany. {*Washington Times* 1 Jun; Reuters 8 and 9 Jun; *Notes on Security and Arms Control* Jun} The aims of these two final inspections have been to confirm that the destruction of declared CW agents, their precursors and certain production equipment at Muthanna is now complete, and that those areas of the site used for the chemdemil operations retain no significant level of chemical contamination. {UN press release 22 Jun}

June In the UK the Director General of the Ministry of Defence Chemical and Biological Defence Establishment, Dr Graham

Pearson, writes as follows in *Chemistry in Britain*: “The service volunteer programme at CBDE Porton Down began in the 1920s and has involved some tens of thousands of servicemen. These human studies are carried out in such a way as to ensure that there is no harm to the members of the armed forces... [here Dr Pearson includes the substance of a response he had given earlier to a parliamentary question [see 7 Feb], and continues:] Over the past 30 years, there has been no evidence available to the Ministry of Defence to suggest that service volunteers who have participated in human studies at CBDE have suffered any long-term harmful effects. Insofar as servicemen who at some later date fall ill are concerned, the Ministry of Defence will make available their medical details to their doctor on request.”

Dr Pearson's account has been appended by *Chemistry in Britain* to a letter it publishes from T M Roche seeking the assistance of “scientists with some knowledge of this testing” to further the work of his new association of former volunteers [see 27 Jan].

1 June In Angola, “eight highly toxic chemical bombs” are dropped by two government Su-23 aircraft on the central hospital of the city of Bie in Cuito province, according to a UNITA radio broadcast [see also 22 May]. {*Voz da Resistencia do Galo Negro* 2 Jun in FBIS-AFR 2 Jun} UNITA later announces that analyses conducted by Dr Franco Epalanga on 53 civilians “revealed that the victims were in contact with toxic gases” and that proof of the use of chemical bombs “could be produced to the international media”. {*Voz da Resistencia do Galo Negro* 15 Jun in FBIS-AFR 15 Jun}

1 June In Finland the University of Helsinki decides that it will establish, on 1 September, an Independent Institute for the Verification of the Chemical Weapons Convention. This will take the place of the Finnish Project on Verification of Chemical Disarmament which has been running since 1972. Like the Project, it will be funded by the Ministry for Foreign Affairs. Reportedly, the new institute will be part of the Finnish CWC National Authority. {*ASA Newsletter* 16 Jun and 11 Aug}

1–2 June In the Czech Republic, at Brno, a regional seminar on *An Exchange of Practical Experience with the Process of National Implementation of the Chemical Weapons Convention* is organised by the Ministry of Industry and Trade, the Czech Preparatory Commission for the Prohibition of Chemical Weapons, and the OPCW Provisional Technical Secretariat, 48 people participating. Held at Myslivna Hotel, the seminar is attended by representatives of CWC signatory states members of the Eastern European Group [see also 7-8 Dec 93], as well as by senior staff members of the PTS and observers and guest-speakers from Austria, Germany, the Netherlands, Sweden, the UK, the USA, and non-governmental research institutes. Besides the Czech Republic, the regional participants are Bulgaria, Hungary, Latvia, Lithuania, Poland, Romania, Russia, the Slovak Republic, Slovenia and Ukraine. Among the presentations made are briefings on national preparations for implementation in Bulgaria, Germany, the Netherlands, Romania, the Slovak Republic, Slovenia, Sweden, Ukraine and the United Kingdom. {PC-VII/B/WP.13; *ASA Newsletter* 16 Jun; PC-VII/5}

Deputy Industry Minister Radomir Sabela, opening the seminar, states that the Czech parliament is expected to ratify the CWC in January 1995. {CTK 1 Jun}

2 June In Washington the Assistant Secretary of State for Politico-Military Affairs, Robert Galucci, announces that he has made two determinations pursuant to Section 81 of the Arms Export Control Act (which, in regard to “chemical or biological weapons proliferation”, provides for “sanctions against certain foreign persons”) and, further, that he has concluded that publication of the determinations would be harmful to US national security. {*Federal Register* 30 Jun, p 33810}

3 June In Vientiane, at a press briefing, the Deputy Director of the Lao People’s Army General Staff Department, Brigadier Douangchai Phichit, denies an allegation that the Army had, over the past two months, sprayed toxic chemicals onto water supplies and trees in areas along the border with Thailand [see also 22 Mar]. He also says that the Army neither possessed nor purchased from abroad any such chemical substances or chemical weapons. The charge, repeated several times in Thai news media, had been made by a Thai Army member of the Thai-Lao general border peacekeeping cooperation committee, Colonel Prasit Mongkhontham. {*Vitthayou Hengsat* radio 3 Jun in FBIS-EAS 6 Jun; *Vientiane Times* 3 Jun in FBIS-EAS 17 Jun} Later, however, he withdraws his charge, saying at a news briefing that that it had been found untrue after some checking. {*Lao National Radio* 30 Jun in BBC-SWB 4 Jul}

3 June In Texas, 26 US Gulf War veterans file a billion-dollar class-action lawsuit against 11 chemical companies claiming injuries caused by CBW weapons made from products supposedly sold by the companies to Iraq prior to the Gulf war [see 25 May]. The veterans are suffering from the putative ‘Gulf War syndrome’. Their lawyers say that more plaintiffs, and defendants, may later be added to the suit. {*Boston Globe* 9 Jun; *Chemical & Engineering News* 20 Jun} The US district court in Galveston, to which the case is moved, sets a pre-trial hearing date of 2 November for the case. {*Record* (Bergen, NJ) 20 Jul}

5 June *Moscow Times*, in an article about environmental pollution in the Volsk region, quotes a former deputy chief of the military base at Shikhany, Colonel Alexander Stepanov, as saying that, in 1962, plastic casks containing 3200 tons of Adamsite had been abandoned in an open trench at the base. The casks had long since begun to rupture and their arsenical content to leach out, but all the military were able to do was to monitor soils around the trench.

6 June At a US district court in Eugene, Oregon, an Austrian citizen, Manfred Felber, is convicted of violations of the Arms Export Control Act and sentenced to 51 months in prison. He had been selling military goods to Iran, and had been caught in an FBI sting operation in which he had thought he was purchasing 90 Chemical Agent Monitors for onward sale under false export documents to a company in Tehran. US Attorney Kristine Rogers says that investigating agents had obtained documents which “reveal that Felber has previously arranged for the shipment of precursor chemicals from countries other than the United States to Iran which are used in the production of chemical weapons”. {*Reuters* 7 Jun; *Washington Times* 8 Jun}

6 June The US Administration transmits to the Congress its statutory status report on Iraqi compliance with UN Security Council resolutions. The general tenor of the report is that it is far too soon for the international community to lift the sanctions on Iraq. Included in the report is the following: “We are seriously concerned about the many contradictions and unan-

swered questions remaining in regard to Iraq’s WMD [weapons of mass destruction] capability, especially in the chemical weapons area. The secretary General’s report of April 22 [q.v.] has detailed how the Iraqi government has stalled, obstructed, and impeded the Special Commission in its essential efforts. This report indicated that information supplied by Iraq on its missile and chemical programs was incomplete.” {*US News-wire* 8 Jun}

7 June Armenia accedes to the Biological Weapons Convention. {*Notes on Security and Arms Control* Jun}

8 June In Russia, a Moscow district court finds in favour of Dr Vil Mirzayanov [see 11 Mar] and orders state prosecutors and his former employers (NIIOKhT) to pay him 30 million roubles in damages for illegal arrest and unjust prosecution. The Justice Ministry issues a statement welcoming the court’s decision: “For many years our legal system gave the upper hand to the State, and courts had to follow this rule... This [case] is a good precedent for the future, and we must be glad.” Rejected, however, is Dr Mirzayanov’s further claim for damages against the Federal Counterintelligence Service, the court ruling that the FCS could not be held responsible for the actions of its predecessor, the KGB. An appeal by the government agencies against the court’s decision is expected. {*Reuters* 9 Jun; *Washington Post* 9 Jun}

8 June In the United Kingdom, the government assures the House of Lords in response to oral questions that it is “fully committed to ratification of the Chemical Weapons Convention” and that the primary legislation necessary for the UK to do so “will be introduced as soon as parliamentary time permits” [see also 27 Jan 93]. Spokesman for both the main opposition parties indicate in supplementary questions that the long-awaited legislation would receive their full support. {*Hansard (Lords)* 8 Jun}

8 June An Angolan government representative visits the OPCW Provisional, Technical Secretariat in The Hague for discussions {PC-VII/5}. Angola is not yet a CWC signatory state.

9 June In Istanbul, NATO foreign ministers conclude a ministerial meeting of the North Atlantic Council, adopting *inter alia* the overall Alliance policy framework on proliferation of weapons of mass destruction [see 24 May]. The final communiqué of the meeting notes this and goes on to say: “We will continue to support and seek to reinforce ongoing efforts in other international fora and institutions to prevent proliferation. We will also give active consideration in the Alliance on how to reduce the proliferation threat or protect against it. We have tasked the Council in Permanent Session to report back to us at our December meeting.” {NATO press communiqué 9 Jun}

The framework document, now made public, is rested on the following proposition: “8. A stable international order with a broad base of shared values is key to Allied security. WMD proliferation can undermine the achievement of such a stable international order. Conversely, lack of confidence in the international order can prompt States to acquire WMD to meet perceived threats.” The document states that NATO’s approach to proliferation should therefore have “both a political and a defence dimension”. These are addressed in turn. The document lays stress on the role of the CBW conventions in preventing WMD proliferation: “For the CWC, the most immediate goal is its rapid entry into force. The BTWC can be

strengthened through efforts in the field of transparency and verification. The Allies fully support these efforts.” The document continues: “The aforementioned treaties are complemented on the supply side by the...Australia Group... These regimes should be reinforced through the broadest possible adherence to them and enhancement of their effectiveness.” And it says: “The Alliance policy on proliferation is aimed at supporting, reinforcing and complementing, not duplicating or substituting the aforementioned treaties and regimes.” {*NATO Review Jun*}

9 June In Washington, the US Army confirms a television report that, several times during the Cold War years, it had sprayed clouds of zinc cadmium sulphide — a fluorescent tracer material, then thought to be harmless, used to simulate particulate CBW agents — over Minneapolis and other US cities, and also over Winnipeg in Canada. That such cloud-diffusion trials were conducted over Minneapolis in 1953 and over St Louis and other places (such as Chippewa National Forest in Minnesota) during 1963-65 had in fact long been in the public record, not least in an Army report to Congress in 1977. The Army now denies that, as was being suggested, the simulant had caused abnormal cancers, miscarriages and stillbirths among the exposed populations. It later says that, in response to Congressional and other requests, it is ordering health risk assessment reports on all the releases. {*Reuters in Boston Globe 10 Jun; Star-Tribune (Minneapolis) 15 Jun; St Louis Post-Dispatch 13 Jul*}

9 June In the US Senate, the Foreign Relations Committee has a fifth session of its ratification hearings on the Chemical Weapons Convention [see 17 May]. Testimony is taken from eight nongovernmental witnesses. Five of them strongly urge the Committee to recommend speedy ratification: Will Carpenter on behalf of the US Chemical Manufacturers Association; Professor Matthew Meselson of Harvard University; Michael Moodie, executive director of the Chemical and Biological Arms Control Institute [see 18 Apr]; Ronald Lehman, USACDA Director under President Bush; and Amy Smithson, director of the CWC Implementation Project at the Henry L Stimson Center. The three other witnesses oppose ratification: Amoretta Hoerber, Deputy Under Secretary of the Army during the Reagan administration; Frank Gaffney, a Deputy Assistant Secretary of Defense during the Bush administration; and Kathleen Bailey, now of Lawrence Livermore National Laboratory. {*ASA Newsletter 16 Jun; BNA Chemical Regulation Daily 10 Jun*}

9 June In the US House of Representatives, the Veterans' Affairs Subcommittee on Compensation, Pension and Insurance holds a hearing on HR 4386, a bill sponsored by Committee chairman Sonny Montgomery which would authorize for a three-year period the payment of compensation benefits to Gulf war veterans who have chronic disabilities resulting from undiagnosed illnesses [see 3 Jun]. Testifying, Veterans Affairs Secretary Jesse Brown endorses the proposed legislation. He estimates the annual cost of 'Gulf War syndrome' compensation at \$45.5 million. {*Boston Globe 10 Jun*}

10–11 June In Washington, a conference on Nonproliferation of Weapons of Mass Destruction is co-sponsored by the Center for National Security Law and the Standing Committee on Law and National Security of the American Bar Association. There are sessions on implementation of the CWC and on strengthening the BWC.

11 June UK Defence Ministry Surgeon General Peter Beale, in a letter published in *British Medical Journal* {vol 308 p 1694}, describes the British investigations of the putative 'Gulf war syndrome' [see 9 Jun] from which the Ministry has concluded that there is “no evidence to support the claim that a medical condition exists that is peculiar to those who served in the Gulf conflict”. Referring to afflicted British veterans [see 11 May], Sir Peter writes: “There is no doubt that the symptoms reported are real; what is in doubt is whether the non-specific symptoms of Gulf illness have a higher prevalence in Gulf veterans than in the general population. American work indicates that they do not.”

12 June In the eastern Mediterranean, there is a successful intercept test of the joint Israeli-US *Arrow* antimissile missile system [see 1 Mar], including detonation of the missile's fragmentation warhead to destroy the target, a surrogate tactical ballistic missile. {*Defense News and Aviation Week & Space Technology 20 Jun*}

13 June In Baghdad, documents are signed at a meeting of representatives of UNSCOM and Iraq whereby responsibility for the Muthanna chemical-weapons site [see 31 May–14 Jun] is formally returned to Iraqi authorities. In addition to operations at the special chemdemil facilities which UNSCOM had established at the site, now finished, the main production plant there had been blown up by UNSCOM experts, and the bomb-damaged storage facility holding thousands of chemical mortar and artillery projectiles had been filled with concrete. {*Reuters in Washington Post 15 Jun; UN press release 22 Jun*}

13 June The OPCW Preparatory Commission Executive Secretary issues a background paper on the facilities required for the first session of the Conference of States Parties, which is to be convened by the Depositary within 30 days of the CWC entering into force. The paper anticipates a meeting of 3-4 weeks duration attended by 150-170 delegations. In addition to various smaller conference chambers, meeting rooms &c, two large “main conference rooms” would be required. In one, the “many foreign ministers and other high-ranking dignitaries” expected to attend would each deliver an address, thereby necessitating “space for representatives of NGOs, media and public” and seven interpreters' booths. In the other main conference room, “organisational and procedural deliberations” would take place, in private: no media or NGOs, and only six interpreters' booths. The Netherlands undertook, back in 1992, to make available when needed a 170-delegation conference room at the Netherlands Congress Centre in The Hague; appended to the background paper is a communication to the Executive Secretary received some five weeks previously from the cognizant Dutch authority saying that the Netherlands Congress Centre has already been booked by others for all of 1995, except for two weeks in July. {*PC-VII/HC/WP.1*}

13–14 June In Luxembourg the foreign ministers of member states of the European Communities meet as the EC Foreign Affairs Council, their agenda including discussion of a “Presidency compromise package” designed to secure agreement — now two years overdue — on the regulation to establish a common EC export-control regime for dual-use goods. The British government later announces that the package was agreed by all except Belgium and Denmark, who “asked for a little more time to reach a final decision”. {*Trust and Verify Jun/Jul*}

14 June President Yeltsin issues a directive *On Control of the Export from the Russian Federation of Causative Agents of Disease affecting Human Beings, Fauna, and Flora, Their Genetic Mutations, and Fragments of Genetic Material and Equipment which may be Used in the Creation of Biological and Toxin Weapons*. This replaces an earlier directive on the same topic [see 17 Nov 92] and requires export controls on a list of pathogens and equipment totalling more than a hundred items. {*Rossiyskaya Gazeta* (Moscow) 24 Jun in FBIS-SOV 27 Jun}

The Deputy Chairman of the President's Committee on CBW Convention Problems, Pavel Syutkin, later states that the new list had been drawn up in accordance with the June 1993 revisions of the Australia Group lists [see 7-10 Jun 93]. He describes the workings of the Australia Group (of which Russia is not a member) in the following terms: "All 25 countries are inter-linked by a kind of reciprocal pledge. If one of them refuses the export of any materials or equipment to anyone, the others are obliged to follow that example. This reciprocal provision of information, support, understanding, and openness helps prevent the proliferation of biological weapons."

Deputy Chairman Syutkin attaches a still larger significance to the new Presidential ukase, speaking as follows to a reporter: "The Russian President's directive is a kind of stage in the development of our country because this is surely the first time that we have stated clearly and accurately that Russia shares the principles and approaches to the problem of biological and toxin weapons adopted in the civilized world. We have embarked on the path of cooperation and have tacitly begun to cast off the rigid straitjacket which held us tight for many years." {*Rossiyskaya Gazeta* (Moscow) 24 Jun in FBIS-SOV 27 Jun}

14 June The UK House of Commons releases the report of the inquiry of its all-party Defence Committee into the implementation of lessons learned from UK participation in the Gulf War, Operation Granby. The report reproduces, with security deletions, what appears to be the CBW chapter of the official *The Gulf Conflict--the Lessons Learned* and also minutes of evidence on CBW taken from officials by the committee in private session, as well as written official responses to questions arising. Despite its numerous deletions, the report thus constitutes an unusually detailed publication on current UK CBW policy and programmes; described, among other projects, is an £11 million programme to produce an integrated biological detection system. Moreover, in the testimony, especially, of Major General Rupert Smith (divisional commander during Granby), the publication also provides much otherwise unavailable detail on the practical side of CBW preparedness at the time, including divergencies in UK and US practices.

The committee report itself, which *inter alia* concludes that British forces went into the Gulf inadequately prepared to survive CBW attack, occasionally departs somewhat from the evidence on which it is based. It says, for example, that Iraq "had the capability to manufacture and use biological weapons including anthrax and botulinum toxin" — even though on BW the Ministry of Defence Director Defence Policy, Margaret Aldred, had spoken to the committee as follows: "We knew that they had a programme. We did not know what their intentions were. We did not have, and we do not have, any information about whether or not they have weaponised biological agents [see also 25 May]. We know they have weaponised chemical agents, but we do not know whether they had biological weapons or how they would use them, but we recognised that it was a risk."

The report does not dissent from the following conclusion presented in the *Lessons Learned* report: "The [Gulf War] crisis confirmed the importance of treating CBW as an integral part of the threat with which our forces may be faced and drew particular attention to the need to establish a viable response to the potential use of BW. It is recognised that a robust CBD posture will remain a key element of deterrence, even though a comprehensive and verifiable CW convention has now been agreed and if the BW convention is made more effective. This posture will continue to rely on a number of complementary factors: hazard assessment, detection, the ability to prove that CBW agents have been used (SIBCA [System for the sampling and Identification of Biological and Chemical Agents]), protection, medical counter measures and a high standard of CBD knowledge, education and training." {HC papers (session 1993-94) 43}

Commenting on the report's portrayal of insufficient British CBW preparedness, Brigadier John Hemsley writes: "The Ministry of Defence is partly to blame through its imposition of excessive and unnecessary secrecy on all aspects of the subject. Is this designed to camouflage ineptitude or protect politicians? Perhaps the Defence Committee should investigate this aspect." {*Daily Telegraph* (London) 17 Jun}

15 June In South Korea there is a nationwide civil-defence exercise organized by the Ministry of Home Affairs. Such exercises, which include CBW protective measures, have taken place regularly for years; this one, which was to have been the largest since 1980, has been scaled down on the Prime Minister's orders so as to aggravate war-alarms induced by the current crisis [see 21 Mar]. Civilians have reportedly been buying surplus Gulf-War gas masks believing them to be more effective than South Korean ones. {Yonhap 10 Jun in BBC-SWB 13 Jun; *Daily Telegraph* (London), 15 Jun}

15 June In the UK, Parliament is told that the government regards dissemination devices for the irritant agent oleoresin capsicum (OC) — "pepper spray" [see 13 Apr] — as prohibited weapons under the Firearms Act 1968. As to the possibility of police use being authorized, the government says: "The Home Office police scientific development branch has collated scientific information available on...pepper spray. The study concluded that while pepper sprays are used extensively by law enforcement agencies in the [USA] there were a number of unanswered issues relating to the safety of these sprays. One particular concern is whether capsaicin, the active ingredient of OC, might cause cancer to those using or exposed to the spray. We have commissioned further scientific research into this aspect in consultation with the Department of Health. Following this research, which is expected to take six months to complete, we will be in a better position to judge whether pepper sprays are appropriate for police use in this country." {*Hansard (Commons)* 15 Jun}

15 June In the United States, a death sentence is executed in the gas chamber of the state of North Carolina [see also 10 May]. {*Times and Guardian* (London) 16 Jun}

16 June In Bahrain, the UNSCOM Chemical Destruction Group [see 31 May–14 Jun] is finally disbanded after its two years of operations in Iraq. According to a UN press release, the Group had engaged about a hundred experts from 23 countries, and had destroyed over 480 kilolitres of mustard gas, tabun and sarin, over 28,000 of Iraq's CW munitions, and

"nearly 1.8 million litres, over 1,040,000 kilograms and 648 barrels of some 45 different precursor chemicals for the production of chemical warfare agents". {UN press release 22 Jun}

16 June In the US Senate, the Foreign Relations Committee has a sixth session of its ratification hearings on the Chemical Weapons Convention [see 9 Jun]. Testimony is taken in closed session from the intelligence community. The CIA Deputy Director for Intelligence, Douglas MacEachin, speaks of the "architecture" that the CWC provides to encourage compliance and to deter noncompliance, noting that the same architecture would assist the intelligence community in its mission of discovering and tracking chemical weapons programmes. {DCI testimony to SFRC 23 Jun}

18 June In Bosnia-Herzegovina, the Bosnian Serb army protests to UNPROFOR about a Muslim combined artillery and infantry attack in the central Bosnian area of Ozren and Vozuca, violating the one-month ceasefire agreement that took effect on 10 June. Moreover, according to the Serb complaint, the attack has included the use of shells charged with poisonous gases. {Tanjung 18 Jun in BBC-SWB 20 Jun} Other such allegations of chemical warfare in the Ozren-Vozuca area had been made by the Bosnian Serbs prior to the ceasefire [see also 30 May]. {Tanjung 5 and 6 Jun in BBC-SWB 7 Jun} They continue to be made over the following week. {Tanjung 20 and 24 Jun in BBC-SWB 22 and 27 Jun}

21 June In Hanoi, the Vietnamese Ministry of Labour, War Invalids and Social Welfare issues an interim report stating, as the first ever published official estimate, that a total of three million Vietnamese soldiers and civilians, including one million North Vietnamese soldiers, had died during the more than 20 years of fighting that had preceded the reunification of the country in 1975. The report states, further, that another two million Vietnamese had been turned into invalids by the use of defoliants and other chemical weapons, including some 500,000 physically handicapped children and children suffering from other defoliant-linked illnesses who had been born in areas subjected to the chemicals during the Vietnam War. {Kyodo 21 Jun}

21 June In Moscow, a visiting German parliamentary delegation headed by the Chairman of the Bundestag Subcommittee on Arms Control and Disarmament, Dr Friedbert Pflüger, meets with Russian Deputy Defence Minister Col-Gen Boris Gromov, the third such meeting in 18 months [see also 31 May]. Among the topics discussed is the Russian chemdemil programme, in which Germany is actively participating [see 3 Feb]. {ITAR-TASS 21 Jun in BBC-SWB 24 Jun}

21 June In Washington, at a conference on Law Enforcement Technology for the 21st Century, the Director of Defense Research & Engineering, Dr Anita Jones, announces that the Defense Department and the Justice Department are establishing a joint office under the former's Advanced Research Projects Agency in order to examine technologies that can "serve the needs of police and soldiers engaged in operations other than war". The two departments had signed a memorandum of understanding in May. {*Inquirer* (Philadelphia) 25 Jun; *Defense News* 27 Jun}

21 June The US Air Force announces that it will soon be releasing a request for proposals for a design study of a rocket-

boosted penetration warhead under its new Velocity Augmented Munition Program, which seeks to provide improved capability for destroying storage facilities containing weapons of mass destruction. {*Defense News* 27 Jun}

22 June In Sri Lanka eight soldiers are taken seriously ill after eating bread thought to have been poisoned by Tamil rebels in the eastern part of the country, according to unidentified "security sources". {Reuters in *Current News* 24 Jun}

22 June President Yeltsin names Pavel Syutkin [see 14 Jun] as Acting Chairman of the presidential Committee on CBW Convention Problems — of which he had hitherto been Deputy Chairman. The former Chairman, Academician General Kuntsevich, had been dismissed by President Yeltsin two months previously [see 7 Apr] this having stimulated a wide variety of stories as to the reasons, including one now starting to be heard, that he had been running a secret BW-weapons programme in contravention of the president's orders. {Reuters 22 Jun}

23 June In North Korea, the Research Institute for International Affairs issues a memorandum about the Korean War in which the charges of germ warfare then are reiterated [see also 23 Nov 93] and in which a major role is attributed to Japan, including participation in the alleged germ warfare. {Central Broadcasting Station (Pyongyang) 24 Jun in *Vantage Point* Jun}

23 June In Germany the Bundestag/Bundesrat mediation committee to which the CWC implementing legislation has been referred [see 26 May] agrees to confirm the version approved by the Bundestag on 26 May. {BR-Drs 649/94}

23 June In Geneva, the representative of Iran speaks as follows to the Conference on Disarmament: "There was ...a failure last year, at the General Assembly, to agree on a resolution on chemical weapons [see 16-19 May]. Whereas the United Nations was able to produce consensus resolutions at times that much controversy and rivalry prevailed, such failure after the conclusion of the [CWC] was far from expected. It was not conceivable that the chemically developed states would refuse to accept the inclusion of a commitment already agreed to in the Convention on peaceful use and technological cooperation in the resolution and prefer instead to withdraw the resolution altogether. The preparatory work at The Hague which has otherwise been progressing steadily is also now regressing as discussions on the well-known Article XI of the Convention have become stalemated. Model legislation proposed by Australia, there, has included provisions which not only confirm the continuation of restrictions imposed by the Australia Group but also extend its scope of applications. What is at stake is technological development of the developing countries, particularly those who have committed themselves to various non-proliferation and disarmament treaties and conventions." {CD/PV.683}

Australia addresses this statement at the next session of the CD, Ambassador Richard Starr speaking as follows: "Our national export licensing policy has the sole objective of seeking to ensure that open trade in chemical products is not exploited by those seeking to make chemical weapons. The suggestion that such policies place at stake the interests of the developing world is wrong, and tragically so, if one recalls that the developing world has suffered especially from chemical weapons since 1919, and would suffer directly in security terms

from continuing proliferation of chemical weapons. Export licensing based on non-proliferation concerns does not inhibit legitimate trade and economic development; to the contrary it is aimed at facilitating trade, and meeting the firm demand of international business that there should be no restraint or delay in legitimate commercial activity. As an importer of chemicals, Australia is subject to other countries' export licensing procedures. And similarly, Australian licensing measures are applied equally to all countries, regardless of their status as developing or developed. In practice, licensing procedures have a very limited impact on trade and none at all for almost all of our trading partners." {CD/PV.684}

23 June The OPCW Provisional Technical Secretariat has by now received only four responses to its questionnaire to member states asking for current information on facilities likely to be declared at entry into force [see 29 Mar]. Likewise, only two member states have yet responded to the PTS request for documents for the OPCW data bank on protection [see 28 Jan]. {PC-VII/5}

23 June President Clinton transmits to the US Senate the promised [see 23 Nov 93 and 13 May] findings of his administration's review of the impact of the CWC on Executive Order No 11850 specifying US policy regarding the use of riot control agents in war. The operative part of his message is as follows:

- "Article I(5) of the CWC prohibits Parties from using RCAs as a 'method of warfare'. That phrase is not defined in the CWC. The United States interprets this provision to mean that:
- The CWC applies only to the use of RCAs in international or internal armed conflict. Other peacetime uses of RCAs, such as normal peacekeeping operations, law enforcement operations, humanitarian and disaster relief operations, counter-terrorist and hostage rescue operations, and non-combatant rescue operations conducted outside such conflicts are unaffected by the Convention.
 - The CWC does not apply to all uses of RCAs in time of armed conflict. Use of RCAs solely against noncombatants for law enforcement, riot control, or other noncombat purposes would not be considered as a 'method of warfare' and therefore would not be prohibited. Accordingly, the CWC does not prohibit the use of RCAs in riot control situations in areas under direct US military control, including against rioting prisoners of war, and to protect convoys from civil disturbances, terrorists, and paramilitary organizations in rear areas outside the zone of immediate combat.
 - The CWC does prohibit the use of RCAs solely against combatants. In addition, according to the current international understanding, the CWC's prohibition on the use of RCAs as a 'method of warfare' also precludes the use of RCAs even for humanitarian purposes in situations where combatants and noncombatants are intermingled, such as the rescue of downed air crews, passengers, and escaping prisoners and situations where civilians are being used to mask or screen attacks. However, were the international understanding of this issue to change, the United States would not consider itself bound by this position.

"Upon receiving the advice and consent of the Senate to ratification of the Chemical Weapons Convention, a new Executive Order outlining US policy on the use of RCAs under the Convention will be issued. I will also direct the Office of the Secretary of Defense to accelerate efforts to field non-chemical, non-lethal alternatives to RCAs for use in situations where

combatants and noncombatants are intermingled." {*Congressional Record* (daily edition) 24 Jun, p S7635}

23 June Russia is concealing efforts to develop advanced chemical weapons despite its pledge to disclose details of its CW programme to the United States, so the *New York Times* quotes unidentified US administration officials as saying. Disclosure of certain such details is supposed to have happened as part of the confidential data exchange between Russia and the United States within the framework of the 1989 Wyoming memorandum of understanding, due to have been completed by 14 May [see 15 Feb].

At the regular US State Department daily press briefing, spokesman Mike McCurry largely confirms the *Times* story, saying: "We're still analyzing the data that the Russians have provided to us, but we are concerned about what appear to be omissions and inconsistencies in that data... The data we have received from Russia makes no reference to binary chemical weapons or agents. That is contrary to our understanding of the program that was initiated by the former Soviet Union. So, we are now requesting consultations with the Russian Federation, consistent with the memorandum of understanding, so that we can pursue the question further". {Federal News Service 23 Jun; *Washington Times* 24 Jun}

Next day, US Secretary of State Warren Christopher says on television: "I think we'll resolve this problem in short order", explaining that Russian Prime Minister Viktor Chernomyrdin, visiting Washington, had assured Vice President Al Gore that there was no chemical weapons development going on in Russia. {Reuters 24 Jun} A senior Russian Foreign Ministry spokesman says: "We are against entering into polemic in public about vaguenesses which can naturally arise during the exchange of chemical arms data between Russia and the United States". The spokesman continues: "We also have serious doubts as regards data provided by the Americans. We hope to clear the matters up with the US side during subsequent contacts". {ITAR-TASS 24 Jun in FBIS-SOV 27 Jun}

Later, Russian Defence Ministry spokesman Ivan Skrylnik states to *Moscow News* that "neither the Soviet Union nor Russia has ever developed or produced binary chemical weapons" [see also 25 May]. {*New York Times* 30 Jun; *Moscow Times* 3 Jul}

23 June In the US Senate, the Foreign Relations Committee has a seventh session of its ratification hearings on the Chemical Weapons Convention [see 16 Jun]. Testimony is taken in open session from the Chairman of the Joint Chiefs of Staff, General John Shalikashvili, from the Director of Central Intelligence, James Woolsey, and once more [see 22 Mar] from the Director of the US Arms Control and Disarmament Agency, John Holum. All three call for quick ratification. General Shalikashvili rejects a suggestion by Senator Lugar that ratification be postponed until Russia gives up its suspected binary programme [see previous entry], saying "The sooner we have the Chemical Weapons Convention, the sooner we can get to the bottom of this issue". {States News Service 23 Jun; AP in *Boston Globe* 24 Jun; *CQ Weekly Report* 25 Jun} And in his prepared statement he had observed: "Desert Storm proved that retaliation in kind is not required to deter the use of chemical weapons".

23 June The US Defense Department hosts a news conference on the Gulf War illness [see 11 Jun] during which it announces a major declassification effort to ensure that "all

information bearing on the Gulf War illness is made public"; releases the study commissioned from a Defense Science Board task force on *Persian Gulf War Health Effects* chaired by Dr Joshua Lederberg [see 9 Nov 93]; and reports on the new clinical study of Gulf War veterans [see 11 May], which is to be conducted jointly by the Departments of Defense and Veterans Affairs. {Defense Department news briefing 23 Jun}

The Lederberg Panel report concludes that for none of the etiologies proposed in explanation of the Gulf illness — exposure to CBW agents, to infectious disease agents, to oil-well fires, to insecticides, to pyridostigmine, to BW vaccines, to depleted uranium &c &c — is there any persuasive evidence of chronic illness having been caused on a significant scale, at least not in the absence of acute injury. Nor had epidemiological evidence been found sufficient to support the concept of a single coherent syndrome. Much more work is needed if the many undoubted illnesses occurring are to be explained. The body of the report provides a compendious review of much pertinent information.

23–24 June At US Army Edgewood Arsenal, officials brief US defence contractors on a potential programme to design and build a chemdemil facility in Russia [see 12 May]. A delegation of US Defense officials and members of Congress will shortly be visiting one of the seven Russian chemical weapons storage facilities for consultations with senior Russian officials. {*Defense News* 27 Jun}

24 June In Russia, the two houses of parliament approve legislation on the federal budget for 1994, this being signed by President Yeltsin a week later. For elimination of chemical weapons, including fulfilment of international commitments, the new law appropriates R 115,966 million (about \$46 million) from the 1994 federal budget. The 1994 appropriation for the President's Committee for CBW Convention Problems is R 735.9 million. {*Rossiyskaya Gazeta* (Moscow) 6 Jul in BBC-SWB 9 Jul}

24 June In the UK, Parliament receives further particulars of the volunteer testing programme at CBDE Porton Down [see Jun] from Director General Graham Pearson, who is responding to another large set [see 11 Jan] of written parliamentary questions about past work at his establishment. {*Hansard* (Commons) 24 June 1994}

Among these responses is the information that a quantity of about 60 kg of the nerve-gas soman (GD) was what Porton had used over the years in order to "evaluate the feasibility and hazard of the use of such an agent against the UK armed forces". The work had included "assessments...of the ease of acquisition of the precursors for GD, the ease of stabilization of GD and the shelf life of thickened GD". As to the work on the nerve-gas VX done during 1957-76 to "determine whether or not this agent was producible in quantity and was stable when stored", no more than 100 kg had been produced.

The responses also state that, for £1.059 million, CBDE has funded a total of seven "research projects relating to genetic engineering" in universities and polytechnics since 1979; the project titles are printed in the *Official Record* as: "Gene probes for flaviviruses", "Plasmid stability in bacillus", "Genetic control of translational fidelity in yeast", "Eukaryotic expression vectors", "Mapping of bacterial proteins" and "Bacillus brevis for biosynthesis of heterogeneous proteins".

24 June–5 July In Iraq the sixth UN biological inspection team, UNSCOM 84, {*Notes on Security and Arms Control* Jun} led by Jeff Mohr of the United States and numbering 32 people installs surveillance equipment at some 18 different sites around the country where there are dual-use biological facilities. This is part of the UNSCOM ongoing monitoring and verification effort [see 28 May–7 Jun]. {Xinhua 24 Jun}

26 June In the UK, over a field of cabbages near Oxford, there is an trial release of a Californian caterpillar-infecting virus genetically modified to carry a scorpion-toxin gene. This experimental biological-control agent is under development at the Institute of Virology in Oxford [see 5 Mar]. The trial had been delayed while officials of the Department of the Environment reviewed, and then rejected, protests by other academics, Friends of the Earth, local residents, and the Butterfly Conservation Society. Opponents had argued that the virus might kill a wide range of butterfly and moth larvae if it were to spread beyond its target area. The virus is the first of some 40 genetically modified organisms that are now scheduled for trial in Britain. {*Times* (London) 26 May and 8 Jun; *Independent* (London) 26 and 27 Jun}

ca 26 June In the US Senate, the Armed Services Committee reports out on the FY 1995 Defense authorization bill. Its report includes an expression of concern about the continuing allegations that Russia is still engaged in BW weapons research. The Committee calls for a report from the Administration on the status of the BW programme of the former Soviet Union, a report which should also include an updated evaluation of how well the US can detect and monitor BW research, development, testing, production and storage. {*BMD Monitor* 1 Jul}

27 June In Bosnia-Herzegovina, Serb forces discharge chemical agents at Bosnia-Herzegovina Army lines on the Zavidovici front, according to the Army's 3rd Corps press centre [see also 19 Apr and 18 Jun]. {Radio Bosnia-Herzegovina 28 Jun in FBIS-EEU 28 Jun} There is another such report three days later. {Radio Bosnia-Herzegovina 1 Jul in BBC-SWB 2 Jul}

27 June Switzerland publishes details of SWISSPRO, the training programme for 60 OPCW inspectors in the field of industry verification which it offered in 1992 [see 26 Mar 92]. The now-finalized scheme comprises two 6-week courses to be held in parallel, one on chemical production technology, the other on chemical production logistics, and both of them only for candidates who have successfully completed the Module 1 basic course. They will commence at the Nuclear/Chemical Protection Training Centre in Spiez and continue mainly in Basel, in facilities of chemical enterprises members of the Swiss Society of Chemical Industries. {PC-VII/B/WP.12}

27 June In the UK, the South West Environmental Protection Agency (a nongovernmental organization) publicly suggests that similarities in the signs and symptoms of Gulf illness [see 23 Jun] and those of some farmers exposed to organophosphate sheep-dips may mean that the chemicals used by troops in the Gulf as insecticides and insect repellents could have been responsible for the so-called 'Gulf War syndrome'. The Agency's coördinator, Elizabeth Sigmund, tells the *Guardian* newspaper: "There is no mystery about the symptoms described by many of the soldiers; the only mystery is that the Ministry of Defence fails to admit that they are typical of expo-

sure to low levels of organophosphorus compounds". {*Guardian* (London) 28 Jun}

Questioned later in Parliament, the Ministry of Defence states that neither the pesticide sprays nor the insecticidal clothing impregnants available to UK forces in the Gulf had been of organophosphate types. {*Hansard (Commons)* 11 Jul} The ones that had actually been used were carbamates or pyrethroids. However, it subsequently transpires that, in addition, organophosphate insecticides had been stocked by British forces in the Gulf war zone, but the Ministry of Defence states that they were never used. {*Guardian* (London) 9 Aug}

27–30 June In The Hague, the OPCW Preparatory Commission convenes for its seventh plenary session [see 11–15 Apr]. Participating are 79 of the 105 states signatories that have properly or provisionally accredited representatives.

The Executive Secretary presents his report for the inter-session period just ended, 16 April through 26 June. {PC-VII/5} Among the PTS activities he describes are the participation of two PTS members in the technical activities of UNSCOM and contacts made with outside consultants in the field of Quality Assurance systems. The PTS is preparing an estimate of the cost of implementing a QA/QC regime within the OPCW Verification Division, including the Inspectorate and the OPCW Laboratory; the report states: "It is envisaged that the network of designated laboratories will implement their own systems, possibly based on the ISO Guide 25 type, and will obtain their accreditation through national accreditation bodies."

The Commission considers reports from subsidiary bodies, among them that of Working Group B which has reported, among other things, that it has requested the PTS prepare a "draft OPCW media policy" based on the following principles: "(a) all media contact should be subject to the OPCW policy on confidentiality and the procedures for release of information; (b) the initial response to each media request should be through designated OPCW media liaison officers, or as otherwise authorised by the Director-General or his delegate; and (c) inspection teams should not comment on any aspect of an inspection activity in a State Party other than by means of a reference by the team leader or if necessary a senior inspector to standard press guidelines on the general verification programme". Working Group B has also reported that it is requesting the PTS "to prepare an associated draft list of the particular types of general information relating to the implementation of the Convention which may be routinely provided to the media and members of the general public". {PC-VII/B/2*}

The Commission takes action on a broad range of issues and defers action on others. It completes its business a day than it had originally planned. It decides to hold its eighth plenary session during 26-30 September, and adopts a provisional agenda for it. {PC-VII/8}

28 June In Japan, in a residential area of Matsumoto, seven people die and more than 200 are injured following a release of what is later said to have been sarin nerve gas. Dogs and pigeons lie dead in the street. Police seize chemicals from the home of a resident. The seized chemicals are of more than 20 types, including an organic phosphorus precursor of sarin available from a chemical supply house in Tokyo. Traces of sarin are reportedly found in a bucket in the home, in the bathwater of a neighbouring apartment where one of the victims had died, and in a neighbourhood pond where dead fish had been floating. {*Japan Times* 29 and 30 Jun, 14 and 28 Jul; DPA in *Frank-*

furter Allgemeine Zeitung 29 Jun; *Daily Telegraph* (London) 29 Jun; AP in *International Herald Tribune* 4 Jul; Kyodo 13 Jul}

28 June In the UK House of Commons the government responds to a question about the possibility of British armed forces personnel having become exposed to CW agents during the Gulf war as a result of the bombing of targets in Iraq. The Director General of CBDE Porton Down, Dr Graham Pearson, had provided the response, quoting an assessment which CBDE had made at the time of the potential downwind hazard distances from bombed chemical-weapon storage sites: "The result of the assessment indicated that even assuming simultaneous release of the majority of agent from several bunkers under meteorological conditions which favoured the downwind travel of the agent cloud and ignoring the fact that chemical agents are organic materials which are destroyed by combustion, the maximum distance at which there would be any hazard was of the order of a few tens of kilometres... The conclusion was that there was no evidence that British Servicemen and women would be exposed to chemical warfare agent as a result of bombing attacks." {*Hansard (Commons)* 28 Jun}

28 June In the US Congress, a study of potential military countermeasures against nuclear and CBW weapons proliferation is published by the Congressional Research Service. The study concludes: "This exploration finds many military counterproliferation options to be risk-laden. Some may be infeasible. All seem unattractive, but inaction eventually could prove worse if adversaries unfriendly to the United States use the interim to deploy weapons of mass destruction."

Included in the study is a listing of states known or thought to be "proliferators". With regard to chemical weapons, "possession confirmed" is the status which the table ascribes to four states, namely Iran, Iraq, Russia and the United States. "Probable possession" is ascribed to twelve more states: Afghanistan, Burma, China, Egypt, Ethiopia, Israel, Kazakhstan, North Korea, Syria, Taiwan, Ukraine and Vietnam. Nine further states are said to have "suspected programs": Chile, Cuba, France, Libya, Pakistan, Somalia, South Africa, South Korea and Thailand. On biological weapons, "possession confirmed" status is given to one state (Russia); "probable possession" to seven states (China, India, Iran, North Korea, Pakistan, Syria and Taiwan); "suspected program" to two states (Egypt and Libya); and "clear intent" to one state (Iraq). {*CRS Report for Congress* no 94-528 S}

29 June In New York, the UN Security Council is briefed on progress in the startup of UNSCOM's long-term verification work in Iraq. UNSCOM Executive Chairman Rolf Ekéus, who will shortly be visiting Baghdad, later tells reporters that the "Iraqi side is doing a good job and [has] established a positive attitude in putting the monitoring system in place" [see also 6 Jun]. The protocols for on-going monitoring and verification in the CBW field are being developed [see 24 Jun–5 Jul] in a first-phase activity which Chairman Ekéus tells the Security Council will not be completed until September. The second phase, expected to last about six months, will test the programme. {*Reuters* 29 Jun}

30 June Romanian Defence Minister Gheorghe Tinca says at a press conference in Bucharest: "Romania does not possess chemical weapons and neither does it have a chemical weapons research or development programme". He is responding to what he calls "persisting doubts" expressed by US officials

during his recent visit to Washington about earlier Romanian declarations of nonpossession, and he associates these "doubts" with Romania's continuing failure to be admitted as a member of the Australia Group. So "comprehensive data regarding Romania's programs in the domain of chemical weapons" he says are now to be published. He states that these programmes had commenced in 1968 on the orders of the leadership of the time. "In the year 1987, it was established that Romania should renounce entering the phase of designing and building equipment producing toxic substances owing to the very high cost this would have meant and the budgetary problems of the armed forces. Early in 1990 the program was halted entirely." The only work with CW agents that still continues is at the laboratory level, and is solely for protective purposes. He has "invited American experts to come and inspect these laboratories". {Rompres 23 Jun in BBC-SWB 27 Jun; Radio Romania 30 Jun in BBC-SWB 2 Jul and in FBIS-EEU 5 Jul 94; AFP and Reuters 30 Jun}

The minister also says that, in a policy document submitted for parliamentary approval, *Integrated Conception regarding Romania's National Security*, the Supreme Defence Council has stated: "The Romanian state does not hold, does not produce, will not produce, and will not purchase in any way chemical weapons, or nuclear weapons, or bacteriological weapons, and cooperates on the international plane for the nonproliferation of such mass-destruction weapons and of the means of their transportation to targets". {Radio Romania 30 Jun in FBIS-EEU 5 Jul}

30 June In the United States, as the 1979 Export Administration Act expires, President Clinton issues an Executive Order to continue in effect all rules and regulations currently in force under the Act until such time as new authorizing legislation is enacted. Existing CBW nonproliferation controls are among those that are thereby formally extended. {US Newswire 1 Jul} Progress through Congress of the updating legislation [see 8 Mar] is being opposed on grounds that it liberalizes US trade to the detriment of US security. {*Defense News* 20 Jun}

30 June In the US House of Representatives, the Veterans Affairs Subcommittee on Compensation, Pension and Insurance unanimously approves HR 4386, a bill authorizing payment of disability benefits to Gulf War veterans suffering undiagnosed illnesses presumably contracted in the war theatre which become apparent by October 1996 [see 9 Jun]. {AP in *Washington Times* 1 Jul; *CQ Weekly Report* 2 Jul}

On the Senate side, meanwhile, the Chairman of the Veterans Affairs Committee, Senator John D Rockefeller [see 6 May] is preparing to introduce legislation that would "reaffirm" the authority of the administration to pay such benefits. {*Washington Post* 25 Jul}

1 July In England, the Harvard Sussex Program and the Working Party on Chemical and Biological Weapons are guests of the Chemical & Biological Defence Establishment at Porton Down. The discussions dwell on aspects of BW weapons proliferation, on prospects for the upcoming BWC Special Conference, and on the preparations currently under way for implementing the CWC in the United Kingdom.

2 July In the Yemeni civil war, rumours of chemical warfare are again being heard [see 28 May] as doctors at the military hospital in Sanaa (which is treating casualties from both sides) speak of patients with "strange burns". {AFP 1 Jul in FBIS-NES

1 Jul; KUNA 2 Jul in FBIS-NES 5 Jul} Abdelrahman al-Jiffri, vice-president of the secessionist south, states that northern forces besieging Aden had bombed the city with "burning chemical weapons", killing 20 and injuring 50 people. This charge is denied by a spokesman for the northern Yemeni authorities quoted by SABA, the official news agency. SABA reports, further, that southern forces have been using napalm and phosphorus weapons. {KUNA 2 Jul in FBIS-NES 5 Jul; AP in *Tagesspiegel* (Berlin) 3 Jul; AFP 3 Jul in FBIS-NES 5 Jul}

2 July In Russia, Moscow television carries a half-hour documentary about chemical-weapons work at Shikhany, filmed a year previously. From Washington, *Foreign Broadcasts Information Service* later reports that the footage shown had included the head of the chemical research institute, Aleksandr Kochergin, saying that six of his employees had become disabled as a result of unsuccessful experiments. Also, *FBIS* reports that Academician Anatoliy Kuntsevich had been shown agreeing that Russia has more than 40,000 agent-tonnes of chemical weapons awaiting elimination. {Ostankino Television 2 Jul in FBIS-SOV 6 Jul}

A Moscow newspaper reports a Russian Defence Ministry spokesman denying that the chemical-weapons depots in Bryansk oblast, or anywhere else in the Federation, posed a threat to local residents. Alarm had been expressed in Bryansk about the 7000 tonnes of aircraft CW bombs stored at a location 5 km from Pochep, now said to have exceeded their intended storage life. {*Kommersant Daily* (Moscow) 2 Jul in FBIS-SOV 5 Jul}

4-5 July UNSCOM Executive Chairman Rolf Ekéus is in Baghdad for high-level talks with a delegation from the government of Iraq in order to review progress in the implementation UN Security Council resolutions. {Reuters 28 Jun; INA 4 Jul in FBIS-NES 5 Jul; *Mideast Mirror* 7 Jul; UN press release 12 Jul} Afterwards he travels on to Kuwait, where he reportedly says that the Iraqis are now "more cooperative on the monitoring system and have accepted and conceded that they will be subject to heavy monitoring from now on". {KUNA 6 Jul in FBIS-NES 7 Jul}

6 July In Japan, *Yomiuri Shimbun* publishes an interview with Prince Mikasa, brother of the late Emperor Hirohito, in which he says that military chiefs had suppressed copies of a paper he had written in 1944 referring to atrocities by Japanese troops in Nanking. Prince Mikasa, who had been a cavalry officer in China during 1943-44, recalls seeing film at Army headquarters in Nanking showing scenes of Chinese prisoners being tied to posts in a field and then gassed and shot. {Reuters in *International Herald Tribune* 7 Jul; *Daily Telegraph* (London) 7 Jul; *Economist* (London), 9 Jul}

6 July In the UK, the Chemical and Biological Defence Establishment at Porton Down releases a video and a lengthy instructional brochure about itself and its work. These constitute what is also a clear and up-to-date introduction to the technical side of anti-CBW protection. {*Chemistry in Britain* Sep}

7 July The UK government, asked in Parliament whether its policy is that the UK should ratify the Chemical Weapons Convention by January 1995, responds: "We shall ratify the [CWC] as soon as the necessary implementing legislation is in place. No parliamentary time has yet been allocated for this." {*Hansard (Commons)* 7 Jul} [See also 8 Jun] Given by For-

eign and Commonwealth Office Minister Douglas Hogg, this response comes two weeks before Parliament rises for an unusually long recess. The legislative delay is now attracting adverse public comment. The *Times* newspaper {letters, 21 Jul}, for example, carries this: "One theory [for the delay] is that the President of the Board of Trade, Michael Heseltine, who is responsible for implementation of the CWC in the UK, is reluctant to press new obligations onto chemical companies when he has just embarked on a deregulation crusade". "Post Office privatisation is more important, in his view", writes *Chemistry in Britain* {Sep}

8 July In Russia, Moscow city court overturns the award of damages to Dr Vil Mirzayanov made by the Perovsky district court against two official organizations [see 8 Jun]. The higher court sends the case back down for further investigation, on the grounds that existing law does not provide for compensation for damages to a person's emotional wellbeing. The court also holds that several technicalities had been ignored. {*Moscow Times* 10 Jul}

10 July In Naples, from the summit meeting of the Group of Seven industrial nations in which President Yeltsin of Russia is also participating, a communiqué is issued in which the eight leaders "reiterate our resolve to enforce full implementation of each and every relevant UN Security Council resolution concerning Iraq and Libya until they are complied with, and recall that such implementation would entail the reassessment of sanctions". {TASS 10 Jul; *Mideast Mirror* 12 Jul}

11 July In New York, a forensic research team is in Manhattan recreating the scene where an Army CBW scientist, Frank Olson, supposedly under the influence of LSD from a CIA-sponsored experiment, had apparently jumped to his death from the 13th floor of an hotel in 1953. The team had exhumed Olson's remains a month previously, and is conducting investigations at the request of the Olson family, who believe that he had in fact been deliberately killed because he had become a security risk. {*Independent* (London) 4 Jun; *Times* (London) 6 Jun; *Washington Post* 12 Jul}

12 July In New York, the United Nations releases the text of a joint statement agreed by UNSCOM, the IAEA and the Iraqi government during the recent high-level talks in Baghdad [see 4-5 Jul]. The statement records UNSCOM and IAEA agreement that their task of identifying and rendering harmless Iraq's capabilities for and weapons of mass destruction is now "almost complete". As for the task of putting in place and operating the effective system of monitoring and verification approved in Resolution 715 (1991), the joint statement says: "The Baghdad Centre for ongoing monitoring and verification should be provisionally operational in the course of September 1994. It is the objective of the Commission and the IAEA to have the monitoring system operational in September 1994." [See also 29 Jun]

The joint statement records "substantial progress" in setting up the OMV system: "In the chemical area, monitoring protocols had been completed for the principal facilities directly involved. Similar protocols for remaining facilities, primarily oil refineries and fertilizer plants, were planned for completion in the next two months. Some 70 facilities for baseline inspections in the biological area had been identified and protocols would be prepared within the same time-frame." Suchlike prog-

ress on the nuclear and ballistic-missiles fronts is also described. {UN press release 12 Jul}

According to press reporting the Baghdad Centre for OMV, currently under construction, is to include a 90-metre tower for receiving radio signals from monitoring apparatus now being installed in 30 plants around the country. The facility will also direct the activities of UN inspectors in their routine OMV checks at some 150 industrial sites. Iraqi authorities have decreed that tampering with the monitors is to be regarded as "a major crime", and hundreds of Iraqis are working with UNSCOM to install the monitoring system. {*International Herald Tribune* 15 Jul; *New York Times* 26 Jul}

13 July In the United Kingdom, a large private corporation, The Boots Company, is shortly to be sued by former employees claiming compensation for injuries ascribed to the asbestos they had been working with when assembling gas masks at a Boots factory in Nottingham during World War II. The London firm of lawyers handling the matter, Messrs Leigh Day, says that the writs against Boots will claim negligence. Boots denies liability, stating that it had been one of several companies required by the wartime government to assemble gas masks according to government specifications. {*Times*, *Independent* and *Guardian* (London) 14 Jul}

In the United States an out-of-court \$1300 million settlement involving 20 asbestos companies is on the verge of being reached from which as many as 100,000 putative asbestos victims may eventually benefit. {*Financial Times* (London) 22 Aug}

15 July In Japan the Defence Agency issues its annual defence white paper. It states that North Korea's long-range missiles and suspected plans for developing nuclear and CBW warheads pose a grave threat to the security of East Asia including Japan. The Rodong-1 missile, having a range of 1000 km, will soon complete development, the white paper says; and the North Korean military has recently, so it is believed, acquired CBW weapons. {Reuters 15 Jul; *Financial Times* (London) 16 Jul; *Aviation Week & Space Technology* 25 Jul}

15 July Cook Islands deposits its instrument of ratification of the Chemical Weapons Convention.

15 July The OPCW Preparatory Commission Executive Secretary issues in two volumes his proposed budget and programme of work for the Commission for 1995, as requested by the Commission's Expert Group on Programme of Work and Budget. For Part I of the 1995 budget, an expenditure totalling Dfl 34 million (ca \$19.4 million) is proposed, much the same as for 1994 Part I. For Part II of the 1995 budget — i.e. expenditures triggered by deposit of the 65th instrument of ratification, if that does not happen until 1995 — the figure is Dfl 34.4 million, this allowing for an inspectorate slightly larger than had previously been planned. The proposal envisages an establishment upon entry of the Convention into force totalling 233 Secretariat members plus 166 inspectors completing training from a group of 186 trainees. {PC-VIII/A/WP.1}

The proposal details the projected activities of each PTS division. In the budget proposed for certain of the mandated outreach activities of the External Relations Division, "it is anticipated that funding from governmental aid programmes and non-profit foundations will be available to supplement the Commission's contribution".

15 July The UK House of Commons orders to be printed the 1993/94 annual report and accounts of the Chemical and Biological Defence Establishment. These papers, released as an illustrated 56-page brochure, include a lengthy account of the year's activities and scientific achievements at the establishment. Included are descriptions of CBDE involvement in the work of UNSCOM and the OPCW Preparatory Commission; of BW-agent detection trials at US Army Dugway Proving Ground; of work on pressure/temperature-swing adsorption as a filtration alternative to activated carbon; of studies of the use of oral vaccines for achieving respiratory-tract protection against BW aerosol; and of the development for CWC-verification purposes of two noninvasive inspection techniques — acoustic signature discrimination and neutron activation analysis — for investigating the contents of sealed containers (such as an artillery shell). Graduate staff at CBDE now stood at 211 people. There had been 63 open-literature publications during the year and 96 CBDE reports. Total gross expenditure during the year had been £40.6 million, of which £3.6 million was recoverable from non-Defence-Ministry customers. {HC papers (session 1993-94) 486}

Not included is any synoptic account of the numerous working contacts between CBDE and other parts of the British scientific and technological community. Nor does the annual report include a listing of the year's publications in the scientific literature by CBDE workers.

15 July The US Army releases health risk assessments prepared by the Army Environmental Hygiene Agency on its zinc cadmium sulphide atmospheric dispersion trials over Minneapolis in 1953 and Corpus Christi, Texas, in 1962 [see 9 Jun]. It says that these assessments are being reviewed by the Centers for Disease Control, the Environmental Protection Agency, and the National Academy of Sciences. The assessments conclude that the trials "would have posed negligible health threats at the time of the study". {*St Louis Post-Dispatch* 16 and 17 Jul; *Gazette* (Montreal) 17 Jul; *Newsweek* 25 Jul}

Press reporting of the affair draws attention to the Army's public information policy regarding the trials. Thus, at the time of the 1953 St Louis trials, Army news releases described them as tests of a possible "smoke screen" to protect the city from aerial observation during enemy attack. Later, when the BW association of the trials could no longer be denied, Army spokesmen portrayed them as assessments of US vulnerability to BW attack. Now, 40 years on, the Army is releasing hitherto secret documents which show that the real purpose of the trials had been to assess the vulnerability to BW attack of "Russian cities of interest". St Louis, Minneapolis and Winnipeg had been chosen as venues for the trials because their weather conditions and topography approximated to those of potential BW targets in the Soviet Union. {*St Louis Post-Dispatch* 13 Jul}

15 July In the US Congress, the Joint Economic Committee holds a hearing on Economic Conditions in Eastern and Central Europe, with testimony from the Central and Defense Intelligence Agencies. DIA Combat Support Director William Grundmann speaks about Russian weapons-development programmes, including Russian BW work. {Federal News Service and Reuters 15 Jul}

17 July A London newspaper reports that Dr Ihsan Barbouti, the London-based Iraqi said to have been a central figure in the project to build a chemical-weapons factory at Rabta, Libya, may have faked his own death [see 27 Jun 90] in order to es-

cape German and US investigations into his activities. {*Independent on Sunday* (London) 17 Jul}

18 July In the Netherlands, the first international training course for CWC National Authorities begins, being organized by the government for personnel from developing countries [see 24 Mar]. It is due to end on 12 August. The four-week course — Week 1: CW and chemical defence background; Week 2: the CWC, and setting up a National Authority; Week 3: legal aspects, confidentiality, inspections; Week 4: the inspection process — is taken by 48 students, an additional 27 students taking only Weeks 2 and 3. The 75 participants are from 43 signatory states. The course is organized by TNO Prins Maurits Laboratory in coöperation with the PTS. Travel, accommodation and tuition expenses are all covered by the Netherlands. {*OPCW Synthesis* 30 Aug}

18 July The UN Security Council conducts its twentieth 60-day review of sanctions on Iraq and decides against lifting the sanctions. {*Notes on Security and Arms Control* 1994 Jul}

19 July In Angola, government forces are continuing to use chemical weapons [see 1 Jun] according to UNITA accusations received in Brussels. {RDP (Lisbon) Antena-1 radio 19 Jul in BBC-SWB 22 Jul} UNITA alleges a week later that the government has recently imported and "tested" a load of chemical bombs during military exercises. Angolan UN Ambassador Afonso Van-Dunem denies use of chemical weapons by government forces. {AFP 27 Jul}

19 July In the UK, the universities and the higher-education colleges have agreed with the government to accept official guidance about countries and technologies of concern which they "will take into account when reaching their decisions" about accepting overseas researchers "at post-graduate and post-doctoral levels in certain fields of scientific research". This, Parliament is told, is to inhibit access to technologies which could assist in the development of weapons of mass destruction: {*Hansard (Commons)* 19 Jul} a control on transfer of so-called intangible technology. According to a spokesman for the Committee of Vice-Chancellors and Principals, the government had previously proposed that the universities should deny places to all postgraduate students from a list of countries in a list of subjects [see 25 Apr]. {*Independent* (London) 22 Jul}

20 July USACDA director John Holum, speaking to the Des Moines chapter of the Council on Foreign Relations about the implementation of arms-control agreements, says: "The CWC may represent our greatest implementation effort yet... To give you a rough idea, the IAEA, which inspects for the NPT, oversees about 900 nuclear facilities in some 60 countries; by comparison, the CWC's implementing body, the Organization for the Prohibition of Chemical Weapons, will have access to over 25,000 facilities in at least 120 countries." {*Official Text*}

21 July In the UK the government informs Parliament of its plans for the BWC Special Conference in September: "We will be proposing...that states parties...work to strengthen the convention through the creation of an effective verification regime and, to this end, that the special conference agrees a mandate for a group of experts to draft a verification protocol for the BWC. We will further be proposing that this work be completed in time for the 1996 fourth BWC review conference." {*Hansard (Commons)* 21 Jul}

21 July From Washington *Inside the Pentagon* reports that the Senate Select Committee on Intelligence has recently conducted a hearing on the Chemical Weapons Convention. It quotes an unidentified source saying that the Committee will report in favour of the Convention being ratified, but will express "its grave concern over its enforcement".

21 July In the US House of Representatives, the Veterans' Affairs Committee gives voice-vote approval to HR 4386, a bill authorizing disability compensation to veterans suffering from the so-called Gulf war syndrome [see 30 Jun]. {*CQ Weekly Report* 23 Jul} The full House adopts it on 9 August and the bill is sent to the Senate for further action. {AP in *New York Times* 9 Aug}

21 July President Clinton transmits to the Congress his administration's national security strategy report for 1994, *A National Security Strategy of Engagement and Enlargement*. The document lays stress on combatting the spread and use of weapons of mass destruction and missiles. On CBW it says: "The Administration supports the prompt ratification and earliest possible entry into force of the Chemical Weapons Convention as well as new measures to deter violations of and enhance compliance with the Biological Weapons Convention". The document also states: "The United States will retain the capacity to retaliate against those who might contemplate the use of weapons of mass destruction, so that the costs of such use will be seen as outweighing the gains".

22 July The Municipality of The Hague, in a letter to the Executive Secretary of the OPCW Preparatory Commission, confirms its intention to charge a full commercial price for the land on which the OPCW headquarters building is to be situated. {PC-VIII/HC/3}

22 July The OPCW Provisional Technical Secretariat reports to the Commission on the building in The Hague judged to provide the best available alternative to a tailor-made OPCW Building, but the Executive Secretary, on security grounds, counsels against its use. {PC-VIII/HC/WP.4}

22 July In Washington the task force on the readiness of US armed forces established by the Defense Secretary in May 1993 publishes its final report. This concludes that the military's general ability to respond effectively remains "acceptable in most measurable areas". It does, however, report that US forces are poorly prepared to operate against an enemy using CBW weapons. {*Washington Post* 23 Jul}

29 July In the US Senate, the Committee on Appropriations reports out on the 1995 Defense Appropriations bill. As approved, the bill includes provision of \$1 million for a "prompt independent assessment of the potential health effects of the BW dispersion trials conducted by the Army over St Louis and other cities during the 1950s [see 15 Jul]. It also calls on the Army to request a study on zinc cadmium sulphide from the National Academy of sciences. {*St Louis Post-Dispatch* 30 Jul}

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

been tested successfully on 5000 subjects. {Xinhua 1 Aug in BBC-SWB 2 Aug}

1 August In Bosnia-Herzegovina, four NATO aircraft drop poisonous chemicals on Serb positions on the Mostar-Nevesinje sector of the front, according to a statement issued by the command of the Bosnian Serb Herzegovina Corps. {Tanjug 2 Aug in BBC-SWB 4 Aug}

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

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

3 August In The Hague, OPCW Preparatory Commission member states hold consultations on a media policy for the OPCW [see 27-30 Jun]. The consultations are chaired by Dr Radoslav Deyanov of Bulgaria and focus on a draft *OPCW Media Policy* and other papers prepared by the PTS. The chairman is asked to report on the consultations to Working Group A, and the PTS is asked to update its draft. {PC-VIII/A/WP.5}

3 August Spain deposits its instrument of ratification of the Chemical Weapons Convention.

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

8 August The Secretary-General of the United Nations, as Depositary of the Chemical Weapons Convention, announces that the original of the Convention has now been rectified to remove the textual errors identified by the OPCW Preparatory Commission [see 11-15 Apr]. {PC-VIII/3}

ca 9-23 August In Iraq an UNSCOM biological inspection team, led by David Kelly of the United Kingdom and numbering 13 people, continues to lay the groundwork for the ongoing monitoring and verification of sites where BW weapons might possibly be made [see 12 Jul]. The visit is the second stage of a three-stage UNSCOM plan initiated in July. The team surveys sites around the country, including Iraq's six breweries. It

returns to Iraq on 29 August. {*Jane's Defence Weekly* 20 Aug; *Record* (Bergen, NJ) 24 Aug; AP in *Daily Telegraph* (London) 26 Aug}

10 August Bulgaria deposits its instrument of ratification of the Chemical Weapons Convention.

ca 10–24 August In Iraq an UNSCOM chemical inspection team, led by Cees Wolterbeek of the Netherlands and numbering 12 people, visits sites around the country, including oil and petrochemical installations, that may become subject to routine checks under UNSCOM's ongoing monitoring and verification plans [see 12 Jul]. The team is also seeking additional information about Iraq's past chemical weapons programmes. {*Jane's Defence Weekly* 20 Aug; AP in *Daily Telegraph* (London) 26 Aug}

11 August In Russia, the Interdepartment Commission for the Problems of Elimination of Chemical Weapons, chaired by Colonel-General Mikhail Kolesnikov, head of the General Staff, decides in favour of boosting Russian-US contacts in the field of chemical disarmament. {ITAR-TASS 12 Aug}

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

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

12 August Germany deposits its instrument of ratification of the Chemical Weapons Convention.

15–25 August In The Hague, the OPCW Preparatory Commission Expert Group on Programme of Work and Budget reconvenes under the continuing chairmanship of Ambassador

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

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

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

19 August Sri Lanka deposits its instrument of ratification of the Chemical Weapons Convention.

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

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

22–26 August In Romania, in response to an invitation from the Minister of Defence [see 30 Jun], a visiting team of US military experts inspects documents, research laboratories, chemical industry units and several military units in order to verify that the country has not and does not produce chemical weapons. {Rompres 27 Aug in BBC-SWB 30 Aug}

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

25 August The US Congress finally passes (by Senate vote on a conference report) the Violent Crime Control and Law Enforcement Act of 1994. Among its provisions is the creation of several new federal death-penalty crimes, among them causing death by use of weapons of mass destruction, including

biological weapons and poison gas. {*Columbus Dispatch* 20 Aug; CNN television news 25 Aug}

29 August Mexico deposits its instrument of ratification of the Chemical Weapons Convention, becoming the fourteenth signatory state to do so.

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

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