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FROM TRIGGER POINT TO ENTRY INTO FORCE

It is virtually certain that the Chemical Weapons Convention will be in force early next spring. Sixty-three states had deposited their instruments of ratification with the UN Secretary-General by mid-September and additional ratifications are imminent. Article XXI states that the Convention shall enter into force 180 days after deposit of the 65th ratification.

It is also sure that the United States and the Russian Federation, the two signatories with declared chemical weapons stockpiles, will not ratify in time to be among the first 65 states parties. Nevertheless, both countries remain firmly committed to the Convention and there is good reason to expect both of them to be on board when the treaty enters into force.

In the US Senate, as the Convention finally approached a vote on 12 September, there appeared to be well over the two-thirds majority needed for ratification. Then, presidential challenger and former senator Robert Dole, who had not previously declared any view regarding ratification, sent a last-minute letter to the Senate Majority Leader praising the ultimate goal of eliminating chemical weapons but setting deliberately impossible conditions. The Dole letter faced members of his party who had been counted as supporters of the Convention with the prospect of either voting against ratification or rebuffing and embarrassing their own presidential candidate and recent colleague. In this situation, the White House found it prudent to seek postponement of the vote. The treaty remains on the Senate calendar but is unlikely to be reconsidered until next year.

The outside world is familiar with the madness that sets into US politics at the time of presidential elections and has no option but to live with it as best it can. In order to bring consideration of the Convention back to reality after election fever has subsided, senior US leaders in both major political parties who understand that the treaty is in the national interest will need to accord it the high priority it merits and to speak out forcefully. In this, they can count on support from the US chemical industry, whose principal trade association, immediately after the postponement of Senate action, strongly reaffirmed its backing of the Convention. Then, when the Convention is finally put to a vote early next year, the bipartisan support that was evident during two years of Senate committee hearings will culminate in its ratification.

In the Russian Federation, President Yeltsin's government has consistently supported the Convention. Nevertheless, the Convention has not yet been presented to the

Duma, and the elimination of Russian chemical weapons is not yet underway. Among the problems delaying ratification, the principal one appears to be the high cost of safely destroying that massive stockpile. The chemical demilitarization program adopted in March by the Russian government, authorization for which is pending before the Duma, is estimated to require \$3.3 billion. The US has allocated \$68 million from its Cooperative Threat Reduction Program, and planning has begun for US-Russian collaboration to build a large demilitarization facility at Schuchye, based on the two-step Russian technology for neutralizing organophosphorus nerve agents. Other countries, among them Germany, the Netherlands and Sweden, are providing financial assistance or technical collaboration. Clearly, the pace of chemical demilitarization and ratification in Russia is related to the provision of outside assistance.

In contrast to the delay in ratification by the US and Russia, it is impressive that nearly all of the world's other large chemical producers have already ratified. There are, however, several non-ratifying signatory states whose participation in the Convention is particularly important for international security. These include China, Iran and Pakistan. And there are a few important states that are not even among the 160 that have signed the Convention. For some non-signatory states in the Middle East, participation in the Convention may have to await progress in regional nuclear arms control and the Mid-East peace process. But once the Convention enters into force, as it soon will, the incentives it will create for joining and its penalties for staying out, together with the political force inherent in its large number of states parties, will help drive the Convention even closer toward the universality to which it ultimately aspires.

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The Colorado Potato Beetle Goes to War

On 17 September 1940, Germany's Surgeon General received a report of an inspection of certain Poudrerie Nationale laboratories in Le Bouchet, France. That report became the basis for a German biological warfare programme — one that would eventually enlist the Colorado potato beetle in the war effort.¹

After the June 1940 fall of France, occupying German forces dispatched a team to inspect the Le Bouchet laboratories. German military intelligence had previously identified four of these laboratories as possibly harbouring some sort of BW research programme. The inspection team included Professor H Kliewe, a former director of Giessen University's Diagnostic Laboratory for Infectious Diseases. Kliewe's inspection revealed what he considered to be evidence of biological warfare preparations. This evidence included microphotographs showing metal fragments surrounded by anthrax organisms; laboratory reports on the simultaneous use of chemical warfare agents and pathogens; and other reports on the behaviour of various pathogens.

Believing there had been close liaison between the French and the British before the fall of France, the Germans concluded that the British considered BW promising. Kliewe would later tell American interrogators "[w]e learned for the first time how promising the enemy considered this field". For the Germans, this conclusion was sufficient to warrant more attention to defensive preparations against a BW attack. As part of these preparations, Kliewe was transferred in January 1941 to the *Heeressanitäts Inspektion* (Surgeon General's Office), Berlin, for the specific purpose of investigating all problems connected with BW. German concerns over French interest in BW were heightened by events in early 1942. That January, 600 German soldiers in France contracted typhoid fever. Several died. The typhoid was traced to contaminated food and drink from the soldiers' club LeBrune in Paris. German authorities suspected typhoid was spread deliberately. Suspicions of sabotage seemed to be confirmed when a French student told German authorities of a plot among University of Paris medical students to contaminate food and drink at restaurants frequented by German soldiers.

Shortly thereafter, records of the Le Bouchet laboratories were uncovered when German forces occupied Lyons, where the records had been taken for safe-keeping. These records gave the Germans a detailed view of the work at Le Bouchet and confirmed German fears that they lagged behind their enemies (which, by this time, included the Soviet Union and the USA) in preparing for biological warfare. Kliewe, as the German

military's focal point for BW information, collected reports of known or suspected BW use, especially — after June 1941 — on the eastern front with the Soviet Union. Additionally, Kliewe and others monitored reports of possible novel developments in BW. One such report came from an agent operating in England. Dated 30 April 1942, the report noted the arrival in England from the USA of a B-24 Liberator aircraft with a cargo of 15,000 Colorado potato beetles plus an unknown number of Texas ticks. In response to this report, the OKH (German Army High Command) asked whether Germany was vulnerable to damage in the event of an invasion of either Colorado potato beetles or Texas ticks. The answer, from Kliewe and the Surgeon General's Office, judged the Texas tick "no great danger". With that, the Texas tick appears to have vanished as a concern of the German military.

Not so the Colorado potato beetle.² The authorities seem to have feared an Allied scheme to use the beetle to reduce Germany's food supplies, thereby weakening her ability to fight and shortening the war. Whatever the reason, orders were given during 1942 to establish a *Kartoffelkäferabwehrdienst* (Potato Beetle Defence Service) complete with a *Kartoffelkäferforschungsinstitut* (Potato Beetle Research Institute) in Kruft.³

The work of these groups quickly shifted from defence against the Colorado potato beetle to its offensive use. The east coast of England, thought to be the site of some 400,000 hectares of potato fields, was deemed a suitable target. It was estimated that some 20–40 million beetles would be needed for full coverage. To meet this need, German resources were diverted in June 1943, to large-scale breeding of the Colorado potato beetle. It was expected that sufficient quantities would be on-hand by summer 1944, to permit beetle attacks to begin.

In preparation for these attacks, field trials were conducted to study dispersal characteristics for air release of the beetles, observing the effects of temperature, winds, and release height. In October 1943, some 40,000 living potato beetles were released over fields near Speyer. The beetles were painted to aid in their recovery. Even so, less than 100 beetles were recovered on the ground. A second trial, with 14,000 living beetles, resulted in a mere 57 beetles being recovered. Additional trials were attempted with inanimate (wooden) beetles, also painted to help locate them. Recoveries were only slightly better.

These results were variously interpreted as indicative of either very effective, large-scale dispersal (i.e., only a few were recovered because the rest had travelled

far away, and that was good) or, conversely, rather ineffective dispersal. It appears no one considered the prospect that Germany might be subjecting herself to a BW attack during such aerial releases.

Without, apparently, much more regard for the results of the Speyer field trials, work with the Colorado potato beetle continued. In June 1944 the German High Command was informed by Kliewe's office that all experiments had been concluded, all preparations completed, and "use [of the Colorado potato beetle] is possible at any time".

There is scant evidence to suggest the Colorado potato beetle ever made it into battle, despite all these preparations. A 1970 news article quoted the prominent British naturalist Richard Ford, who professed firsthand knowledge of various beetle bomb attacks, starting with one in 1943 near Chale, off the English coast on the Isle of Wight. According to Ford, teams of children, pledged to secrecy, were dispatched to sites of suspected beetle attacks. The children aided in rounding up the black and yellow beetles, which were then dropped into boiling water to kill them.⁴ This one article seems not to have prompted an out-pouring of similar stories from others claiming to be veterans of England's war on the Colorado potato beetle.

There is, however, a document suggesting the problem with the Colorado potato beetle in England predated German interest in use of or defence against this very same insect. On 6 December 1941, Britain's Prime Minister Winston Churchill received a memorandum from Lord Hankey, a member of his War Cabinet. Then classified 'Most Secret', the memorandum deals largely with anti-crop and livestock weapons. In it, Hankey writes "I would not trust the Germans, if driven to desperation, not to resort to such methods [as biological warfare]. It is worthy of mention that a few specimens of the Colorado Beetle, which preys on the potato, were found in some half a dozen districts in the region between Weymouth and Swansea a few months ago: although these are not important potato districts and no containers or other suspicious objects were discovered, there were abnormal features in at least one instance suggesting that the occurrence was not due to natural causes".⁵

Hankey concludes by asking for authorization for preparatory measures against such BW attacks. Permission was granted 2 January 1942, which might explain that report on 15,000 Colorado potato beetles being shipped to England in April 1942 — four months after Hankey's memorandum and a year before the Germans initiated large-scale breeding of the beetle. Therefore, it is altogether possible the whole fuss over the Colorado potato beetle stemmed from the presence in England of this beetle (or of some close relative), owing to innocent, non-military circumstances — such as arrival from

the USA in lend-lease or shipments of goods. Having found the Colorado potato beetle and having concluded a threat to Britain if the beetle should go unchecked, British authorities initiated steps to study means of beetle control. Observing them, an already suspicious German military might well have interpreted what they saw as evidence of BW preparations.

The notion of the Colorado potato beetle as an offensive weapon appears to have lived on after the Second World War, however. In June 1950 Paul Mercker, Minister of Agriculture and Forestry in the German Democratic Republic, accused the USA of discharging Colorado potato beetles from airplanes flying over East Germany. No proof was offered, and US authorities dismissed Mercker's accusations as propaganda.

Notes

1. This article is based largely on a US military intelligence assessment prepared as part of the ALSOS mission into Germany and western Europe: J M Barnes, W J Cromartie, C Henze, and J W Hofer. "A review of German activities in the field of Biological Warfare", report no B-C-H-H/305, 12 September 1945, 133 pp. Originally classified 'secret', the report was declassified on 17 July 1992 and is available through the US National Archives. The author is indebted to Gordon Burck for calling attention to the availability of this report. Unless noted otherwise, all information is taken from the Barnes *et al* report.
2. Colorado potato beetle is the common name for *Leptinotarsa decemlineata*. Other names include potato bug, potato weevil, and Colorado beetle. Identified in the early 19th century, the Colorado potato beetle is thought to have originated in Mexico, where it thrived on the native plant 'buffalo bur'. It appeared in its namesake Colorado and elsewhere in the American Midwest as potatoes were introduced. It invaded the Soviet Union during the Cold War, most likely unintentionally.
3. According to one source [R Harris and J Paxman, *A higher form of killing*, New York: Hill and Wang, 1982, p 99], German concerns over the potato beetle were sufficiently great that Gerhard Schrader, discoverer of the first nerve gas, Tabun (GA) and inventor of a second, Sarin (GB), was pulled off his nerve gas work in Fall 1944 and ordered to find an insecticide to save the potato crop. If true, this information suggests another factor in Germany's failure to use nerve gas in the Second World War — the scientific resources had been diverted onto other, wartime tasks. However, the source provides no reference to back up its claim regarding Schrader, and no corroborating information has been found.
4. AP from Yarmouth as in *International Herald Tribune* 25 Feb 70, p 5, "When the Nazis tried to starve out Britain by beetle-bombing crops".
5. UK Public Record Office, file CAB 120/782.

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INCORPORATION OF DUAL-USE EXPORT CONTROLS IN A COMPLIANCE REGIME FOR THE BIOLOGICAL WEAPONS CONVENTION

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The 29 members of the Australia Group have a common policy on dual-use biological export controls: they require a validated license for exports of listed items to certain countries, and they act in concert whenever a member refuses to license the export of a specific item to a specific destination. It is also the policy of the Australia Group countries to strengthen the Biological Weapons Convention (BWC) with a cogent compliance regime. These two policies, in their present form, may well be incompatible.

In terms of preventing dual-use items from being utilized for purposes prohibited by the BWC, incorporation of export controls into the legally-binding compliance regime now being drafted would be considerably more effective, while also attracting support for the regime and avoiding potential conflict between the treaty regime and an external, exclusionary one.

Export controls within the compliance regime, coupled with renunciation of externally-imposed controls on states parties in good standing, would provide a strong incentive for adoption of and compliance with an effective protocol to the BWC. Developing countries that do not feel threatened by biological weapons are reluctant to accept the costs of a compliance regime without positive incentives. Lifting externally-imposed export controls would be the most welcome incentive that could be provided: it would establish full partnership in efforts to control biological weapons. By signaling a willingness for mutual accommodation it would encourage cooperation in both drafting and implementing an effective regime. Unlike other possible incentives, export controls are security measures that fit integrally as part of an international regime aimed at mutual security. Moreover, this is an incentive that would cost no one any money.

Multilateral negotiation of export controls as part of the compliance regime would give developing countries the role they seek in setting the rules of the game. It would eliminate the injustice of double jeopardy, as it is perceived by many countries. The 1994 declaration that established the Ad Hoc Group to draft a legally-binding protocol was adopted by consensus in the small hours of the morning only after inserting the statement that "the provisions of the Convention should not be used to impose restrictions and/or limitations on the transfer, for purposes consistent with the objectives and the provisions of the Convention, of scientific knowledge, technology and materials". A way needs to be found to remove restrictions on transfers and, at the same time, to demonstrate that their purposes are peaceful, for many parties want to see external export controls lifted when a BWC compliance regime is in place. If they are not lifted, the future ratification and enforceability of the regime, if one is adopted, will be in doubt.

A compliance regime that obligates a critical degree of openness regarding dual-use activities and capabilities will

increase confidence in treaty compliance and contribute to the deterrence of prohibited activities. As an alternative, export controls, as they now stand, cannot match this potential. Not only can they be circumvented by transshipments, resales or piecemealing;¹ but they can be finessed entirely, in the pursuit of a BW capability, by resort to relatively simple procedures, equipment and widely available agents for which imports are unnecessary.

Export Controls for the Compliance Regime

Transfers as a trigger for declarations Transfers and acquisitions of certain listed biological agents and equipment could be included among the triggers for declarations under a compliance regime. Domestic and international transfers should be included. The declarations submitted should contain information on all requests for transfers, whether filled or not, and the approximate quantity of each item transferred, its source, destination, and intended use. Amendable lists of agents and equipment of greatest concern (similar, for example, to the Australia Group lists) would need to be drawn up. Transfer declarations could be required biannually, if desired. Because of proprietary business concerns, some of the declared information might have to be treated as confidential.

In order to control reshipment, subsequent declarations filed by the recipients of transfers should report the fate of each acquisition. With appropriate design of declaration forms and computer programming, requirements could be monitored automatically, and transfers and acquisitions could be correlated by computer analysis of the declarations.

The Australia Group has already demonstrated the feasibility of reporting on the export of an extensive list of items. The World Federation of Culture Collections, which includes some 500 collections in about 60 countries, could perhaps be of assistance to the regime in the reporting of agent transfers, which are more difficult to track than large equipment. Domestic reporting of the transfer, acquisition and destruction of listed pathogens is about to be tested in the United States, where regulations required by new legislation are in preparation [see *News Chronology*, 10 June]. The draft regulations require registration of facilities, certification of their containment capabilities, and reporting of transfers, with clinical laboratories exempted but required to dispose of isolates of any listed pathogens immediately following diagnosis; onsite inspections, random or for cause, may be conducted, and the penalties for violations include fines and imprisonment. If successful, the US programme could serve as a model for domestic implementation of transfer declarations under a BWC compliance regime.

Inspections/visits as end-use verification Declared facilities, including those involved in transfers, could be selected by weighted lottery for short-notice inspections/visits to validate their declarations, with particular attention to recent onsite changes (including acquisitions of listed agents and equipment). A relatively small number of these visits each year would suffice, given short notice and uncertainty as to where the lottery would fall. The Federation of American Scientists, in its 1990 *Proposals for the Third Review Conference of the BWC*, proposed a mechanism that would help concentrate random inspections/visits on the sites of greatest concern: each state party would have the right to nominate, anonymously, one declared facility per year for an inspection/visit, with no implication of non-compliance. In addition, the inspectorate could be allotted a quota of nominations. Facility nominations would not be revealed. The nominated facilities would be automatically weighted more heavily in the lottery than other declared facilities. Thus, a state party concerned about a particular transfer would have an opportunity to increase the likelihood that the recipient facility would be visited.

Confidential bilateral consultations A state party concerned about acquisitions at a particular site should also be entitled to request the office administering the compliance regime to broker confidential consultations with the state party in question, aimed at requesting an inspection/visit to the site.

Additional measures The measures suggested above would tend to deter the misuse of transfers. They would be more effective than current externally imposed export controls, which are not universal and cannot prevent acquisitions or investigate their ultimate use. Adoption of these measures would therefore justify an agreement to lift external export controls imposed by individual states or groups of states on states parties in good standing under the protocol (except in the case of a total embargo).

A delay of two years after entry into full force would allow time to establish "good standing", which could be defined in an objective way based on regular submission of declarations, acceptance of and cooperation with inspections/visits of any kind (as judged by the inspectors), and the absence of any unresolved questions of a serious nature under official investigation. To strengthen the incentive value of incorporating export controls in the compliance regime, transfers of listed agents and equipment to non-parties to the BWC should be specifically prohibited. States parties would be free to require licensing of dual-use transfers, whether of listed or unlisted items, provided that transfers were permitted on a non-discriminatory basis to other states parties participating in the compliance regime. The fate of unlisted transfers could often be followed by analyzing declarations.

A paper presented by Cuba in the Ad Hoc Group envisages cooperative measures such as those proposed here.² Such measures may well meet with broad support.

Purposes and Consequences of Present

Biological Export Controls In the United States, dual-use biological agents, equipment and technical data are on

the "foreign policy" control list. "The purpose of the controls", as stated in the US Export Administration 1995 Report on Foreign Policy Export Controls, "is to support United States multilaterally coordinated efforts to control the proliferation and use of biological weapons." Coördination of export controls by the members of the Australia Group "will help limit the destabilizing spread of biological weapons."

Foreign availability of the controlled items is not a determining factor in imposing US "foreign policy" controls; they are basically symbolic. It is widely recognized that Australia Group controls cannot significantly affect the spread of biological weapons. High technology is not required, and the necessary expertise is widely disseminated. The former Office of Technology Assessment of the US Congress, in a study on proliferation of weapons of mass destruction,³ pointed out that low-tech weapons, including biological weapons, pose the top threat and that export controls are unlikely to be a strong bar to their acquisition; an exchange of export controls for verification, even if not very effective, would be worthwhile. The Biological Weapons Task Force of the American Society for Microbiology, the UK Royal Society Study Group on Control of Biological Weapons, and respected experts such as Colonel David Huxsoll, former commander of the US Army Medical Research Institute for Infectious Diseases, agree on estimates of several months to one or two years as the longest delay that can be bought at present by biological export controls.

The US Secretary of Commerce acknowledges the availability of controlled biological items from other sources, but maintains that the controls nonetheless "implement U.S. opposition to the development, proliferation and use of these weapons" and convey US commitment to the Geneva Protocol and the BWC; they are also meant to strengthen the government position in bilateral and multilateral nonproliferation negotiations.⁴

Once instituted, national export controls are difficult to rescind without sending a signal of weakened resolve concerning their original purpose. Then, too, biological export controls can be useful domestically in conveying an illusion of action where there is little or none. More concretely, export controls help to avoid the potential embarrassment of finding equipment from Australia Group countries in the hands of a proliferator, and controls do take industry off the hook by putting the onus on government to ensure that this does not happen.

There are some unique liabilities associated with biological dual-use export controls, as distinguished from those imposed to combat the spread of other weapons of mass destruction. In the biological arena, dual-use items are not merely permissible for civilian purposes; they are of great importance for humanitarian reasons. For example, Iran, which produces all its own vaccines, has been asked by WHO to increase its production to provide much-needed vaccines for the region; but Australia Group controls have prevented Iran from purchasing the needed equipment. The production of vaccines, diagnostic reagents and pharmaceuticals utilizes much of the same equipment and some of the same microbial agents as weapons production. For these purposes, however, it is the high end of the technology

spectrum that is desirable in order to provide safe containment and pure, sterile products. For biological weapons production, purity and sterility are unnecessary and containment has often been ignored. Thus, high technology controls selectively target public health and encourage poor containment, risking the escape of pathogens.

Most importantly, biological export controls unnecessarily alienate the developing world. Imposible by the North on the South but not vice-versa, the controls are seen as discriminatory and demeaning by many nations. This view, independent of the practical consequences of export controls, has become a matter of principle. The underlying policy failure has been pinpointed by Brad Roberts:⁵ as the number of technologically capable states grows, the primary world order task is not so much to deter them from weapons proliferation as to integrate them deeply in the existing patterns and processes of coöperation. For this purpose, trade is a major tool; export controls, instead, underline the exclusion of developing countries from the club.

The current Chemical Weapons Convention situation serves as a warning. At the OPCW Preparatory Commission, a number of regional groups and developing nations have made statements critical of chemical export controls; according to the Asian Group, "continuation of any other arrangement that is discriminatory, not universally agreed to or applicable, and that seeks to implement measures other than agreed to in this Convention, ... misplacing our trust in any other parallel regime, would greatly undermine the confidence that needs to be placed in this Convention." A German chemical industrialist expresses a similar view:⁶ export controls, imposed on the basis of mere suspicion, would proclaim a lack of confidence in the CWC, thereby undermining it, and had better be reserved for situations where irregularities have been demonstrated. The question of how and when external export control regimes should be revised is an obstacle to completing preparations for entry of the CWC into force. Feeling is so strong that, ever since the treaty was signed, the UN General Assembly has not been able to pass the traditional consensus resolution in support of the Convention.

CWC experience, thus far, can only strengthen demands for the elimination of externally imposed biological export controls. Controls within a multilateral treaty regime, however, would involve all states parties as participants and would counter the misconception that the real purpose of biological export controls is not to combat proliferation - at which they have not been very effective - but to inhibit economic development and maintain Northern dominance in multilateral affairs, an alienating message that would be likely to fuel proliferation.

Conclusion In discussing certain export controls that have become ineffective, a senior US official recently commented: "If you try to control the uncontrollable, it's not tough and pious; it's feckless and wasteful of government resources [which should be targeted] where we could make a difference".⁷ In the biological realm, replacing marginally-effective external export controls with a more effective multilateral compliance regime that permits end-use verification would be the way to make a difference.

The exchange of a measure of national sovereignty for a more effective international arrangement that can't be achieved alone is, after all, the essence of a treaty. Renouncing national biological export controls, only a minor symbol of sovereignty in any event, under an appropriate regime would buy good-will and a mechanism for real verification of the fate of significant dual-use transfers. The plausibility of their intended use could be tested. Even for microbial agents, which could be reproduced and distributed to others, the recipient would first have to have a bonafide purpose; and secondary transfers, if not declared, would be clear violations and would risk discovery. The ability to correlate information on transfers in both directions, from different sources, would make transfer measures the most definitive in the compliance regime. At a minimum, transfer measures would provide a firmer basis than is now available for political action.

The biotechnology industry is growing fast, and with it the demand for importation/exportation of equipment will also grow, together with opposition on both sides to export controls as a restriction on international commerce. Recognizing that it is no longer possible or even desirable to prevent technology transfer, "it remains necessary to regulate the way that technology is ultimately used", writes Wolfgang Reinicke.⁸ The key, he says, "is full disclosure, both by manufacturers and distributors, of the source, quantity, foreign destination, use, and purpose of each item to be exported."

Full disclosure can only be achieved multilaterally. States parties to the BWC now have the opportunity to incorporate measures to this end in the compliance regime being drafted as part of the projected legally binding instrument. Openness in dual-use activities, an essential objective of a BWC compliance regime, would be well-served by including declaration of transfers and acquisitions of especially sensitive equipment, materials and microbial agents, with the possibility of random onsite end-use verification. These provisions, open to all and stronger than any external export controls that can be imposed by industrial countries or groups, would remove a significant impediment to international coöperation in eliminating the threat of biological weapons.

In this endeavour, in the words of Richard Latter,⁹ "the importance of growing North-South differences cannot be underestimated. . . . The need is to develop a more positive, cooperative relationship between North and South on arms control issues". Vice-Admiral John T. Shanahan, USN (Ret.) concurs: "What we [in the United States] need most of all is a new attitude of openness to the views and complexities of other countries".¹⁰ The negotiations to strengthen the BWC, still a low profile issue although of ascendant importance, make an appropriate venue for developing new approaches.

Citations

1. See, e.g., *Finding Common Ground: U.S. Export Controls in a Changed Global Environment*, Washington, DC: National Academy Press, 1991.
2. Cuba, *Some elements associated to the promotion of science and technology with peaceful aims within the framework of the Convention on Biological and Toxin Weapons*, BWC/AD HOC GROUP/WP.4, 28 November 1995.

3. US Congress, Office of Technology Assessment, *Proliferation of Weapons of Mass Destruction: Assessing the Risks*, OTA-ISC-559, and *Export Controls and Nonproliferation Policy*, OTA-ISS-596, Washington, DC: USGPO, August 1993 and May 1994.
4. US Department of Commerce, Office of the Inspector General, *Assessing the Effectiveness of Export Controls for Dual-Use Biological Agents*, September 1995.
5. Brad Roberts, "1995 and the End of the Post-Cold War Era", *The Washington Quarterly*, Winter 1995.
6. Ernst Wyszomirski, "The CWC and Barriers to Chemical Trade", *Chemical Weapons Convention Bulletin* no 28, June 1995, pp 1-3.
7. "Clinton to ease computer sales", *New York Times*, 3 October 1995.
8. Wolfgang H Reinicke, "No stopping it now: high-tech trade in the new global environment", *The Brookings Review*, Spring 1994.
9. Richard Latter, *Preventing the Proliferation of Biological Weapons*, Wilton Park Paper 109, London: HMSO, 1995.
10. *The Defense Monitor*, March 1996.

Building the Organization for the Prohibition of Chemical Weapons

As only two more ratifications are now needed for the Chemical Weapons Convention to start its countdown to entry into force, it is entirely possible that, by the time this review goes to press, the 180-day period between deposit of the 65th instrument of ratification and entry of the Convention into force will already have begun. With the action of the US Senate on 12 September postponing consideration of the Convention, and with the lack of any announced schedule for its consideration in the Russian Duma, it seems certain that trigger-point will be reached without ratification by either of the two declared possessor states. Disappointing as this assuredly is, a definite plan nevertheless exists for orderly progress toward entry into force according to the provisions set down in the Convention itself. Entry into force is likely to occur in March or April 1997.

Actions by the Preparatory Commission

Ambassador Sallehuddin Bin Abdullah of Malaysia chaired the fourteenth session of the Preparatory Commission which was attended by 88 member states. The imminence of trigger point dominated discussions and the prevailing sense of urgency heightened as Latvia and Uzbekistan deposited their instruments of ratification bringing the number of ratifications to 60 in the course of the week.

Non-ratification by Russia and the United States

Many delegations expressed concern at the prospect of trigger point in the absence of either the Russian Federation or the United States or both. The United States assured the Commission of its intention to be among the original states parties to the Convention. The Russian Federation reconfirmed its intention to be among the first 65 states to ratify the Convention but, paradoxically in the same statement warned that the "bringing into force of the Convention without Russia, and here we would like to be absolutely frank, could hamper ratification in our country." Anxiety that the

Convention might enter into force without the Russian Federation and/or United States was a common denominator. Serious differences arose, however, as to how the Commission ought to respond.

The general plenary debate opened with a proposal by the Islamic Republic of Iran that a high level conference of the signatories be convened given the "desperately dim" prospect of ratification by either the United States or the Russian Federation before trigger point. The purpose of the proposed conference would be three-fold: to coordinate efforts to encourage ratification by these two states, to consider a regulated entry-into-force in order to accommodate their delayed accession to the Convention and to examine issues related to preparations and implementation under various scenarios. While the proposal received some support, it was adamantly opposed by many others, leading to prolonged discussion. The report of the Commission on its fourteenth session could not be adopted until Saturday, 27 July — a day later than scheduled — and this only as a result of consultations which lasted until the early hours of Saturday.

The text of the compromise finally reached entrusts "the Chairman of the Commission, in close consultation with Member States, with the task of convening, as necessitated by circumstances in connection with the occurrence of the trigger point, a meeting of the Commission to provide appropriate guidance." It is difficult to anticipate how the compromise will materialize, not only as to the precise authority of the chairman to convene a meeting or what "appropriate guidance" might entail, but also what circumstances would necessitate a meeting. A statement made on behalf of the European Union (with which "Central and Eastern European countries associated with the European Union associate themselves") after the debate announced the intention to prepare for entry into force with the two declared possessor states as states parties and went on "[w]e are not swayed from this conviction by anything we have heard in the general debate and detailed delibera-

tions in the course of this session.” This would seem to indicate that this group of states remained determined that the timing of entry into force must remain as provided for in the Convention itself.

The same section of the final report of the Commission “[s]tressed the importance to the Convention that all possessors of chemical weapons, chemical weapons production facilities or chemical weapons development facilities should be among the original States Parties to the Convention and in this context, the importance of the United States of America and the Russian Federation, having declared possession of chemical weapons, being among the original States Parties to the Convention”.

Trigger point Although the non-ratification by Russia and the United States certainly was the focus of the session, the logistics of the pending trigger point and consequent challenges were also high on the agenda. Prior to the plenary session, the Executive Secretary issued a note setting out some of the practical difficulties facing the Commission [see *News Chronology* 4 July]. The note was the basis of informal consultations prior to the plenary session and was also discussed in the course of the session.

A key problem is to ensure that funds will be available for implementation of Phase II — the preparations for entry into force that are to be initiated only after the trigger point and which are funded in Part II of the Commission budget. Immediate costs will have to be met, including recruiting and hiring Phase II staff, starting training for inspector candidates, renting and upgrading interim facilities and procuring equipment. Much of the Part II budget (Dfl 30.4 million) will need to be committed very early in Phase II. In addition, the Executive Secretary estimated that about Dfl 40 million would be required upon entry into force to cover the first three months of operation of the OPCW, including the cost of the first session of the Conference of the States Parties.

In response, the Commission authorized a special account into which member states may voluntarily contribute their assessments for the Part II 1996 budget. Access to the account will be blocked until the start of Phase II. The Commission, in its Report, also encouraged member states to pay their assessments promptly after trigger point and, where possible, to provide the money ahead of time. Several states have indicated a willingness to do so. It will be recalled that at the time of the first plenary session, several delegations made voluntary contributions in advance which facilitated the initial work.

The need to plan and prepare for training inspectors was also identified as a key issue. The centres offering training require at least two months notice and the trainees will need a reasonable amount of time to terminate their current employment and to settle in The Hague. The suggestion that a start date for training be identified and worked towards regardless of whether trigger point had or had not been reached at that time was overwhelmingly rejected by delegations. However, the difficulty remains that the Convention sets in place mandatory timelines for inspections to begin. The training course, with all three modules, takes five months, and therefore it must start shortly after trigger point if the requirements of the Convention are to be met.

While the Commission was not prepared to identify a start date until trigger point has actually occurred, it was clear that some action would need to be taken once that happens. The Commission therefore authorized the Executive Secretary to make the appropriate arrangements for training, with Working Groups A and B combined having the authority to decide on when to start the training scheme.

The imminence of trigger point also raises the problem of Phase II recruitment of Secretariat staff. Not only will there be very little time to recruit, but a strategy must be devised to deal with the problem of recruiting candidates from non-ratifying states. In his Note, the Executive Secretary proposed that the non-ratifying state would be queried on its intentions to ratify and if “satisfactory assurances” were provided, suitable candidates would be interviewed and the post would not be filled until the last “operationally feasible” moment. If the most qualified candidate at that time is from a non-ratifying state, the post will be filled by a reserve candidate. Regarding current staff from non-ratifying states, it is proposed that they be retained until the dissolution of the Preparatory Commission and only at that time would the corresponding Technical Secretariat posts be advertised. As of 1 July, 40 percent of all PTS staff and 55 percent of professional level staff came from non-ratifying states. The percentages for professional level staff will have decreased since then because there are nationals of Belarus, Chile, New Zealand and India on the staff all of which have ratified since that date. There is no indication in the final report of the Commission on its fourteenth session as to whether this proposal was sanctioned or rejected and therefore, at present, one can only presume that Phase II recruitment will proceed on this basis.

The Commission also worked on the problem of office space for Secretariat staff. Once Phase II starts, the Secretariat will begin to recruit additional (non-inspector) staff. The existing office space in Laan van Meerdervoort is not sufficient to accommodate the increased personnel. The OPCW building is not scheduled for completion until early 1998 and therefore some additional accommodation will be needed in the interim. The most feasible option at this stage seems to be the Aegon building beside the Netherlands Congress Centre, venue for expert group meetings and plenary sessions. However, this accommodation will not be available until January 1997. Work will continue towards securing this, or other accommodation, and in its report, the Commission authorized the rental of suitable accommodation once trigger point is reached.

Addressing the need to prepare for the first session of the Conference of the States Parties, the Commission established a committee to be chaired by the Chairman of the Commission. Its substantive tasks in preparing for the first session are:

- determining the structure and content of the *Final Report of the Commission*
- agreeing on the agenda for the first session of the Conference and for the first meeting of the Executive Council
- allocating agenda items to the subsidiary organs of the Conference
- preparing background documentation.

The committee also has a number of institutional and procedural tasks, namely:

- determining the working structure of the first session of the Conference
- preparing the provisional rules of procedure of the Conference and the Executive Council
- preparing for the election of officers and the timely appointment of the Director-General of the OPCW Technical Secretariat
- attending to the numerical distribution of seats among regional groups in regard to the first election of 20 members of the Executive Council (this refers to the principle of rotation on which elections to the Council will take place — in the first election, 20 members are to be elected for a term of one year, with 21 members being elected for two years)
- arranging for the transfer of property, functions and recommendations of the Commission
- deciding on the necessary sequence of decisions and other actions by the Conference.

The committee has also been mandated to coordinate practical arrangements for the conference, including timing, duration, participation and attendance. Prior to the committee being established, the Committee on Relations with the Host Country had undertaken some preliminary discussions regarding preparations for the conference. To avoid duplication, the Commission decided that issues specifically under the purview of the Host Country Committee should continue to be dealt with by that committee.

Financial matters In the previous intersessional period, the Expert Group on the Programme of Work and Budget requested the Secretariat to prepare an up-to-date paper on transfers of funds within Parts I and II of the 1996 budget and to have that paper available for the meeting of Working Group A at this plenary session. The paper was duly prepared and considered. However, it was felt that the information provided was not sufficient to form a basis for decision. Therefore, a further revised and updated paper is to be prepared and authority has been delegated to Working Group A to decide on the proposed transfers. A meeting has been scheduled for the Finance Group to discuss the paper on 20 September.

As recommended by the Expert Group on Programme of Work and Budget at its meeting in June, the Commission agreed on the basic parameters for the Budget of the Commission for 1997, on which work ought to be completed in this inter-sessional period for presentation to the Commission for approval at its fifteenth session.

This intersessional period will also see work proceed on the draft first OPCW budget, which the Executive Secretary has been requested to submit to the Finance Group well in advance of its next meeting. This was a subject of discussion during the plenary session, following a proposal that the budget ought to include provision for funds to implement Article XI, a suggestion which was opposed by many delegations. The report of the Commission now provides that the draft budget ought to take into account “the possible budgetary implications of unresolved political issues”.

Bilateral Destruction Agreement Departing from the usual silence on the subject of the Agreement of June 1990 between the Russian Federation and the United States on Destruction and Non-Production of Chemical Weapons, many states referred to it in the course of statements to the Commission. The Russian Federation said in its statement that the bilateral agreements (referring to the Wyoming Memorandum as well as the 1990 Bilateral Destruction Agreement) have “objectively fulfilled their useful role” and that only a multilateral mechanism is now able to bring about the required level of confidence in disarmament. This approach raised concerns among other delegations. In particular, Argentina, on behalf of the Latin American and Caribbean Group said that implementation of the bilateral agreement was crucial the Convention. Several other delegations noted the importance of the agreement, pointing out that it is one of the basic assumptions of the work of the Commission. A statement made by Ireland, on behalf of the EU, described the implementation of bilateral verification agreements as one of the “most basic budgetary assumptions” of the Commission and warned that in the event that this assumption fails to materialize, the European Union will present new proposals as to the question of assigning costs of verification to ensure that non-possessor states are not additionally burdened.

Article XI In line with previous plenary sessions, Article XI continued to receive considerable attention. In particular, the delegation of Bulgaria addressed the issue at length, expressing the view that the purpose of the Expert Group on Technical Cooperation and Assistance is to work towards the principle of free trade among states parties to the Convention. Acknowledging the difficulty of balancing free trade between states parties to the Convention and the need to restrain transfer to non-states-parties, the statement identified the need to develop practical arrangements which would maintain transparency and breed confidence. Some form of OPCW mechanism was mentioned as a long term possibility. Several other delegations expressed views advocating a “full and proper implementation” of Article XI. However, contrasting views were expressed saying that export controls are in line with the Convention and rejecting the view that export controls impede legitimate economic development.

Other matters During the general debate, some member states updated the Commission on their implementation activities. Other matters raised included: production facilities; the geographical distribution of staffing; and outstanding tasks of the Commission, including inspection equipment, the information management system, and challenge inspections. In the course of the session, the Commission elected Ambassador Marin Buhoara of Romania as its chairman for the six months starting 8 August and, as vice-chairmen for the same period, the representatives of Côte d’Ivoire, Pakistan, Belarus, Bolivia and the United States.

Actions by the Provisional Technical Secretariat

Training courses for National Authority personnel The Secretariat held a one-day workshop in The Hague for Na-

tional Authority personnel which followed the plenary session of the Commission. A three-week course will be held 9–27 September at the Netherlands Defence College, Ypenburg, funded by The Netherlands. Ireland has also provided funding for a National Authorities Training Course to be held in Tanzania in November which the Secretariat plans to hold in Arusha from 18 November to 6 December. A five-day course is scheduled for 28 October–1 November at Willemstad, Netherlands Antilles.

Confidentiality workshop The Secretariat held a workshop on Legal Aspects of Breaches of Confidentiality in The Hague on 26 July, the aim of which was to discuss the remaining tasks of the Expert Group on Confidentiality. These are: first, possible exercise of national jurisdiction in the event immunity from jurisdiction is waived by the Director-General in the case of a serious breach of confidentiality by a staff member of the Technical Secretariat; second, the application of national jurisdiction to natural or legal persons who have breached confidentiality; and third, compensation for losses caused by breach of confidentiality. Attention focused on the proposal of the Secretariat that liability for breaches of confidentiality ought to lie with the state party of the victim of the breach. Differing views were expressed by those participating in the workshop. Other topics included how private industry in the United States deals with breaches of confidentiality and the experience of the IAEA in dealing with confidentiality safeguards.

Inspector recruitment process Interviews were completed in June for the remaining vacancies for Training Group A and all vacancies have now been filled. Before the final list of candidates for this group can be compiled, medical screening must be completed. As the list stands at the time of writing, Training Group A consists of candidates from 59 member states; nearly two-thirds of the 160 trainees are from states that have ratified the Convention. Recruitment efforts continue for Training Group B. Here, the most serious concern is the lack of chemical production logisticians. Of the 24 places available, only 8 potentially suitable candidates have applied. Accordingly, funds have been re-allocated to cover the cost of further recruitment.

Training The Commission mandated Working Groups A and B to decide on a start date for the training of inspector candidates. Factors to be taken into account include the notice period required by those member states offering training, and the time needed by inspector trainee candidates to arrive in The Hague for training. Training will start in the Netherlands and commence one week later at the Module 1 training centres. (The current plan is that, if trigger point is reached by 30 September, the training will start on 2 December.) The week before the starting date, "week zero", will comprise pre-training induction activities and the teaching of Module 1 Block A to those trainees who will undergo Module 1 training at training centres outside the Netherlands. Block A is the general part of the course, covering topics such as the introduction to the Convention, computer training, and information on the OPCW and Technical Secretariat. The reason for this approach is to ensure that the trainees share a common understanding of these matters and

to facilitate the necessary administrative arrangements, including financial matters, issuing of equipment etc. In the last quarter of the Module 2 course, trainees will again come to the Netherlands for on-site trial inspection training and this will be the second opportunity for Secretariat contact with the trainees.

In terms of Secretariat preparations for the training courses, following the completion of guidelines for conducting performance evaluations of trainees for Modules 1 and 2, another workshop will be held in this intersessional period to discuss how the guidelines should actually be implemented. In particular, the workshop will look at harmonizing evaluation procedures between the different training centres and there will also be discussion among those training centres offering Module 1 courses to ensure that there will be a comparable emphasis on each of the principle elements of training.

The Secretariat has certified all the Module 1 courses to be conducted in France, India, the Netherlands and the United States. This involved ensuring that each training centre is fully equipped and qualified to satisfy all the requirements of the course. Three Module 2 courses remain to be certified, and it is anticipated that this will be accomplished in the near future. If not, the Secretariat would be able to develop and conduct the courses instead.

OPCW Laboratory and Equipment Store The fit-up of the Laboratory and Equipment Store has been completed and staff have commenced working on the premises. Data links have been installed between the Secretariat and the facility. An official opening ceremony was held on 11 September. Preparations are underway for evaluating the GC-MS instrumentation, which is planned to start operation on 16 September, and for the Second Official Proficiency Test to start on 14 October.

Handbook on Chemicals The first draft of a *Handbook on Chemicals* has been prepared and distributed to member states for comments. This handbook will become an appendix to the *Declaration Handbook*. It notes "the most common chemical substances that are covered under the three Schedules", the aim being to assist member states in identifying declarable activities. The draft lists 400 chemicals by empirical formula and CAS number, assigning to each one a chemical name (typically the CAS index name) for indexing purposes, and specifying synonyms, including common names.

Actions in Brussels

Outreach activities continued in Brussels during this reporting period, with particular attention given to those states which are in process of drafting ratification documents for consideration by their national parliaments. The Eritrean ambassador in Brussels visited the Executive Secretary in The Hague to discuss the procedures for signing the Convention. On 7 August, the Executive Secretary visited Brussels and met with representatives of various French speaking African countries and some Latin American and Caribbean states.

Actions by member states

Ten further instruments of ratification have been deposited by member states during the reporting period, those of Ireland, Moldova, Belarus, Chile, New Zealand, Latvia, Uzbekistan, Saudi Arabia, India and Portugal [see box on page 33]. With the number of ratifications standing at 63 at the time of writing, just two short of the trigger point, it is widely expected that several more ratifications will be deposited in the very near future.

National Seminar in Malaysia A government-sponsored National Seminar on the Chemical Weapons Convention was held in Malaysia on 25–26 June with the aim of assisting government agencies and representatives of the chemical industry to prepare for implementation of the Convention. The seminar provided information on the Convention and on activities of the Commission and rights and obligations of states parties. There was also a declarations workshop on how to identify declarable activities and facilities, familiarizing participants with the industry sections of the *Declaration Handbook* and showing them how to complete the declaration forms.

National Seminar in Oman The Ministry of Foreign Affairs of Oman held a one-day national seminar on the 1 July 1996 for government agencies and those from the chemical industry in Oman. The seminar provided information on the Convention and on the rights and obligations of states parties to it, and included discussion of inspections and declarations.

Actions by subsidiary bodies of the Commission

Committee on Preparations for the First Session of the Conference of the States Parties This newly established body held its first two meetings on 28 and 29 August. Four further meetings are scheduled for this intersessional period on 10 & 12 September, 15 October and 13 November. The committee's agenda will be to deal with practical arrangements for the first session, (invitations, timing, duration, participation, etc) the structure of the Conference (agendas etc), rules of procedure and the preparation of the final report of the Commission. The chairman of the committee will also conduct informal consultations on the appointment of the Director-General, election of officers of the conference and the Executive Council.

The Secretariat prepared a background paper for the first two meetings of the Committee, consisting of draft invitation letters, proposed lists of international organizations and non-governmental organizations to be invited to the Conference as well as draft agendas for the first session and the first meeting of the Executive Council. In the course of the August meetings, an agenda for the next meetings was adopted. The invitation list for international organizations, non-governmental organizations and the criteria for invitations was discussed but more time was needed to finalize the issue. One suggestion is that interested non-governmental organizations should initiate contact by expressing their wish to attend the first conference and then member states

will decide on whether the request is relevant or not. In the course of the next four meetings, the work of the committee will focus on the rules of procedure for the conference and for the first meeting of the Executive Council, with the chairman expressing his hope that by 13 November the draft final report of the committee will be adopted and provided to the next plenary session of the Commission.

Working Group A

Expert Group on Administrative, Financial and Personnel Matters This group met on 2, 5 and 6 September and elected Mrs D G Wadhwa of India to its chair. Work continued on the draft *OPCW Financial Rules* (a second draft of the rules has been circulated for comment) and the group agreed to return to the issue at its next meeting. Some of the rules under discussion have been sent to the Finance Group for comment. These are the provisions relating to the basis on which an obligation is created in terms of procuring goods or services, expenditure items which require obligation documents before a commitment is entered into and exceptions to the rule that contracts for the purchase or rental of goods or services shall be let after calling for tenders, quotations or proposals.

The Executive Secretary presented a non-paper, "Proposed Principles for Employment of Professional Staff with OPCW" suggesting that the policy should aim to balance continuity with a reasonable rate of renewal and that there should be as wide a geographical representation as possible. To that end, he proposed that staff members would be recruited on fixed three-plus-two-year contracts, but that there would be provision for the Director-General to extend tenure for a further two years in exceptional cases. The group discussed this proposal at length but were unable to reach final agreement. Indications are that there is no opposition in principle to the idea of a fixed-term contract (given the need to convey to prospective employees clear terms of employment). However, difficulties arise in agreeing to the precise parameters of the renewal of successive contracts. The group asked that an oral report on the issues discussed be presented to the next combined meeting of Working Groups A and B.

A total of nine proposals have now been tabled on how the top management of the Technical Secretariat might be structured. The group continued but did not conclude its discussion of this topic.

Following its preliminary discussions on the transition from the Preparatory Commission to the OPCW, the group discussed an updated Secretariat paper which provided a detailed list of related budgetary and financial problems. The paper also included *Protocol on Transfer* as an attachment, which will legally transfer assets, liabilities etc from the Commission to the OPCW. Delegations have been asked to provide comments on the paper as it now stands, and, in the meanwhile, the Finance Group will consider various financial aspects. The group also had an initial discussion of the draft *OPCW Staff Regulations*.

Working Group B

Expert Group on Inspection Procedures This met on 17, 18 and 20 June. In considering the report of its specialist task force on the OPCW analytical database, the group approved documentation for the certification of the OPCW analytical database and agreed upon the format of the compilation containing the approved NMR spectra. Following adoption by the Commission at the plenary session, the Secretariat has been authorized to use the analytical data approved for inclusion in the central OPCW analytical database for the purpose of advancing the development of the Secretariat's analytical capability to use such data. At its meeting, the group also considered the report of its task force on inspection equipment issues. Following subsequent adoption by the Commission at the plenary session, the inspection equipment item "Non-Destructive Evaluation (NDE) Hydrogen Concentration Measurement (HCM) Equipment" has been added to the list of equipment for budgetary, training and evaluation purposes. Working on the report of the specialist task force on analytical issues, the group adopted the procedures for "Qualitative On-site Sample Preparation and GC/MS Analytical Method" for evaluation and training, as well as some modifications to the technical specifications for the GC/MS sample preparation kit. The group also provisionally approved the *Recommended Operating Procedure for On-Site Analysis by GC/MS*.

The group, facilitated by a Secretariat background paper, spent some time discussing occupational health equipment, agreeing that the purpose of this equipment is to contribute to the health and safety of inspectors, not to help inspectors collect information about a state party's compliance with the Convention. The group also agreed that any use of occupational health equipment will be subject to the agreement of the inspected state party. The group requested the Secretariat to identify commercially available items of occupational health equipment which might be useful and to submit the technical specifications for consideration. There are currently differences of opinion on whether occupational health equipment falls into the Convention's definition of "approved equipment".

The group recommended that state parties should use one of the 107 recognized geographical reference standards for their declarations when they were required to declare the location of a facility. States parties should state in their declarations which reference standard they used. The Technical Secretariat will then have the technical capability to convert these reference standards into WGS-84, which is the most common international global reference standard. Finally, the group reached a number of understandings in relation to the administrative procedures for the conduct of inspections, in particular, on the issue of the use of portable communications equipment during the in-country period and on the use of non-scheduled aircraft.

Expert Group on Technical Cooperation and Assistance This met on 24–25 June and elected Mr Tariq Javed of Pakistan as chairman. The group focused on issues relating to international cooperation and assistance, discuss-

ing a draft paper presented by the chairman entitled "Outstanding Issues Relating to Technical Cooperation and Assistance". The paper identifies three areas to be considered in the implementation of Article XI. These are the exchange of scientific and technological information, the exchange of chemicals, and equipment and training. The paper makes a number of concrete proposals, and the group requested that a more developed version be available for its next meeting, taking into account views expressed at this meeting. The group's work was also facilitated by non-papers from Australia ("Impediments to Chemical Trade and Possible Areas Where the OPCW Could Assume a Facilitating Role" and "Discussion Paper: Practical Aspects of Export Licencing"), France ("Technical Cooperation and Assistance") and Pakistan ("How to Implement Article XI?").

Expert Group(s) on Chemical Weapons Issues This met on 1–2 July and discussed in some detail inspection activities for an initial inspection of Chemical Weapons Production Facilities. The acting chairman informed the group that despite informal consultations, no consensus had been possible in respect of the *Declaration Handbook*. The group also discussed the proposal that its be split into two. Although no agreement was possible at this meeting, following subsequent consultations the Commission, in the course of its plenary session, divided the group into two: Expert Group 1 on Chemical Weapons Issues has been tasked to work on the model facility agreements for chemical-weapons storage, destruction and production facilities; and Expert Group 2 on Chemical Weapons Issues is to deal with procedures for verification and conduct of inspections for CWPFs and CWDFs, transitional verification arrangements, determining the frequency of systematic on-site inspections of CWPFs, and developing criteria for toxicity, corrosiveness and other technical factors. Each group has also been assigned a number of other priority tasks. The Commission at its fourteenth session and as recommended by the group at its meeting on 1–2 May, approved the guidelines on destruction of CWPFs.

Expert Group on Old and Abandoned Chemical Weapons This met on 4 July. Despite the fact that the question of usability of old chemical weapons has been discussed at length in the group, it has as yet been unable to reach agreement on appropriate guidelines. The UK delegation prepared and presented a discussion paper to the group at its meeting which combines the concept of usability with the idea of the risk posed by and the appropriate verification regimes for old chemical weapons (1925–46). In terms of costs of verification, no further progress was made and in terms of an understanding of the regime governing abandoned chemical weapons, the chairman has issued an informal paper on the subject and delegations have been invited to comment.

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

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

1 May President Clinton's Advisory Committee on Gulf War Veterans' Illnesses [see 16 Apr] assembles in Washington. It receives a generally positive response to recommendations contained in its interim report [see 14 Feb] from the Persian Gulf Veterans Coordinating Board on behalf of the Department of Defense, of Veterans Affairs, and of Health and Human Services {PR Newswire 1 May}. The Committee is told by the Defense Department's chief "Gulf War syndrome" investigator, Colonel Edward Koenigsberg, USAF, that he is scrutinizing about 50 instances during the Gulf War where CW agents were recorded (in incident reports, for example, and military logs) as having been detected [see also 2 Apr] {Gannett 1 May}. The commander of the Army's Walter Reed Medical Center, Maj-Gen Ronald Blanck, recalling that French and Czechoslovak units in the Gulf theatre had also recorded detections of chemical agents, says: "From my perspective, and it's me talking not the US government or the [Defense Department], I think the presumption of presence must be made" {Health Line 3 May}. Colonel David Moore of the Army's Medical Research Institute of Chemical Defense speaks of twenty studies done since 1972 in reportedly concluding that there are "no observable long-term effects to humans from exposure to low levels" of CW agents {Gannett 2 May}. The Committee also receives a presentation from the General Accounting Office on issues concerning US anti-CBW protection which had been raised in its interim report {GAO/T-NSIAD-96-154}.

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

2 May The US Senate Armed Services Committee adds \$15 million to the FY 1997 Defense Authorization bill to fund research and purchase of "nonlethal weapons". This action reflects the fact that the funding which the Congress had authorized for the programme in its FY96 legislation had not actually been made available [see 22 Mar]. {*Defense News* 6 May}

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

3 May The US Defense Department publishes an interim report on the status of its Chemical Stockpile Disposal Program, as required by Public Law 104-106 [see 13 Dec 95]. The report estimates the costs of this element of the overall chemdemil

programme [see also 29 Mar], over the 16 years of its anticipated life-cycle through 2004, as totalling \$12.4 billion [see also 13 Jul 95]. The cost-growth of \$2.2 billion since March 1994 is attributed to "[c]hanging environmental permitting requirements, the impacts of legislative actions, and program experience". At the first full-scale "baseline disposal facility" — in Tooele, Utah [see 26 Nov 95] — agent operations are scheduled to begin during the third quarter of FY 1996, in other words within the next two months. Construction of the second baseline facility, at Anniston [see 4 Mar], will begin once the State of Alabama has issued environmental permits, expected during the 4QFY96; much of the requisite incineration equipment has already been procured and is in storage. Equipment for the third and fourth baseline facilities, at Umatilla and Pine Bluff, is on order. The report which the Army has commissioned from the National Research Council evaluating five chemdemil technologies alternative to the baseline process [see 12 Mar] is scheduled for publication in the late summer; a decision on the development of alternative processes will be taken in October.

As for the condition of the stockpile, the interim report states that, at the time of termination of the SUPLECAM serviceability assessment programme in 1989 (by which time the leak-prone M55 nerve-gas rockets had been obsoleted and declared hazardous waste), the "results showed that the chemical stockpile was ready to use, if needed, and safe for continued storage". The report describes the quantitative risk assessments currently being undertaken for each storage site.

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

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

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

6–7 May In Bonn, the Friedrich-Ebert-Stiftung hosts a small international conference on *Enhancing the Biological Weapons Convention*. The proceedings are to be published.

7 May In the United States, 76.6 percent of a poll sample of 1016 Americans agree that the "Senate should ratify a treaty

which would ban the production, possession, transfer, and use of poison gas worldwide". The poll had been conducted during 1–5 May by ICR Survey Research Group for National Security News Service {7 May}. Disagreeing were 15 percent of the sample, the remainder expressing no opinion. A similar poll conducted during 21–25 April 1995 had shown 80 percent agreeing and 13 percent disagreeing.

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

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

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

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

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

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

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

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

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

10 May In Germany the Bundestag passes a resolution on the Chemical Weapons Convention calling upon the federal government to be active at the highest political level in urging signatory states that have not already done so to ratify the treaty, especially Russia and the United States.

10 May US intelligence community written responses expand for the published record testimony on questions of CBW proliferation and treaty-noncompliance recently given to the Senate Select Committee on Intelligence [see 22 Feb]. The committee

publishes the information some three months later. {*Defense Week* 5 Aug, R Jeffrey Smith in *Washington Post* 9 Aug, *Jane's Defence Weekly* 14 and 21 Aug}

Iran, according to responses from the CIA, has now stockpiled "several thousand tons of CW agents including sulfur mustard, phosgene and cyanide agents, and Tehran is capable of producing 1000 tons of these agents each year" [see also 27 Aug 93]. The CIA continues: "Iran is developing a production capability for more toxic nerve agents and is pushing to reduce its dependence on imported raw materials". Further: "Iran has had a biological warfare program since the early 1980s. Currently, the program is mostly in the research and development stages, but we believe Iran holds some stocks of BW agents and weapons [see also 27 Aug 93 and 13 Jul 95]. For BW dissemination, Iran could use many of the same delivery systems — such as artillery and aerial bombs — that it has in its chemical weapons inventory." The CIA responses also refer to possible Iranian work on CW and BW warheads for Scud missiles [see also 11 Feb 93].

Russia, according to responses from the DIA, "is of particular interest" concerning the flow of BW expertise to Iran, and also to Iraq, Libya and Syria; a "catalogue of nutrient media" for sale from a Russian BW-related facility is mentioned. The DIA also addresses the compliance of Russia with chemical-weapons obligations. It describes the Russian chemdemil programme as moving so slowly that no "meaningful" reduction of the Russian CW arsenal is likely to occur in the next decade, and it says that Russia may not have declared all of its existing stocks, commenting that some of the Russian officials associated with the stocks may be stalling because they "do not want to see their life's work destroyed, their jobs eliminated and their influence diminished". Further, the DIA responses state: "Russian officials probably believe they need a CW capability to deter other nations".

10 May The US Defense Department and a contractor are charged by citizens' groups with violating federal environmental legislation because of the "imminent and substantial danger to public health and the environment" inherent in the chemdemil incinerator at Tooele that is now about to become operational [see 3 May]. The lawsuit is brought in Salt Lake City Federal District Court by the Chemical Weapons Working Group [see 4 Apr] joined by the Sierra Club and the Vietnam Veterans of America Foundation. The plaintiffs are asking the court, on several counts, to declare violations of the Resource Conservation and Recovery Act, the National Environmental Policy Act, the Administrative Procedure Act, the Clean Air Act and the Toxic Substances Control Act, and to require the Army to cease all activities at the Tooele incinerator. The plaintiffs' emphasis is on neglect of dioxin-emission risks. {*Inside the Pentagon* 2 May, *Salt Lake Tribune* 11 May, *BNA State Environment Daily* 17 May}

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

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

11 May The Russian Army's new NBC contamination reconnaissance vehicle *Dal* is shown on Moscow television. The commentary says that the system had entered service in 1991 and that it was designed for detecting airborne contamination over an area of 75 square kilometres. The commentary continues: "It is capable of conducting observations in autonomous mode for more than 10 hours. The system is mounted on an amphibious tracked chassis with high off-road capability. It incorporates the latest radiation, chemical and bacteriological reconnaissance instruments and laser apparatus for the remote detection of any toxic aerosols. The time needed to reproduce the necessary information on 360-degree observation indicators does not exceed two seconds. The crew...comprises only three people who, with the help of special instruments and television cameras, can carry out autonomous reconnaissance at any time of day or night." {FBIS-SOV 15 May}

12–15 May In Russia, a NATO Advanced Research Workshop on *Chemical and Biological Technologies for the Detection, Destruction and Decontamination of Chemical Warfare Agents* takes place under the co-direction of Professor J R Wild of Texas A&M University and Professor A M Boronin of the Russian Academy of Sciences Institute of Biochemistry and Physiology of Microorganisms, Pushchino. There are some 50 participants from 14 countries, the workshop taking place on a river-boat travelling from Moscow to Yaroslavl and back. There is a particular focus on enzymatic degradation of CW agents.

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

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

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

13–31 May In the Netherlands, a basic course for personnel of National Authorities of CWC signatory states takes place at the Defence College in Ypenburg. There are 26 participants from 23 countries. Besides introductory sessions on the Convention, the course deals with subjects such as data handling and confidentiality, identifying declarable activities and facilities, communicating with the future OPCW and issues relating to chemical weapons and chemical defence. The course-presentations are mainly by PTS and Dutch personnel. A Harvard Sussex Program presentation is on dissemination of information on the Chemical Weapons Convention.

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

14 May In California, ICN Pharmaceuticals Inc of Costa Mesa announces the formation of a joint venture with Allen & Associ-

ates International Ltd [see 5 Apr 95] to convert a former BW-related complex in Kazakhstan [see 22 Mar] into a drug manufacturing plant. The plant is expected to be operating by September, with an initial staff of 250. {Reuter 14 May}

14–16 May In Russia, a public hearing on the chemdemil programme takes place in Ishevsk, the capital of the Udmurt Republic in which, in the remote town of Kambarka, there are large stocks of lewisite. The hearing, the second of its kind [see 17–19 Oct 95], is organized by Green Cross Russia. Participating are representatives of, amongst others, the Chemical Troops, the Conventional Committee, the State Duma, different ministries, the Udmurt government, the Kambarka administration, non-governmental organizations including international ones (BICC and SIPRI), different research institutes including GosNIIOKhT, and mass media. So that citizens of Kambarka may enter into the proceedings, the 78 participants travel there on the second day and are joined in the town hall by 93 locals. Panels cover political, legal, technological, medical, environmental and public-participation issues. Discussions are led openly and mostly in a constructive manner. The final document reflects a generally shared conclusion that successful stockpile destruction will depend not only on solving legal and financial problems but also on open information of the population and improvement of Kambarka's infrastructure. The final document states *inter alia* the need for an independent expertise and for the establishment of a mixed regional council that will "coordinate the NGO's and authorities' activities". The proceedings are to be published.

14 May–3 June In China, a visiting team of 32 Japanese government officials and private-sector experts continues work on the problem of chemical weapons abandoned by the former Japanese Imperial Army [see 1 Mar]. The mission, which is the sixth of a series [see 16 Sep–1 Oct 95], is led by a divisional director of the Japanese Foreign Ministry Bureau of Asian Affairs, Shigekazu Sato. Its task is to assess the content and environmental impact of a large chemical-weapons dump site high in the mountains near Dunhua in northeastern Jilin province where Chinese authorities have said there may be as many as 1.8 million abandoned chemical munitions [see 18 Feb 92]. The mission also has the tasks of considering how best to get rid of the weapons, having regard to the imminent entry into force of the CWC, and of conducting discussions with Chinese authorities on future excavations and other work. {Jiji and AFP 8 May, Reuter and Jiji 14 May} Several enterprises in different countries are known to be interested in bidding for this chemdemil work, including the Russian government {Jiji 13 May, TASS 3 Jun}. At a closing press conference in Beijing, mission chief Sato says that the survey has confirmed the presence of an estimated 700,000 munitions including 75-mm artillery and 90-mm mortar rounds, the munition-fills including mustard-lewisite mixture. The estimate is based on sampling, but is reportedly disputed by Chinese authorities. A seventh survey mission, to five other locations including Heilongjiang province, is planned, possibly for the autumn. {Kyodo 2 Jun, Jiji 3 Jun, *Mainichi Daily News* 4 Jun}

15 May In South Africa a parliamentary committee, the Public Accounts Committee, is seeking an explanation of why the South African National Defence Force had written off Rand 21.796 million when closing down "Project B", also known as "Project Coast". There has been newspaper speculation that substantial state assets were transferred into private hands when two front companies set up in the 1980s for Project B —

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

15 May The US House of Representatives continues its consideration of a \$266.7 billion FY 1997 Defense Authorization Bill that would increase the president's budget by \$12.4 billion. The bill has cut Nunn–Lugar funding from \$328 million to \$303 million, but the House rejects an amendment that would have effectively blocked the funds altogether. {*CQ Weekly Report* 18 May}

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

The Army receives the last of the state permits it needs on 26 June {*Salt Lake Tribune* 27 Jun}.

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

19–21 May In Germany, near Bonn, there is an international conference on *The Dismantlement and Destruction of Nuclear, Chemical and Conventional Weapons*, sponsored by NATO, the Federal Foreign Office and North-Rhine Westphalia and organized by the Bonn International Center for Conversion (BICC). More than a hundred people from 16 countries participate. It is opened by Federal Foreign Minister Klaus Kinkel, and a keynote dinner address is given by NATO Secretary-General Javier Solana. {*Süddeutsche Zeitung*, TASS and AFP 21 May}

20 May Netherlands Defence Minister Joris Voorhoeve announces further details of his government's projected assistance [see 27 Feb] to the Russian chemdemil programme [see

10 May, US intelligence] during his address to an international conference in Germany [see 19–21 May]. He says that the assistance is to be financed by the Ministries of Defence and Foreign Affairs at a rate of Dfl 5 million per year for five years. The Netherlands will participate in four projects: a mobile environmental laboratory to monitor destruction efforts, a decontamination system for chemdemil workers, a station for transferring the 6500 tonnes of bulk-stored lewisite into more manageable containers, and destruction of the lewisite. {ANP 21 May}

The minister is later quoted as saying that the Netherlands, during its tenure of the European Union presidency during the first half of 1997, will propose EU-wide support for Russian chemdemil {*Jane's Defence Weekly* 7 Aug}.

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

21 May In the Russian Federation State Duma, which is considering a draft federal law on disposal of chemical weapons, there are hearings on the protection of the population during the chemdemil programme which the government has now formally adopted [see 21 Mar]. It is reported that, of the funding authorized for chemdemil, only one third had actually been allocated during the two previous years and none at all during the present year. It is also reported that no system of state control yet exists to ensure that environmental protection norms are observed during chemdemil operations. The government is urged to ensure adequate funding and to hasten the drafting of a package of bills mandating social benefits for people handling chemical weapons and compensation for people injured by them. {TASS and Interfax 21 May}

21 May In the United States, at Aberdeen Proving Ground, companies interested in bidding for work in the Russian chemdemil programme [see 20 and 21 May] are briefed by the Army on programme requirements. The Defense Department will shortly be requesting proposals in regard to a \$400 million programme funded from Nunn–Lugar monies [see 15 May] to design and build a chemdemil facility for nerve-gas weapons at Shchuch'ye, east of the Urals [see 26 Sep 94], using the Russian two-stage process for agent detoxification [see 12–21 Feb]. Whoever gets the initial \$12 million contract, which is to be awarded in late October, will be required to recruit Russian subcontractors to build the facility. The Defense Department is also seeking bidders on another Nunn–Lugar chemdemil project: a \$30 million contract to redesign and equip a Central Analytical Laboratory in Moscow, to be awarded in September. {*Chemical & Engineering News* 13 May, *Defense News* 20 May}

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

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

23 May In Providence, Rhode Island, a court awards \$1.2 million compensation to a Vietnam-War veteran, Terry DiPetrillo, who had sued Dow Chemical Company for damages in regard to the bone-marrow cancer he claimed were due to Agent Orange manufactured by the company. It is the first time a US jury has found that the herbicide causes cancer, earlier cases having been settled out of court. Dow Chemical announces that it will appeal. {AP in *New York Times* 27 May}

23 May In Washington, a conference on *Nuclear, Biological and Chemical Weapons Proliferation and Terrorism* co-sponsored by Los Alamos National Laboratory and the Harvard University Center for Science and International Affairs is attended by 163 administration officials, members of Congress, research-institute people, academics, journalists and others. The stated purpose is to “help forge a national consensus in response to the threat of nuclear, biological, and chemical proliferation and terrorism”. Questions of biological warfare are particularly prominent in the nine specific areas identified as requiring urgent attention from the executive and legislative branches of government. Director of Central Intelligence John Deutch, in his address to the conference, states that the federal government is poorly organized and inadequately equipped to respond to an NBC terrorist attack on US soil. Assistant Defense Secretary Ashton Carter describes the biological threat as a “sleeping dragon”. {*Los Angeles Times* 24 May, *Defense Daily* 28 May, *Aviation Week & Space Technology* 17 Jun} Professor Matthew Meselson of Harvard University (and the Harvard Sussex Program) discusses possible international legal agreements that would make production of CBW weapons a “crime under international law”.

23 May In the US House of Representatives, the National Security Appropriations Subcommittee approves a \$246.5 billion FY 1997 Defense Appropriations bill that would add \$11.8 billion to the president's budget [see also 15 May]. The recommended increases include \$86 million for protective clothing and other anti-CBW protection. {*CQ Weekly Report* 25 May}

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

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

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

25–29 May In Egypt, President Mubarak and visiting Libyan leader Moamer Gaddafi have five sessions of private talks {DPA 28 May}. Cairo officials have let it be known that US concerns about the Tarhunah facility [see 7 May] are on the agenda {MENA 25 May}. Colonel Gaddafi refers to the matter during a speech he gives early in his visit in which he accuses the United States of double standards: “America speaks about Tarhunah but not about Dimona. It speaks about Libya making chemical weapons while it knows that the Israelis have chemical and biological weapons and nuclear bombs and it doesn’t speak about them at all.” He continues: “Tarhunah is a tunnel for the Great Man-made River [a 4-metre-bore pipeline on which work began in 1984 to bring water 800 km north from aquifers under the southern desert]. Egyptian journalists visited it and took pictures a while ago and saw the tunnel was empty, awaiting the pipes.” {Reuter 26 May}

In subsequent press interviews, President Mubarak says: “We have already sent people to Tarhunah and there is nothing to see inside the tunnels. There is no chemical installation for the time being and there is no activity there.” {AFP 28 May} He also says: “There are tunnels but no installations, no equipment. I think the Americans know very well that there is no activity in these tunnels... I spoke with him [Colonel Gaddafi], told him to find a way to show there is no intention to install equipment for chemical production. I think he agreed with that and we are working on it. I explained to him the situation...it would be very difficult to defend it, and what do you need chemical weapons for? I had long talks with him until he understood it very, very well. And I think he will not go through with it.” President Mubarak says Colonel Gaddafi told him: “All right, I am not going to do it, but why are they concentrating on me and leaving nuclear weapons in Israel?” {*Washington Times* 28 May} During a joint press conference with Colonel Gaddafi at the end of the visit, President Mubarak says he has urged the Libyan leader to permit international inspectors to verify the conclusions reached by the Egyptian team. {*International Herald Tribune* 31 May}

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

27 May In Moscow, the Prime Minister of the Chuvash Republic, Enver Abylakimov, and the Prime Minister of the Russian Federation, Viktor Chernomyrdin, sign a *Treaty on Socio-Economic Projects of Federal Importance on the Territory of Chuvashia*. According to a TASS report {27 May}, this agreement makes provision for “the destruction or conversion to civilian uses of facilities for the production of chemical weapons at Khimprom joint-stock company and the elimination of the consequences of chemical weapons production in Chuvashia”. Current plans for the Russian chemdemil programme include conversion of the former V-gas production facility at Novocheboksarsk in Chuvashia into a chemdemil facility [see 17 May 94].

Also in Moscow is the US Defense Department’s Special Coordinator for Cooperative Threat Reduction, Laura Holgate. She is visiting in order to sign extensions and amendments of Nunn–Lugar projects [see 21 May].

27 May Iraq now becomes subject, under the terms of UN Security Council resolution 1051 (1996) [see 27 Mar], to the ex-

port-import control regime for dual-use goods that is an integral part of the ongoing monitoring and verification system devised by UNSCOM to promote Iraq’s compliance with its obligation not to rearm itself with weapons of mass destruction.

28 May The US General Accounting Office reports to Senator John D Rockefeller IV on how the Department of Veterans Affairs processes claims from Gulf War veterans in regard to undiagnosed illness. In 1994 Congress had authorized compensation benefits to such claimants [see 10 Oct 94], but the Department had rejected 95 percent of the 7845 claims it had processed by February 1996. {GAO/HEHS-96-112}

28 May President Clinton expands medical benefits available to US Vietnam-War veterans exposed to Agent Orange. Following a report from the US Institute of Medicine [see 23 Mar], he directs that such veterans as have developed or may yet develop peripheral neuropathy or prostate cancer should be eligible for disability payments, regardless of whether they are or are not able to prove wartime exposure to herbicide. He also says that his administration will seek legislation authorizing benefits for exposed veterans’ children with spina bifida. {AP in *Boston Globe* 29 May, *Lancet* 8 Jun}

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

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

30 May The UK Medical Research Council issues a call for research proposals concerning the so-called Gulf War Syndrome, as agreed with the Ministry of Defence earlier in the year [see 30 Jan]. Proposals are solicited in two main areas: (a) whether British veterans suffer more ill-health because of Gulf service and, if so, the nature and extent of the risk; and (b) whether there are increased reproductive health problems in veterans and, if so, the nature and prevalence of the problems. Three-year research grants will be awarded by the autumn after both the Council and the Ministry have reviewed the proposals submitted. {PA 31 May}

By mid-July, the MRC has received some 37 outline proposals, but the timetable for grant-awards seems to have slipped: short-listed applicants are to be asked to submit full proposals by the end of August, for final decision during November. {PA 17 Jul}

31 May In regard to Libya and the construction at Tarhunah [see 25–29 May], news media are continuing to carry un-attributed information apparently in furtherance of the US “public diplomacy” campaign [see 26 Feb]. The *Washington Post* quotes an unidentified US intelligence official as saying that “the Libyans are still completing the boring and lining of the tunnel complex” and will not begin installing equipment to manufacture poison gas until that work is completed (*International Herald Tribune* 31 May). The German television programme, ZDF *Kennzeichen D*, had reported a month previously that German companies had delivered mining equipment and laboratory materials to “Rabta 2” (Berlin *tageszeitung* 30 Apr and 2 May). And before that the Chicago *Sun-Times* (19 Apr) had carried a story from a British journalist saying: “Excavations at Tarhouna started in 1992, and it is thought that a specialist Austrian firm was involved without realizing that its work in Libya was connected with a factory intended to produce mustard gas and the nerve gases sarin and tabun. At least two small Swiss firms arranged the supply of construction equipment for Tarhouna, and a number of German and French companies are also understood to have been involved, although mainly with the supply of non-military construction equipment and materials.” The story adds that, according to US officials, “the US campaign has succeeded in bringing the project to an abrupt halt”.

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

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

1 June In Vienna, the UN Commission on Crime Prevention and Criminal Justice concludes a two-week session and approves a draft document committing UN member-states to fighting serious cross-border crime, including terrorism, drug-trafficking and the smuggling of materials for making nuclear, biological or chemical weapons. The document will be considered by the UN Economic and Social Council during its next regular session, in New York in June. {UPI 1 Jun}

3 June In Germany the “Iraq poison gas” trial comes to an end in Darmstadt [see 13 May] with the sentencing of the three remaining defendants, from the Hamburg company WET, who have been found guilty of illegally exporting chemical equipment to Iraq. They receive suspended prison sentences of between 6 and 21 months duration. {*Frankfurter Rundschau* 5 Jun, DPA 18 Jul}

3–6 June The US Defense Nuclear Agency sponsors its *5th Annual International Conference on Controlling Arms*, in Norfolk, Virginia. There are about 300 participants. The focus is on implementation of existing arms agreements and control regimes.

4 June Syria is building a chemical-weapons factory in Aleppo according to the German weekly magazine *Stern* (6 Jun), which states that US intelligence officials have passed satellite imagery of the plant to their German counterparts, who are now investigating possible German industrial involvement in the Syrian project. {*Reuter* in *Jerusalem Post* 5 Jun}

The Syrian Minister of Information, Dr Muhammad Salman, neither confirms nor denies the report during a subsequent press interview. He says: “Syria is entitled to possess any weapons it deems necessary to face up to its enemies”. {*London Al-Sharq al-Awsat* 6 Jun} An unidentified “high-ranking

Syrian official” speaks in almost identical terms during another reported press interview, adding: “We are amazed that they should raise such issues while they continue to ignore the nuclear and chemical weapons in Israel’s possession.” {*London Al-Hayat* 6 Jun}

The *Jerusalem Post* later reports (13 Jun) that the “Syrian effort to build a vast chemical plant was known eleven years ago, when Jonathan Pollard sent Israel details about the massive undertaking”. The Istanbul newspaper *Milliyet* (12 Jun) reports the factory to be situated “in a mountain near Aleppo” and, from England, *Jane’s Sentinel* locates it in Safira near Aleppo. The latter publication also refers to Syrian chemical-weapons production facilities near Damascus and near Hama. {*Jerusalem Post* 14 Aug}

4 June In Germany, the managing director of Rose GmbH stands trial before a court in Stuttgart accused of illegally exporting chemical equipment to Libya. According to the charges, Hans-Joachim Rose had commissioned an Indian company to produce a gas-purification plant which, in May 1993, was exported from India to Libya. In 1995 he had received a suspended sentence of 18 months in connection with another delivery of chemical equipment to Libya [see 11 Jul 95]. *Stern* magazine (6 Jun) reports that he is under investigation by German authorities for possible involvement in the Syrian chemical-weapons programme [see 4 Jun, Syria]. {*Frankfurter Rundschau* 5 Jun, DPA 18 Jul}

4 June In the UK House of Lords the government is asked: “How they reconcile their Written Answer of 21st March 1996...that ‘there are no known chronic health effects arising from exposure to low levels of chemical warfare agents’ with information contained in the Iraqi Restricted Manual entitled: *A Course in Nuclear, Biological and Chemical Protection*; that Taboon (sic) Agent, Zooman (sic) Agent, Sareen (sic) Agent and Multiple Seven Agent ‘have a cumulative effect; if small dosages are used repeatedly on a target, the damage can be very severe’.” In its response the government agrees that more than one dose of nerve gas over a short period can have a cumulative effect, but it adds: “Repeated exposure to low levels of agent in these specific circumstances may produce symptoms of nerve agent poisoning, but is not known to lead to chronic health effects”. {*Hansard (Lords)* written answers 4 Jun} [See also 8 May]

The response ends: “There is no evidence that chemical or biological agents were used in the Gulf War”. Asked subsequently why it had “discounted Czechoslovak military reports that low levels of Sarin were detected in the Saudi theatre in the early days of the air conflict”, the government says that the reported detections “have been carefully studied by UK authorities, who have found no collateral evidence that would support such detections”. {*Hansard (Lords)* written answers 6 Jun} [See also 1 May]

4 June The US chemdemil programme [see 15 May] is the subject of a hearing before the Senate Defense Appropriations Subcommittee. There is testimony both from the administration [see also 29 Mar] and from the National Research Council which, under Congressional mandate, has for many years been providing independent counsel on chemdemil activities [see 3 May]. The NRC testimony, reviewing this past work, is given by Professor Richard Magee of the New Jersey Institute of Technology, who chairs both the NRC Committee on Review and Evaluation of the Army Chemical Stockpile Disposal Program

and the NRC Panel on Review and Evaluation of Alternative Chemical Disposal Technologies.

5 June In Washington, the chairman of the President Clinton's Foreign Intelligence Advisory Board, former Speaker Tom Foley, speaks to reporters about the work of PFIAB, including the two major new studies that are due to be finished by the end of the summer. One is focussed on "counter-intelligence problems and the proliferation of chemical and biological weapons". {Gannett 5 Jun}

6 June In Britain more than 60 locations contaminated with mustard gas remain from the country's long-defunct chemical-weapons programme, according to a Yorkshire Television documentary screened today. {London *Independent* 4 Jun}

6 June In the UK, the human volunteer test programme in the Chemical Biological Defence Sector at Porton Down is now the responsibility of the "Medical Countermeasures Business Centre" there, so Parliament is told by the government. {*Hansard (Commons)* written answers 6 Jun}

6-7 June In Helsinki, at the Finnish Institute for Verification of the Chemical Weapons Convention (VERIFIN), representatives of Denmark, Finland, Norway, Sweden, the United Kingdom and the OPCW Provisional Technical Secretariat conduct a CWC inspection table-top exercise. The focus of *Viking*, as the exercise is called, is on the provisions of the Convention for Schedule 1 chemicals, partly in preparation for the trial Initial Inspection which is to be conducted later in the year at the Swedish Single Small Scale Facility. {PC-XV/B/WP.1}

7 June In Tajikistan, where the presidential press service has just reported that opposition leaders have accused the Russian military serving in the country of using chemical bombs in the Pamirs region, the commander of the collective peacekeeping forces, Mikhail Zavarzin, issues a denial of the accusation. He says "there are no chemical weapons, nor can there be, in the territory of Tajikistan". {Moscow TV *Novosti* 7 Jun in FBIS-SOV 10 Jun} Earlier, on 3 June, Islamic opposition leader Sayed Abdullo Nuri had written to the Secretary-General of the United Nations accusing the Dushanbe government of escalating the fighting and of planning to use chemical weapons. Presidential spokesman Zafar Saidov had subsequently dismissed the latter claim as "an appalling fabrication". {TASS 3 Jun, Radio Mayak 5 Jun in BBC-SWB 7 Jun}

10 June The OPCW Preparatory Commission Expert Group on Programme of Work and Budget issues a revision of the approved estimates of the numbers of facilities that may be declared under the CWC [see 17 Aug 94], some of which will be liable for inspection. The new assumptions are as follows (the original ones are in parentheses):

— Cml Weapons Production Facilities, bilateral:	12	(12)
— Cml Weapons Production Facilities, other:	31	(31)
— Cml Weapons Storage Facilities, bilateral:	32	(32)
— Cml Weapons Storage Facilities, other:	1	(1)
— Cml Weapons Destruction Facilities, bilateral:	5	(3)
— Cml Weapons Destruction Facilities, other:	1	(1)
— Old and Abandoned Chemical Weapons sites:	40	(40)
— Schedule 1 facilities:	75	(75)
— Schedule 2 facilities:	950	(300)
— Schedule 3 facilities:	1,500	(400)
— Other chemical production facilities:	15,000	(5,000)

Also issued is a breakdown of the number of inspections, 401, planned for the first year after entry into force. A planning as-

sumption is that there will be three challenge inspections and two investigations of alleged use of chemical weapons.

10 June In Cape Town, South African Justice Minister Dullah Omar speaks as follows about findings from the inquiries into Project Coast being conducted by the Office for Serious Economic Offences [see 15 May]: "Project Coast was initiated by SADF in 1980 to research and develop a chemical warfare capability through the establishment of a number of front companies. The project leader was Brigadier Wouter Basson... There could have been misappropriation of project funds through which people involved with the project might have gained unfair and unjust rewards. The misappropriation might be as a result of the workings of a group of companies known as the Wisdom Group, which has property, farming, financial, air charter and travel interests. The people involved in Project Coast were also involved in this group... The privatization of the front companies also possibly resulted in some people benefitting in an unfair way... There were various foreign transactions related to the project as well as to the Wisdom Group... In view of the serious implications of the above, Cabinet has authorized that the secrecy of Project Coast be lifted, and I requested the director of OSEO to continue with the investigation here and overseas." {SAPA 10 Jun}

10 June The US Centers for Disease Control and Prevention now publish in *Federal Register* {10 Jun} their proposed regulations aimed at impeding illicit access to dangerous biological agents and toxins [see 11 Mar]. Drafted in collaboration with the Defense Department and the National Institutes of Health, and now mandated by the Antiterrorism and Effective Death Penalty Act of 1996 [see 15 Apr], the regulations are designed to "collect and provide information concerning the location where certain potentially hazardous infectious agents are transferred; trace the acquisition and transfer of these specific infectious agents; and establish a process for alerting appropriate authorities if an unauthorized attempt is made to acquire these agents". To these ends, the proposed regulations have six components: (a) the listing of biological agents to which the regulations apply; (b) registration requirements for facilities transferring listed agents; (c) transfer requirements; (d) verification procedures, including audit, quality control, and accountability mechanisms; (e) agent disposal requirements; and (f) research and clinical exemptions. For (a), a 40-item list of human pathogens and toxins adapted from Australia Group listings is used. The regulations are to be applicable to all laboratories operated by government agencies, universities, research institutions and commercial entities. Comments are due by 10 July. The regulations are expected to come into force during September. {Reuter 19 Jun, *New Scientist* 22 Jun}

10-11 June In Seoul, a visiting US delegation led by Deputy Assistant Secretary of State Robert Einhorn holds talks with South Korean Foreign Ministry officials. On the agenda is the question of South Korea joining the Australia Group and the Missile Technology Control Regime, and of its ratification of the Chemical Weapons Convention. {Kyodo 8 Jun, Yonhap and Reuter 11 Jun}

10-16 June In Iraq, a 54-member UNSCOM inspection team led by Nikita Smidovich of Russia, including 22 US and 8 UK experts, seeks to conduct unannounced spot checks at several locations [see 14 May]. To certain of the locations, the team is repeatedly denied access on grounds of sovereignty and national security. UNSCOM aborts the mission and the team, UNSCOM 150, leaves the country. {INA 12 Jun, AP in *International*

Herald Tribune 17 Jun, Reuter 18 Jun, London *Al-Sharq al-Awsat* 19 Jun}

At nightfall on the second day, the team had been obliged to withdraw after an 11-hour standoff outside a Republican Guard facility at Abu Gharib where four buildings had been designated for inspection {Reuter 11 Jun}. The UN Security Council had thereupon been briefed by UNSCOM Executive Chairman Rolf Ekéus, who subsequently told reporters that there was a “high probability” of Iraq’s having hidden banned weapons materials at the barred sites {Reuter 12 Jun}. A resolution demanding access was then unanimously adopted by the Council {SCR 1060 (1996)} by which time, however, the team had been denied access to another site. The situation then deteriorated still further, with Iraqi Deputy Prime Minister Tariq Aziz announcing that Iraq would not comply with the resolution, and the inspection team being denied access to two more sites {London *Al-Hayat* 14 Jun}. The team endeavoured to maintain around-the-clock perimeter surveillance at barred sites.

The Security Council issues a statement condemning Iraq’s action and requests Chairman Ekéus to visit Baghdad, as he had already asked to do, as soon as possible “with a view to securing immediate, unconditional and unrestricted access to all sites which the Special Commission wishes to inspect, and to engage in a forward-looking dialogue on other issues under the Commission’s mandate”. {UN press release 14 Jun}

11 June In South Korea, a group of 30 children of Vietnam-War veterans is suing the government for damages in respect of chronic health problems said to have been inherited from fathers as a consequence of the latter’s exposure to Agent Orange during the war. The suit was filed in May; the fathers had themselves filed suit in April — the first Agent Orange lawsuit in South Korea. The government has reportedly not yet decided how to respond; there is recently enacted law authorizing compensation for first-generation victims of Agent Orange, but, in regard to possible second-generation victims, a government-commissioned epidemiological study has not yet been completed. The class-action lawsuit which, in 1994, the Agent Orange Association of Seoul brought in a California court against seven US manufacturers of the herbicide [see 20 Jan 95] is still pending. {AP 11 Jun}

12 June Japan could ship back chemical weapons it abandoned in China [see 14 May–3 Jun] and then dispose of them in domestic facilities, not in ones built in China, so unidentified “informed sources” in Beijing are quoted as saying. {Jiji 12 Jun, *Mainichi Daily News* 18 Jun}

12 June The Bonn International Center for Conversion [see 14–16 and 19–21 May] estimates that the cost of disposing of post-Cold-War surplus nuclear, chemical and conventional weapons “will be between \$90 billion and \$185 billion within the next 10 to 20 years”, an insurmountable burden for former Warsaw-Treaty member states which may therefore be inclined either to sell or to mothball their surplus stocks. BICC proposes, as an alternative to the evidently inadequate piecemeal aid which some Western countries are providing, the establishment of “a well-endowed international disarmament fund”. It suggests that the fund should be financed from military budgets because of the benefits to security that would follow. {Reuter 12 Jun}

12 June In the United States, the president of the Pharmaceutical Research and Manufacturers of America, Gerald Mossinghoff, expresses his association’s views on efforts to strengthen the Biological Weapons Convention. In a letter to

President Clinton’s national security adviser, Anthony Lake, he writes: “PhRMA and our member companies strongly endorse the Clinton administration’s efforts to reduce the risk of biological weapons proliferation. We want to be able to support ratification of a BWC protocol with the same enthusiasm that we and the Chemical Manufacturers Association support the Chemical Weapons Convention.” He then goes on to state his industry’s “great concern with the potential for the loss of legitimate confidential business information” during the on-site inspections of commercial facilities that are being contemplated as part of the strengthened BWC regime. {*Inside the Pentagon* 25 Jul}

12 June In Salt Lake City, Utah, the citizens’ groups litigating against incineration at the chemdemil facility now being readied at Tooele [see 10 and 15 May] seek a preliminary injunction to prevent agent incineration until their case is heard. The Army promises to delay startup until the court considers the application. {*Salt Lake Tribune* 20 Jun}

12–14 June In Malta, a regional seminar on the CWC and its national implementation is hosted on Gozo by the government in coöperation with the OPCW Provisional Technical Secretariat. It is the sixteenth such regional seminar. Representatives of 13 countries — Albania, Bosnia & Herzegovina, Cyprus, France, Greece, Italy, Jordan, Libya, Malta, Morocco, Slovenia, Spain and Turkey — participate, as well as people from the PTS and nongovernmental organizations, including the Harvard Sussex Program. {PTS press release 19 Jun}

13 June Russian presidential candidate Gennadiy Andreyevich Zyuganov speaks during a radio interview of his three years in the army, during which he served “in a special intelligence department working against nuclear and chemical weapons”. {Radio Vozrozhdeniye 13 Jun in BBC-SWB 17 Jun}

13 June In Brussels, the North Atlantic Council meets at the level of defence ministers, the first time this has happened for 30 years and a consequence of the new policy of France. The Council adopts a lengthy Final Communiqué which notes, among many other matters, that NATO defence efforts regarding NBC “proliferation risks” are an “integral part of the continued adaptation of the Alliance to the new security environment”. The Council endorses the recommendations of the Senior Defence Group on Proliferation (the DGP) for improving NATO’s military capabilities for addressing those risks. “These capabilities”, the Communiqué states, “will support NATO’s central objectives for dealing with proliferation: prevent proliferation from occurring or reverse it through diplomatic means, deter use, and protect NATO territory, populations and forces from NBC attack”. It continues: “The substantial progress made by the DGP over the past two years provides a solid basis for continued co-operation among all Allies and, where appropriate, with Partners on relevant defence issues related to proliferation. An accelerated plan for action has been adopted, including arrangements for defining new force goals for the Allies concerned.” The Communiqué makes no mention of the Biological or the Chemical Weapons Convention. {*Atlantic News* 15 Jun}

13 June The US Senate Intelligence Committee has just reported on the FY 1997 Intelligence Authorization bill. Its report recommends the formation of an eight-member Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction, four of the members to be appointed by the Congress. The Senate bill would also require the Director of Central Intelligence to report to Congress twice a year on the acquisition by foreign countries

of dual-use and other technology useful for the development or production of weapons of mass destruction. {*Defense Daily* 13 Jun}

13 June In the US Senate, the new Majority Leader, Trent Lott, is asked when he intends to bring up the Chemical Weapons Convention in view of the promise made by his predecessor, Senator Dole, to do so within a "reasonable time period" after the treaty had entered the Executive Calendar [see 7 Dec 95]. This had happened on 30 April when the Committee on Foreign Relations reported favourably on the Convention [see also 25 Apr] {*Congressional Record* 30 Apr}, but Senator Dole had resigned before taking action [see 29 May]. Senator Lott responds: "The Chemical Weapons Convention is something that we are all concerned about. I think it should be given proper consideration... It is not my intention to withhold this convention, but I do want to understand what the problems are, how much time we would be talking about in bringing it up... [W]e have a limited number of days in which to do a lot of important work... I cannot make a commitment on a date certain at this time because I do not know what the situation is. If you will give me the benefit of a few days, I will try to give a more responsive answer at that time." {*Congressional Record* 13 Jun}

Senator Helms has in the meanwhile been reiterating, as he had indicated that he would [see 7 Dec 95], his opposition to ratification. On 4 June, for example, he had written to senators suggesting that the CWC, if it enters into force, will have "far-reaching implications...for businesses throughout the US" {*Christian Science Monitor* 15 Aug}, a theme which his staff is now developing.

15 June The US Marine Corps formally establishes the new Chemical and Biological Incident Response Force [see 30 Jun 95] which it had activated on 1 April, a 350-strong joint Navy/Marine unit based at Camp Lejeune under the 2nd Surveillance Reconnaissance and Intelligence Group of the Marine Corps. In interim form, it has been training for several months, completing its first field test during 4-6 June. The CBIRF is tasked to respond to CBW terrorist attacks on US embassies, military installations or civilian targets worldwide, but to do so in a "consequence management" rather than counterterrorist mode [see 12 Mar, US House]. Its instigator, Commandant of the Marine Corps General Charles Krulak, describes the CBIRF as "a total force package that includes command and control, security, reconnaissance, decontamination and medical, plus a [networked electronic reach-back] advisory group of scientists who are experts in the chem/bio field". Those scientists are an on-call panel chaired by Dr Joshua Lederberg of Rockefeller University. {*Defense Daily* and AFP 3 Jun, *Chemical & Engineering News* 1 Jul, *Jane's Defence Weekly* 28 Aug}

16 June In Pakistan, the National Assembly is told by the minister in charge of the Health Ministry, Dr Sher Afghan, that the government "is aware of the deaths of 2200 US soldiers as a result of the use of chemical weapons during the Gulf War", so Radio Pakistan reports. The broadcast continues: "The Pakistani government is making efforts to deal with the ill effects of these weapons and the necessary medical facilities are being provided to our people for this purpose". {Radio Pakistan 17 Jun in BBC-SWB 17 Jun}

17 June In Geneva, the 38-nation Conference on Disarmament finally decides, after many years of intermittent negotiation, to admit 23 new members, namely Austria, Bangladesh, Belarus, Cameroon, Chile, Colombia, Finland, Iraq, Israel, both

Koreas, New Zealand, Norway, Senegal, Slovakia, South Africa, Spain, Switzerland, Syria, Turkey, Ukraine, Viet Nam and Zimbabwe. {CD/PV.739} The decision rests on consultations which had been carried forward by Ambassador Paul O'Sullivan of Australia and then on a compromise brokered by South Africa {Reuter in *International Herald Tribune* 18 Jun} in which each newcomer undertakes {CD/1407} to forgo its right of veto for two years or for as long as it is subject to comprehensive enforcement measures under Chapter VII of the UN Charter (as Iraq now is). Egypt and Iran, both citing reservations regarding Israel, had been conspicuously hesitant about joining the consensus {CD/PV.739}.

17 June President Clinton's Advisory Committee on Gulf War Veterans' Illnesses [see 1 May] assembles in Seattle to receive testimony from scientists on the reproductive health of Gulf War veterans. {*Seattle Times* 18 Jun}

18 June In New Zealand, Parliament approves the bill to implement the Chemical Weapons Convention [see 24 Apr], thereby enabling ratification.

18 June The UK government is asked in the House of Lords (a) how the development and manufacture of chemical weapons for "domestic riot control purposes" is to be distinguished from the development and manufacture of chemical weapons for purposes prohibited under the Chemical Weapons Convention, (b) who is to be responsible for making these distinctions, and (c) whether international peacekeeping operations are included among the "purposes not prohibited under this Convention". The government cites the general purpose criterion in responding to the first of these three questions; alludes to the OPCW in its response to the second; and, on the third, states: "The CWC prohibits the use of toxic chemicals as a method of warfare in international peacekeeping operations". {*Hansard (Lords)* written answers 18 Jun}

19 June Chinese transfers to Iran of dual-use chemicals and equipment that could be used for chemical weapons continue to be of concern to the US government, which has raised objections to the transfers at the highest levels of the Chinese government, so the US Under Secretary of State for Arms Control and International Security Affairs, Lynn Davis, says in evidence before International Relations Committee of the House of Representatives. {*BNA Daily Report for Executives* 20 Jun}

19-22 June In Baghdad, UNSCOM Executive Chairman Rolf Ekéus conducts high-level talks with Iraqi officials in accordance with the UN Security Council statement on Iraq's obstruction of the last UNSCOM inspection [see 10-16 Jun]. The talks begin amidst virulent attacks on Ambassador Ekéus in the Iraqi press {London *Independent* 20 Jun} but conclude with him and Iraqi Deputy Prime Minister Tareq Aziz signing a joint statement {Reuter 22 Jun, *New York Times* 25 Jun}. This agreement contains an undertaking by Iraq to provide UNSCOM and the IAEA with "immediate, unconditional and unrestricted" access to all sites they wish to inspect and an undertaking by UNSCOM that it "will fully respect Iraq's legitimate security concerns". (It is later reported {AFP 17 Jul} that informal guidelines aimed at preventing standoffs between UN inspectors and Iraqi authorities are developed as well.) The two sides also agree to intensify their work, as by means of bimonthly political-level meetings in Baghdad and through a joint programme of action {AFP 24 Jun, *Washington Post* 25 Jun}. Particulars of the agreed joint programme are not disclosed, but Ambassador Ekéus tells reporters that it "contains the submission very

soon...of full, final and complete declarations...of all Iraq's weapons programmes" {Reuter 22 Jun}.

Later, Ambassador Ekeus tells a New York press conference that he believes Iraq is still concealing banned weapons and documents about them. He says that "hiding proscribed and prohibited items is not legitimate and is not a legitimate [security] concern". He also says: "Our dilemma, which we have together with Iraq, is that the concealment is managed by institutions which are related to security in Iraq. These security-related institutions also happen to be responsible for the security of the head of state and members of the family. If these institutions also hide weapons, you see we have a problem, and that is probably why we ran into this very difficult situation we had two weeks ago." Further, he says that Iraq was not concealing items "only by static means", explaining that his experts were concerned that materials were stored on trucks that could move at will throughout the country. {Reuter 24 Jun}

20 June In Iraq, destruction of the former biological-weapons production facility at al-Hakam [see 11 Apr, UN] is completed by an Iraqi workforce under the supervision of a 20-strong 7-nation UNSCOM team led by Owen Hammond of Australia. The demolition work had commenced during May. {London *Observer* 9 Jun, Reuter 20 Jun}

20 June The US Departments of Defense and Veterans Affairs announce the award of 12 research contracts totalling \$7.3 million on possible causes and treatment of Gulf War veterans' illnesses {Department of Defense news release 20 Jun}. Proposals had been requested a year previously [see 23 May 95], and 111 had been submitted. One of the contracts is with an overseas consortium: an \$865,000 contract with the King's College School of Medicine and the Institute of Psychiatry in London, said to be the first systematic examination of the health of British soldiers who served in the Gulf {London *Times* 20 May, Inter Press Service 10 Jun}. [See also 30 May]

21 June Iraq has recently increased the number of its hidden biological-warfare agent containers from 200 to 255, and it also has 40 hidden al-Hussein missiles, 25 of them in disassembled form, according to the former head of Iraqi military intelligence, Major-General Wafiq al-Samarra'i [see 5 Jan 95], now living in Damascus and just interviewed by telephone from Amman. He also told his interviewer that most of the missing documents for which UNSCOM has been searching [see 19–22 Jun] were kept in the Republican Palace and in the camps of the Special Guard and the Republican Guard. He had said, further: "We have reliable information about persons in whose homes some documents were kept, and these documents are moved from one place to another. Some documents are also kept in tanks and armoured personnel carriers." {London *Al-Sharq al-Awsat* 21 Jun}

General Samarra'i is later in London, where he repeats and expands much of this information to other interviewers there. Of the 255 BW-agent containers, 230 hold agent in powder form, 25 in less-long-lived liquid form. He believes that Iraq also has a "large number" of chemical-warfare shells, especially ones charged with VX nerve gas. He says that he received his information, of which he is 100 percent positive, from an Iraqi intelligence officer in early June. {London *Independent* 5 Jul, MBC Television 7 Jul in BBC-SWB 8 Jul, *Jane's Intelligence Review* — Pointer 1 Sep}

21 June The US Defense Department announces that an Iraqi weapons bunker blown up by US forces early in March 1991, shortly after the Gulf War ceasefire, is now believed to have

contained nerve-gas rockets. At least some of the nerve gas may therefore have been ejected, undestroyed, into the atmosphere. The bunker was one of many in Kamisayah ammunition storage area in southern Iraq. Iraq's subsequent declaration of Kamisayah as a chemical-weapons depot [see 18 Apr 91] had soon been verified by UNSCOM inspection [see 3 Nov 91], but, according to Department spokesman Kenneth Bacon, that particular destroyed bunker had not until recently been thought to have contained chemical weapons. Bacon goes on to tell the specially convened press briefing that the US troops nearest to the bunker when it was demolished were three miles distant. The Assistant Defense Secretary for Health Affairs, Dr Stephen Joseph, says that, according to preliminary inquiries, none of those troops — from the Army's 37th Engineer battalion — are among the veterans who have registered for the Comprehensive Clinical Evaluation Program of investigation into the so-called "Gulf War Syndrome" [see 2 Apr]. {Federal News Service transcript 21 Jun, *US News & World Report* 8 Jul}

24 June Libya has halted construction of its chemical-weapons factory at Tarhunah [see 31 May], so the *Washington Times* {24 Jun} reports, citing unidentified US intelligence and Defense Department officials. But a US State Department official is later quoted as saying that that was a difficult determination to make. {AFP 24 Jun}

24 June Ireland deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 54th signatory state to do so. The Dail had passed an enabling resolution on 13 June. {*Irish Times* 13 and 14 Jun}

25 June India, through its embassy in Washington, dismisses as "totally baseless" a recent press report that it is contravening the Chemical Weapons Convention by building a factory for the production of phosphorus pentasulphide at Qazvin in Iran [see 6 Aug 95]. The Minister for Press, Information and Culture at the embassy, Shiv Mukherjee, says that the chemical "is not listed in any of the three schedules of chemicals that are banned under the Chemical Weapons Convention". He also says: "All commercial deals are closely scrutinized by government to ensure that neither the intermediate nor the final product can be diverted to purposes other than those for which the plant is intended". {PTI 25 Jun}

The press report — a London *Sunday Telegraph* {23 Jun} article also carried by the *Washington Times* {23 Jun} — had said that work on the Qazvin factory was expected to begin later this year as a result of a deal between Melli Agrochemicals, described as an Iranian company specializing in pesticide production, and "a leading Bombay company" otherwise unidentified. The report in fact made no mention of the Chemical Weapons Convention, but it did say that phosphorus pentasulphide is on the Australia Group precursor control list and that the deal was therefore likely to incur strong condemnation from the United States. Minister Mukherjee says that the reference to the Australia Group "is meaningless legally as their policies have no basis in international law".

25 June In the UK, Labour Party leader Tony Blair launches his party's new foreign and defence policy paper, *A Fresh Start for Britain*. The paper states that "Labour in government will work for...the effective implementation of the Chemical Weapons Convention...[and] a strengthening of the Biological and Toxin Weapons Convention".

25 June The US Senate unanimously adopts an amendment to its FY 1997 Defense Authorization bill proposed by Senators Nunn, Lugar and Domenici in order to create a "layered defense" against the potential of nuclear, biological or chemical weapons in the hands of terrorists [see also 13 Mar]. This "Nunn-Lugar II" programme, which would add \$235 million to the FY97 authorization, has four main components: (a) measures to block any spread of NBC weapons from the former Soviet Union by enhancing some aspects of the original Nunn-Lugar programme; (b) measures to improve US ability to interdict transit of the weapons by strengthening the US Customs Service and by increasing penalties for proliferative crimes; (c) measures to improve responsiveness to NBC incidents on US soil through training, equipping and improving coördination among Federal, State and local officials; and (d) measures to improve the overall coördination of US government antiproliferation policies and programmes by creating a new high-level position within the Executive Office of the President. {FDCH Congressional Press Releases 26 and 27 Jun}

An identical bill is introduced into the House of Representatives by Congressmen Bill McCollum and John Spratt. {AP in Memphis *Commercial Appeal* 28 Jun}

25 June The US Senate unanimously adopts an amendment to its FY 1997 Defense Authorization bill proposed by Senator Robert Byrd which would provide \$10 million in medical research funds to investigate whether exposure to CW agents during the Gulf War could have caused the long-term illness affecting some veterans. The amendment would also authorize extra medical benefits for Gulf veterans' children born with birth defects unless chemical weapons can be excluded with "a reasonable degree of certainty" as a cause of the defects. {*Washington Times* 26 Jun}

25 June The US Senate Appropriations Committee reports out a \$244.7 billion FY 1997 Defense Appropriations bill, adding \$10.2 billion to the administration's request. It fully funds the Cooperative Threat Reduction (Nunn-Lugar) programme at the \$328 million requested [see 15 May]. It cuts the chemdemil account by \$41.4 million to \$758.4 million, but adds a \$40 million appropriation to fund a pilot alternative-technology programme for the chemdemil of weaponized CW agent, prohibiting construction of baseline incineration facilities at Lexington and Pueblo until this pilot programme has been completed. {FDCH Congressional Press Releases 25 Jun}

25 June In the US House of Representatives, the third in a series of hearings on *The Status of Efforts to Identify Persian Gulf War Syndrome* is held by the Subcommittee on Human Resources & Intergovernmental Relations of the Committee on Governmental Reform and Oversight [see 28 Mar]. The chairman, Congressman Christopher Shays, refers in his opening statement to the recent Defense Department disclosure about the possibility of US post-ceasefire demolition operations having released CW agent into the Gulf-War-theatre atmosphere [see 21 Jun] and says: "Perhaps now we will finally be able to admit that the chronic, debilitating ailments suffered by Gulf War veterans are in fact caused in part by low level exposure to the toxic mix of pernicious agents detected throughout the combat theater". He makes public a report dated 29 January 1996 in which a then staff member of the Presidential Advisory Committee on Gulf War Veterans' Illnesses, Jonathan Tucker, cited evidence that "strongly suggests" Coalition forces in the Gulf "were exposed to low levels" of CW agent. He says to one of the witnesses, Assistant Defense Secretary Stephen Joseph,

that "some people may not be alive today because we've been so slow". There are acrimonious exchanges. {Gannett 25 and 27 Jun, *US News & World Report* 8 Jul}

25-26 June In Kuala Lumpur, the Malaysian Deputy Foreign Minister, Datuk Dr Leo Michael Toyad, opens a two-day seminar on national implementation of the Chemical Weapons Convention. The seminar is attended by officials from several ministries, and is expected to facilitate Malaysian ratification of the treaty. {*New Straits Times* 26 Jun}

26 June In Germany, the toxicologist Karlheinz Lohs dies in his 67th year.

26 June The Council of the European Union defines and formally adopts a common position on preparing for the Fourth BWC Review Conference [see 9-12 Apr] {*EU Official Journal* 6 Jul}. Article 1 states that the objective of the common position "shall be to strengthen compliance with the international system of non-proliferation of bacteriological (biological) and toxin weapons by promoting the universality of the [BWC] and a successful conclusion of the negotiations aimed at reinforcing the [BWC] with a legally binding and effective verification regime". Subsequent articles set out courses of action to be taken by EU member-states and the EU presidency to further this objective. {BWC/AD HOC GROUP/WP.61} Several working papers by the EU collectively are subsequently readied for submission to the BWC Ad Hoc Group.

28 June In China, a ceremony takes place at Harbin in Heilongjiang province to mark the opening of a fund to preserve remnants of the facilities of the wartime Japanese BW organization, Unit 731. A Japanese nongovernmental group is donating some 10 million yen it has raised through street fund-raising campaigns and exhibitions. The Japanese group is joining with the Chinese province to form the fund. A member of the group, Eiji Yoshiki, says that the fund will also be used "to set up information centres [about Unit 731] in order to make them a place for peace studies". {*Kyodo* 24 Jun}

28 June The US Senate schedules action on the Chemical Weapons Convention [see 13 Jun]. It gives unanimous consent, at the request of Majority Leader Trent Lott, that he should, after consultation with the Democratic leader, "prior to September 14, 1996, proceed to executive session to consider Calendar No.12, the Chemical Weapons Convention, and that the treaty be advanced through its various parliamentary stages, up to and including the presentation of the resolution of ratification; that all reported conditions and declarations be deemed agreed to; that there be two additional amendments to the resolution of ratification, to be offered by the majority leader or his designee, dealing with the subject matter of the Chemical Weapons Convention to be limited to 1 hour each, to be equally divided in the usual form; that no further conditions, amendments, declarations or understandings be in order; and there be 10 hours additional time for debate, to be equally divided in the usual form; and following the conclusion or yielding back of time, the Senate proceed to the adoption of the resolution of ratification, all without further action or debate". Further, Senator Lott states "that if the resolution of ratification, with respect to the Chemical Weapons Convention, is agreed to, then I will do my best to schedule the implementation legislation, if it is available, no later than early 1997". {*Congressional Record* 28 Jun}

The *Weekly Standard* {9 Sep} later reports that Senator Lott's action had followed an assurance received from the Senate minority leadership that it would not block passage of the FY

1997 Defense Authorization bill if a vote on the Convention were to be scheduled before November. The conservative weekly also reports that, in order to accommodate Republican senators opposed to any such deal, notably Jesse Helms, Jon Kyl and Bob Smith, the Majority Leader had agreed to work to defeat the treaty and to press the White House for release of documents already requested by Senators Helms and Kyl that were said to indicate failings in the Convention and questionable Russian attitudes towards it.

Senator Lott had also been urged to take swift action on the Convention by the Chemical Manufacturers Association. CMA President Fred Webber had written to him on 24 June to warn that the US chemical industry's status "as the world's preferred supplier of chemical products" might be jeopardized if the US did not ratify, adding: "If the US does not act, we stand to lose hundreds of millions of dollars in overseas sales, putting at risk thousands of good-paying American jobs" [see also 13 Jun, US Senate].

28 June The US Senate adopts an amendment to its FY 1997 Defense Authorization bill proposed by Senators Wendell Ford and Hank Brown which would bar the Army from proceeding with its plans to build chemdemil incinerators in Pueblo, Colorado, and Richmond, Kentucky, until alternative methods of disposal for weaponized agent had been studied. To this end, \$60 million would be authorized for a pilot programme, which would have until 30 September 2000 to come up with a workable alternative. {*Congressional Record* 28 Jun at S7261, *Rocky Mountain News* 29 Jun} The Senate is due to vote shortly on its FY 1997 Defense Appropriations bill, which contains a somewhat similar provision proposed by the other Kentucky senator, Mitch McConnell [see 25 Jun, Senate Appropriations]. {*Courier-Journal* 21 Jun} In the House of Representatives on 10 July, Congressman Scotty Baesler introduces legislation comparable to Senator Ford's. {FDCH Congressional Press Releases 10 Jul}

President Clinton subsequently writes an approving letter to Senator Ford: "I am dedicated to ensuring that these weapons are destroyed as quickly and safely as possible. I am also committed to going the extra mile to explore whether there may be safer and more environmentally sound alternatives to the Army's baseline incineration system, even though the 1994 National Academy study concluded that the baseline system has been demonstrated as a safe and effective disposal process for the stockpile." The president's letter, dated 17 July, states that he is not opposed to incinerating the weapons, but adds: "I realize that technology is changing rapidly and that it is our responsibility to explore all alternative means of destruction". {*Arkansas Democrat-Gazette* 23 Jul}

1 July Australian Foreign Minister Alexander Downer tells reporters in Seoul that normalization of his country's relations with North Korea would require the latter to abandon its pursuit of nuclear and chemical weapons {*Radio Australia* 1 Jul in BBC-SWB 2 Jul}. It is later announced that unofficial private talks have recently taken place between Australians and North Koreans on the possibility of normalizing relations {*Yonhap* 8 Jul}.

1 July From Tokyo it is reported that a group of Chinese citizens is planning to bring a compensation suit against the Japanese government next Spring in respect of what is said to have been a biological-warfare attack by Japanese military planes during World War II against the Zhejiang-province village of Shangchongshan, as a consequence of which it will be alleged that 394 villagers — about 30 percent of the population — died of plague. The suit is to be filed by relatives of those who died.

They are being helped by the Japan-based 'Group to Clarify the History of the Japanese Military's Germ Warfare' [see also 28 Jun, China], which met in Tokyo two days previously to recruit supporters and decide a strategy. {*Mainichi Daily News* 1 Jul}

1 July In Oman, the Ministry of Foreign Affairs conducts a seminar on national implementation of the Chemical Weapons Convention, some 40 people participating. {*OPCW Synthesis* Jul}

1 July In Baghdad, an UNSCOM biological-weapons team led by Richard Spurtzel of the United States arrives for what is planned as an eight-day inspection mission. {*Xinhua* and *Reuter* 1 Jul}

1 July The OPCW Provisional Technical Secretariat in The Hague now has a staff of 118 people from 48 states working on fixed-term contracts [see also 1 Mar]. The recruitment process for OPCW inspectors has been finding replacements for the 14 people who have thus far withdrawn from the 159 candidates originally selected [see 17 Jan] for Training Group A. {*OPCW Synthesis* Jul}

1–5 July In Yaoundé, Cameroon, the Council of Ministers of the Organization of African Unity meets for its 64th ordinary session. There are statements by delegations on the Chemical Weapons Convention, on which the Council adopts a resolution that: "1. *Calls upon* those African states which have signed the Convention to ratify it; 2. *Also calls upon* the major producing States of chemical weapons in particular the two countries with the largest stockpile of those weapons which have not yet ratified the Convention to do so as early as possible in order to alleviate the difficulties faced by some countries in its implementation programmes; 3. *Urges* all developed countries to promote international cooperation through the transfer of technology, materials and equipment for peaceful purposes in the chemical field, as well as the withdrawal of discriminatory restrictions both national and multilateral contrary to the letter and spirit of the Convention." {OAU CM/Res 1661 (LXIV)}

Egyptian Foreign Minister Amr Musa later tells reporters that he had opposed a call on all OAU countries to sign the Convention, saying: "I explained the Egyptian position that the matter is too complicated for a simple call. There must be more detailed study of the issue." {*MENA* 9 Jul, *AFP* 10 Jul}

2 July In Moscow, acting Russian Defence Minister Mikhail Kolesnikov and First Deputy Defence Minister Andrey Kokoshin have recently been conducting a series of consultations on military reform with leaders of structural units within the Defence Ministry, General Staff and military academies, as well as with independent experts, so an unidentified "source in the military establishment" tells Interfax {2 Jul}. Several policy drafts have resulted. The source says that, in the projected reform, "increasing importance will be attached to electronic warfare, toxic weapons and nuclear deterrent forces".

4 July In Tajikistan, the Defence Ministry issues a statement characterizing as "absolutely far from reality" a report on 27 June that government forces had used a chemical weapon in the central district of Tavildara [see also 7 Jun]. The official statement describes the report as an attempt to disrupt the forthcoming peace talks in Ashkhabad. {*Tajik Radio* 4 Jul in BBC-SWB 5 Jul}

4 July The Executive Secretary of the OPCW Preparatory Commission, anticipating that the trigger point for entry into force of the Chemical Weapons Convention will happen be-

tween the imminent 14th session of the Commission and the subsequent 15th session, issues a note {PC-XIV/5} asking member states to prepare themselves to take certain key administrative decisions during the 14th session. One such decision concerns the start-up of inspector training, for, without a firm date, the continuing uncertainty will push the selected trainees towards other employment [see 1 Jul]. So the Executive Secretary asks for authority to begin Training Group A no later than 2 September regardless of the specific date of the trigger point, or, if that is not acceptable, on 13 January 1997.

The note also describes the intentions of the Executive Secretary in regard to certain aspects of recruitment on which the Commission has delegated responsibility to him. Here he is obliged to implement the provision of the Convention which disallows employment in its structures to nationals of non-parties, a provision which applies equally to trainee inspectors, to other Secretariat staff recruited during Phase II (the six months prior to entry into force) and to existing Secretariat staff. For the last of these, he proposes the following: "The Executive Secretary would retain current PTS staff members who were nationals of non ratifying States until the dissolution of the Commission. If the Member State in question had not ratified by that time, the Executive Secretary would only then advertise the corresponding TS posts. Any such posts would therefore remain vacant until a replacement was recruited after EIF. Duties of any such PTS staff during Phase II would remain unaffected by their status. After EIF, such staff members would not have access to confidential information. Any duties, pending the termination of their contracts, would be commensurate with their special status. Staff members from Member States that ratified before their contracts had been formally terminated would be retained."

5 July The UN Security Council conducts its 32nd 60-day review of the sanctions imposed on Iraq [see 6 May], leaving them in place. {Reuter 5 Jul}

7-12 July In Switzerland the second international *Chemical and Biological Medical Treatment Symposium* takes place in Spiez, at the NC Laboratory, whose director, Dr Bernhard Brunner, opens the proceedings. There are 86 participants from 26 countries, and 101 papers. *ASA Newsletter* {15 Aug} reports, as follows, the part of a presentation by the Symposium Chair, Dr Brian Davey of the OPCW/PTS, which identified the main discussion themes and the topics that generated prominent interest: "(a) Medical lessons from the Iran/Iraq conflict, especially the long term study and follow up opportunities provided by the many patients being monitored by Iranian physicians. (b) Revelations on intermediate volatility agents, and medical countermeasures against them. (c) Interest in previously shielded medical expertise, including fascinating 'non-classical' approaches. Prominent here were the intriguing talks by Chinese experts. (d) Continued debate on the true role of oximes, with special attention to non-reactivation mechanisms, and the role of HI6. (e) The emerging field of 'disarmament medicine'. (f) The lack of genuine prophylaxis, and the need for new directions of research (particularly generic rather than specific countermeasures)."

8 July Russian Prime Minister Viktor Chernomyrdin writes to US Vice-President Albert Gore (with the next session of their joint commission [see 30 Jun 95] now imminent) to say that the amount of technical and financial assistance received by Russia would determine how long the thus far "unpardonably" slow destruction of Russian chemical weapons [see 10 May, US in-

telligence] would take to complete, so the *Washington Post* {9 Aug} reports a month later. The letter, according to the *Post* also says that the 1990 Bilateral Destruction Agreement has now "objectively accomplished...[its] useful role". The *Post* states that it received a copy of the letter, subsequently authenticated by US officials, from "a Senate source opposed to ratifying" the CWC.

8 July Moldova deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 55th signatory state to do so.

8 July The International Court of Justice in The Hague delivers its advisory opinion on whether the threat or use of nuclear weapons is "in any circumstance permitted under international law" as requested by the UN General Assembly [see 30 Oct 95]. It rules that "the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law". But the ruling goes on to say that the court "cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a state would be at stake". The court dismisses the request by the World Health Organization for an opinion on whether the health and environmental effects of nuclear weapons would make them illegal. {London *Guardian* and *Financial Times* 9 Jul}

8 July At the US Air Force White Sands Missile Range in New Mexico, a simulated underground chemical-weapons facility is being built, which, together with the simulated biological-weapons facility modelled on Salman Pak in Iraq that has already been constructed there, are to serve as targets in the Defense Department's counterproliferation Advanced Concept and Technology Demonstration programme [see 30 Sep 95 and 10 Jan], so *Defense News* {8 Jul} reports.

9 July President Clinton's Advisory Committee on Gulf War Veterans' Illnesses [see 17, 21 and 25 Jun] meets in Chicago. The head of the Defense Department team investigating Gulf War illness, Dr Edward Koenigsberg [see 1 May], tells the committee about the Khamisiyah bunker-demolition episode in March 1991 [see 21 Jun], indicating that it could conceivably have discharged up to 8.5 tonnes of sarin into the atmosphere. He says that his department was now contacting people who had at the time been in the vicinity up to some tens of kilometres downwind of the demolition: some 1100 people from the 82nd Airborne, as well as the 37th Engineers battalion. {Long Island *Newsday* 20 Aug} The committee also receives a briefing from the CIA in which revised computer-model estimates are presented of downwind transport of nerve gas from Iraqi facilities bombed during the Gulf War [see 16 Apr]. According to the briefing, less than five percent of Iraq's approximately 700 agent-tonne holdings of chemical weapons were eliminated through the Coalition air offensive, the best evidence being that only two Iraqi sites containing chemical munitions were destroyed. One was at Muhammadiyat, whence an estimated 2.9 tonnes of sarin nerve gas could have been ejected into the atmosphere following attacks in January 1991. The other was further north, at al-Muthanna, where the air-raid of 8 February 1991 could have ejected 16.8 tonnes of sarin. In neither case have the computer simulations shown significant sarin dosages coming at all close to the nearest US troops. {Long Island *Newsday* 7 Aug, Federal News Service transcript 8 Aug}

9 July In the United States, where the chemical supply house Sigma Chemical Company of St Louis, Missouri, has been under investigation by the Department of Commerce for exporting toxins without the requisite licences, a settlement has been reached whereby the company has agreed to pay a fine of \$480,000. Department investigators had found that, between July 1992 and January 1993, the company had exported five toxins, including tetrodotoxin and staphylococcal toxin, to 17 countries in 48 unlicensed shipments. The company had said that it was unaware of the export-licensing requirement. {*St Louis Post-Dispatch* 9 and 11 Jul}

10 July The US Senate passes its FY 1997 Defense Authorization bill, which now goes to conference for reconciliation with the House bill. {Reuter 10 Jul}

10 July US companies having to submit data-declarations under the CWC are expected to number about 3000 says the director of the Office of Chemical/Biological Controls and Treaty Compliance in the Department of Commerce, Steven Goldman, at a conference organized by the department. He tells the conference that the Senate will probably agree to ratification of the treaty this autumn enabling completion of the ratification process by the end of September, whereupon the president is expected to issue an executive order directing the Commerce Department's Bureau of Export Administration to play the lead role in ensuring US compliance. {*BNA International Trade Reporter* 17 Jul}

10 July In Denver, Colorado, a national conference on chemical-weapons stockpile-destruction environmental issues is hosted by the Office of the Secretary of Defense and the Department of the Army. The conference is intended to bring together local citizens' groups and senior officials in federal, regional and state environmental agencies, and to provide a forum for addressing site-specific issues arising from the chemdemil programme. {Department of Defense news release 10 Jul}

11 July Belarus deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention [see 13 Feb 95], becoming the 56th signatory state to do so.

11 July The US Defense Advanced Research Projects Agency announces in *Commerce Business Daily* that it is "soliciting proposals for the development and demonstration of advanced pathogen countermeasures, which will be a key component of DARPA's overarching goal to remove the threat of biological weapons as a factor in the planning and conduct of US military operations" [see 30 Aug 95]. Pre-proposals for this \$30 million, 3-year effort are due in by 16 August. {*Microbe-Virus-Vector Monitor* Aug}

11–12 July In Vienna, representatives of states participating in the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies resume their inaugural plenary session [see 2–3 Apr]. Their number has now grown to 33 through the addition of Bulgaria and Ukraine. Russia drops its objection to the notification procedure, and the embryonic 'arrangement' set out in a document entitled *Initial Elements* is now formally launched. There are two principal elements, one relating to dual-use goods and technologies, the other to conventional weapons. A target date of 1 November 1996 has been set for implementation of the new control lists. The plenary is unable to reach agreement on whether the German or the US candidate should be chosen to head the secretariat now being established in Vienna. {*Interna-*

tional Herald Tribune 13–14 Jul, London *Hansard (Commons)* written answers 23 Jul, *IJSS Strategic Comments* Aug}

12 July Kazakhstan and the United States sign a memorandum of coöperation whereby US defence technology will be used to search for mineral reserves in Kazakhstan and to assist in the clean-up of nuclear and biological weapons [see 14 Mar 92, 19 Mar 94 and 13 Nov 95] sites there. {Reuter 12 Jul, *Business Wire* 16 Jul}

12 July The US Commerce Department's Technical Advisory Committee on Regulations and Procedures learns from the Assistant Secretary of Commerce for Export Administration, Sue Eckert, that the administration is thinking of abandoning its 'catch-all' export control regulation — whereby an exporter who "knows or has reason to know" that a particular export order will be used in CBW weapons is required to obtain a validated export licence for the goods — in favour of a short positive list of prohibited items. Such a relaxation of antiproliferation controls is reportedly being opposed by the State Department, but committee chairman Richard Seppa of Tektronix Inc notes in a draft document that the EU has not actually implemented the catch-all export regulation which it published in July 1995 [see 1 Mar 95], and that Japan is moving to narrow the catch-all provisions in current Japanese law [see 15 Dec 95]. {*BNA International Trade Daily* 22 Jul}

12 July Chile deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 57th signatory state to do so.

15 July New Zealand deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention [see 18 Jun], becoming the 58th signatory state to do so.

15–16 July In Moscow, the Intergovernmental Russian-US Commission for Economic and Technological Cooperation co-chaired by Russian Prime Minister Viktor Chernomyrdin and US Vice-President Albert Gore [see 8 Jul] reconvenes for another of its twice-yearly sessions. The agenda of this seventh session of the Commission, which now has ten working-groups and committees, includes the issue of converting former Soviet production facilities for chemical and biological weapons. {*Boston Globe* 16 Jul}

On the morning of the second day, a senior Russian governmental official, Valeriy Mikhaylov, tells reporters that the Commission has decided to draft an agreement on Russian-US coöperation in the destruction of chemical weapons: Russian and US specialists are to consider bilateral collaboration in building a chemdemil facility for CW agents "of the first and second generation on the basis of Russian technologies" [see also 21 May]. He says that the project will cost up to \$100 million, and that the United States may partly finance it. {*Interfax* 16 Jul}

At the closing press conference, Prime Minister Chernomyrdin confirms the existence of such a project, saying that "we are building a very important facility together". He refers to "problems" but nevertheless says that the project will be implemented. He also says: "There is a large-scale [joint] program covering both chemical and biological weapons". Vice-President Gore, responding to a set of questions of which the last (and apparently the one he is actually answering) asks about the amount of funding that the US would be providing to Russia to destroy chemical weapons, says: "It's an immensely complicated area and it is difficult to answer it only because so much of this is in the classified area, but let me respond by saying we had lengthy discussions about this issue during our pri-

vate one-on-one meetings and we made a considerable amount of progress. Some misunderstandings were dispelled on both sides and a new channel was opened up to deal with this question on an intensive basis and I for one am very optimistic that the new arrangements we agreed to will result in significantly more progress in the near future. I think that we now have a manner for proceeding that will produce an end to disagreements that have characterized our past relationship between the two countries on this issue". {Official Kremlin International News Broadcast 16 Jul}

15–22 July In Iraq, an UNSCOM inspection team led by Nikita Smidovich of Russia seeks once again [see 10–16 Jun] to conduct unannounced spot checks in a search for weaponry and documents, including CW and BW items, possibly concealed by Iraqi authorities. There are 34 people in the team, UNSCOM 155, from Australia, Britain, Canada, France, Germany, the Netherlands, Russia and the United States. The team gains access to a site deemed sensitive by Iraq, but is blocked on its way to a second site. The UN Security Council then issues a statement through its president expressing disappointment at Iraq's refusal to cooperate with the inspectors, despite the UNSCOM-Iraq agreements a month previously [see 19–22 Jun]. Nevertheless, access to the site continues to be blocked, and, after nearly three days of this obstruction, UNSCOM terminates the mission, launching instead a special mission, in which some members of the team are involved, to probe the concealment methods it believes Iraq to be using. These inspectors are finally given access to the blocked site five days after it had originally been sought. {Reuter and AFP 17 Jul, Reuter 19 Jul, AFP in *International Herald Tribune* 20–21 Jul, AFP and Reuter 22 Jul} The UN does not disclose the nature of the site, but Iraqi dissidents later describe it as one of the President's numerous palaces {AP in London *Independent* 25 Jul}.

15–26 July The BWC Ad Hoc Group reconvenes [see 27 Nov–8 Dec 95] in Geneva for its fourth session and holds 20 meetings under the continuing chairmanship of Ambassador Tibor Tóth of Hungary. Participating are 51 states parties — Argentina, Australia, Austria, Bangladesh, Belgium, Brazil, Bulgaria, Canada, Chile, China, Colombia, Cuba, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, India, Indonesia, Iran, Iraq, Ireland, Italy, Japan, Mexico, Mongolia, Netherlands, New Zealand, Nigeria, Norway, Pakistan, Peru, Poland, Portugal, Romania, Russia, Sierra Leone, Slovakia, South Africa, South Korea, Spain, Sri Lanka, Sweden, Switzerland, Thailand, Turkey, Ukraine, UK and USA — and two signatory states, Morocco and Syria. The four Friends of the Chair continue to promote consultations and negotiation: Dr Ali Mohammadi of Iran (on definitions of terms and objective criteria), Ambassador Tóth (on confidence-building and transparency measures), Stephen Pattison of the UK (on measures to promote compliance) and Ambassador Berguño of Chile (on measures related to Article X). The results are reflected in papers by each of the four Friends of the Chair that are appended, without prejudice, to the session's agreed report {BWC/AD HOC GROUP/31}

Of the 38 working papers submitted for the session, several report new data. In particular, three describe recent practice inspections — by Canada {BWC/AD HOC GROUP/WP.60} reporting a practice non-challenge visit conducted at Defence Research Establishment Suffield; by Australia {BWC/AD HOC GROUP/WP.77} reporting a trial inspection conducted at facilities of a biotechnology company; and by Brazil and the UK {BWC/AD HOC GROUP/WP.76} reporting a joint practice non-

challenge visit to a vaccine-production facility in São Paulo. Another of the working papers presents findings from a survey of microbiological facilities, in the UK {BWC/AD HOC GROUP/WP.81}

16 July In South Korea, the National Assembly hears from Foreign Minister Kong No-myong that, to have North Korea join the Chemical Weapons Convention, South Korea should first ratify it. In this matter, he says, the government is maintaining close cooperation with the US government [see 10–11 Jun]. {Yonhap 16 Jul}

16 July A Tokyo court sentences former Aum Shinrikyo cultist Kozo Fujinaga to a 10-year prison sentence for his part in the June 1994 nerve-gas attack in Matsumoto [see 28 Jun 94]. It is the most severe ruling thus far in the series of Aum trials. Fujinaga had produced equipment for spraying the sarin that was used. {Reuter 16 Jul}

16 July The US House of Representatives passes legislation enhancing benefits for certain categories of war veteran. Among them are veterans of the Vietnam War who are suffering long-term effects of exposure to Agent Orange. {AP 16 Jul} The Veterans' Affairs Committee had reported on this particular bill, HR 3643, on 27 June {House report 104-648}.

17 July In Geneva, at the Palais des Nations to coincide with the fourth session of the BWC Ad Hoc Group [see 15–26 Jul], the Special NGO Committee on Disarmament and the Federation of American Scientists sponsor a forum on *Triggers for Declarations and Inspections/Visits in a BWC Compliance Regime* and on *Incorporation of Export Controls in the Regime*. The forum is chaired by Colonel Dr Volker Beck of the German Defence Ministry. The FAS presents proposals on both topics.

17 July In the United States, the private bipartisan Commission on America's National Interests issues a report in which it ranks into categories of relative importance the conditions that are widely regarded as US national interests. The six-month study has been directed jointly from the RAND Corporation, the Nixon Center for Peace and Freedom, and the Harvard University Center for Science and International Affairs, the commission members including Senators McCain and Nunn. Of the "five cardinal challenges for the next U.S. president" identified in the report, one is "to prevent loss of control of nuclear weapons and nuclear weapons-usable materials, and to contain biological and chemical weapons proliferation". Further, the report concludes that "the highest aim of U.S. national security policy should be to prevent nuclear or biological weapons attacks against American cities and civilians" — here placing chemical weapons in a somewhat lower category of concern, in that, unlike their nuclear or biological counterparts, they "would not destroy a society or city". {AFP 15 Jul, *St Louis Post-Dispatch* 22 Aug}

18 July In the UK, some 20,000 pages of written evidence taken by the independent judicial inquiry into the export of defence equipment and dual-use goods to Iraq under Lord Justice Scott [see 15 Feb] are published, in CD-Rom format. {London *Independent* 18 Jul}

18 July The British firm Graseby plc has been chosen by the US Defense Department to supply its GID-3 portable system for the next phase of the Automatic Chemical Agent Detection and Alarm (ACADA) project for which the department has been evaluating some one hundred proposals over the past two years. The XM22 ACADA is to replace the old M43 chemical

agent detector. Graseby had in the end been competing for the contract, which could become worth about \$50 million if the GID-3 proceeds to type-classification for ACADA, against the Finnish firm Enviroics Oy {*Defense News* 19–25 Aug} and the US firm ETG [see 8 Apr]. {AFP and PA 18 Jul, *Jane's Defence Weekly* 14 Aug, *Extel Examiner* 20 Aug}

18 July The US Senate passes its FY 1997 Defense Department Appropriations bill, which now goes to conference for reconciliation with the House bill. An amendment offered by Senator Nunn and accepted unanimously the day previously would appropriate \$150 million to enable the Defense Department to begin coordinating a home-front defence against nuclear or CBW weapons deployed by terrorists against targets in the US [see also 25 Jun]. {*Washington Post* 18 Jul} Like the corresponding FY97 Defense Authorization legislation [see 10 Jul], both the Senate and the House appropriations bills add more than \$10 billion more than President Clinton had requested. {*Reuter* 18 Jul}

20 July In Bosnia-Herzegovina, civil-defence authorities in the Republika Srpska town of Doboj state that NATO planes have been dropping large quantities of chemicals hazardous for the population and the environment. Their statement says that, after several recent overflights, citizens had sought help in Doboj emergency medical institutions complaining about heavy breathing, throat tickling, headaches, vomiting, cough and fatigue. It also says that many pigs, calves and other domestic animals had died, and that other negative effects had been registered on fruit trees, crops and in forests. Some days previously a similar report had been denied by the I-FOR command in Doboj. {*Tanjug* 20 Jul}

22 July In Chechnya, Russian federal forces fighting separatists use artillery shells filled with chemicals, according to Chechen press minister Movladi Udugov speaking on Moscow Echo radio [see also 11 Aug 95 and 18 Mar]. He says: "After the shells exploded, an unidentified substance came over the trenches occupied by the Chechen volunteer fighters, literally in lumps. Three fighters died in agony and convulsions in front of a dozen other fighters, literally within 15 to 20 minutes. The corpses have been taken to Itum-Kale... An attempt will be made there to somehow document this case so that, at a later date, charges can be brought against the Russian side." {*Ekho Moskvyy* radio 22 Jul in BBC-SWB 24 Jul}

Next day, the deputy chief of Russian RKhB Protection Troops, Major General Vladimir Orlov, dismisses the allegation: "I am repeating this once again and I can testify to this at any level, that the Russian forces have not used and are not using chemical weapons in Chechnya. We are now preparing for their elimination and there is not a single person in the country who could have issued an order on the delivery to the North Caucasus of even a small consignment of shells or mines, never mind issuing an order on their use in combat." He suggests that the allegation has been inspired by the fact that the 14th session of the OPCW Preparatory Commission has just begun, meaning that international opinion is sensitized to the subject. {TASS 23 Jul} The allegation is also denied by Vladimir Shamanov, commander of Russian Defence Ministry forces in Chechnya. {*Radio Russia* 24 Jul in BBC-SWB 25 Jul}

22 July For Russia to destroy its chemical weapons, it will require about \$5 billion in foreign aid, so the deputy chairman of the State Duma Committee for Defence, General Nikolay Bezborodov, tells reporters. He also says that the Russian chemdemil programme will not commence until the "material,

legislative and other preconditions" for its implementation are in place. The chair of the State Duma Committee for Ecology, Tamara Zlotnikova, says that foreign aid will be needed if the Russian chemdemil programme is not to harm the environment. She adds: "If the world community is vitally interested in the soonest discharge of Russia's enormous chemical weapons supplies, it must provide our country with significant monetary aid". {TASS and Moscow RIA 22 Jul}

22 July The Russian Federation reaffirms to the OPCW Preparatory Commission its commitment to the Chemical Weapons Convention and its intention to be among the first 65 states to ratify it. Its representative tells the 14th plenary session of the Commission that the preparation of the procedural documents needed to submit the Convention to the Federal Assembly for ratification is now being completed. Later, however, he says: "The bringing into force of the Convention without Russia, and here we would like to be absolutely frank, could hamper its ratification in our country".

The representative of Russia also has this to say: "Our assessment of the cooperation between Russia and the United States on the basis of bilateral agreements in the field [of] chemical weapons prohibition is a positive one. The Wyoming Memorandum made it possible to increase mutual openness in relation to military chemical potentials and to gain experience in applying the procedures of respective verification. Our bilateral agreements, drawn up even before the Convention became possible, have objectively fulfilled their useful role [see also 8 Jul]. The experience in implementing the Wyoming Memorandum and the unfinished negotiations on 1990 bilateral agreement with the United States [see 7 May, USACDA] led us to the conclusion that in the context of the Convention, only a multilateral mechanism can amply provide an adequate scope for the obligations on chemical disarmament and the required level of confidence in their implementation." {PC-XIV/16}

22 July Ukraine informs the OPCW Preparatory Commission of the problem it faces in ascertaining whether chemical weapons have or have not been buried on its territory in the past. Its representative speaks as follows before the 14th plenary session of the Commission: "Information recently obtained in this matter adds more troubles and does not enable us to look forward with optimism, because dumped or buried chemical weapons every day draw us nearer to eventual ecological disaster. According to preliminary assessments by national experts, implementation of chemical-weapons search and elimination programme will require approximately US \$10 million. It is quite obvious that, without assistance in providing us with additional information, Ukraine will not be able to ratify timely the CWC in spite of our wish to proceed in this matter, and we call all [Preparatory Commission member states] promote in every way possible to find solution of this problem, which may tomorrow be the problem of some other states."

22 July The European Union informs the OPCW Preparatory Commission that its member states "are committed to adherence [to the CWC] by all fifteen before entry into force". The representative of the current EU presidency, Ireland, also speaks as follows to the 14th plenary session of the Commission on behalf of the EU: "In its approach to the Commission's work the European Union will continue to prepare for the Convention's entry into force and implementation by those States Parties that have ratified at the end of the period of 180 days after the trigger point. We expect no less than that the declared Possessor States and other states having significant

chemical industries will be parties to the Convention at that date.... The Central and Eastern Europe countries associated with the European Union associate themselves with this statement.” {PC-XIV/11}

22 July The UK Defence Ministry’s Defense Evaluation and Research Agency states that, during 1995, a total of 8700 animal studies had been carried out at Porton Down and that for earlier years [see also 15 Feb 95] the corresponding figures were 7400 (1994), 6700 (1993), 4500 (1992) and 6100 (1991). To explain the recent increase, DERA says that as a “result of the increasing potential biological warfare threat it has been recognised that the UK’s biological defence capability must be strengthened”.

22–27 July In The Hague, the OPCW Preparatory Commission reconvenes [see 18–22 Mar] for its 14th session. Representatives of 88 of the 160 member states participate. [For further details, see *Progress in The Hague* above.]

22 July–2 August A US federal district court in Salt Lake City, Utah, hears motions in the lawsuit to block start-up of the Tooele chemdemil incinerator [see 15 May]. There are two such motions: one by the defendant (the Department of the Army) to dismiss most of the 10 counts charged in the original complaint by Chemical Weapons Working Group and others [see 10 May]; and another by the plaintiff, for preliminary injunction of any incineration at the site [see 12 Jun]. {BNA *Chemical Regulation Daily* 23 Jul, *Salt Lake Tribune* 23 and 24 Jul}

23 July In Jakarta, ASEAN member-states in ministerial session conduct their third Regional Forum under the chairmanship of the Foreign Minister of Indonesia, Ali Alatas. The chairman’s final statement notes *inter alia* that the assembled ASEAN ministers endorsed proposals contained reports from the Inter-Sessional Support Group on Confidence Building Measures including “encouraging the participants to support actively” both the Chemical and the Biological Weapons Convention. {BBC-SWB 25 Jul}

23 July Chinese Foreign Minister Qian Qichen and Japanese Foreign Minister Yukihiko Ikeda, meeting in Jakarta, in the margins of the ASEAN Regional Forum on security, agree to hold intergovernmental consultations this coming autumn on the disposal of chemical weapons abandoned in China by the Japanese Imperial Army [see 12 Jun]. {Kyodo 23 Jul}

23 July Latvia deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 59th signatory state to do so.

23 July Uzbekistan deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 60th signatory state to do so.

23–24 July In Washington a conference on *The Destruction of Chemical Weapons: US and Russian Program, Policy and Technical Options* brings together state regulators and both Russian and US military and other chemdemil experts, as well as people from nongovernmental organizations such as the Chemical Weapons Working Group, some 200 people in all [see also 10 Jul, Denver]. The conference is sponsored by Global Green USA, which is the US affiliate of Green Cross International [see also 14–16 May Izhevsk]. The proceedings are to be published.

Colonel Yevgeni Konovalov of the Russian Defence Ministry, in a presentation about current Russian work on destruction of chemical weapons, refers to the Russian–American Joint

Evaluation Program on the Russian two-stage nerve-agent destruction processes [see 12–21 Feb] and says that its favourable assessment of the Russian technology has been endorsed by the RAJEP Peer Review Committee.

24 July China informs the 14th session of the OPCW Preparatory Commission [see 22–27 Jul] that it “is going to further step up its efforts for the early deliberation and ratification of the [Chemical Weapons Convention] by its legislative body, the Standing Committee of the National People’s Congress”.

Its representative speaks also about the fourth on-site investigation which Japan, with the full coöperation of China, had recently made of burial sites of chemical weapons abandoned by Japan in China during World War II [see 23 Jul]. He expresses Chinese dissatisfaction with the findings of the investigation [see 14 May–3 Jun], describing the data obtained on the quantity of abandoned weapons as “neither complete nor accurate”, and the results of the environmental analyses as not conforming with reality. He continues: “We insist that when the Japanese side submits to the Secretariat of the Preparatory Commission relevant information acquired in the investigations or makes public the findings of the investigations, it should exercise prudence and respect the facts so as not to cause any misunderstanding or damage to the coöperation of both parties.” {Xinhua 24 Jul}

26 July In The Hague, the OPCW Provisional Technical Secretariat convenes a workshop on *Legal Aspects of Breaches of Confidentiality* {PC-XIV/B/4}. The OPCW Preparatory Commission Legal Adviser, Dr Félix Calderón, opens and moderates the proceedings. The panel of speakers comprises Professor Henry Schermers of Leiden University, Peter Mason from the USACDA General Counsel’s Office, and Laura Rockwood from the IAEA.

27 July In Libya, mustard gas has recently been used during the “bombardment of various areas in Jabal al-Akhdar...in a bid to smash the growing resistance of the Libyan people’s sons who have taken up arms and stationed themselves in these mountain areas”, according to a statement issued by the Libyan Movement for Change and Reform published in the London newspaper *Al-Hayat* {28 Jul}. The statement says that “Serb ground and air force troops” were involved in the attack.

Similar allegations are made a month later in a statement from London by Mohammad al-Hassan al-Rida al-Senussi, nephew of the deposed King of Libya, Idris al-Senussi. The statement says that mustard and nerve gases had recently been dropped from aircraft on government opponents who had taken refuge in the Green Mountain area in eastern Libya. The statement says that the pilots of the aircraft “were not Libyans but Cubans, Serbs and North Koreans”. {AFP 31 Aug}

27 July In The Hague, the OPCW Provisional Technical Secretariat convenes a workshop for National Authorities {PC-XIV/B/3}. It has three sessions. The first, on experiences gained by nascent CWC National Authorities, has presentations from Japan, Poland, Sweden and Brazil. The second session, on outreach programmes at the national level, has presentations from Australia, Switzerland and the UK, and also from the Secretariat and the Harvard Sussex Program. The third session, on the training of National Authority personnel, has presentations from Argentina and the Secretariat.

30 July In Paris, a ministerial meeting of Russia and the G7 countries adopts a 25-point plan for international coöperation in combatting terrorism. The plan includes improved exchanges

of intelligence, coordinated airline security measures and curbs on terrorist fund-raising. US calls for sanctions against countries that harbour or finance terrorists are not reflected in the plan, French Foreign Minister Hervé de Charette describing the US supporting analysis as “a bit simplistic and a bit outdated”. Among other measures included in the plan are a proposal that an international treaty be drafted which would require countries to put suspected terrorist bombers on trial or to extradite them, and a proposal to make it a crime for individuals to possess biological weapons. {London *Daily Telegraph* and *Independent* 31 Jul} The latter proposal is expressed in the plan as follows: “We recommend to States Parties to the Biological Weapons Convention to confirm at the forthcoming Review Conference their commitment to ensure, through the adoption of national measures, the effective fulfillment of their obligations under the convention to take any necessary measures to prohibit and prevent the development, production, stockpiling, acquisition or retention of such weapons within their territory, under their jurisdiction or under their control anywhere, in order, inter alia, to exclude use of those weapons for terrorist purposes”.

30 July In the US Congress, the joint explanatory statement of the House-Senate committee of conference about its report on the FY 1997 Defense Authorization legislation [see 10 and 18 Jul] includes the following: “The conferees support the ratification and full implementation by all parties of the Chemical Weapons Convention (CWC), as negotiated. However, the conferees remain concerned that Russia continues to engage in chemical weapons activities inconsistent with the accord. In addition, Iran, a signatory to the Convention, has been characterized by one US official as having ‘the most active chemical weapons program’ in the Third World. Further, a number of states that possess active chemical weapons programs, such as Libya, are not signatories to the accord. For example, the Secretary of Defense and the Director of Central Intelligence have confirmed that Libya is engaged in the construction of an underground chemical weapons facility carved into the mountain near Tarhunah [see 24 Jun]. This extensive project demonstrates the Libyan commitment to the acquisition of a significant chemical weapons capability and raises questions about the ability of arms control agreements like the CWC to restrain the rogue regimes from acquiring these types of weapons of terror.”

1 August North Korean production of chemical weapons [see 22 Mar 95, 9 Feb and 18 Mar] is the subject of a long article “based on recently available material and interviews with defectors” in *Jane’s Intelligence Review* {Aug}. The article is by Joseph Bermudez and, as an open publication, it is uniquely detailed. Also, it adopts an unusually academic attitude towards its source materials, indicating where these are supported by other sources or where they must be viewed critically until further evidence becomes available. The article describes the North Korean infrastructure for chemical-weapons acquisition, cautioning, however, that, although the description “suggests a very clear link between doctrine, requirements and production, with distinct lines of communication and chains of command, this is probably not the case”. On current capabilities in being, the article says: “At present, it is extremely difficult to arrive at accurate estimates of annual DPRK chemical-agent production or CW stockpiles. There are two basic arguments. One view suggests low levels while the other takes the opposite tack. Both, however, generally agree that the DPRK’s potential for chemical-agent production is significant.” The article then describes the two views and concludes: “Taking into account all

the arguments, current unclassified estimates suggest an annual production potential of 4,500 tons in peacetime and 12,000 tons in wartime (although it is unclear whether this is weapons or agent tons). Concerning CW stockpile levels, it was believed in 1989 that the KPA had stockpiled ‘180–250 tons of chemical weapons of several kinds’. Current estimates suggest the KPA has now stockpiled 1,000–5,000 tons of CW: the majority of these weapons are believed to be filled with mustard, phosgene, sarin and V-agents.”

1 August In Geneva, at the Conference on Disarmament in plenary session, the head of the Iranian delegation, Ambassador Nasser, states that the Chemical Weapons Convention “is at serious risk of turning into a chemical weapons non-proliferation treaty” because the two major players “are still staying on the sidelines playing only the role of cheerleaders” {CD/PV.743}. He submits as a CD working paper {CD/1414} the Iranian paper (PC-XIV/12) for the recent plenary session of the OPCW Preparatory Commission, *The consequences of an entry into force of the Chemical Weapons Convention without the United States of America and the Russian Federation*, which had proposed a special high-level conference to examine, among other things, “issues related to preparations and implementation under various scenarios”.

5 August President Clinton, during what has been billed as a major foreign-policy address at George Washington University, urges the US Senate to advise and consent to US ratification of the Chemical Weapons Convention, noting that the treaty requires elimination of stockpiled chemical weapons that could otherwise become available to terrorists. {DPA 5 Aug}

6 August President Clinton’s Advisory Committee on Gulf War Veterans’ Illnesses [see 9 Jul], meeting in Denver, hears testimony from more than a dozen Gulf veterans. The committee is told by the Defense Department’s Persian Gulf Veterans’ Illness Investigation Team that there is still no “positive evidence” that US forces were exposed to CW agents during the war. {*Denver Post* and *Rocky Mountain News* 7 Aug} A paper which the team has just posted on the Internet (at the GulfLink website [see 9 Feb]), *Coalition Chemical Detections and Health of Coalition Troops in Detection Area*, reviews information on the seven reported in-theatre detections of CW agents by Czechoslovak and French units, all of them during the period 19–25 January 1991 [see 1 May]. It describes two of the detections as “credible”; the other five it says were “not as thoroughly substantiated” but “cannot be discounted”. The paper notes that there were no impacts of Scud missiles in the area until after the period of the detections. {*New York Times* 22 Aug, Federal News Service transcript 22 Aug} [See also 4 Jun, UK]

7 August In Iraq, 15 Sukhoi-24 fighter-bombers stationed at Al-Bakr airbase northeast of Baghdad had been loaded with chemical weapons on 15 January 1991 but then downloaded on the following day [see also 8 Aug 90], so a former head of the official Iraqi news-agency INA now living in Jordan, Saad al-Bazzaz, has written in his *Modern History of Iraq*, excerpted today in *Al-Hayat*. {AFP 7 Aug}

7 August The US Arms Control & Disarmament Agency releases the administration’s latest annual report to Congress on arms control treaty compliance [see 13 Jul 95]. The report says that “it is highly probable that Syria is developing an offensive biological warfare capability”, and that it “remains likely that the Egyptian capability to conduct biological warfare continues to exist”. Iranian, Iraqi and Libyan biological-weapons pro-

grammes are noted. The report also says that China “remains noncompliant” with the Biological Weapons Convention, and that Russian biological research facilities engaged in legitimate work “may be maintaining the capability to produce biological warfare agents”. Russian compliance with the 1989 Wyoming Memorandum of Understanding on chemical weapons is again said [see 13 Dec 95] to be incomplete, and the “incomplete and misleading” Russian declaration of 1992 under the BWC confidence-building measures [see 31 Aug 92] still remains uncorrected. {*Washington Times* 8 Aug, *Jane's Defence Weekly* 21 Aug}

7 August USACDA Director John Holum addresses the anti-terrorism benefits of the Chemical Weapons Convention in his opening remarks at a news conference [see also 5 Aug]. He also tells reporters that there are “several offices on the Hill that are engaged in a vigorous campaign to generate opposition to the treaty and, unfortunately, they're doing it in a way that doesn't give due regard to the facts”. He continues: “For example, they're claiming that 8,000 or 10,000 or very large numbers of companies are affected, and they're going state by state putting out press releases saying that breweries and cosmetics companies and dry cleaning establishments are all going to be subject to a huge new regulatory burden. That's total nonsense, and they know it. We've made clear to the committee [sic] that something around 140 companies nationally are likely to have some significant implication in the Chemical Weapons Convention, including routine declarations and inspections, because they deal in significant quantities of controlled chemicals.” {Federal News Service transcript 7 Aug}

Director Holum is here reacting to what has become, over the past two months, an increasingly active campaign led by Senator Helms to rally votes against Senate ratification of the treaty [see 13 Jun] {*Dallas Morning News* 5 Aug, *Chemical Week* 14 Aug, *Christian Science Monitor* 15 Aug} *Chemical & Engineering News* {5 Aug} has just reported hearing from an unidentified Senate staffer that “as many as 28 senators” are now likely to vote against ratification; but it also quotes an unidentified Administration official as describing that estimate as “highly inaccurate. There are only 5 votes on record against the treaty.” That official reckons the likely nay votes as 10–15 — well short of the 34 votes needed to defeat ratification.

8 August In Uganda, the rebellious Lord's Resistance Army issues a statement in Nairobi saying that the Ugandan Army has imported a number of self-piloting military aircraft from a western country with which it intends bombarding the northern region with chemical weapons [see also 19 Mar]. {AFP 8 Aug}

8 August In Germany and Belgium, police seize papers in raids on 14 premises, and arrest the managing directors of two German companies, after a two-year German investigation into illegal exports to Libya during 1990-93 of \$2.1 millions-worth of equipment said to have been adapted for the manufacture of nerve gases [see also 31 May and 4 Jun]. An international arrest warrant has been issued for a Lebanese-born German, Berge Balanian, who is known to be a purchasing agent for the Libyan government and who is believed to have organized and coordinated the transaction. None of this becomes public knowledge until a Südwestfunk television report ten days after the raids {DPA in *Frankfurter Rundschau* 19 Aug}, whereupon the various German authorities involved announce details {*Frankfurter Rundschau* 20, 21 and 22 Aug, *Stern* 22 Aug, *New York Times* 22 Aug, AFP 25 Aug} The two people under arrest are Detlef Crusius and Udo Buczkowski, managers of compa-

nies in the Mönchengladbach area. The adapted equipment is said to have been assembled there and then shipped to Libya via Antwerp by the state-run Libyan maritime shipping agency. It soon transpires that Balanian had had dealings with the Federal German intelligence service, the BND. *Spiegel* reports a Syrian connection, too. The chairman of the Parliamentary Control Commission, Wilfried Penner, announces an investigation.

9 August Saudi Arabia deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention [see 9 Aug 93], becoming the 61st signatory state to do so.

9 August Libya calls for an urgent meeting of the Arab League ministerial council “following information that the Israeli enemy possesses chemical and bacteriological weapons, including toxic gases, developed in a factory in the Negev desert”. {AFP 9 Aug} The convening of such a meeting requires that it be requested by at least two of the League's 22 member-states and that at least two-thirds then give their approval for it. Iraq later backs Libya's call. Egypt, reaffirming that it will not sign the Chemical Weapons Convention until Israel joins the nuclear-weapons Non Proliferation Treaty {MENA 15 Aug, Cairo *Al-Akhbar* 16 Aug}, asks that the issue be placed on the agenda of the League's regular ministerial council meeting on 14 September, a proposal which is said in Cairo to have wide support within the League {AFP 18 Aug}.

9 August In Moscow, USACDA director John Holum arrives for a meeting of a special joint Russo-US group established in July to deal with chemical-weapons issues [see 15–16 Jul]. His agency tells reporters that he will also be visiting Volgograd “to address issues of chemical weapons production facilities” [see 8 Jun 95]. Among the senior Russian officials with whom he is scheduled to talk is Yuri Baturin in his capacity as head of the Interdepartmental Commission on Chemical Disarmament. {*Washington Post* and Reuter 9 Aug}

US State Department spokesman Nicholas Burns explains the visit to reporters in terms of the Chemical Weapons Convention: “Holum's trip is an attempt by us to try to once again get the attention of the senior levels of the Russian leadership, both in the Foreign Ministry as well as in the Defense Ministry, as well as in the Kremlin, and to see if we can't have a better and faster route towards...mutual ratification of this very important treaty”. Spokesman Burns appears to exclude the possibility that the US government will be furnishing any extra funding for the Russian chemdemil programme: “I think at this point we're confident that with the infusion of Nunn–Lugar funds [see 21 May] over a multi-year basis that the Russian government does have the capability to deal with this problem and to meet the commitments that it will undertake once this treaty is ratified”. {Federal News Service transcript 9 Aug}

9 August The New York company Commodore Applied Technologies {PR Newswire 28 Jun} announces that its proprietary Solvated Electron Technology process has successfully destroyed pound quantities of all CW agents in the US stockpile, and that it is embarking on a mutually owned joint venture with Teledyne Inc to pursue chemdemil on a worldwide basis. The two companies have estimated that the international market for chemical-weapons disposal and related services is in excess of \$80 billion over the next 10–20 years [see also 12 Jun, BICC]. {Business Wire 9 Aug}

11 August In Tabriz, Iran maintains for biological-weapons purposes [see also 10 May] stocks of the causative agents of anthrax and botulism, and it also maintains capacity for producing more stocks quickly, so it is stated by unidentified Israeli sources quoted in the London *Sunday Times* (11 Aug). The newspaper continues: "Both the CIA and the Israelis believe that military scientists working for the Islamic regime in Tehran have developed a deadly BW aerosol that can be carried by a terrorist. Although they will not be able to put biological weapons on long-range ballistic missiles before the end of the decade, they can deliver them with Scud missiles, according to Israeli sources, and they have a system for dropping them from Soviet-era Sukhoi attack aircraft." Israeli sources are subsequently reported in Jerusalem as regarding terrorist use of CBW weapons as a remote danger in comparison with other forms of terrorist attack {Israeli Channel 2 television 12 Aug in BBC-SWB 14 Aug}.

11 August The US Defense Department, in its investigation of the so-called Gulf War Syndrome, is preparing to mail a questionnaire to all members of the Army's 37th Engineer battalion who had been in the vicinity of Kamisayah in southern Iraq when the battalion destroyed weapons-bunkers there in March 1991 [see 21 Jun, see also 9 Jul], so the *New York Times* (11 Aug) reports, stating that the questionnaire will inquire into the health of the veterans since the war. The *Times* has in the meanwhile interviewed 37 of the battalion veterans, and reports that 27 of them say they have suffered serious but unexplained health problems since the war.

12 August Bougainville Revolutionary Army commander Sam Kauona issues a statement charging the Papua New Guinea Defence Force with "using chemical bombs against the people of Bougainville" [see also 27 Mar 93], characterizing this as "genocide and biological warfare" {AFP 12 Aug}. The charge is denied by the PNGDF Chief of Staff, Colonel Jack Tuat, who suggests in a radio interview that the accusation may have been provoked by his force's use of screening or signalling smoke: "It is dangerous if it is set off and you are close to it, yes, it can then endanger people. I think it might have been used...but chemical bombs..., even white phosphorus, we don't use at all." {Radio Australia 14 Aug in BBC-SWB 17 Aug}

13 August In Salt Lake City, Utah, US District Court Judge Tena Campbell denies the injunction sought by the Chemical Weapons Working Group and others against start-up of the chemdemil incinerator at Tooele Chemical Agent Disposal Facility [see 22 July-2 Aug]. Her ruling states that the plaintiffs had not shown that the projected incineration would endanger people living near the facility. It also says that "for individuals living closest to TOCDF, the risks resulting from continued storage are 100 times greater than the risks resulting from disposal operations". {Greenwire and Department of Defense news release 14 Aug, Reuter 20 Aug}

14 August In Australia, the report of the multinational Canberra Commission for the Elimination of Nuclear Weapons [see 26 Nov 95] is presented to Prime Minister John Howard. Australia is expected to submit it to the imminent new session of the UN General Assembly. {London *Guardian* 15 Aug} Considered at some length in the report, and rejected, is the proposition that nuclear weapons can have value in deterring the use of CBW weapons. The report says that the solution to concerns about CBW weapons lies instead in "the strengthening and effective implementation of and universal adherence to the Chemical Weapons Convention and the Biological Weapons Convention,

Recently Deposited CWC Ratifications

since 1 January 1996

Czech Republic — 6 March
 Brazil — 13 March
 Papua New Guinea — 17 April
 United Kingdom — 13 May
 Ethiopia — 13 May
 Costa Rica — 31 May
 Ireland — 24 June
 Republic of Moldova — 8 July
 Belarus — 11 July
 Chile — 11 July
 New Zealand — 15 July
 Latvia — 23 July
 Uzbekistan — 23 July
 Saudi Arabia — 9 August
 India — 3 September
 Portugal — 10 September

As of 12 September 1996, 63 of the 160 signatory states had deposited instruments of ratification. A list of non-signatory states appears in CWCB 31, page 27.

Earlier deposited ratifications are (in date order):

Fiji, Mauritius, Seychelles, Sweden,
 Norway, Australia, Albania, Maldives, Cook Islands,
 Spain, Bulgaria, Germany, Sri Lanka, Mexico,
 Turkmenistan, Uruguay, Paraguay, Lesotho, Greece,
 Tajikistan, Mongolia, Armenia, Finland, Oman,
 Romania, France, Switzerland, Croatia, Monaco,
 Netherlands, Denmark, Peru, Algeria, Austria, Poland,
 Ecuador, South Africa, Japan, Canada, Argentina,
 Slovak Republic, El Salvador, Georgia, Namibia,
 Italy, Côte d'Ivoire and Morocco

Imminent Deposits

Belgium, Benin, Bolivia, Cameroon, Gabon, Ghana,
 Hungary, Kenya, Mali, Nigeria, Philippines, South
 Korea, Togo, United Arab Emirates

with particular emphasis on early detection of untoward developments", adding that the "response to any violation should be a multilateral one".

14 August In Japan, a statement by ten Chinese citizens is presented to the Prime Minister's Office in which they seek compensation from the Japanese government for what they say they had suffered from exposure to chemical weapons abandoned by Japanese troops after World War II [see 24 Jul]. The statement also seeks an apology for their plight. They announce, through the head of their legal team, that they will file a damage suit if their demand — for Yen 2 million (about \$18,500)

for each of them — is not met. Their head lawyer, Susumu Hyodo, tells reporters: "It is said that the number of Chinese victims of chemical weapons left in China exceeds 2000. The Japanese government should compensate them and provide medication for them but also dispose of the weapons quickly." {Kyodo 14 Aug} [See also 1 Jul, Tokyo]

14 August India, within the Ad Hoc Committee on a Nuclear Test Ban of the 61-nation Conference on Disarmament in Geneva, declines to join a consensus that would enable the Conference to transmit to the UN General Assembly an agreed text for the projected Comprehensive Test Ban Treaty. {London *Daily Telegraph* 15 Aug, CD/1425}

14 August In the United States, the Secret Service is consulting with the Army's Chemical/Biological Anti-Terrorism Team on how to protect the president from CB terrorism, so *Jane's Defence Weekly* {14 Aug} reports.

16 August In Tokyo, a Foreign Ministry official tells reporters that Japan plans to start a 10-year project in 1998 to dispose of the chemical weapons abandoned in China by the Imperial Army [see 24 Jul and 14 Aug]. Japanese officials hope to discuss details of the project with Chinese counterparts during a planned working-level meeting later in the year [see 23 Jul]. The site of disposal plants remains undecided. {AFP and Xinhua 16 Aug}

19 August NATO officials have nearly completed a study, *Minimizing Collateral Damage in Peace Support Operations*, of technologies available for cheap weapons that will minimize or eliminate long-term effects on civilians, according to *Aviation Week & Space Technology* {19 Aug} whose report continues: "Promising ideas include dispensing riot control chemical agents from crop dusters". The report does not indicate whether the NATO study is paying any attention to the Chemical Weapons Convention [see also 13 Jun, Brussels].

20 August In the Philippines, the Senate votes unanimously in favour of ratifying the Chemical Weapons Convention. {UPI 20 Aug}

20 August The US Defense Department has launched a \$3.5 million study of the possibility that illness can result from low-level nerve-gas exposure, so *Long Island Newsday* {20 Aug} reports, saying also that the study was initiated after the disclosure that the Iraqi weapons bunkers demolished by US forces at Khamisiyah in March 1991 contained nerve-gas rockets [see 21 Jun and 9 Jul].

21 August In South Africa, the chief of the National Defence Force, General Georg Meiring, again declines to disclose certain particulars of "Project B" to a parliamentary commission, the Public Accounts Committee, which is investigating improprieties associated with the project [see 15 May]. Despite the recent lifting of the project's secrecy authorized by the Cabinet [see 10 Jun], General Meiring says that divulging key details of Project B would be a "serious breach of security". {Reuter 21 Aug} He is reportedly supported in this by President Mandela and his deputy Thabo Mbeki {Africa News 26 Aug}. The *Sunday Independent* subsequently reports that, during the final years of apartheid, Iran and possibly Iraq as well had received chemical weapons from South Africa, and that senior military personnel from the South African chemical-weapons programme had visited Libya several times [see also 27 Feb 95] {AFP 25 Aug}. General Meiring had previously said that the military had, under the title Project Coast (another designation for Project B), established "a defensive chemical-warfare ability through a series of front companies" during those years {Xinhua 18 Aug}.

Asked by the committee about a foreign agent who had disappeared with \$1.6 million in state funds, General Meiring says that the agent had been used to buy "very sensitive chemicals" for Project B from an eastern European country, but the deal had gone sour and the agent and the money vanished [see also 15 May]. {Reuter 21 Aug}

21 August UK Home Secretary Michael Howard authorizes a general issue of CS-spray devices to police forces in England and Wales. His action follows a report by the Association of Chief Police Officers on the results of six months of street-trials of the weapon [see 18 Jan]. During the trials, CS spray had been used 582 times. Each person sprayed had been examined by a police surgeon. The large majority had recovered within 15 minutes. Five had been taken to hospital but none had suffered serious injury. There had been one fatality [see 1 Mar]; an inquest on it has yet to be held, but Secretary Howard says: "All the scientific evidence shows that CS presents no serious risk to human health. I am satisfied that this is a safe substance. There is no evidence that I have seen to justify the proposition that it was the use of CS spray which resulted in the unfortunate death of that man". {London *Times* and *Daily Telegraph* 22 Aug} A number of police forces nevertheless decide against the weapon, at least for the time being, on health grounds {London *Guardian* 28 Aug, London *Sunday Telegraph* 8 Sep}

Forthcoming events

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

The Asian Seminar on National Implementation of the CWC for Industrial Verification will take place in Tokyo during 16–17 October 1996.

The BWC Fourth Review Conference will take place in Geneva during 23 November–6 December 1996.

A Wilton Park conference *Preventing the Proliferation of Weapons of Mass Destruction: Is this an Achievable Goal?* will take place at Wiston House, England during 16–20 December 1996. Enquiries about par-

ticipation to Heather Ingrey, fax **44-1903 815931, e-mail: wilton@pavilion.co.uk

The fifteenth (and probably last) plenary session of the OPCW Preparatory Commission is now scheduled to be held in The Hague during 16–20 December 1996.

22 August In Cairo, officials of the Arab League say that, in a report which will be submitted to the League foreign ministers' meeting on 14 September [see 9 Aug], a commission of the League will urge member-states to shun the Chemical Weapons Convention until Israel joins the NPT. The commission has just concluded a two-day meeting. {UPI 22 Aug}

22 August In Moscow, Russian Foreign Ministry spokesman Mikhail Demurin says: "Russia has confirmed its intention to join the group of the first 65 states [to ratify the Chemical Weapons Convention] as a country which has made a considerable contribution to the drawing up of the convention, and intends to orientate itself in the field of chemical disarmament exclusively on its clauses and the mechanism of control envisaged by this document". TASS {22 Aug} also reports him as saying: "Russia is ready for all-round cooperation with other participants in the Preparatory Commission...with the aim of searching for decisions on procedures of control, conversion and other aspects of the practical application of the convention banning chemical weapons, which are now being elaborated in The Hague... The solution to these problems would promote the process of ratification of this document by Russia." [See also 22 Jul, Russian Federation]

22 August In Utah, at the Tooele Chemical Agent Disposal Facility [see 13 Aug], large-scale chemdemil operations commence in the continental United States with the incineration, in a trial burn, of an M55 rocket containing sarin nerve gas. More than 13,600 tons of CW agent held in more than a million munitions or other containers — 44 percent of the US stockpile — are stored at Tooele, and all are scheduled to enter the incinerator between now and 2003. The chemdemil facilities due to come on line next are the incinerators on which work is now getting under way at Anniston, Pine Bluff and Umatilla [see 3 May]. {Federal News Service transcript 22 Aug}

There is a plant shut-down three days and 205 rockets later, when traces of airborne nerve-gas are detected within a sealed-off area of the facility. Operations resume on 30 August, plant

officials saying that the leak had endangered neither the public nor the workforce. {AFP 26 Aug, *New York Times* 1 Sep}

23–24 August In Amsterdam, during the INES conference on *Challenges of Sustainable Development*, a small workshop on *Chemical and Biological Disarmament* is convened by Professor Jiri Matousek of the Czech Republic, with Dr Ralf Trapp of the OPCW Provisional Technical Secretariat as local organizer.

26–28 August In Baghdad, UNSCOM Executive Chairman Rolf Ekéus, accompanied Nikita Smidovich [see 10–16 Jun and 15–22 Jul] conducts a new round of high-level talks with Iraqi officials. The UN Security Council had issued a statement just before his departure reminding Iraq of its obligation to give UN inspectors "immediate, unconditional and unrestricted access to any and all areas, facilities, equipment, records and means of transportation which they wish to inspect, and Iraqi officials whom they wish to interview". UN officials say that Iraq has nevertheless continued to obstruct UN inspectors, most recently on 17 August. {UPI 23 Aug, AFP in *International Herald Tribune* 27 Aug} Ambassador Ekéus tells reporters at the end of the talks that he had received "important assurances" about access, and had in turn pledged that UNSCOM would, as agreed, respect Iraq's sovereignty and security concerns: "That means that we're not going to inspect sites where we do not suspect something". He says: "My report to the Security Council will not be totally favourable, but at least we will avoid the crisis". {AFP 28 Aug}

29 August Cyprus, specifically the Greek Cypriot port of Limassol, serves the Syrian chemical-weapons programme as a transit point for imports of essential materials from Russia and Cuba, according to unidentified "intelligence sources and officials" in Nicosia quoted by the *Jerusalem Post* {30 Aug}.

31 August In Japan, on Okushima island [see 5 Dec 94], a symposium entitled *From the Toxic Gas Island* is attended by some 200 historians and citizens. {Kyodo 31 Aug}

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