

# THE CBW CONVENTIONS BULLETIN

News, Background and Comment on Chemical and Biological Weapons Issues

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## IMPLEMENTING THE CHEMICAL WEAPONS CONVENTION FIRST EXPERIENCES OF A NATIONAL AUTHORITY

*Heiner Staub*

*NC-Laboratory Spiez, Switzerland*

### **National Preparation**

In 1993, a working group with representatives of the Swiss Federal Department of Foreign Affairs, the Federal Department of Defence, the Federal Office for Foreign Economic Affairs, the Federal Department of Justice and the NC-Laboratory Spiez started the preparation of the legislation for the implementation of the Chemical Weapons Convention (CWC). The result was a relatively lean act of three pages that passed parliament in autumn 1994. The deposition of the ratification took place on 10 March 1995.

The corresponding ordinance, called "Ordinance for the Control of Chemicals", containing all the details, needed more time. Comprising 15 pages, it was ready in summer 1996. The Act and the Ordinance became effective on 1 January 1997 in order to allow enough time to prepare the declarations.

The CWC is implemented in Switzerland through a close co-operation of several governmental offices. The Department of Foreign Affairs is the supervising authority and serves as the focal point for communication and co-ordination with the Organization for the Prohibition of Chemical Weapons in The Hague. The Federal Office for Foreign Economic Affairs bears the main responsibility for effectively implementing the CWC at the national level. It grants licenses for production of Schedule 1 chemicals as well as for export and import of scheduled chemicals. It is assisted by the NC-Laboratory Spiez, which has the mandate to collect, process, evaluate and check the declarations required by the convention, provide experts to the escort teams and give technical advice in all CWC related matters. Finally, responsibility for military aspects rests with the General Staff Services of the Federal Department of Defence and their personnel will head the escort teams in case of inspections affecting military facilities.

### **Identification of declarable enterprises**

In a first survey, in 1993, the Swiss Society of Chemical Industries (SSCI) identified about 10 factories related to declarable activities with Schedule 2 and 3 chemicals. To in-

form the members of the SSCI was indeed not difficult, but how to reach all other manufacturers of organic chemicals, the "users" of Schedule 2 chemicals and, for the aggregate national data, the importers and exporters of scheduled chemicals?

At the beginning of 1996, a questionnaire was sent out to a few hundred potentially affected enterprises. It was accompanied by a leaflet explaining the obligations stemming from the CWC. The addresses were gathered from different sources:

- Members of the SSCI
- Members of a multitude of associations, e.g. Association of Photographic Materials Suppliers, Association of Importers and Exporters, Textiles-Association, Association of the Manufacturers of Pesticides, Association of the Manufacturers of Cosmetics, etc.
- Universities and research institutes (particularly for Schedule 1 Chemicals)
- Electronic telephone directory search with the key-word "chemical"
- Export licenses for dual use chemicals in former years

The result of this consultation was a list of about 10 facilities declarable for activities with Schedule 2 and/or 3 chemicals. An additional 20 companies produce organic chemicals and about 30 enterprises have to report only the

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import and/or export of scheduled chemicals. In addition, there is one "other facility" producing Schedule 1 chemicals, namely the NC-Laboratory Spiez.

### **Information from the enterprises concerned**

All the enterprises responding positively to the questionnaire received the ordinance together with an explanatory brochure. They were also invited to an informational meeting where they were given an overview of their obligations in respect to the CWC and received instructions on how to fill out the different forms for the respective declarations.

The declaration forms received from the OPCW were translated and adapted to use language and expressions common to Swiss industrial people. Each facility got a full set of forms together with six pages of instructions. The deadline for sending in the declarations was 31 March 1997.

The co-operation of the enterprises was good, especially with the industrial enterprises.

Smaller companies had some problems in deciding whether any of their chemicals were contained in the list. With the help of the specialists at the NC Laboratory, the questions could be resolved in a single telephone call in most cases. Another point was the question of "production of discrete organic chemicals". In our domestic papers, we always use the expression "organic chemicals" in order not to provoke the question "what does discrete mean". However, in two cases, we had the problem of a chemical transformation of products of natural origin, e.g. an oil, where it was necessary to study the problem to establish whether they fall under the definition of "production of organic chemicals".

The problems of the importing or exporting enterprises were mainly to establish whether there was a scheduled chemical in a declarable concentration in products having a trivial name e.g. "Glycodur".

### **Problems related to the Schedules**

In most cases, those chemicals in the Schedules that may also be produced or traded as salts have, besides the chemical name, also the addendum "and corresponding (alkylated or) protonated salts". Unfortunately, in some items of the Schedules, such as the nitrogen mustards or the ethanolamines, this addition is missing. Strictly speaking, the most common form of triethanolamine, the triethanolamine hydrochloride, does not fall under the purview of the Convention, which in our opinion is not in the spirit of the Convention. We have therefore supplemented our domestic legislation accordingly.

A similar problem arises with saxitoxin. There exists a saxitoxin dihydrochloride (and other salts) which has a different CAS-Number but the same toxicity. Another problem emerged with ricin, which has multiple subunits, some of them with similar toxicity as the basic ricin. There is therefore a need to decide which ricin and saxitoxin compounds fall under the purview of the Convention. Most of these problems arising with saxitoxin or ricin would not exist if small amounts, e.g. less than 1 gram, had not to be taken into consideration, as the typical transactions for these chemicals are in the order of milligrams. In the Convention, there is unfortunately no threshold foreseen for reporting import and export of Schedule 1 chemicals.

### **Conclusions**

The implementation of the CWC in Switzerland progressed astonishingly well. The preparation of the legal framework and the provision of information to industry and trade took a considerable amount of manpower, but it had the advantage of establishing personal contacts with the enterprises concerned. This is of crucial importance since we believe that the success of a national authority will depend largely on its good relations with trade and industry. On the other hand, although the collection and compilation of the declarations were done manually, it was not a very big undertaking: It took the equivalent of one person for about 50 working days.

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## **Forthcoming events**

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The BWC Ad Hoc Group will reconvene for its seventh session on 14 July–1 August, and its eighth session on 15 September–3 October, in Geneva.

The 2nd *International Workshop on BC-detection* will take place in Ystad, Sweden, on 24–27 August. For details contact Göran Olofsson, at the Swedish National Defence Research Institute, Umeå, fax: + 46 90 106803.

The third Pugwash workshop on *Strengthening the Biological Weapons*

*Convention* will take place in Geneva on 20–21 September.

A NATO Advanced Research Workshop, *Conversion of Former BW Facilities: Development and Production of Prophylactic, Diagnostic and Therapeutic Measures for Countering Diseases*, will take place in Budapest on 5–9 November. For details, contact Dr Lajos Gazso, fax: +36 1 226 5750 or Dr Erhard Geissler, fax: +49 30 940 3824.

A Wilton Park conference on *Multilateral Control Regimes in the 21st Century: the Impact on CBW*, will take place at Wiston House, England during 3–5 October 1997. Enquiries about participation to Heather Ingrey, fax + 44-1903 815931, e-mail: wilton@pavilion.co.uk.

The second session of the Conference of the States Parties to the Chemical Weapons Convention will be held in The Hague on 1–5 December.

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## **Building the Organization for the Prohibition of Chemical Weapons**

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The Chemical Weapons Convention entered into force on 29 April 1997 with 87 original States Parties, including China and the United States. At the time of writing, 6 additional states have deposited their instruments of ratification, bringing the total number of ratifying states to 93. Unfortunately, this does not include the Russian Federation and indications are that the earliest ratification can be expected is September/October of this year. This review covers the work of the Preparatory Commission as it drew to an end and then looks at the start-up of the OPCW itself: developments during the first session of the Conference of the States Parties as well as the immediate tasks facing the Organization.

### ***Last actions of the Preparatory Commission***

Ambassador Gustavo Eduardo Figueroa of Argentina chaired the sixteenth, and final session of the Preparatory Commission, attended by 94 states and held during 9–15 April 1997. Much of the session was spent negotiating the Commission's Final Report for submission to the Executive Council and to the Conference of the States Parties (CSP) for its first session. Not only did the Commission achieve agreement on the Final Report, but it also adopted draft agendas for the first session of the CSP and the first meeting of the Executive Council. There was no attempt to resolve the difficulties with the Rules of Procedure for either the Conference or the Council, or to re-open negotiations on the draft OPCW budget. Thus, these issues remained unresolved by the Commission.

The sense of a long journey coming to an end pervaded the session but assessments on the overall performance of the Commission were mixed, possibly influenced by the continuing absence of the United States' ratification. The Chairman, in opening the session, noted that it was marked by absence: absence of ratification by the two declared possessor states, as well as a number of important industrial states; absence of a budget for the OPCW as it begins its work; absence of a Final Report of the Commission; and finally absence of completion of a number of important tasks which had been mandated to the Commission. The Chairman went on to note the alarming increase in polarisation on outstanding procedural and substantive issues and urged states to reconsider their views in the hope of finding some common ground.

### ***Non-ratification by Russia and United States***

Not surprisingly, this was the dominant theme in statements made to the Commission by delegations. The Russian statement implicitly acknowledged that it would not be ratifying by 29 April, dropping its customary reference to being an original state party and instead announcing its intention to join the Convention "promptly". The statement went on to say that there should be no doubt that Russia

would do all in its power "to occupy its proper place in the OPCW". Considering its role in the ongoing work of the OPCW, the statement expressed the view that "full account [should] be taken of the interests of those countries which by that time have not yet ratified the Convention but whose participation in it has been recognised by the Preparatory Commission as an essential prerequisite for the effective functioning of the Convention and as a basic assumption with respect to the OPCW's activities. Such an approach would ensure the necessary degree of flexibility and facilitate prompt membership in the Organization of such States once their ratification processes have been completed."

The United States, speaking on 11 April, said that it fully expected the forthcoming Senate vote, at that time scheduled for 25 April, to be positive thus allowing it to be among the original states parties. In other statements, the usual appeals were made for ratification by the Russian Federation and the United States. Again, the "full and effective" language was introduced as indicating an inability to accept a partially implemented treaty, or a delayed implementation in the absence of one or both of the declared possessor states. But, as with the previous plenary session, not all delegations agreed on this approach. At the request of the delegation of India, the recommendation of the Foreign Ministers of the Non-Aligned Movement, arising from the Twelfth Ministerial Conference of the Movement of the Non-Aligned Countries was read out at the Session. That recommendation included a statement that non-ratification by the two declared possessor states would jeopardise the universal and disarmament character of the Convention. India's statement to the plenary session echoed this view, referring to "the unwelcome prospect that this Convention appears likely to enter into force shorn of both its key principles — its representativeness and its disarmament character." Thus, the statement concluded that if universal adherence is not achieved, India would have to review its options, going on to say "On our part, we would determine our position in the context of how best to ensure that the Convention is implemented as it was envisaged — a unique, multilateral and non-discriminatory disarmament treaty."

As requested by the Commission at its Fifteenth Session, the Executive Secretary submitted a report on the status of ratification. The report explained that the Secretariat had no mandate to comment on which member states of the Commission might possess chemical weapons, let alone the ratification process in such states, even if they could be identified. The report went on to explain that the Secretariat's ability to comment on possession by the United States and the Russian Federation arose entirely from the fact that it was included in the Commission's planning and budgetary assumptions. The report set out the progress in the Russian Federation and the United States towards ratification and went on to describe the impact of non

ratification, including such practicalities as disruption of training and uncertainty surrounding the budget, concluding that even ratification by one declared possessor state would send a positive signal and provide some certainty in the early days of OPCW operations. In putting forward possible scenarios, the report differentiated between ratification delayed for up to a year, or ratification delayed for a longer period. In the first instance, a range of questions which would need to be addressed were set out including the start of operations of the OPCW, and the need to avoid putting in place any unnecessary obstacles. Turning to the issue of a more protracted delay, the report expressed the view that it was premature even to consider such a scenario at that time.

The contents of the report of the Executive Secretary were not discussed by the Commission, but the fact that it was received was recorded in the Commission's report of the session and the draft agenda for the first session of the CSP was amended to include consideration of the status of ratification. This lost much of its significance with the subsequent ratification by the United States and, as a result, the issue was not addressed during the first session.

*Article XI* A familiar theme in the statements was the implementation of Article XI (Economic and Technological Development). For the most part, the usual positions were re-stated but the Russian Federation, in its statement, addressed the issue, saying that entry into force of the Convention should lead to the removal of restrictions in the chemicals trade and on the exchange of sophisticated technologies between states parties. To do otherwise would be "legally unsound" and "politically counterproductive". China, too, advocated that all existing trade restrictions in the chemical field for states parties to the Convention should be removed upon its entry into force.

*Costs of destruction* The European Union statement affirmed their view that all states parties remain fully liable for the destruction of their own chemical weapons and chemical weapons production facilities. However, the statement went on to recognise the extent of the burden and explained that the EU was considering possible ways to assist the Russian Federation after the deposit of its instrument of ratification. The United States also referred to financial responsibility for destruction, stating that while the financing of the Russian Federation's destruction program is its own responsibility, conceded that some funds will be required to assist the Russian Federation in this task.

*Final Report of the Preparatory Commission* Despite the fact that the Commission's Committee on Preparations for the First Session of the Conference of the States Parties had been working intensively on the Final Report of the Commission, it had not been able to submit an agreed text to the Commission for approval at its sixteenth session and transmittal to the Conference of the States Parties at its first session. So much of the work of the Commission during its final session was devoted to securing that agreement.

While there was no dispute about the need to have a final report, the difficulty in achieving that aim lay in the need to find a mechanism to transmit the unresolved issues to the first session of the CSP. There was a wide range of differ-

ing views. A key issue was whether the unresolved tasks should be included in the report itself or simply listed in an annex to the report. This debate was motivated by a view that the unresolved issues would have more status, and thus receive more attention if they were in the report itself. Another issue was the extent to which the unresolved issues should be described, with proposals ranging from a simple listing of the tasks to including explanatory text setting out the different perspectives and proposals for resolution. Another question was whether associated documents, generated by the Secretariat and member states, should be noted in the report. This in turn raised the issue of how such documentation might be transmitted from the Preparatory Commission to the OPCW. Finally, there was a question as to whether the Commission should recommend to the First Session that a mechanism should be set up to deal with unresolved issues after entry into force, and if such a recommendation was to be made, if it would include a proposal about the mechanism involved.

Following intensive negotiations, it was agreed that the unresolved issues should be listed in a new Section Four of the report. In addition, the introduction to the entire report was amended so as to recognise the importance of the outstanding issues and recommend their early resolution, in particular that the first session of the CSP "consider and take necessary decisions with a view to resolve these outstanding issues". It was also agreed that a list of the associated papers, including national papers, would be prepared and presented to the first session to facilitate further work. On this basis, the Commission was able to adopt its final report, which was subsequently transmitted to the CSP and to the Executive Council.

#### *Closing days of the Preparatory Commission*

Although the Preparatory Commission did not come to an end until the close of the first session of the CSP, as specified in the Paris Resolution, in effect its formal work was complete with the closing of its sixteenth session on 15 April. As indicated above, there have been different assessments of the success of the Preparatory Commission. Certainly, the last minute success of adopting its final report must be acknowledged but the other important tasks of agreeing on draft Rules of Procedure for the Conference of the States Parties and the Executive Council, and the Preliminary Draft budget of the OPCW for 1997, remained incomplete. In addition, the Commission ended with a range of issues remaining unresolved and in fact, it was these very issues which almost held up adoption of a final report.

A fair assessment of the Commission's accomplishments must take into account not just the results of its work but the context in which that work took place. First, many of the tasks facing the Commission were passed on from Geneva because the negotiators there had been unable to find compromises which could be recorded in the Convention itself. Thus, none of the tasks was straightforward to start with. Second, the latter part of the preparatory process was marred by continuing uncertainty as to the nature and scope of participation in the Convention when it entered into force. There is no doubt that this caused the trigger point of 65 ratifications to be delayed. Even after trigger point, uncertainty marred the work of the Commission. On the one

hand, a number of tasks needed to be accomplished, such as recruitment and training of inspectors. On the other hand, the continuing doubts of some members of the Commission as to whether the Convention should be implemented fully immediately on entry into force if at least one of the declared possessor states were not a state party, resulted in dampening the prospect of progress which might otherwise have been possible. The most immediate and visible effects of this uncertainty were on the inspector training schedule, the inability to agree on a budget for the OPCW and a slow-down in recruitment of Secretariat staff.

Despite these uncertainties, the Convention did enter into force, the Conference of the States Parties did convene its first session, and the life of the Preparatory Commission drew to an end.

### **Start of the OPCW — First Session of the CSP**

*Opening of the session* The first session of the CSP opened in The Hague on 6 May, three weeks after the final session of the Preparatory Commission. It was attended by 117 states, 80 of which were states parties. In addition, representatives from a number of intergovernmental organizations, research institutes and non-governmental organizations attended the open debate. Reflecting the importance of the occasion, the first four days of the Conference, which featured the open debate, were attended by a number of high level dignitaries including Foreign Ministers, Speakers of Parliament, State Secretaries and heads of intergovernmental organizations. Queen Beatrix of The Netherlands attended the opening ceremony, and her Prime Minister, Mr Wim Kok delivered the keynote address.

The Session was opened by the Depositary of the Convention, the Secretary-General of the United Nations, Mr Kofi Annan who described the Convention as “not merely a great step in the cause of disarmament and non-proliferation”. He went on: “It is not merely a signal of restraint and discipline in war. It is much more. It is a momentous act of peace.” In concluding, he said that the Convention “will now join this pantheon of landmark agreements sought and brokered in this remarkable era of peace-making”.

*Statements to the Conference* Secretary-General Annan’s speech raised themes which would recur throughout the national statements presented at the first session of the CSP, particularly in terms of the historic nature of the Convention. In line with his statement, many statements dwelt on the importance of the Convention, not only because of its unique verification regime and its aim to eliminate an entire category of weapons of mass destruction, but also its value as a precedent in the realm of disarmament. Its particular impact on the Biological Weapons Convention, the Non Proliferation Treaty and the Comprehensive Test Ban Treaty were noted. Additionally, in the context of the Convention as precedent, speakers frequently took the opportunity to draw attention to the urgent need to eliminate land mines.

Attention also focused on the need for universal adherence to the treaty and although many statements clearly intended this to encompass all states which had not ratified, the special importance of ratification by the Russian Feder-

## **CWC Ratifications and Accessions**

*deposited since CWCB 35*

Niger — 9 April 1997  
 Saint Lucia — 9 April 1997  
 Luxembourg — 15 April 1997  
 Tunisia — 15 April 1997  
 Togo — 23 April 1997  
 Bangladesh — 25 April 1997  
 China — 25 April 1997  
 Equatorial Guinea — 25 April 1997  
 Kenya — 25 April 1997  
 United States of America — 25 April 1997  
 Zimbabwe — 25 April 1997  
 Bahrain — 28 April 1997  
 Iceland — 28 April 1997  
 Mali — 28 April 1997  
 Malta — 28 April 1997  
 Republic of Korea — 28 April 1997  
 Suriname — 28 April 1997  
 Cuba — 29 April 1997  
 Turkey — 12 May 1997  
 Singapore — 21 May 1997  
 Kuwait — 28 May 1997  
 Guinea — 9 June 1997  
 Slovenia — 11 June 1997  
 FYR of Macedonia — 20 June 1997  
 Trinidad and Tobago — 24 June 1997

*Previous deposits (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, Morocco, Czech Republic, Brazil, Papua New Guinea, United Kingdom, Ethiopia, Costa Rica, Ireland, Republic of Moldova, Belarus, Chile, New Zealand, Latvia, Uzbekistan, Saudi Arabia, India, Portugal, Cameroon and Hungary, Swaziland, Philippines, Belgium, Bosnia and Herzegovina, Lao People’s Democratic Republic

*As of 24 June, 95 states had deposited instruments of ratification or accession.*

ation, the world's largest possessor of chemical weapons, was frequently underlined. Addressing universality generally, many statements expressed satisfaction with the ratification of the United States and China, and noted that four permanent members of the Security Council had ratified the Convention. Clearly, ratification by China and the United States just prior to entry into force calmed the concerns of some of the members of the Preparatory Commission that the regime itself might be called into question. Nonetheless, it was clear that while the situation had improved, there was a need for greater universality. The importance of ratification by all states, particularly those in "regions of tension" and those with significant chemical industry was stressed. As regards to the continued non-ratification by the Russian Federation, some statements referred to possible causes for this, raising the financial burden involved in destroying its chemical weapons. The European Union made two statements on the issue, the first of which, on 6 May, was supported by Associated Countries from central and eastern Europe, Cyprus, Iceland, Liechtenstein and Norway. This statement noted the special responsibility of Russia as a possessor of chemical weapons and therefore hoped for its ratification in the very near future. The second statement was presented during the closing session of the Conference, on 20 May, and set out the text of a declaration of the General Affairs Council of the European Union on assistance to the Russian Federation related to the Chemical Weapons Convention. That declaration, affirming the importance of ratification by the Russian Federation and conscious of the financial implications, went on to say that the European Union, subject to consultation with Russia through the normal TACIS country procedures, is prepared to allocate 10 to 15 million ECU from the TACIS program for the period 1997-1999 to projects related to the Convention's implementation. The United States, in its statement to the Conference, clearly relieved at its ability to attend as an original state party, limited its comments to placing great importance on Russia ratifying the Convention "very soon".

Russian Deputy Foreign Minister G. Mamedov delivered a special message to the Conference from President Yeltsin, which in turn noted the State Duma's address to the CSP on the Convention, distributed to the Conference with the Russian statement. That address includes a declaration that the Duma "has initiated the process of ratification of the Convention with a view to complete it, if possible, in the autumn of this year, given the necessary conditions for that". The remainder of the Duma's address indicates the nature of those conditions: financial assistance for the costs of inspection and the conversion of former chemical weapons production facilities; a possibility of extending the time limits for destruction of stockpiles; and appropriate participation of the Russian Federation in the activities of the OPCW. President Yeltsin's statement goes on to say that pending ratification, Russia intends to refrain from actions inconsistent with the object and purpose of the Convention, and intends to comply with the obligations regarding non-development and non-production of chemical weapons, non-transfer of chemical weapons to anyone, prohibition of military preparations for the use of chemical weapons, and non-use of chemical weapons. The statement indicates

Russia's readiness to submit information on its chemical weapons stocks and their locations to the OPCW and to participate in measures relating to assistance and protection against chemical weapons as well as economic and technological cooperation as envisaged in Articles X and XI of the Convention.

Iran and Israel also offered explanations as to why they had not been among the original states parties. Iran explained that the process of ratification was on-going but that the outcome was difficult to foresee. The statement pointed out that the final decision "will be made in accordance with our national interests and security concerns taking into account our past experience as well as our commitment to promote peace and security in the region and in the world". Given the reference earlier in the statement to the on-going threat posed by Israel's nuclear programme, this does not give rise to optimism for early ratification. Israel, for its part, stated that it "would seek to ratify the Convention subject to regional concerns as well as to its constitutional constraints and legislative timetable". Its statement did not exclude the possibility of Israel ratifying even if its neighbours did not join the Convention.

While Article XI did not receive the level of attention which was usual within the Preparatory Commission, it was raised in many of the statements which noted the Convention's promotion of technological advancement through international trade free of barriers. Some statements specifically referred to the need to re-examine or dissolve existing trade restraints. The United States, in its statement, referred to the conditions imposed by the Senate on the United States ratification, one of which related to Article XI. Ambassador Earle reiterated the view that all of these conditions are fully consistent with the full and effective implementation of the Convention.

The focus of the statements to the Conference was political in nature, but there were also a number of practical matters raised, although not dealt with in any depth. Most, if not all of these issues had been familiar themes in the Preparatory Commission, including the nature and extent of the issues remaining unresolved by the Commission, the budget of the OPCW, the top management structure of the Secretariat, the need to promote economic cooperation and assistance, concern with abandoned chemical weapons in various parts of the world, and the need for the OPCW to smoothly and effectively implement the Convention.

*Election of the Executive Council* Following the general debate, one of the most immediate tasks facing the Conference was to elect the OPCW's Executive Council. Reflecting the importance of its role in implementing the Convention, guidelines are set out in the treaty governing the Council's composition, due regard being paid to equitable geographical distribution, the importance of chemical industry and the political and security interests of states parties. The Convention also requires that the seats in the Council be distributed among five regional groups: Africa (9), Asia (9), Eastern Europe (5), Latin America and the Caribbean (7) and Western European and other States (10). In addition, a rotating seat is to be occupied consecutively by states parties located in the regions of Asia and Latin America and the Caribbean. On the basis of these require-

ments, the Conference elected by acclamation the following states to the Council:

- Africa: for one year — Algeria, Kenya, Morocco and South Africa; for two years — Cameroon, Côte d'Ivoire, Ethiopia, Tunisia and Zimbabwe.
- Asia: for one year — Bangladesh, Oman, Philippines and Sri Lanka; for two years — China, India, Japan, Republic of Korea and Saudi Arabia.
- Eastern Europe: for one year — Belarus, Bulgaria and Romania; for two years — Hungary and Poland.
- Latin America and the Caribbean: for one year — Ecuador, Peru, Suriname and Uruguay; for two years — Argentina, Brazil, Chile and Mexico.
- Western European and other states (WEOG): for one year — Australia, Malta, Netherlands, Norway and Spain; for two years — France, Germany, Italy, United Kingdom and the United States.

The rotating seat will be occupied for the first year by the Latin American and the Caribbean Group.

*Appointment of Officials* José Maurício Bustani of Brazil was elected by acclamation to be Director-General of the Technical Secretariat for a four year term commencing on 13 May 1997. Appointed Ambassador for his country in 1995, Mr Bustani has worked for thirty-one years in Brazil's foreign service. Since 1994 he has held the post of Director-General of the Department of United Nations, Disarmament and Non-Proliferation Affairs at the Brazilian Foreign Ministry and has been actively involved as chief liaison at the Foreign Ministry for matters relating to Brazil's compliance with the provisions of the Convention. Addressing the Conference after taking the oath of office, Mr Bustani stressed the qualities of conciliation, equanimity and initiative in his performance as Director-General of the OPCW. He expressed his intention to establish frequent and direct contacts with states parties, industry, international organizations with relevant experience and non-governmental organizations, in order to assist him in carrying out his mandate in an open and transparent manner.

Mr Pieter Cornelis Feith of the Netherlands was elected as the Conference's Chairman and 10 vice-Chairmen from the following States Parties were elected: Algeria and Zimbabwe (Africa), China and India (Asia), Hungary and Romania (Eastern Europe), Costa Rica and Mexico (Latin America and Caribbean), and Australia and USA (Western European and other States). Ambassador Prabhakar Menon of India was appointed as Chairman of the Executive Council for a term of one year. The Council elected Cameroon, Chile, Poland and Spain as its Vice-Chairmen.

Ambassador Jaroslav Mihule of the Czech Republic was elected Chairman of the Credentials Committee. Ambassador Gustavo Eduardo Figueroa of Argentina was elected Chairman of the Committee of the Whole, a subsidiary organ of the Conference. The Conference delegated to the Executive Council the authority to appoint the External Auditor of the OPCW.

*Commission on the Settlement of Disputes Relating to Confidentiality ("Confidentiality Commission")* In accordance with paragraph 23 of the Convention's Confi-

dentiality Annex, the Conference elected a 20-member Confidentiality Commission for a term of two years. Four members from each regional groups were elected as follows:

- Africa: Mr Mohammed Mokhtar Dridi (Algeria), Mr Driss Hajir (Morocco), Dr Laurraine Lotter (South Africa) and Mr David William Chikaka (Zimbabwe).
- Asia: Mr Wang Xiaoyu (China), Dr R V Swamy (India), Professor Masahiko Asada (Japan) and Dr Shin Woo-Chul (Republic of Korea).
- Eastern Europe: Mr Valery D Ziablov (Belarus), Dr Jaroslav Fiedler (Czech Republic), Dr György Molnár (Hungary) and Mrs Anca Roxana Visan (Romania).
- Latin America and the Caribbean: Mr Luis Carlos Da Silva Cavalheiro (Brazil); Mr Camilo Sanhueza Bezanilla (Chile), Mr Jesús Cuevillas Domínguez (Cuba) and Mr José Luz González Chávez (Mexico).
- WEOG: Professor Herbert DeBisschop (Belgium), Mr Hannu Vornamo (Finland), Professor E P J Myjer (Netherlands) and Mr Ignacio Vignote (Spain).

The Commission did not meet during this session of the CSP but will convene its first meeting before the next session of the Conference at which time it will elect its chairperson. Thereafter, the regular annual meeting of the Commission will be held in conjunction with the regular annual session of the Conference.

#### *OPCW programme of work and budget for 1997*

Although the Preparatory Commission's Expert Group on Programme of Work and Budget had worked since September 1996 on preparing a draft OPCW budget for 1997, it was not able to reach consensus on a recommendation to the Commission, which in turn, would have submitted it to the Executive Council for approval. One of the major obstacles to consensus was the uncertainty surrounding the working assumptions of the Commission relating to Russian and United States ratification. As the Commission was unable to present a draft budget, the Executive Secretary instead presented a budget proposal to the Executive Council based on the work already accomplished by the Commission, with the stipulation that it was not to be "construed as representing final agreement by Member States of the Commission".

Following detailed and lengthy negotiations, the Executive Council did adopt a budget for 1997 which it submitted to the Conference for approval. The budget as adopted, and covering activities from 29 April to 31 December 1997, totals Dfl 88.87 million, divided into two parts. Verification costs amount to Dfl 59.15 million and Administrative and other costs amount to Dfl 29.71 million. The sanctioned number of posts within the Secretariat for 1997 will be 405, including 140 inspectors. It is anticipated that a further 71 inspectors will be recruited in 1998, bringing the total number of Secretariat staff to 476.

An important aspect of the budget was the issue of costs of verification under Articles IV and V of the Convention. Articles IV.16 and V.19 of the Convention set out the 'possessor pays' principle in relation to destruction costs of chemical weapons and chemical weapons production facilities respectively. The budget includes an understanding on the implementation of these provisions on the basis that the

agreement is purely for the purposes of the 1997 budget, and is without prejudice to and sets no precedent for the 1998 budget. Reaffirming the 'possessor pays' principle, the understanding goes on to list those costs which are to be borne by the member states in question. These include costs incurred during on-site activities, the in-country period and transportation to and from The Hague to the Point of Entry. There are other costs which need to be further evaluated, such as costs related to headquarters activities, OPCW equipment costs and recruitment and training. The issue of the attribution of costs related to inspections of old and abandoned chemical weapons remains unresolved.

Agreement on the budget also included agreement on the top management structure of the Secretariat and the following appointments were confirmed by the Conference: Deputy Director-General: John Gee (Australia); Directors: Jean-Louis Rolland (France) — Verification, Ichiro Akiyama (Japan) — Inspectorate, Huang Yu (China) — External Relations, David Clements (USA) — Administration, John Makhubalo (Zimbabwe) — International Cooperation and Assistance, Rodrigo Yepes Enriquez (Ecuador) — Legal, Mohamed Louati (Tunisia) — Internal Oversight, and Sylwin Gizowski (Poland) — Secretary to Policy-Making Organs. All of the above appointments are for a three-year term.

*Rules of Procedure of the Executive Council and the CSP* Both organs had to adopt Rules of Procedure to govern their work. This required extensive discussion in both cases. In the case of the CSP, a major issue was agreeing on the nature and scope of participation of states which had signed, but not yet deposited their instrument of ratification. This had been a major obstacle to agreement in the Preparatory Commission and is linked to the wider debate on the extent to which non-ratifying signatory states will participate in the OPCW. Some delegations supported the participation of non-ratifying states without vote, with the reasoning that continued participation in the OPCW would facilitate early ratification, which was felt to be particularly important in the case of the Russian Federation. However, the vast majority of states opposed this, pointing to the clear provisions of the Convention that only states parties can be members of the OPCW. The Rules as finally agreed stipulate, inter alia, that a signatory state is entitled, subject to prior written notification to the Director-General, to participate in the deliberations of the Conference. However, there is no provision for such states to take part in the adoption of decisions of the Conference, whether by consensus or by vote.

In the Executive Council, the question was whether to invite states parties which are not members of the Council to be represented at or to attend meetings without the right to participate in the decision making process. This issue arises because while all ratifying states are members of the OPCW and thus can participate in the Conference of the States Parties, only 41 states become members of the Executive Council at any given time. To resolve the issue of participation by non-members of the Executive Council, it was finally agreed that meetings of the Council will either be closed or open. Open meetings are those which are open to member states of the OPCW even though they do not cur-

rently hold seats in the Executive Council. Meetings will be open unless the Council decides otherwise. Upon request, the Chairman may "with the concurrence of the Council" invite a non-member to present its views but this does not extend to being granted a role in the decision-taking. This part of the decision only relates to members of the OPCW, that is, to ratifying or acceding states. The rules go on to provide that the Council may also invite any state which is not a member of the Organization, any specialised agency or other international organization to attend any meeting of the Council without a role in decision-taking. The Council may also, if the issue in question requires, invite any non-governmental organization or any individual to attend or to be represented at an Executive Council meeting.

It seems that not all member states of the OPCW are completely satisfied with this compromise, because in the Final Report of the CSP, the Irish delegation, speaking on behalf of itself and the delegations of Austria, Canada, Greece, Switzerland and New Zealand, stated that in agreeing to join the consensus within the Conference to adopt the Executive Council's Rules of Procedure, they considered that the rules on participation have been drafted in such a way as to inhibit the ability of non members of the Executive Council to make their views known to the Council in an appropriate way. In their view, the words "The Chairman with the concurrence of the Council may invite observers to present their views" mean that in the absence of such concurrence, the Chairman could not extend such an invitation and participation would thus be excluded.

*Further decisions of the CSP* In addition to the organizational matters described above, and the adoption of the programme of work and budget for 1997, the Conference adopted a range of other decisions, dealing with administrative and verification-related issues. All of the decisions taken by the Conference are listed in its Report. This work was completed on the basis of the recommendations put forward by the Preparatory Commission and set out in its Final Report. The very first decision related to participation of international organizations and non-governmental organizations in the first session itself. As anticipated, the Conference agreed that representatives of these organizations could attend the initial high-level debate of the Conference.

Some of the unresolved issues remaining from the work of the Preparatory Commission were identified as being particularly important for the immediate implementation of the Convention, and thus consultations were conducted during the first session of the CSP with a view to resolving them. As a result, the Conference was able to take some additional decisions. For example, the Conference agreed to interim staff regulations, which are based on the staff regulations of the Preparatory Commission, and are to apply to the OPCW until the conclusion of the third regular session of the Conference. The Conference also took a decision on the OPCW Central Analytical Database whereby the entire content of the Database is set out, bringing together a host of recommendations of the Preparatory Commission. In addition to this compilation, the decision requests the Director-General to establish a consultative mechanism for updating the database to enable the Executive Council to recommend proposed inclusions to the Conference for



adoption. In this way, work will be able to proceed on updating the database.

Another important decision of the Conference relates to inspection equipment. The Preparatory Commission had approved a list of equipment but this had only been for training and budgetary purposes and there had been no agreement that the equipment could be used for inspection purposes. One of the major reasons for blocking approval of the list was voiced in objections by several countries, including the Non Aligned Movement and China at the sixteenth session of the Preparatory Commission, to the fact that several items of equipment were subject to export controls and were not freely available for procurement by all states parties to the Convention. The Conference has now decided that such equipment can be used for inspection purposes. However, the decision is subject to a number of specific understandings including restrictions on the use of certain items of equipment for confidentiality purposes, restrictions on the use of certain occupational health and safety equipment and prior access of the inspected State Party to the equipment to its satisfaction so as to ensure familiarity. The understandings also provide that the decision does not affect the continuing non-resolution of provisions for indicating the specific types of equipment for the specific types of inspection and agreement on the term "particular type of inspection". The list approved by the Conference is comprehensive in that it includes operational requirements, technical specifications and common evaluation criteria of all items.

*Unresolved Issues* A number of issues which have a bearing on the implementation of the Convention remained unresolved from the work of the Preparatory Commission for the OPCW. As explained above, a few of these were dealt with in the course of the first session of the CSP, but others remain outstanding. These were listed by the Preparatory Commission in Section Four of its final report and, in accordance with the request of the Commission, the Secretariat subsequently issued a "List of Associated Papers to Unresolved Issues". How to deal with the unresolved issues was a major decision facing the CSP. While there was agreement on the need to solve the unresolved issues, it was more difficult to achieve consensus on the mechanism which ought to be adopted to achieve this. The first step was to decide on the mechanism which should be adopted and the next step was to decide on the extent to which signatory states which had not yet deposited their instruments of ratification should participate in this work.

The Conference decided on a "Procedure for Addressing Unresolved Issues During the First Intersessional Period". The decision stresses that every effort should be made to complete this work between the first and second Conferences of the States Parties. Thus, the procedure applies only to this period. The decision also stresses the need for a flexible, informal and transparent consultation process. Essentially the decision provides for a two-track approach. First, the Chairman of the Committee of the Whole is to designate facilitators, to whom issues will be assigned, and who will conduct consultations as they deem appropriate. The facilitators will make proposals to the Committee of the Whole at the next session of the CSP. The facilitators

are required to make every reasonable effort to ensure that all states parties have an opportunity to participate in the process and that signatory states are given a "reasonable opportunity to express their views".

The second means of resolving issues is to bring an issue to the attention of the Executive Council in cases where immediate resolution or urgent action is required. In this context, the Director-General may inform the Executive Council of any practical experience which the Technical Secretariat has gained. This will mean that some issues become resolved through practice. When there is an overlap between issues brought before the Executive Council and the work of a facilitator, the work of the facilitator is to be taken into account which will ensure that the two procedures provided for in the decision will work in tandem. To that end, the decision also provides that the Executive Council is to monitor the procedure and can invite the Chairman of the Committee of the Whole to inform it about progress.

The prevailing view in the negotiations which preceded this decision was to avoid any move towards reconstituting the expert group process. The procedure adopted is envisaged as a much more open and flexible approach. Further, as mentioned above, it is envisaged that the option of access to the Executive Council may well mean that as the Convention is implemented, unresolved issues will be resolved through practice. However, for the moment, it is difficult to assess precisely how this procedure will work but it is likely that some aspects will become clearer in the course of the Executive Council meeting scheduled for 23-27 June.

As regards participation in this process, naturally, not all states were happy with the limited role for signatory states. The Russian Federation issued a statement expressing the expectation that "a framework allowing its adequate involvement in the consideration of the unresolved issues will be established." It is difficult to anticipate what a "reasonable opportunity" might encompass and whether this will meet the expectations of the Russian Federation and others.

### ***Future work of the OPCW***

With the conclusion of the first session of the CSP, implementation work on the Convention starts in earnest. In order to be able to carry out this work, the Secretariat faces a number of immediate tasks such as finalising recruitment of staff, including the 115 inspectors who have successfully completed the inspector training courses and come from ratifying states.

Inspectors will report for duty on 23 June. On 16 May, the Secretariat issued a note attaching a list containing the names and personal data of the inspectors and inspection assistants for designation as required by Part II.1 of the Convention's Verification Annex. Pursuant to para 2, unless a state party declares its non-acceptance of an inspector or an inspection assistant in writing within 30 days of acknowledging receipt of the list, the inspector or inspection assistant will be regarded as designated. Work on procuring visas for the inspectors is well underway.

The Secretariat has started to receive declarations, which must be processed and assessed. Those marked confidential of course cannot be processed until such time

as the appropriate staff have been cleared for access. Working towards that, the Director-General issued a note notifying states parties that staff members of the Technical Secretariat listed in an attachment to the note will be given clearance for access to confidential information in accordance with paragraph 11 of the Confidentiality Annex.

In terms of inspection activities, the most immediate task, and one which is already underway is putting in place transitional verification arrangements for those destruction facilities operating at entry into force. Pursuant to Part IV.A, para 51, of the Verification Annex, chemical weapons destruction operations during the first 390 days after entry into force are to be governed by transitional verification arrangements, to be agreed between the OPCW and the inspected state party. At this stage, these arrangements will apply only to two sites in the United States. This entails a visit by the Secretariat to the facilities in question and an evaluation of the information provided by the inspected state party. This initial visit is being carried out at the time of writing and the Executive Council will consider the ensuing transitional verification arrangements at its meeting in June. The Convention requires that the Council approve arrangements not later than 60 days after entry into force, that is, 28 June 1997.

The Convention also requires in Part V, para 43, of its Verification Annex that each chemical weapons production facility is to be subjected to an initial inspection in the period between 90 and 120 days after entry into force for the state party in question. Thus, by August, the Secretariat will have to conduct an on-site inspection at each facility

which has been operating as a chemical weapons production facility at any time since 1 January 1946.

The Secretariat will also need to consider how to deal with the shortfall in inspectors. It is estimated on current inspection planning that approximately 200 inspections will be carried out in 1997. These will be involved primarily in chemical weapons related facilities and Schedule 1 facilities. 115 inspectors are not sufficient to undertake this workload. Approval of member states will be needed in the event that the Secretariat decides to approach them for assistance in the form of loaning inspectors. Training for the second group of 90 trainees is unlikely to be able to commence before early 1998.

Finally, the unresolved issues will need to be tackled. Although they are all important, some will have a special urgency because of their impact on implementation or their political significance. They include not only administrative and organizational issues, such as the appointment of the External Auditor and the establishment of the Scientific Advisory Board, but also verification related issues including chemical industry declarations, some issues relating to chemical weapons, old and abandoned chemical weapons, challenge inspections, the confidentiality regime and implementation of Articles X and XI. While the smooth and effective implementation of the Convention will require that the unresolved issues be settled, it is nevertheless evident that the bold enterprise of the OPCW has now begun in earnest.

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

### Signatures of the CWC awaiting full ratification

<i>Afghanistan</i> — 14 January 1993	<i>Grenada</i> — 9 April 1997	<i>Nicaragua</i> — 9 March 1993
<i>Azerbaijan</i> — 13 January 1993	<i>Guatemala</i> — 14 January 1993	<i>Nigeria</i> — 13 January 1993
<i>Bahamas</i> — 2 March 1994	<i>Guinea-Bissau</i> — 14 January 1993	<i>Pakistan</i> — 13 January 1993
<i>Benin</i> — 14 January 1993	<i>Guyana</i> — 6 October 1993	<i>Panama</i> — 16 June 1993
<i>Bolivia</i> — 14 January 1993	<i>Haiti</i> — 14 January 1993	<i>Qatar</i> — 1 February 1993
<i>Bhutan</i> — 23 April 1997	<i>Holy See</i> — 14 January 1993	<i>Russian Federation</i> — 13 January 1993
<i>Brunei Darussalam</i> — 13 January 1993	<i>Honduras</i> — 13 January 1993	<i>Rwanda</i> — 17 May 1993
<i>Burkina Faso</i> — 14 January 1993	<i>Indonesia</i> — 13 January 1993	<i>Saint Kitts and Nevis</i> — 16 March 1994
<i>Burundi</i> — 15 January 1993	<i>Iran</i> — 13 January 1993	<i>Saint Vincent and the Grenadines</i> —
<i>Cambodia</i> — 15 January 1993	<i>Israel</i> — 13 January 1993	20 September 1993
<i>Cape Verde</i> — 15 January 1993	<i>Jamaica</i> — 18 April 1997	<i>Samoa</i> — 14 January 1993
<i>Central African Republic</i> —	<i>Kazakstan</i> — 14 January 1993	<i>San Marino</i> — 13 January 1993
14 January 1993	<i>Kyrgyzstan</i> — 22 February 1993	<i>Senegal</i> — 13 January 1993
<i>Chad</i> — 11 October 1994	<i>Liberia</i> — 15 January 1993	<i>Sierra Leone</i> — 15 January 1993
<i>Colombia</i> — 13 January 1993	<i>Liechtenstein</i> — 21 July 1993	<i>Tanzania</i> — 25 February 1994
<i>Comoros</i> — 13 January 1993	<i>Lithuania</i> — 13 January 1993	<i>Thailand</i> — 14 January 1993
<i>Congo</i> — 15 January 1993	<i>Madagascar</i> — 15 January 1993	<i>Uganda</i> — 14 January 1993
<i>Cyprus</i> — 13 January 1993	<i>Malawi</i> — 14 January 1993	<i>Ukraine</i> — 13 January 1993
<i>Djibouti</i> — 28 September 1993	<i>Malaysia</i> — 13 January 1993	<i>United Arab Emirates</i> — 2 February 1993
<i>Dominica</i> — 2 August 1993	<i>Marshall Islands</i> — 13 January 1993	<i>Venezuela</i> — 14 January 1993
<i>Dominican Republic</i> — 13 January 1993	<i>Mauritania</i> — 13 January 1993	<i>Viet Nam</i> — 13 January 1993
<i>Estonia</i> — 14 January 1993	<i>Micronesia</i> — 13 January 1993	<i>Yemen</i> — 8 February 1993
<i>Gabon</i> — 13 January 1993	<i>Myanmar</i> — 14 January 1993	<i>Zaire</i> — 14 January 1993
<i>Gambia</i> — 13 January 1993	<i>Nauru</i> — 13 January 1993	<i>Zambia</i> — 13 January 1993
<i>Ghana</i> — 14 January 1993	<i>Nepal</i> — 19 January 1993	Total: 72 states

*As of 24 June, 167 states had signed or acceded to the CWC*

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

**1 February** In the Russian Federal Assembly, the future of the federal legislation *On the Destruction of Chemical Weapons* now rests with the Conciliation Commission that is being formed following rejection by the Federation Council of the draft law passed by the State Duma [see 23 Jan]. Influential in this process is Col-Gen Albert Makashov, a Communist Party deputy on the Duma Defence Committee, whose views on the legislation and on the Chemical Weapons Convention are contained in an interview he gives at around this time for the Moscow PIR Center journal *Yaderny Kontrol*. He states three main reasons why he dislikes the Convention, which in his view Russia should not ratify, “at least not before Israel and the USA”. One reason is “because its implementation will eliminate our chemical industry”. This, he explains, follows from the Convention requiring, so he states, the destruction of all plants where chemical weapons have been produced, and from the fact that, “[d]ue to historical reasons at every [chemical industry] enterprise a section produced chemical weapons, or these weapons made a certain percentage of the total output, and they produced chemical agents at certain plants which are now laid up”. A second reason is that the weapons have historically possessed, in his view, a certain deterrent value: “If others have chemical weapons and we do not, this is a bad thing”. A third reason is the burden that implementing the Convention will place on the Russian economy. As for the legislation, he feels he had done his duty in its drafting. He makes this comment: “[W]e need to have some [chemical] weapons for protection, for defense. A portion of weapons which become obsolete shall be destroyed. We shall not make haste to destroy the rest; we shall observe rules of ecological security.”

**2 February** In Germany, the president of the Federal Intelligence Service, Hans Jörg Geiger, is interviewed live on television about the future role of the BND. On the subject of Middle East rearmament he says: “It is remarkable that countries which at the time of the Cold War would never have thought — or, at least, the respective superpower would have prevented them from developing their own missiles or building their own bacteriological weapons — that these countries are now trying to develop missiles and to build up their own production capacities. If we are realistic, we must assume that some countries will have missiles that will be able to reach Central Europe at the end of the next decade at the latest, that is, by 2008 or 2010, and that some of these countries want to develop nuclear, biological and chemical weapons.”

**3 February** US Senate Foreign Relations Committee Chairman Jesse Helms, who once again [see 7 Dec 95] has partial control of when the Senate can consider the Chemical Weapons Convention, has written to Senate Majority Leader Trent Lott [see 13 Jan] with his recommendations for the “top Republican priorities” that the Senate should address ahead of the CWC. His letter, which is dated 29 January and which he now releases, identifies his preferences as: (1) “enactment of legis-

lation fundamentally restructuring the antiquated foreign policy agencies of the US” (2) “enactment of legislation that ensures comprehensive reform of the United Nations” (3) “submission of ABM and CFE Treaty modifications to the Senate for advice and consent” and (4) “enactment of legislation to deploy a national missile defense”. He states, further, that he expects the resolution of ratification [see 21 Jan] which his committee eventually approves for the CWC to provide certain “key protections” in regard to “pariah nations”, verifiability, riot control agents, “international bureaucracy”, and “liberalization of chemical trade restrictions on Cuba, China and Iran”. He writes: “I believe that the starting point for any further discussions on the CWC must be the resolution of ratification which I presented to the Foreign Relations Committee on April 25, 1996 [q.v.]. That resolution contained many conditions essential to ensuring that the Chemical Weapons Convention enhances, rather than reduces, our national security.”

Senator Lott is said by his staff to have declined a request from the White House next day to intervene with Senator Helms. His task force of nine Republican senators [see 13 Jan] including Senator Helms had, however, met with National Security Council director Sandy Berger on 29 January for a meeting subsequently described as “constructive”, and with another such meeting expected.

**4 February** UNSCOM Deputy Chairman Charles Duelfer says in an interview: “we’ve drawn the conclusion that Iraq is retaining a coherent weapons program, not just bits and pieces that they failed to inform us about. ... We remain concerned that the Iraqis have an operational missile force. If they have, then it’s likely they have warheads — both chemical and/or biological — to put on them.” {*Los Angeles Times* 5 Feb}

**4 February** In Washington, an article about Russian chemical weapons in the classified US Defense Department publication *Military Intelligence Digest* is quoted in the *Washington Times*. The article, said to be from the 24 January issue of MID, is reportedly by James W Poarch of the National Ground Intelligence Center. It relates information first publicized in 1992 by Russian whistleblower Vil Mirzayanov [see 31 Oct–1 Nov 95] concerning a purported Soviet/Russian programme, code-named Foliant [see 8 Dec 93], for development of novel CW agents, such as ones as yet publicly identified only as ‘A-232’ [see 25 May 94] and ‘A-234’. The newspaper states that the leaked article indicates that Russia is producing a new generation of deadly chemical weapons, suggesting that, in doing so, Russia is somehow “using materials, methods and technology that circumvent” the terms of the CWC. The newspaper does not explain this last claim, but, citing the leaked article, it says: “Under a program code-named Foliant, a Russian scientific research organization has created a highly lethal nerve agent called A-232, large quantities of which could be made “within weeks” through covert production facilities”. The newspaper provides the following verbatim quotations from the MID article:

- “These new agents are as toxic as VX, as resistant to treatment as soman, and more difficult to detect and easier to manufacture than VX”.
- A-232 and its delivery means have “passed Moscow’s rigorous military acceptance testing and can be quickly fielded in unitary or binary form”.
- A-232’s “key components are not covered by the Chemical Weapons Convention”.
- “By using chemicals not specified in the CWC schedules, the Russians can produce A-232 and its ethyl analog A-234 in unitary and binary forms within several chemical complexes”.
- The binary version of the new agent is made from acetonitrile and an organic phosphate “that can be disguised as a pesticide precursor” in another version, alcohol is added to form the agent.
- Russia can produce the new agent in “pilot plant” quantities of 55-110 tons per year.
- A factory in Novocheboksarsk “is capable of manufacturing 2,000 to 2,500 metric tons of A-232 yearly”.
- Several pesticide plants “offer easy potential for covert production... For example, substituting amines for ammonia and making other slight modifications in the process would result in new agents instead of pesticide.”

A spokesman for Senator Helms [see 3 Feb], Marc Thiesen, soon tells reporters that the existence of A-232 “shows the Russian military is completely opposed to ending its chemical weapons program and is aggressively working to circumvent the Chemical Weapons Convention”.

**4 February** In the United States, the Institute for National Strategic Studies of the National Defense University publishes its *Strategic Assessment 1997: Flashpoints and Force Structure*. Its main conclusions include the following: “The U.S. must be prepared to defeat a rogue regime in a major regional conflict while successfully deterring and preparing to defeat a second such regime. The United States must be prepared to defend and liberate territory by using heavy ground-maneuver units under risk of nuclear, biological, and chemical weapons attack. It must also be prepared to operate in concert with ad hoc coalitions, in which some participants contribute substantial military assets while others are represented more for their political effect.”

**4 February** Japanese use in China of an air-delivered plague weapon in August 1942 near Congshan village [see 1 Jul 96] in Zhejiang Province is described by the *New York Times* from interviews in Congshan. The BW operation, apparently an experimental one, had initiated an epidemic of plague which reportedly killed 392 of the 1200 Congshan residents over a two month period [see also 30 Dec 93 and 2 Aug 95].

**4 February** President Clinton, in his State of the Union address, says: “Now, we must rise to a new test of leadership: ratifying the Chemical Weapons Convention. Make no mistake about it, it will make our troops safer from chemical attack; it will help us to fight terrorism. We have no more important obligations — especially in the wake of what we now know about the Gulf War. This treaty has been bipartisan from the beginning — supported by Republican and Democratic administrations and Republican and Democratic members of Congress — and already approved by 68 nations. But if we do not act by April the 29th — when this Convention goes into force, with or without us — we will lose the chance to have Americans leading and enforcing this effort. Together we must make the Chemical Weapons

Convention law, so that at last we can begin to outlaw poison gas from the Earth.”

**5 February** In the US Senate, Acting Director of Central Intelligence George Tenet testifies on threats to US national security, during which he addresses the proliferation of weapons of mass destruction. In his prepared statement for the Select Committee on Intelligence he has written: “About 20 countries, among them Iran, Libya, and Syria, have or are actively developing chemical and biological weapons” [see also 9 Jan USACDA]. He has also written: “Iran has an increasingly active chemical weapons program. Over the last year, it has sought the capability to produce not only the chemical agents themselves, but also the precursor chemicals, making it less vulnerable to export controls of its foreign suppliers.” He also testifies on terrorist interest in weapons of mass destruction, stating: “We are increasingly seeing terrorist groups looking into the feasibility and effectiveness of chemical, biological, and radiological weapons”. In his oral testimony, he says the following about the Chemical Weapons Convention: “This is not a treaty that will be perfectly verifiable. But there are tools in this treaty such as data exchanges and on-site inspections which will help us verify.”

**5 February** The US Senate Committee on Veterans Affairs appoints special counsel for its investigation of issues surrounding Gulf War Syndrome [see 29 Jan]. The appointee is Michael J Rotko, a partner in the Philadelphia law firm Drinker, Biddle & Reath and previously a US Attorney. The committee is also seeking to establish a Gulf War Syndrome Investigative Unit which Special Counsel Rotko would direct.

**5 February** Former US Army Chief Chemical Officer Gerald Watson [see 26 Nov 96, New York] characterizes Solvated Electron Technology to the *New York Times* as “a really good alternative to incineration” for the destruction of chemical weapons. The joint venture — of which he is now president — that is seeking to exploit the technology for the worldwide chemdemil market, Teledyne Commodore LLC, is about to dispatch sales teams to Moscow and Tokyo. A board member of parent company Commodore Applied Technologies Inc, Kenneth Adelman, who was director of the US Arms Control and Disarmament Agency under President Reagan, tells the *Times*: “It has no chimney stacks. ... It works, it’s relatively cheap and it’s portable, so you don’t have to ship the bad stuff around the country. ... Without chimney stacks, Russian consumers and residents don’t get excited about the bad stuff in the air.” Adelman is later appointed Executive Vice President of Commodore Applied technologies for Marketing and International Development {PR Newswire 13 May}.

**5–7 February** In Washington, the Intergovernmental Russian-US Commission for Economic and Technological Cooperation co-chaired by Russian Prime Minister Viktor Chernomyrdin and US Vice-President Albert Gore reconvenes [see 15-16 Jul 96] for another of its twice-yearly sessions. The Commission now has eight working-groups each led by a minister on the respective sides. It is later reported from Moscow that the Commission reaches an agreement whereby the United States would allocate funds for Russia to build a chemdemil facility at Shchuch’ye [see 961211 and 3 Dec 96]. The source of this information is Col Gen Stanislav Petrov, commander of the Russian Defence Ministry RKhB Protection Troops.

**6 February** The US Deputy Assistant to the Secretary of Defense for Cooperative Threat Reduction, Maj-Gen (ret) Roland Lajoie, briefs a committee of the US National Academy of Sciences on the government's approach to demilitarization of the BioMedPreparat facility of the former Soviet Union at Stepnogorsk [see 22 Mar 96] in Kazakstan. The facility had been visited by a US interagency team in July 1996. He identifies with numerous photographs what he calls the "buildings of concern" at the facility, by which he means buildings — long since inactive — specifically designed and built to produce, process, handle and store offensive BW agents. He speaks of the biological-weapons-specific structural features and items of equipment observable in these buildings, including one where bomblets could be charged with BW-agent payload. He says that the facility had been built in the early 1980s to a dual-purpose specification requiring that production of biological weapons could be brought on-stream at six months notice. He outlines the US Defense Department plans for the future of the "BW dismantlement" project at Stepnogorsk, saying that they "will serve as a template for similar CTR activities in Russia".

The context of the briefing is the collaborative project which two elements of the National Academy — the NAS Committee on International Security and Arms Control, and the Institute of Medicine Board on International Health — have initiated with Russia to design a bilateral US-RF initiative for expanding research on especially dangerous biological pathogens. The 1996 *Newsletter* of the National Research Council Office for Central Europe and Eurasia describes the project as follows: "This initiative is to provide opportunities for scientists previously involved in research related to biological warfare (BW) to redirect their efforts to peaceful purposes. ... By enhancing research opportunities on public health problems with global implications, this project should decrease the isolationist structure of the former Soviet military institutes, while discouraging the emigration of former BW researchers to nations of BW proliferation concern. As a basis for the longer-term initiative, the NAS/IOM committee, chaired by Nobel Laureate Joshua Lederberg, will establish initial collaborative research projects with a few of the former Soviet BW research institutes."

**6 February** The US Federal Bureau of Investigation is planning to build a laboratory at its training center in Quantico, Virginia, which would enable it to undertake forensic work involving chemical or biological agents. Because by statute the FBI now has the lead in combatting domestic terrorism, it wishes to move away from dependence, in the event of biological terrorism, on the Atlanta-based Centers for Disease Control and Prevention or the Army Medical Research Institute for Infectious Diseases at Fort Detrick. There is talk of collaboration on the project with the Marine Corps. {*Newsday* 6 Feb}

**7 February** Czechoslovak detection of CW agents in the Gulf War theatre during January 1991 [see 22 Oct 96] is described in detail by one of the officers who served with the Czechoslovak special battalion during the war, Jiri Aberle, writing in *ASA Newsletter*.

**7 February** In Oregon, the building of a chemdemil incinerator at Umatilla Chemical Depot, near Hermiston, receives formal approval from the state Environmental Quality Commission. The Army thereupon awards a \$567 million contract to Raytheon to construct, operate and ultimately close down the facility over a 9-year period. In terms of total agent tonnage, Umatilla is said to contain 11.6 percent of the US inventory of chemical weapons. Raytheon, which was competing for the

contract with Westinghouse and EG&G, currently operates the JACADS chemdemil incinerator in the Pacific, where some 1100 tonnes of CW agents have been destroyed over the past six years [see 15 Oct 96].

**8 February** In Texas, US Secretary of State Madeleine Albright visits former US President George Bush at his residence in Houston, and both of them later speak to reporters. President Bush says: "I told Secretary Albright that she would have my enthusiastic support in her quest for bipartisanship in foreign policy. I think Jim Baker, my esteemed friend and former colleague, told her the same thing, so it's real from us and I know she feels strongly about that. I told her I would strongly support her efforts to get this chemical weapons treaty approved. This should be beyond partisanship. I have a certain fatherhood feeling about that. But leaving that out, I think it is vitally important for the United States to be out front, not to be dragged kicking and screaming to the finish line on that question. We don't need chemical weapons, and we ought to get out front and make clear that we are opposed to others having them. So that's important." Secretary Albright says: "The Chemical Weapons Convention is not either a Republican or a Democratic convention. It's an American interest." Both she and former Secretary of State James Baker had the day previously been speaking at Rice University, and both had included strong advocacy of the CWC in their speeches.

**10 February** In Almaty, members of parliament have launched a protest against the 1996 agreements between Kazakhstan and Russia which, until 2006, enable continued Russian access to weapons test sites. *Almaty Ekspress* reports that the deputies have launched an exhibit displaying 50 years of environmental abuse during the Soviet period when the sites were used to test, among other things, chemical weapons [see 1 Mar 93]. {*Jane's Defence Weekly* 5 Mar}

**10 February** The US chemdemil programme is unlikely to be finished by the end of 2004, as currently required by US law, and is likely to cost more than the \$12.4 billion currently estimated (or \$27.6 billion if the 40-year disposal programme for nonstockpile CW materiel is added in), so says the General Accounting Office in a detailed report to Congressional committees. The reasons include "public concerns over the safety of incineration, compliance with environmental laws and regulations, legislative requirements, and the introduction of alternative disposal technologies". {GAO/NSIAD-97-18}

**12-19 February** In Iraq, UNSCOM conducts its 46th biological-weapons inspection, UNSCOM 173, at one of the sites where Iraq had claimed to have destroyed its BW weapons. The team is led by Hamish Killip of the United Kingdom. Excavation produces three virtually intact bombs of the type Iraq had declared as biological weapons. They will be sampled by an expert team. {S/1997/301}

**13 February** The UK Department of Health has studied health effects of the irritant agent capsaicin and produced a report, so Parliament is told by one of its ministers, who releases a copy of the report. The report dates from 1993 and concludes that "the available experimental data indicate that capsaicin should be regarded as a genotoxic carcinogen". *Note:* capsaicin is the active principle of chili pepper and thus of the oleoresin capsicum (agent OC) used in 'pepper spray' and other disabling chemical weapons [see 18 Jan 96 and 22 Mar 96].

**13 February** In the US Senate, Senator John Kerry [see 7 Dec 95] speaks at length on the CWC and on the principal arguments thus far presented on why the United States should not ratify the treaty. On costs he says: "The opponents claim that the Chemical Weapons Convention will create a massive new United Nations type international inspection bureaucracy, which will result in costs to our taxpayers of as much as \$200 million per year. The reality is that the nonpartisan Congressional Budget Office has estimated the US costs to comply with declaration, inspection, and verification procedures of the CWC will average \$33 million per year, an amount which includes our annual assessment to the OPCW of \$25 million." On the claim that as many as 8,000 US companies will incur heavy uncompensated annual costs from complying with the treaty, he says: "The reality is that it will not affect 8,000, it will affect only about 2,000 companies. Approximately 1,800 of those 2,000 companies will not have to do anything more onerous than check a box on a form regarding production range. They will not even be required to specify which chemicals they produce. Most of the firms for which compliance activities will be more extensive are supporters of the treaty, and directly, or through their industry association, were consulted as the CWC provisions affecting commercial facilities were negotiated."

**13 February** The US Defense Department, with the concurrence of the CIA, makes public two hitherto unreleased internal documents which indicate that the Army had been warned by the CIA in November 1991 that US troops who had been in the vicinity of Khamisiyah in March 1991 could have been at "risk of chemical contamination" from the demolitions of Iraqi weapon-dumps conducted then. Redacted copies of the documents are posted on the Internet, at the GulfLink website. They show the CIA informing US Army Central Command that, when UNSCOM 20 [see 3 Nov 91 and 7 Jan] had visited Tall al Lahm (otherwise known as Khamisiyah) ammunition storage depot on 26-27 October 1991, it had found the place littered with damaged and destroyed sarin-filled 122mm rockets; and the UN inspectors had also found that the buildings there had been destroyed, not by aerial bombardment, but by demolition, and that there were signs that the demolition had been conducted by US ground troops.

The Department's Special Assistant on Gulf War Illness, Bernard Rostker, later suggests to reporters that the reason why the Army had not at the time responded more inquiringly to the CIA information was because of "the very strong suspicion that the whole story was made up by the Iraqis" [see also 7 Jan]. He refers, nevertheless, to the existence of still-classified intelligence information which, in February 1991, had given reason to believe there were chemicals at Khamisiyah then. All of which prompts a reporter to ask: "Doesn't this show that the Pentagon was in a sort of state of denial? That they had just convinced themselves there were no chemical weapons, and no amount of intelligence and anecdotal reporting was going to change anybody's mind?" Dr Rostker replies: "Certainly the intelligence community up through [19]94 had the strong belief that chemical weapons were not at Khamisiyah and were brought there afterwards". He cites the 1994 Defense Science Board study [see 23 Jun 94] as evidence: the study says [on p 31] that "the site visited by the UNSCOM team ... may have been specially constructed for the UN inspectors".

**13-14 February** In Singapore, the 12th ASEAN-EU Ministerial Meeting takes place. It is co-chaired by the Netherlands and Singapore. Vietnam is participating for the first time; so are Austria, Finland and Sweden. The ministers subsequently

issue a lengthy joint declaration. This welcomes "the conclusion of the Fourth Review Conference of the Biological and Toxin Weapons Convention that the Ad Hoc Group, which is considering a legally binding instrument to strengthen the convention, should intensify its work and conclude negotiations as soon as possible". The 16-page joint declaration also refers to various other arms-control and security matters, but makes no reference to the Chemical Weapons Convention.

**14 February** In Taiwan, the Ministry of Economic Affairs has established a working panel to prepare for entry into force of the Chemical Weapons Convention [see also 30 Nov 94]. The ministry states that, although Taiwan, which is no longer a member of the United Nations, is effectively precluded from joining the treaty, it nevertheless intends to abide by its international rules. To this end, domestic regulations are being prepared in order to implement the Convention in Taiwan. The Ministry announces that the working panel is tasked to make Taiwan's efforts known to other countries and to negotiate with them for exemption from the trade restrictions which the Convention requires its members to direct against non-members. The Ministry statement notes that Taiwan is the 11th largest chemical trader in the world, and estimates that some NT\$50 billion (US\$1.85 billion) of product will be directly affected by the CWC, with three times that quantity indirectly affected.

**17 February** In Qatar, the GCC-EU Joint Council meets for its 7th ministerial session and issues a lengthy Joint Communiqué. In it, the ministers "welcomed the imminent entry into force of the Chemical Weapons Convention which they considered a major landmark in the process of disarmament and non-proliferation. They urged all States signatories to the Convention to complete their ratification procedures as soon as possible. They called on States which had not yet signed the Convention to do so." The Joint Communiqué also addresses the BWC, saying that the ministers attached particular importance to its effective implementation and that they "looked forward to achieving early conclusion of the work on verification, bearing in mind the commencement of the fifth Review Conference".

**17-18 February** In Switzerland, an international seminar on *The Chemical Weapons Convention as a Key Part of Global Security Policy* is convened in Bern by the Forum Ost-West. Its goals include increasing the public visibility of the CWC, especially through media contacts, and building an international network of CWC-supportive nongovernmental organizations. The participants and speakers are from Italy, the Netherlands, Russia, Switzerland and the USA, as well as from the UN Secretariat and the OPCW Provisional Technical Secretariat. The focus is primarily upon the disarmament aspects of the CWC in so far as they concern Russia and the United States. There is particular attention to the Russian chemdemil programme, one of the speakers being the mayor of Kizner [see 11 Nov 96].

**18 February** In the Israeli Knesset, the newly formed Committee on Scientific Research takes evidence on the Israel Institute for Biological Research at Ness Ziona. This is a facility which Israel Radio has described as "a mysterious complex surrounded by high walls with watchdogs and armed guards to keep out inquisitive snoopers", and of which a former deputy director, Dr Marcus Klingberg [see 28 Jan 96] is serving a 20-year jail sentence for passing top-secret information to the former Soviet Union. Committee Vice Chairman Rafi Elul has instigated the hearing because of the fears for their safety that have been expressed by people living in the residential

neighbourhood that has grown up around the institute since its founding 40 years ago. He tells the committee that there have been four accidents in the institute over the past 15 years, and that 3 people died and 22 were injured as a result. Institute Director Avigdor Shefer (Avigdor Shefferman, according to another report) gives an account of institute work in the fields of biology, medicinal chemistry and environmental studies; he says it conforms to international standards and is perfectly safe. Science Ministry Deputy Director-General Shmuel Brener says he is "calm" about the institute's location, but would support the idea of relocating it to a non-residential area. The Committee decides to establish a special subcommittee that would act in coöperation with the Knesset Foreign Affairs and Defence Committee, the Science Ministry and the management of the institute. Its first task would be to prepare an environmental assessment of the institute. After the hearing, a spokesman for Prime Minister Netanyahu, Shai Bazak, says there have been "no severe work accidents" and no one killed at the institute since its inception in 1953.

**20 February** In New York, where the Preparatory Committee on the Establishment of an International Criminal Court [see 29 Nov 96] has been meeting since 11 February, a draft consolidated text for a definition of 'war crimes' is produced by a working group of the committee. Through extensive use of variant language, footnotes and square brackets, the draft consolidates proposals submitted by New Zealand, Switzerland and the United States while also reflecting consultations and working-group discussions. The draft includes language which would make resort to CBW weapons a war crime. The formulation used in the draft to do so is unbracketted, but it extends not only to "using asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices" but also to "using chemical weapons [in the sense of the CWC]" as well as to "using bacteriological (biological) agents or toxins for hostile purposes or in armed conflict". {A/AC.249/1997/WG.1/CRP.2}

**20–21 February** In Brussels, US and European support for conversion to civil-sector work of Russian establishments associated with CBW weapons is addressed at a conference jointly sponsored by the Washington-based Potomac Foundation, the United States Industry Coalition Inc, and the Institute for International Policy Development, which is a Scottish organization. The conference learns from the director of the Industrial Partnering Program (IPP), John Hnatio, that there are plans to expand the IPP, which is co-funded by the US Department of Energy and USIC Inc, from its concentration on nuclear-weapons conversion so as to include the CBW sector in what is now a two-year-old initiative to promote profit-making projects financed jointly from public and private sources. USIC president J Hunter Chiles says: "What we want is to set up a European version of the USIC, particularly as the proliferation focus shifts to the biological and chemical sectors". Collective European support for Russian military conversion is largely limited to the TACIS programme, the EU technical aid programme for countries of the Commonwealth of Independent States, which has recently come under adverse criticism, not least for its reliance on highly paid Western consultants. {*Defense News* 3 Mar}

**20–23 February** In Baghdad, UNSCOM Executive Chairman Rolf Ekéus conducts another of his bimonthly rounds of talks with senior Iraqi officials [see 8–11 Dec 96]. He is accompanied by a team of ten ballistic-missile and chemical-weapons experts, including Nikita Smidovich of Russia. Ending a three-month standoff, agreement is reached whereby Iraq will allow

export of the disputed missile remains for examination in the United States, France and a third country, possibly Russia. The joint Iraq/UNSCOM statement recording this agreement also says: "By using the methodology of the December 1996 talks on missiles, the government of Iraq and the Special Commission began detailed revision of the chemical weapons issue on a high political level and the Commission presented its concerns regarding outstanding issues in this issue. Detailed technical discussions were held between experts from both sides, and the government of Iraq pledged to continue to take note of the concerns of the Commission. As a result, it was agreed to carry out joint and intensive efforts. A follow-up meeting will be held in this regard on the technical level in mid-March." Ambassador Ekéus tells reporters at the close of the talks that UNSCOM's "substantial and serious" concerns about chemical weapons had to do with "the counting of the warheads for chemical warfare", particularly the possibility of VX-filled warheads. He also tells reporters that the biological-weapons issue will be taken up during his next round of talks in Baghdad, in March.

**21 February** The US Defense Department posts on the Internet its case narrative on *US Demolition Operations at the Khamisiyah Ammunition Storage Point* [see 13 Feb]. At a press conference four days later, the Special Assistant for Gulf War Illnesses, Bernard Rostker, describes the publication, which is detailed and closely documented, as "an interim report about what we currently know about Khamisiyah". He says it is partly intended to stimulate Gulf War veterans to come forward with additional information.

**24 February** In Beijing, where, on the eve of the memorial service for Deng Xiaoping, US Secretary of State Madeleine Albright has been holding talks with the Chinese leadership, she tells reporters that there will be US-China talks in March on the control of international transfers of CW precursor chemicals and missile technology [see also 20 Jan].

**24 February** In the United States, 148 members of the US National Academy of Sciences, all of them chemists or biochemists, address a letter to Senate Majority Leader Trent Lott [see 3 Feb] urging him "to work as a matter of national urgency to bring the Chemical Weapons Convention to a vote in the Senate before April 29". A wide variety of other US organizations potentially affected by the treaty but previously silent on whether it should or should not be ratified have also declared their support for it. They include the Reserve Officers Association, the American Jewish Committee, the US Catholic Conference, the National Council of Churches, the Jewish War Veterans of the USA, the Veterans of Foreign Wars, B'nai B'rith and, subsequently, the Chemical Weapons Working Group (the national coalition of citizens groups from states where there are, or are to be, chemdemil facilities [see 26 Nov 96]). A great many other organizations and prominent individuals will also enter the public debate over the coming month. A week previously the vote-count in the Senate had been reckoned by one commentator to be 51 in favour of ratification, 10 against, with the remainder undecided or unknown.

Meanwhile, in the negotiation between the administration and Senate Republicans [see 3 Feb], Senator Lott's task force is now reported to have met three times with National Security Adviser Sandy Berger, who, in addressing the concerns expressed by Senator Helms, is said to have outlined 12 ways to buttress the treaty, among them enhancing US chemical-detection capability. Another such proposed measure is said to be a public pledge by the administration to bring "overwhelming and



devastating" retaliation against any enemy using chemical weapons against US troops. These and other such "additional actions" had been advocated earlier in the month by former National Security Adviser Brent Scowcroft and former Director of Central Intelligence John Deutch in a co-authored article in the *Washington Post*. The focus of the negotiation is the text of the resolution of ratification on which the Senate will ultimately be voting [see 3 Feb]: the provisions and stipulations on which the Senate will make its advice and consent to ratification conditional. About 30 such conditions have been proposed by the Republican senators. On some, language has been negotiated and agreed by the two sides; on others, not yet. {*Congressional Record* 19 Mar S2541-50}

**24–26 February** In Spain, the Ministry of Industry and Commerce organizes a national seminar on the Chemical Weapons Convention. Held in Madrid, it is attended by senior government officials from the ministries that will be involved with country's CWC National Authority. Representatives of the National Association of the Chemical Industry also participate. Afterwards, a three-week training course for National Authority officials and escorts begins. Officials from the Ministries of Industry and Energy, Economics, Health, Interior and Defence participate in the course. Future staff members of the National Authority may be recruited from among the participants.

**24 February–3 March** In Iraq, UNSCOM conducts its 47th biological-weapons inspection, UNSCOM 174. The team is led by Richard Spertzel of the United States. Its objective is to establish facts concerning Iraq's decision-making process aimed at concealing the biological weapons programme. UNSCOM later reports that, despite requests furnished in advance, some key Iraqi personnel are, once again, not made available, while some interviewees attempt to conceal the nature and scope of what had happened. {S/1997/301}

**25 February** In Moscow, the Chernomyrdin-Gore Commission [see 5–7 Feb] working group on chemical weapons [see 9 Aug 96] reconvenes. As before, the Russian team is led by Russian Defence Council Secretary Yuriy Baturin, who chairs the Interdepartmental Commission for Chemical Disarmament, with USACDA Director John Holum leading the US team. Interfax, which has interviewed Secretary Baturin, reports that the working group is focusing on the establishment of joint Russia-US enterprises on the sites of former chemical-weapons production facilities in Volgograd. Interfax also reports that, in September, the Russian side had put forward proposals on the types of chemical product that might be manufactured by such joint enterprises, proposals which the US side had since been considering.

Another item on the Baturin-Holum working-group agenda is the financing of the Russian chemdemil programme. Interfax reports that the two sides have reached an understanding that US financial aid will be spent on the construction of a chemdemil facility at Shchuch'ye in the Kurgan region [see also 5-7 Feb] for which it says that the United States is planning to allocate \$76.3 million during 1997. Secretary Baturin has told Interfax: "It's important that this aid be of a long-term nature, and that the money granted be invested directly in the construction of facilities for eliminating chemical weapons".

Itar-Tass is later told by the deputy commander of Russian RKhB Protection Troops, Maj-Gen Viktor Kholstov, that, in addition to the \$76.3 million for Kurgan facility, the US administration is also allocating \$2.2 million "for the remodeling of a former producer of chemical weapons in Volgograd". General

Kholstov also says that the federal chemdemil programme is expected to be completed by 2009.

**25 February** In New York, the UN Secretary-General receives instruments of ratification of the Chemical Weapons Convention from Bosnia & Herzegovina and Laos. This brings to 70 the number of signatory states that have deposited ratifications.

**26 February** In Iran, the Cabinet approves a bill that would allow the government to ratify the Chemical Weapons Convention. {IRIB in FBIS-NES 26 Feb}

**26 February** In the UK House of Commons, the Defense Committee continues its investigation of Gulf War illness and takes evidence from Armed Forces Minister Nicholas Soames and Defence Ministry Permanent Under-Secretary Richard Mottram. The ministry has just submitted to the committee a memorandum on its investigation into how Parliament came to be misled for so long about the scale on which UK forces in the Gulf-War theatre had been exposed to organophosphate pesticides [see 12 Dec 96]. The memorandum acknowledges that, prior to September 1996 [see 4 Oct 96], ministers had been given flawed advice about the pesticide use, and states that this "constituted a fundamental failure of the working practices adopted by Service and Civil Service staff within the area of MoD concerned". The minister tells the committee that the advice he had received had been "absolutely emphatic that no organophosphates had been used. It did not occur to me to question that." [Note: Prior to September 1996, several newspapers had carried reports on the scale of OP pesticide use [see 27 Jun 94 and 29 Oct 94], as the Defence Ministry memorandum now notes, but it would seem that these were disregarded.] Minister Soames blames, not himself, but "one particular division in the MoD". This is reported to be the Finance and Secretariat Division of Defence Medical Services.

Meanwhile, sick Gulf-War veterans continue to come forward. Sergeant Angus Parker of the Royal Army Medical Corps, diagnosed as now suffering from Chronic Fatigue Syndrome, Post Traumatic Stress Disorder and renal impairment, believes that his condition originates in his service with the 1st Field Laboratory Unit, which he describes as operating vehicle-mounted laboratories that analysed airborne particles, reporting to scientists at Porton Down. He has written to the Defence Committee to suggest that Porton Down may be concealing evidence.

**26 February** In the United States, the Presidential Advisory Committee on Gulf War Veterans' Illnesses is instructed to include in its oversight efforts an assessment of the adequacy of the investigations relating to Khamisiyah now being conducted by the Inspectors General of the US Army and the CIA. President Clinton, in a memorandum to the chair of the committee, refers to the latest declassified documents [see 13 Feb] and says that they raise "two important questions ... that must be resolved by these investigations: (1) When did we have sufficient evidence to conclude that chemical munitions were present at Khamisiyah and that US forces conducting demolition activities may have been exposed to chemical warfare agents; and (2) Once we had that information, what actions were taken by whom to investigate this alarming possibility and were those actions sufficient." The president asks for a preliminary assessment within 60 days, no later than the date he had earlier specified for an interim status report, namely 30 April.



**26 February** President Clinton transmits to the Congress the report *Response to Threats of Terrorist Use of Weapons of Mass Destruction* required under the FY 1997 Defense Authorization Act. The report describes in some detail the structures that have been created or expanded within and between different federal government departments, and for liaison with state authorities, in order to counteract the potential of WMD terrorism within the United States.

Among the measures needed to achieve improvements, the report notes that the "first priority for additional legislation remains Senate ratification of the Chemical Weapons Convention". The report continues: "Implementing legislation required by the CWC will strengthen legal authority to investigate and prosecute violations of the treaty and raise the level of public alertness to the threat and illegality of chemical weapons. For example, the proposed US implementing legislation [see 8 May 96] contains the clearest, most comprehensive, and internationally recognized definition of a chemical weapon available, far more precise than the term 'poison gas' contained in Title 18 of the Criminal Code. The definition contained in the implementing legislation will enable an investigator to request a search warrant on the basis of suspicion of illegal chemical weapons activity (such as production of a chemical weapon agent), rather than suspicion of conspiracy to commit terrorism, as exists under current US law. By providing investigators and prosecutors a more precise legal basis for pursuing the development, production, transfer, or acquisition of chemical weapons, CWC implementing legislation improves prospects for detection, early intervention, and possibly even prevention of chemical terrorism in the United States."

Further anti-terrorism benefits of the Chemical Weapons Convention are noted by US Attorney-General Janet Reno in a statement issued next day. She observes, for example, that the CWC "will improve the sharing of information among law enforcement agencies worldwide, giving American law enforcement more early warnings that can help prevent an attack and save lives".

**26 February** Saudi Arabian Defense Minister Prince Sultan tells the US Gulf War commander General Norman Schwarzkopf that there have been no reports during or since the war of Saudi, Iraqi or Kuwaiti civilians suffering symptoms of exposure to war gas, so Gen. Schwarzkopf informs the US Senate Armed Services Committee next day [see also 29 Jan]. For his part, the general testifies: "We never ever ever had a single report of any symptoms at all on the part of 541,000 Americans over there and 800,000 allies". He continues: "So my sense of logic just says, look if we're talking about something where one milligram can cause a fatality then certainly somewhere along the way if this stuff had affected our troops somebody would have come up with these symptoms, and they didn't."

**27 February** In Iraq, UNSCOM inspectors may have uncovered a hidden store of chemical and biological missile warheads, according to an intelligence report issued two days previously cited by unidentified US Defense Department officials now reported on CNN television [but see also 12–19 Feb].

**27 February** In South Africa, the situation of Dr Wouter Basson [see 29 Jan], who is now on bail pending a court hearing on 4 April, is the subject of a press conference in Cape Town called by the Office of the President. Deputy Defence Minister Ronnie Kasrils says that, short of keeping Dr Basson under lock and key, there could be no assurances on how he would use the knowledge he had acquired during the time he had led the proj-

ect to develop chemical and biological capabilities for the former government. The Deputy Defence Minister also says that the 1992 Steyn Report had linked Dr Basson to clandestine military activities, but, having read the report, the Attorney-General had nevertheless found that no case could be made against him. According to a statement read by Cabinet Secretary Jekes Gerwel, the re-hiring of Dr Basson, as a specialist medical consultant, by the Defence Force had been in order to maintain control over his activities and movements, and to retain his specialist knowledge. Dr Basson had, during the period April 1993 to October 1995 when he was not employed by the Defence Force, travelled to countries that included Libya, according to a statement read by SANDF Surgeon-General Pierre Knobel, who also says that Dr Basson was the only person "that had full insight" into Project Coast. Dr Basson is currently in the protective custody of the intelligence services, but is reported to be free to leave if he wishes to do so. Earlier in the month, an officer of the National Intelligence Agency had described Dr Basson as living in fear of his life, and also as having allegedly misused information he had obtained while involved in the former CBW programme. Scientists who had worked in the programme are reported to have made substantial use of the forensic laboratories of the then South African Police.

**27 February** The US Defense Department, in an interim report released at a hearing of the Senate Armed Services Committee on Gulf War illnesses [see 26 Feb Saudi], discloses that more than three-quarters of the chemical-weapons logs kept by US Central Command forward headquarters during the Gulf War are missing, substantially more than had previously been reported: only 36 of an estimated 200 pages can now be found. The loss is attributed to a computer virus, but copies routinely transmitted at the time from Riyadh to the United States also appear to have gone missing. Deputy Defense Secretary John White subsequently orders an investigation by the Defense Department Inspector General. Defense Secretary William Cohen later rejects suggestions that this investigation should be conducted by an outside body completely independent of his department.

**28 February** In the US House of Representatives there is a hearing on the federal government's response to the threat of terrorism involving weapons of mass destruction [see 26 Feb President]. The hearing is conducted by the Military Research and Development Subcommittee of the Committee on National Security, and is a follow-on to the previous year's hearing, *Chemical Biological Defense in Response to Urban Terrorism* [see 12 Mar 96 US House]. There is testimony from the Departments of Defense and State, and also from the Oklahoma City Fire Department.

Defense Department testimony identifies the principal activities to which some \$68 millions have been allocated in implementing the FY 1997 domestic preparedness programme under the Nunn–Lugar–Domenici Act of 1996 [see 25 Jun 96 and 23 Sep 96]. The State Department Coordinator for Counterterrorism, Philip Wilcox, who chairs the Interagency Working Group on Counterterrorism, gives evidence on the Technical Support Working Group (TSWG) which, since 1986, has coordinated and managed the national counterterrorism research and development programme. Its membership extends to 8 federal departments and more than 50 agencies, and it has recently entered into technology development agreements with Canada, Israel and the United Kingdom.

**2 March** Ukraine has sold and delivered 500 tons of sarin nerve-gas to China, according to an unidentified Taiwanese intelligence officer quoted in the Taiwan newspaper *Tzu-li Tsao-pao*. The nerve gas is said to have come from stocks that had been held in Ukraine by the former Soviet Union, and is said to augment China's existing holdings of CW agents, which also include, according to the newspaper, dichloroformoxime, tabun and VX. The Ukrainian embassy in Beijing next day dismisses the report as "groundless conjectures". The Ukrainian Defence Ministry later issues a statement saying that, since independence, Ukraine has not stored toxic substances for combat purposes in any shape or form.

**3 March** In Pakistan, at a high-level interdepartmental meeting at the Foreign Office, the decision is taken, according to an unidentified official source later in the *Islamabad News*, to expedite the process of ratification of the Chemical Weapons Convention [see also 3 Sep 96]. Measures necessary to implement the treaty will, so the source says, all be in place by the time the treaty enters into force on 29 April. The conclusion and recommendation of the meeting are to be presented to the Prime Minister for his final approval.

**3 March** The OPCW Preparatory Commission commences Module 2 training for the 150 candidate inspectors [see 17 Jan]. The training, which is due to end on 9 May, is to be given in Finland, Germany, the Netherlands, Russia, Switzerland and the UK. The United States has pulled out [see also 14 Jan].

The Russian training course, for 37 people from 24 countries, is at the Saratov Higher Military Chemical Protection Training College, with practicals at a RKhB Protection Troops training ground in Samara oblast. {ITAR-TASS 12 Apr}

**3 March** The UK Defence Ministry responds as follows to a question in Parliament about the Russian chemdemil programme: "The Russian Federation signed the [CWC] in the full knowledge of the destruction timetable it would be obliged to meet under the terms of the convention. However, Russia has yet to ratify the convention and, until it does so, it is not bound by these provisions. Although Russian fulfilment of these obligations is feasible, some technical difficulties are still to be overcome. The Russians also [*sic*] claim that they would not be able to do so due to financial and environmental problems, and continue to press for outside financial assistance. The UK believes it is for the Russian Government to resolve these difficulties. Early ratification of the CWC and full implementation of its provisions, may, however, help to secure financial assistance from the outside."

**3 March** The UN Security Council conducts its 36th 60-day review of the sanctions imposed on Iraq, leaving them in place.

**3–21 March** In Geneva, the Ad Hoc Group of states parties to the Biological Weapons Convention reconvenes [see 16-27 Sep 96] for its sixth session. Participating are 51 states parties, of which all but Kenya had participated in the fifth session, and two signatory states. Fifth-session participants not participating in the sixth are Mongolia and one signatory state, Burma. Ambassador Tibor Tóth of Hungary continues to chair the group, assisted this time by three Friends of Chair: Dr Ali Mohammadi of Iran (definition of terms and objective criteria), Ambassador Michael Weston of the UK (measures to promote compliance) and Ambassador Jorge Berguño of Chile (measures related to Article X). Ogunsola Ogunbanwo of the UN Centre for Disarmament Affairs continues as Secretary. National delegations

submit some 25 working papers. Results of discussions and exchanges of view are reflected in papers by the Friends of the Chair, which are annexed to the Procedural Report on the session, as is a paper reflecting consultations on the possible structural elements of the projected legally binding instrument to strengthen the treaty. {BWC/AD HOC GROUP/34}

Speaking on background to reporters after the session, a senior US arms-control official says that President Clinton's goal of 1998 for agreement on the legally binding instrument could be met; although there had been no major breakthroughs, there had been steady progress. He adds: "The urgency with which some people view treating the Biological Weapons Convention and are trying to do all they can to strengthen it, indicates that they are recognizing what we in the United States have recognized — that there is indeed all too easy an access to this type of weaponry by both rogue states and potentially terrorist groups around the world". He says that Chairman Tóth has been asked "to submit a rolling text to us at the next Group meeting in mid-July". {AFP and Reuter 21 Mar}

A Russian delegate reportedly reverts during the proceedings to the "tainted meat" explanation of the 1979 anthrax epidemic in Sverdlovsk [see 18 Nov 94, US]. {*Foreign Report* 17 Apr}

**5 March** In The Hague, the Legal Advisor to the OPCW Preparatory Commission, Dr Félix Calderón, submits his resignation effective 7 April. Johan Rautenbach is now acting Director of the PTS Legal Division.

**5 March** US Defense Department counterproliferation efforts, including the Cooperative Threat Reduction (Nunn-Lugar) programme, are described in testimony before the Senate Armed Services Strategic Forces Subcommittee. Introducing this detailed account, Assistant Defense Secretary for International Security Franklin C Miller states that "the principal goal of US counterproliferation policy is to ensure our forces are able to operate effectively and decisively even if an enemy employs weapons of mass destruction". Within the Defense Department acquisition efforts in support of this policy is the Chemical and Biological Defense Program, which oversees and coordinates all NBC passive defense efforts; its FY 1997 budget is \$523 million, and \$531 million is being requested for FY 1998. Other CBW-related research and development projects are contained within the separate Counterproliferation Support Program, including certain Counterproliferation Advanced Concept Technology Demonstrations [see 8 Jul 96], notably weapons for attacking biological-weapons storage facilities, and measures against CB terrorism overseen by the interagency Technical Support Working Group [see 28 Feb].

**6 March** In Tokyo, the court-appointed team of 12 lawyers defending the leader of Aum Shinrikyo, Shoko Asahara, against capital and other charges arising out of the releases of nerve gas in Matsumoto and Tokyo tenders its resignation. The lawyers are protesting against what they say is the determination of Chief Judge Fumihiko Abe to proceed so rapidly with the case that they cannot prepare properly. The judge has set a court schedule of four full-day sessions per month; the defence team, citing the extreme complexity of the case, wants a maximum of three. Team leader Osamu Watanabe, addressing a news conference, says: "We can no longer fulfil our responsible roles as attorneys because the court has degraded the trial to a ceremony. We have no intention of sitting in court just as mere decoration." Their resignations are not accepted by the court, but,

when the court also declines to dismiss them, they begin a partial boycott, saying they will miss one trial session in four.

**6 March** In Pretoria the High Court grants limited access to evidence given *in camera* by Dr Wouter Basson [see 27 Feb] during his application for bail following arrest in January on a drugs-selling charge. The access was being sought by two South African newspapers, one of which, *Business Day*, reports: "During the bail application, it was disclosed that documents found after Basson's arrest indicated that SA had an offensive chemical and biological warfare programme — not merely defensive as claimed earlier by the defence ministry". Both the South African Council for the Non-Proliferation of Weapons of Mass Destruction and the Department of Foreign Affairs had opposed disclosure. Defence Minister Joe Modise, meeting today with the Deputy Chairman of the Truth and Reconciliation Commission, Alex Boraine, warns against the Commission taking public evidence from Dr Basson, as it had long been planning [see 29 Jan]. Boraine subsequently tells reporters: "The minister expressed concerns ... in relation to international treaties ... which South Africa has signed. Understandably, he did not want information which could be prejudicial to leak out, for other people to take advantage of methods, which may or may not have been used, and use them. ... Our response was that we had no intention of endangering lives or contradicting treaties. ... Our job was to try to establish the policy concerning chemical and biological warfare — was this merely a defensive mechanism, or was this an offensive policy to be used against the opponents of apartheid." {Reuter 7 Mar}

**6 March** The US Department of Commerce will establish 38 new positions within the Bureau of Export Administration for its part in implementing the Chemical Weapons Convention within the United States. Explaining this element of the FY 1998 budget during a hearing before a House Appropriations subcommittee, Undersecretary William Reinsch cites the "absence of election year politics" as the reason for expecting Senate ratification of the treaty. The new posts will cost \$2.3 million during the coming fiscal year, and another \$0.9 million will be needed during the current year in order to meet the data collection and entry timetable.

**6 March** In Washington, the Henry L Stimson Center publishes a new study of constraints on the proliferation of chemical weapons, *Separating Fact from Fiction: The Australia Group and the Chemical Weapons Convention*. The study provides a close account of how the Australia Group currently functions. It also seeks to refute the suggestion now being voiced by opponents of US ratification that Article XI of the Chemical Weapons Convention will actually promote proliferation through what they portray as its "poisons for peace" obligation.

**7 March** President Clinton orders an extension to the right of Gulf War veterans to claim disability compensation [see also 7 Jan]. He tells a news conference that "Gulf War veterans who became ill as a result of their service should receive the compensation they deserve even if science cannot yet pinpoint the cause of their illnesses". Under previous rules veterans had until two years after their departure from the Gulf theatre to put in compensation claims for undiagnosed illness; now they have until the end of 2001. They must still prove that they have a chronic illness, that they have had it for six months, and that it has resulted in at least ten percent disablement.

President Clinton also announces that he has now received from federal agencies the comprehensive action plan he had ordered [see 7 Jan] for finding and treating sick Gulf War veterans and for conducting research to find causes of unexplained illnesses. The action plan, delivered to him today, is to include studies of many of the veterans who were in the vicinity of the Khamisiyah demolitions during which nerve gas may have been released into the atmosphere [see 21 and 26 Feb]. The plan also provides for research on stress-related disorders and on whether Gulf illnesses could have been caused by combinations of ambient chemicals (such as pesticides) and pharmaceutical treatments (such as pyridostigmine anti-nerve-gas pills). The Defense Department alone will fund \$27 million in new Gulf-illness-related research, and more than 90 federally supported scientific studies are already underway

**7 March** UNSCOM Executive Chairman Rolf Ekéus attends a meeting of the US Senate Foreign Relations Committee during which, according to a subsequent report in the London newspaper *Al-Hayat* quoting aggrieved but unidentified Egyptian sources, he states that Egypt had not provided UNSCOM with sufficient information about its past association with the Iraqi chemical-weapons programme.

**8 March** US Senate Foreign Relations Committee Chairman Jesse Helms speaks as follows about the Chemical Weapons Convention to the Conservative Political Action Conference on the final day of its 24th annual meeting: "I have given the White House a long list of changes that must be made in this treaty before we agree to Senate ratification of it [see 3 Feb]. I promise you this: unless the administration makes the modifications I am demanding, the CWC will not leave my committee. Period." {*Washington Post* 9 Mar}

**9 March** In Libya, work on what is described as an underground chemical-weapons plant at Tarhunah [see 30 Jul 96] is now entering a second stage in which plant equipments, such as chemical reactors, are being installed, so the London *Sunday Times* reports, attributing "military intelligence sources in Israel". The newspaper also writes: "Dany Shoham, former head of the Israeli military intelligence chemical weapons department for 20 years, warned last week that any attack on the plant should be launched by the end of the second stage of construction later this year, before the plant begins production of its deadly chemical weapons."

Addressing reports that the United States is developing special weapons for attacking the underground construction at Tarhunah, the General People's Committee for Foreign Liaison and International Cooperation — the Libyan foreign ministry — subsequently issues a statement denying the existence of any such chemical-weapons factory. The statement, which is distributed as an official UN document at the request of Libya, also recalls Libya's publicly expressed readiness "to receive an international neutral committee within a comprehensive international context for the countries of the region to inspect all the installations claimed to be producing weapons of mass destruction". The statement continues: "The installations in Tarhuna concern the Great Man-Made River project which is a huge civilizational project aimed at supplying the city of Tripoli and its farms with drinking water from the depth of the Libyan desert. It is a unique project of its kind as witnessed by all the delegations which visited and inspected it."

USACDA Director John Holum, speaking to reporters later in Washington, says: "Our latest reports are the construction has halted at that plant".

**9 March** From California, evidence is reported that the so-called Gulf War Syndrome may be contagious. The evidence has been adduced by Dr Garth Nicholson [see 14 Dec 95], founder of the Institute for Molecular Medicine in Irvine, who has come to believe that infection by *Mycoplasma fermentans*, perhaps genetically altered by Iraq or by Iraq's weapon-suppliers, has been causing Gulf illness. This theory has encountered much scepticism, but doctors at the Walter Reed Army Medical Center near Washington have recently agreed to study it in coöperation with Dr Nicholson. {*Los Angeles Times* 9 Mar} US Defense Secretary William Cohen tells reporters that his officials have no evidence to support the theory. The Iraqi Foreign Ministry issues a statement {in BBC-SWB 22 Mar} rejecting as mendacious and ridiculous the suggestion that Iraq had weaponized mycoplasmas. The statement also notes that UNSCOM reports have never mentioned any such work.

**11 March** Israel conducts a second successful intercept test of the joint Israeli-US *Arrow 2* antimissile missile system. Launched from Palmachim Air Force Base south of Tel Aviv, the missile destroys its target, a submunition-warhead training missile fired four minutes earlier from a ship in the Mediterranean, even though what is later described as anomalous behaviour in a sub-system stops the warhead from exploding. Certification of the system for operational deployment is reported to require at least two more intercept tests. {*Jane's Defence Weekly* 19 Mar}

**11 March** In Moscow, the Interdepartmental Commission on Chemical Disarmament [see 9 Nov 95 and 25 Feb], chaired by Defence Council Secretary Yuriy Baturin, meets to consider the training of staff for chemdemil work and problems of international coöperation. It also establishes a working group on the problems of submerged chemical weapons.

ITAR-TASS reports the Commission's press service as follows: "The meeting noted that foreign aid to our country for destroying stocks of chemical weapons can only realistically be considered an element supplementing Russia's own efforts in chemical disarmament. Practice shows it is unrealistic to count on significant volumes of foreign aid to implement Russian programs for destroying chemical weapons. The commission recommended that the relevant Russian ministries and departments increase their work on extending the range of countries and international organizations granting Russia free help to destroy chemical weapons stocks and convert former facilities for the production of chemical weapons."

**11 March** In the UK, police use of "CS incapacitant spray" is continuing [see 27 Nov 96]. Parliament is told that one police force alone, that of Merseyside in northern England, has used the weapon on 300 occasions since 1 March 1996. In London, the Metropolitan police force used it on 120 occasions during 1996.

**11 March** The UK Department of Trade and Industry, which is the locus of the UK national authority for the CWC, announces the appointment of Dr Tom Inch, Secretary-General of the Royal Society of Chemistry, as chairman of the National Authority Advisory Committee on the Chemical Weapons Convention. The appointment is for an initial period of four years. Parliament is told that the other members will be announced in time for the committee to be in place before the Convention enters into force on 29 April. In fact no such announcement is made by that time, and it becomes further delayed by the parliamentary elections on 1 May.

**11 March** The US Defense Department describes its chemdemil programme in Congressional testimony before the Military Procurement Subcommittee of the House National Security Committee. Army Assistant Secretary Gilbert Drecker reviews progress, plans, funding and budget. He says that a revised version of the current Life Cycle Cost Estimate of \$12.4 billion is currently being validated. Testimony from the General Accounting Office reflects the latest GAO study of the matter [see 10 Feb] and anticipates an increase in the estimate. The Deputy Assistant to the Secretary of Defense for Chemical and Biological Matters, Dr Theodore Proxiv, reports that, in response to the FY 1997 Defense Appropriations Act, PL 104-208, a Program Manager has been appointed for the study of alternatives to baseline incineration for the destruction of assembled chemical munitions, and that the progress of this study will be reported to Congress before the end of the year. Dr Proxiv recalls that PL 104-208 suspends funding for construction of chemdemil incinerators at the Kentucky and Colorado stockpile sites until 180 days after submission of a final report to Congress, and warns of the delay this may impose upon the overall US stockpile destruction programme. The manager of the Assembled Chemical Weapons Assessment Program is Michael Parker, Deputy to the Commander of the US Army Chemical and Biological Defense Command. He also testifies.

**12 March** A Russian secret-service officer defecting to a northern European country some three months previously brought with him a sample of a new kind of poison gas, so the German Press Agency reports, attributing unidentified Western intelligence sources. The gas, which is "believed to kill instantly on the slightest contact with the victim", is said to have been used during the Chechen conflict.

**13 March** The UK Defence Evaluation and Research Agency establishment at Porton Down has been collaborating since last June with the biotech company Cortecs International in the development of an anti-plague vaccine. The company now reports that early tests in mice are promising. {*London Times* 13 Mar}

**14 March** US Defense Secretary William Cohen is taken to task by senior Republic members of Congress for failing to provide the report on the military impact of the Chemical Weapons Convention required by 31 December under the 1997 Defense Authorization Act. He is sent a letter from Senators Trent Lott and Jesse Helms and Representatives Spence and Gilman in which they suggest that the report has been delayed for political reasons: that it is "likely to strengthen the arguments of Congressional opponents of CWC ratification". This a Defense Department spokesman rejects, attributing the delay to oversight.

**17 March** Indian Foreign Minister Inder Kumar Gujral says that India will review its ratification of the Chemical Weapons Convention if countries such as the United States, China and Pakistan do not themselves join the treaty. Responding to a question in the Lok Sabha, he continues: "India will reserve the right to review the situation for an appropriate response if major signatories to the treaty do not ratify it and deposit the instruments of ratification". Responding to another question, he says: "We do not have any information that Pakistan is making chemical weapons".

**17 March** In Russia, President Yeltsin transmits the Chemical Weapons Convention to the State Duma, appointing Foreign Minister Yevgeny Primakov and Defence Minister Igor

Rodionov as his official representatives for the review of the question of ratification which will now ensue in both chambers of the Federal Assembly.

In comments to reporters, the commander of Russian RKhB Protection Troops, Colonel General Stanislav Petrov, predicts that passage will be difficult but says: "This may bring about hot debates over the convention ratification, although it is unlikely that any lawmakers will oppose in principle the elimination of chemical weapons" [but see 1 Feb]. Defence Council Secretary Yuriy Baturin warns that "a refusal to ratify this document ... could be interpreted in ways that would not be favourable to Russia", noting that it could hamper Russian coöperation with international financial institutions, as well as causing the imposition of "harsh conditions" on Russian chemical-industry imports and exports.

Foreign Ministry spokesman Vladimir Andreyev tells reporters that Russia's ability to honour its commitments under the CWC "will largely depend on the real amount of assistance" from other countries. On this matter, however, Defence Council Secretary Baturin says: "going by the experience of the last few years, foreign aid could amount to just a few percentage points of what is required. Of course, this will not solve the problem. Thus, it is necessary to rely mainly on our own resources." General Petrov summarizes for reporters the main features of the requisite chemdemil programme. He says that the whole programme will require R24,000 billion. He notes the foreign assistance thus far received from Germany, the United States and the Netherlands, adding that Finland is allocating 2 million Finnish marks to the programme [see also 27 Feb 96]. He also says that ratification "will make the Russian government face up to the problem of the destruction of chemical weapons and set about the full-scale funding of the process".

**18 March** The Executive Secretary of the OPCW Preparatory Commission announces final results from the Commission's first official inter-laboratory comparison test, now reëvaluated. All eight spiking chemicals had been correctly reported by 8 of the 26 participating laboratories, namely those of China, France, Israel, Russia (Military Academy of Chemical Defence), South Korea, Sweden, the UK and the USA. Of the other 10 participating laboratories, 8 were judged to have failed the proficiency test: those of Austria, Bulgaria, Denmark, Hungary, India, Japan, Romania and South Africa. {PC-XVI/B/10}

**18 March** In Salt Lake City, Utah, the Presidential Advisory Committee on Gulf War Veterans' Illnesses convenes for a public hearing. The CIA discloses that it had suspected Iraq was storing chemical weapons at Khamisiyah in 1986. Mitre Corporation has been contracted by the Defense Department to seek out and organize all the documentation on the information that had been available to the Department on Iraqi chemical weapons and on how it had used that information: more than 55 million documents, a Defense official says. {*Lancet* 29 Mar}

**19–20 March** In Brussels, the land armaments group of the NATO Conference of National Armaments Directors meets, following a CNAD decision the previous November, to start work on recommendations for alliance-wide requirements for anti-CBW protective equipments and procedures. The aim is to finalize a set of guidelines early in 1998. The work plan has three areas of study: detection and alerting technologies; monitoring and predicting devices; and protective gear and decontaminants. The Netherlands is taking the lead in defining standards for collective-protection equipment. France is leading on decontamination methods. The United States is to chair

efforts to develop early-warning and detection equipment, with the definition of common standards in this area being coöordinated by the United Kingdom. {*Defense News* 14 Apr}

**19–21 March** In Beijing, Chinese and visiting US officials resume bilateral talks on measures to halt proliferation of weapons of mass destruction [see 24 Feb]. The US team is led by Deputy Assistant Secretary of State Robert Einhorn. There had been earlier press speculation that the talks would, among other things, address US concerns about Chinese exports of CW precursors.

**19–22 March** Netherlands Defence Minister Joris Voorhoeve visits Moscow to sign military agreements with his Russian counterpart Igor Rodionov on, among other things, Dutch assistance in the Russian chemdemil programme [see also 17 Mar Russia].

**20 March** In Tokyo there is commemoration of the second anniversary of the sarin attack on the subway system, which killed 12 people and affected at least 5,500 others. Recent data from one of the city hospitals, the St Luke International Hospital, suggest that about 20 percent of the 600 victims who were treated there are still afflicted by disorders such as Post Traumatic Stress Syndrome. {*Japan Times* 20 Mar}

**20 March** The Iraqi Foreign Ministry issues a statement {BBC-SWB 22 Mar} about the former ammunition depot at Khamisiyah [see 7 and 18 Mar] which includes the following: "Since January 1991, various types of ammunition were stored in the Khamisiyah warehouses as part of the preparations to defend the homeland against the 30-state aggression. Only some chemical ammunition of the sarin type was stored there. This chemical ammunition was placed in two warehouses within the Khamisiyah warehouses complex. During the military operations from 17th January 1991 to 28th February 1991, the chemical warfare corps in the Iraqi armed forces removed this ammunition from one of these two warehouses and placed it in the open air outside the fence encircling the complex in a sand quarry 5 km from the Khamisiyah warehouses. During the US forces' occupation of this area, the Khamisiyah warehouses complex came under their control. Before they withdrew from them they blew up all the warehouses containing conventional hardware, including the warehouse for storing chemical ammunition. This took place on 10th March 1991, that is after the cease-fire. The US forces also blew up the ammunition which had been removed to outside the perimeter of the warehouses. The ammunition, at that time, was scattered in the sand quarry, as we mentioned earlier. The US forces' blowing-up and destruction of this set of warehouses was not complete, and it was chaotic. This caused the ammunition to be scattered in that quarry, and some of it was destroyed during the blowing-up operation. Also after the cease-fire, and through the Iraqi statements that were made in accordance with the UN Security Council resolutions, a Special Commission chemical inspection team visited the Khamisiyah ammunition warehouse complex in 1991. The team members observed the warehouse which had been completely destroyed and the ammunition which was scattered outside the warehouses in the quarry area. In early 1992, another Special Commission team destroyed what remained of the chemical ammunition which was scattered in the quarry area. The destruction operations in the area continued for some 40 days."

**20 March** The UK House of Commons Defense Committee releases the latest report from its inquiry into Gulf War syndrome and how the Defence Ministry has been behaving towards sick veterans [see 26 Feb]. The report is scathingly critical. It attributes the problems to the Ministry's "instinctive defensiveness and insularity" — its "deep-seated reluctance to respond positively to external stimuli" — and even suggests that, through its behaviour, the Ministry may have discouraged potential recruits from joining the armed services. The Committee recommends *ex gratia* payments to veterans who were exposed to organophosphate pesticides whose illnesses have no other explanation. It also recommends that, in the interests of aiding ill veterans as speedily as possible through "early disclosure of information", disciplinary action against officials involved in the "serious failure in communications" regarding the scale and extent of pesticide-usage during the war should be dropped in all but the most serious cases. Armed Forces Minister Nicholas Soames and junior defence minister Earl Howe, both of whom had previously served in the Ministry of Agriculture, are criticized for failing to take a more "pro-active and inquisitive role" in establishing the risk from organophosphate exposure.

**20 March** In the US Senate, on the day before it recesses for two weeks, Senator Kyl introduces a bill, S.495, "to provide criminal and civil penalties for the unlawful acquisition, transfer, or use of any chemical weapon or biological weapon, and to reduce the threat of acts of terrorism or armed aggression involving the use of any such weapon against the United States, its citizens, or Armed Forces, or those of any allied country, and for other purposes". The bill is referred to the Committee on Judiciary. Other Republicans, including Senator Helms, endorse the bill, issuing a statement saying that it "provides law where none exists, and fills the gaps of the incomplete Chemical Weapons Convention".

**20–21 March** In Helsinki, the presidents of Russia and the United States meet for summit talks. Among the five joint statements which they sign is one on chemical weapons, as follows: "President Clinton and President Yeltsin discussed issues relating to the entry into force of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction. They stressed the commitment of the United States and Russia to full and effective accomplishment of the tasks and objectives of the convention.

"The Presidents reaffirmed their intention to take the steps necessary to expedite ratification in each of the two countries. President Clinton expressed his determination that the United States be a party when the Convention enters into force in April of this year, and is strongly urging prompt Senate action. President Yeltsin noted that the Convention has been submitted to the Duma with his strong recommendation for prompt ratification.

"Mindful of their special role and responsibility in the matter of chemical disarmament, the United States and Russia understand that their participation in the Convention is important to its effective implementation and universality.

"The Presidents noted that cooperation between the two countries in the prohibition of chemical weapons has enabled both countries to enhance openness regarding their military chemical potential and to gain experience with procedures and measures for verifying compliance with the Chemical Weapons Convention. The Parties will continue cooperation between them in chemical disarmament.

"The United States will seek appropriation of necessary funds to build a facility for the destruction of neuroparalytic toxins in Russia as previously agreed."

A subsequent White House fact sheet on the joint statement says: "The United States and Russia have the two largest stockpiles of nerve gas, mustard agent and other forms of chemical weapons. Of the twenty-odd countries who have or may be developing chemical weapons, two-thirds already have signed the Convention."

*ca* **24 March** UNSCOM convenes an international panel of experts to review and assess the status of Iraq's declaration of its past biological-weapons programme. UNSCOM's subsequent six-monthly progress report states: "The experts concluded, *inter alia*, that Iraq had failed to report all imports of equipment and materials, in particular growth media. It had under-reported the production of bulk biological-warfare agents. The stated production of aflatoxin could not have happened as declared. The declaration on destruction was not supported by sufficient evidence and it failed to provide a full accounting of procurement activities for the biological weapons programme."

**25 March** In North Carolina, where US Secretary of State Madeleine Albright is visiting Senate Foreign Relations Committee Chairman Jesse Helms, the two hold a joint press conference at which, on US ratification of the Chemical Weapons Convention, Senator Helms says: "There'd be no problem with it if we can continue to negotiate as we have been for the last few days." He is referring here to talks between his staff and that of the senior Democrat on his committee, Senator Joseph Biden [see 28 Feb]. Senator Helms had said in Washington that these talks had resulted in agreement on 21 of his 30 objections to the CWC [see 24 Feb]. Now, with the Secretary of State beside him, he continues: "If both sides will sit down and be realistic about it, there's a very good chance there could be a treaty". What has caused this apparent change of heart [see 8 Mar] is not clear, though the Secretary of State is reported to have told him that she has "an open mind" on the matter of State Department reorganization (on which Vice President Gore is overseeing an interagency study), and Senator Helms is said to have dropped his demand for a tougher stance towards the United Nations [see 3 Feb]. However, he subsequently announces that his committee will hold further hearings on the CWC. These are to take place during the week after the Senate reconvenes on 7 April after its Spring recess.

**25–26 March** In Riyadh the foreign ministers of the member states of the Gulf Cooperation Council meet for the 62nd session of the GCC Ministerial Council. In the final communiqué from the session, the member states reiterate their "readiness to continue to contribute so as to give financial, political and moral support" to UNSCOM, and they call on the international community to continue to "back the efforts of that commission so as to make its work successful and ensure the implementation of the UN resolutions aimed at eliminating all the Iraqi mass destruction weapons".

**26 March** In France, Industry Minister Franck Borotra presents a bill to the cabinet that would implement the Chemical Weapons Convention in French law. Government spokesman Alain Lamassoure is quoted as saying that the bill would affect 333 industrial facilities in France. {Reuter 26 Mar}

**27 March** The Federal Republic of Yugoslavia — Serbia and Montenegro — maintains an offensive chemical weapons capa-

bility originating in a programme of the Yugoslav National Army prior to 1991, according to a study, *Clouds of War: Chemical Weapons in the Former Yugoslavia*, based on a year of research in the United States and republics of the former Yugoslavia conducted, and now published, by Human Rights Watch. The Washington-based international non-governmental organization also announces that it is continuing to investigate allegations that chemical weapons, in particular chemical incapacitants, were used during the Bosnian war. And it makes public what it describes as an internal NATO report suggesting that the Yugoslav Army might also have conducted research on biological weapons.

A spokesman for the NATO-led Stabilization Force in Bosnia tells reporters that no chemical weapons had been found in arms dumps of the former warring parties.

**27 March** In Washington, the head of Sandia National Laboratories, Paul Robinson, tells reporters of successful remote detections of biological agents with the CALIOPE laser-interrogation system [see 6 May 94]. Some identifications had also been achieved, through supercomputer analysis of the fluorescence of compounds excited by the laser beam. Field tests conducted in Nevada had detected and identified *E coli*, *Streptococcus* and other microbes at distances exceeding 18 kilometres. The system is said to be 3-5 years away from deployment in *Global Hawk* unmanned aerial vehicles or in space aboard an experimental satellite. {*Aviation Week* 31 Mar}

**27-31 March** In Iraq UNSCOM conducts its 35th chemical-weapons inspection, UNSCOM 172. The team of nine experts led by Igor Mitrokhin of Russia holds talks with Iraqi officials and examines new documents provided by Iraq on its past CW programme. The visit follows the agreement reached during the last round of high-level UNSCOM-Iraq talks in Baghdad [see 20-23 Feb] that there should now be a detailed joint review of the CW programme. Outstanding uncertainties include the final disposition of the 3.8 tonnes of VX, possibly much more, manufactured by Iraq.

**29 March** In Beijing there are Sino-Japanese ministerial talks during which Chinese Foreign Minister Qian Qichen and his Japanese counterpart Yukihiko Ikeda agree that the first session of their joint task force [see 17 Dec 96] on the Japanese chemical weapons abandoned in China should take place in Beijing on 10 April. It has recently been reported in the Tokyo press that, during this now impending meeting, the Japanese Foreign Ministry will present a plan for building a large-scale chemdemil plant in Jilin Province. The plan is also reported to include the establishment of a "small testing facility" in China that can be moved from one region to another [see also 27 Dec 96]. {*Sankei Shimbun* 17 Mar}

**1 April** In Prague, the Czech Defence Ministry announces a prolongation of its inquiry into the health of Gulf War veterans. Only 56 of the 156 Czech veterans reporting health problems have yet undergone the detailed medical examinations which were supposed to have been concluded by the end of March [see 13 Nov 96]. Defence Minister Miloslav Vyborny extends the check-up deadline to the end of July.

**2 April** In Russia, the Federation Government consents to the distribution of DM 7.7 million in free appropriations from the Federal German government as the 1997 instalment of the German aid to the Russian chemdemil programme originally agreed in October 1993. {*Rossiyskaya Gazeta* 17 Apr}

**2-4 April** In Budapest, the government of Hungary in coöperation with the OPCW Provisional Technical Secretariat hosts a regional seminar on the Chemical Weapons Convention. The seminar focuses on legal and administrative aspects of implementing the Convention. It is attended by representatives of 12 regional states plus the United Kingdom, as well as people from the secretariat of the OPCW Preparatory Commission and from non-governmental bodies, namely SIPRI and the Harvard Sussex Program.

**3 April** In Turkey, the Istanbul Security Directorate issues a statement saying that police have seized 20 tubes of war gases, including sarin nerve gas, imported from Azerbaijan and offered for sale in Istanbul [see also 24 Aug 96]. Deputy Security Director Yasar Kesin states that the chemicals had been taken from a war-gas factory in Russia and that the person who had imported them was now under arrest. That person, according to Kesin, had revealed that the Kurdistan Workers Party (the PKK) had wanted to buy the chemicals, but a disagreement had ensued. {TRT 3 Apr in BBC-SWB 5 Apr}

**3 April** In Rome, the Senate votes unanimously in favour of a bill implementing the Chemical Weapons Convention into Italian law. The bill modifies the 1995 law which enabled Italy to ratify the treaty.

**3 April** Russia has recently developed a new biological weapon in the form of anthrax bacteria genetically modified for resistance to all known antibiotics [see also 19-21 Sep 95], according to the foreword to *Jane's Land Based Air Defense 1997-98*, which also says that Russia has developed three new nerve gases including one code-named A-230 [see also 4 Feb].

**3-5 April** In Baghdad, UNSCOM Executive Chairman Rolf Ekéus conducts another of his bimonthly rounds of talks with senior Iraqi officials [see 20-23 Feb], this round taking place immediately before his next six-monthly report to the UN Security Council falls due. He is accompanied by a team which includes nuclear, missile, biological and chemical experts. At the close of the talks he says to reporters: "We did not solve any substantive issues. There I must say is a slight disappointment. ... But what we did achieve was agreement on how to proceed for the nearest future." His concerns about the Iraqi biological programme remain serious, but he says that the Iraqi side has promised to do its best to address them. On chemicals he says he had told Iraq that he still needed to resolve "seven important issues... If we manage to settle them, we will come close to ... ending the chemical file programme."

Ambassador Ekéus declines to comment on a Swedish newspaper report that he will shortly be named as the next Swedish ambassador to the United States.

**4 April** President Clinton hosts a bipartisan gathering of high-powered supporters of the Chemical Weapons Convention on the South Lawn of the White House, evidently launching a final push to secure Senate support for US ratification. Several such events and much other activity by the president and his staff take place over the next three weeks. Opponents of ratification appear no less active.

**7 April** In China, following the decision of the 23rd session of the Standing Committee of the 8th National People's Congress [see 30 Dec 96], President Jiang Zemin ratifies the Chemical Weapons Convention, so it is announced nearly three weeks later. {Xinhua 25 Apr}



**7 April** In Iran, a judiciary spokesman announces that lawsuits are being prepared against 24 German companies in response to complaints lodged by more than a thousand relatives of chemical-weapons victims alleging that the companies had provided Iraq with “chemical weapons, poisonous gas or the technological knowhow for producing such arms” [see also 4 Dec 96]. The deputy head of the judiciary for executive affairs, Mohammad-Reza Abbasi-Fard, states: “We have completed investigation into the case and have strong and unshakeable evidence, including pictures and films showing German specialists in special uniforms cooperating with the Iraqi army”.

The main editorial two days later in the Tehran newspaper *Jomhuri-ye Eslami* notes this action by the judiciary and also the fact that the Majlis Foreign Relations Committee had the day previously been briefed about it and had been reviewing the possibility of improved relations between Iran and Germany; the editorial then observes: “It is under these circumstances that we see that a Berlin court is about to give its final verdict in the Mykonos saga” [see 4 Dec 96]. The editorial develops this theme further and then says “it is quite clear that no country will lose out more than Germany in all this”. The Berlin court is due to deliver its verdict the following day.

**7–8 April** In New Delhi, the 12th Ministerial Conference of the Movement of Non-Aligned Countries takes place, with more than a hundred NAM countries participating, 74 represented by their Foreign Ministers. The agreed Final Document includes the following:

“The Ministers noted with concern that, though the Chemical Weapons Convention will enter into force on 29 April, 1997, the two declared possessors of chemical weapons have still not ratified it, which jeopardises both the necessary universal and disarmament character of the Convention as originally conceived, which has been the guiding principle during the protracted negotiations through which the Convention was achieved. The Ministers emphasised that the First Conference of States Parties should adopt the appropriate measures towards ensuring that the Convention is operationalised in a fair, equitable and non-discriminatory manner that safeguards the principle of universality and the disarmament character integral to the Convention. The Ministers further emphasised that the outstanding issues before the Preparatory Commission needed to be satisfactorily resolved in order to ensure effective implementation of the Convention. In this context, they called on the developed countries to promote international cooperation through the transfer of technology, material and equipment for peaceful purposes in the chemical field and the removal of all existing multi-lateral as well as national discriminatory restrictions that are contrary to the letter and spirit of the Convention.

“In the context of ongoing deliberations to strengthen the Biological Weapons Convention (BWC), the Ministers emphasised that, given the importance of biotechnology for economic development, any verification regime for the Biological Weapons Convention should contain specific provisions to safeguard the security and economic interests of the developing countries, parties to the BWC. The strengthening of the BWC should provide for ensured access for peaceful purposes to the relevant material, equipment and technologies for their economic growth. While asserting that the Biological Weapons Convention inherently precludes the use of biological weapons, the Ministers emphasized their support for the explicit prohibition of the use of these weapons in the Convention. In this connection the Ministers noted that the Islamic Republic of Iran has formally presented a proposal to amend Article I and the title of the Convention to include the prohibition of use of biological

weapons and urged an early reply from the state signatories to the inquiries by the depositories on this proposal.”

**8 April** The OPCW Preparatory Commission secretariat now has 164 fixed-term staff members from 54 CWC signatory states. {*OPCW Synthesis* no 17}

**8 April** In the US Senate, the Committee on Foreign Relations takes what its chairman, Senator Helms, describes as the first of its final round of testimony on the Chemical Weapons Convention. During the morning it hears a panel of three former Secretaries of Defense — James Schlesinger, Donald Rumsfeld and Casper Weinberger — oppose ratification. A fourth, Dick Cheney, submits written testimony of opposition. In the afternoon there is robust testimony in support of ratification by Secretary of State Madeleine Albright.

The Cheney testimony enunciates a theme that is by now coming to dominate hostile criticism of the CWC. The testimony states that the treaty’s Article X (Assistance and Protection against Chemical Weapons) and Article XI (Economic and Technological Development) “amount to a formula for greatly accelerating the proliferation of chemical warfare capabilities around the world”. [See also 6 Mar]

**8–11 April** In Moscow, during the visit of a US Defense Department delegation, an amendment to an existing bilateral agreement is signed which increases US assistance for Russian chemdemil under the Cooperative Threat Reduction (Nunn–Lugar) programme from \$68 million to \$136.5 million. The amendment is signed by Pavel Syutkin of the Presidential Commission on CBW Convention Problems and by Laura Holgate, the US Defense Department Special Coordinator for Cooperative Threat Reduction. The amendment also delegates responsibility to the Russian Defence Ministry to act on behalf of the Russian Federation in regard to US support for the artillery-munition chemdemil facility at Shchuch’ye [see 25 Feb].

**9 April** Grenada signs the Chemical Weapons Convention, becoming the 162nd state to do so.

**9 April** In New York, the UN Secretary-General receives instruments of ratification of the Chemical Weapons Convention from Niger and St Lucia. This brings to 72 the number of signatory states that have deposited ratifications.

**9 April** In the US Senate, the Committee on Foreign Relations holds another hearing [see 8 Apr] on the Chemical Weapons Convention, taking evidence from several further prominent opponents of ratification, namely former UN Ambassador Jeane Kirkpatrick, former USACDA Director Fred Iklé, former Assistant Defense Secretary Richard Perle and former Deputy Assistant Defense Secretary Douglas Feith. Testifying in support are General (ret’d) Brent Scowcroft, Admiral (ret’d) Elmo Zumwalt and Lt-Gen (ret’d) Ed Rowney.

With less than three weeks now remaining before the CWC enters into force, the Senate has still not scheduled a vote but, next day, after talks with treaty opponents, Majority Leader Trent Lott says he expects debate to commence during the following week, initially on the Kyl bill [see 20 Mar]. Senator Helms says his committee still requires further hearings.

**9 April** In Langley, Virginia, the US Central Intelligence Agency convenes a televised press conference at which the Acting Director’s Special Assistant for Gulf War Illnesses, Robert Walpole, presents the findings of a five-week inquiry into



what the US intelligence community knew about the Khamisiyah storage facility in Iraq [see 20 Mar] prior to its demolition by the US Army and the consequent possible release of nerve gas into the atmosphere. The inquiry had been prompted by the Presidential Advisory Committee on Gulf War Veterans' Illnesses [see 26 Feb]. Its findings have not contradicted the warnings that the intelligence community had issued prior to Desert Storm: that Iraq was likely to have CW munitions in the theatre of operations and that they might not be marked. The inquiry report identifies the 1986 intelligence on the presence of CW munitions at Khamisiyah [see 18 Mar] as a translated copy of what seems to have been a 1985 Iraqi CW logistics document contained in a May 1986 report from a CIA human source. Nor has the inquiry changed the intelligence community judgement that Iraq did not use chemical weapons during the Gulf War. What the inquiry has indicated, however, is that the dissemination of intelligence should, in the words of Acting DCI George Tenet in his introduction to the inquiry's report, "have been better". The CIA had, for example, failed to include Khamisiyah on a list of suspected CW sites it had given the Defense Department prior to the fighting. For this and other such blunders, Special Assistant Walpole makes an apology to Gulf War veterans, adding: "We should have gotten it out sooner". Walpole, who had been appointed Special Assistant on 27 February, heads what has now become a 50-person task force at the CIA. Director Tenet and CIA Executive Director Nora Slatkin [see 1 Nov 96] are said to be feeling "sandbagged" by the recently reported documents, which contradict earlier public statements by the Agency. Further documents are still being reviewed for possible release.

**9–15 April** In The Hague, the OPCW Preparatory Commission reconvenes [see 16–21 Dec 96] for its 16th and final session. Representatives of 94 of the 162 member states participate. [For further details, see *Progress in The Hague*]

**9–17 April** In Iraq, UNSCOM conducts its 48th biological-weapons inspection, UNSCOM 180. The 21-strong inspection team is led by former Commissioner Terence Taylor of the United Kingdom, and investigates aspects of Iraq's past BW weapons programme through surprise inspections at nine sites. Colonel Taylor, who is currently Assistant Director of the International Institute for Strategic Studies in London, subsequently tells reporters that his team had found "hard evidence that [the Iraqis] are not telling us everything". In this regard he says that inspectors had found that Iraq had worked on a rapid-acting toxin (which he does not identify) for use in battlefield weapons, and, although the Iraqis had briefly mentioned the work to UNSCOM, what had actually been done was "far more extensive than they declared". {Reuter 24 Apr}

**10 April** Iran is purchasing potential CW-agent precursors from Chinese corporations that may be exporting the chemicals without the knowledge of Beijing authorities, so US Deputy Assistant Secretary of State Robert Einhorn [see 19-21 Mar] says in testimony before a Senate Government Operations subcommittee that is inquiring into the reasons why China has not been sanctioned in accordance with US nonproliferation legislation. In his prepared statement he had written: "These dual-use chemical-related transfers to Iran indicate that, at a minimum, China's chemical export controls are not operating effectively enough to ensure compliance with China's prospective CWC obligation [see 7 Apr] not to assist anyone in any way to acquire chemical weapons."

**10 April** In Berlin, the Superior Court of Justice issues its verdict in the Mykonos restaurant bombing case [see 4 Dec 96] finding the four defendants guilty of the murder of the Iranian Kurdish victims or of complicity in the murder. Judge Frithjof Kubsch states that Iranian Intelligence Minister Ali Fallahian had played a supervisory role in the attack; he also suggests that Iranian religious leaders were implicated in the assassination. Federal German Foreign Minister Klaus Kinkel characterizes the involvement of official Iranian authorities, as noted in the verdict, as a blatant violation of international law (*Welt am Sonntag* 13 Apr).

In the Iranian Majlis there are immediate demands for action against Germany. These include calls for the prosecution of German companies for their involvement with Iraq's chemical weapons [see 7 Apr], and later there are demonstrations outside the German embassy in Tehran and elsewhere also calling for this.

EU member states, in an expression of solidarity with Germany, all withdraw their ambassadors from Tehran "for coordinated consultation on the future relationship of the EU with Iran". They also announce the suspension of their "critical dialogue" with Iran.

**10–11 April** In Beijing, Japanese and Chinese officials convene for the first session of the joint working group on the Japanese abandoned chemical weapons in China [see 29 Mar]. China is said to be moving away from the position which it has formally not yet abandoned, that Japan should simply remove the weapons from China, irrespective of the great logistical difficulties of doing so. Japan reportedly proposes that it should build a "small make-shift facility" in China that would start the destruction of abandoned chemical weapons by April 1998 pending construction of a "larger, comprehensive facility". Japan also proposes that it should seek tenders for destruction-technology from the many countries interested in selling it. China reportedly proposes that Japan should be responsible for "matters concerning technology and costs, to work within Chinese laws, and to consult with the Chinese side on important matters such as selection of technology". It is announced that both sides agree to "start taking steps to dispose of the chemical weapons in line with the [CWC] and to continue the measures for a period of around ten years".

At least 11 non-Japanese companies — including ones from Germany, the UK and the US — have expressed interest in bidding for the chemdemil work. One of the US companies [see also 5 Feb] is General Atomics Technologies Corporation of San Diego, California, which is promoting its cryofracture technology [see 13 Dec 95]. {*Chemical & Engineering News* 2 Jun}

**11 April** The UN Security Council receives its third six-monthly consolidated report on the work of UNSCOM in Iraq under resolutions 699 (1991) and 715 (1991). The report {S/1997/301} covers the period 11 October 1996 to 11 April 1997. Its principal conclusion concerns what is still needed before UNSCOM can be in a position to report favourably to the Security Council. This, it says, is "the major political decision by Iraq's leadership to give up, once and for all, all capabilities and ambition to retain or acquire the proscribed weapons". There are positive features in the report which suggest that this may eventually happen. An example cited "is how recently inspectors working to map out Iraq's concealment activities were granted access for the inspection of sensitive sites, in accordance with the Commission's modalities". Again: "A fusion of technical expert work and the political dialogue on the level of the Deputy Prime Minister and the Executive Chairman has

been tried. The purpose of turning their bimonthly meetings into a political/technical seminar, with the participation of the Commission's and Iraq's scientific and technical experts, has been to narrow the major outstanding issues to a manageable quantity. With regard to the missile and chemical weapons, the Commission has achieved this objective. More distant from clarity is the biological weapons area where Iraq's presentations are rather chaotic. To help to solve the deficiencies, an agreement was recently reached that both sides should work together in order to arrive at a well-structured declaration which could be a workable basis for the accomplishment of its verification."

The report acknowledges the access which many governments have given the Commission to "individuals, data and material having significance for the procurement efforts by Iraq" for its acquisition of weapons of mass destruction. But the report also notes that a small number of governments have chosen not to respond to requests for such access [see also 7 Mar]. It observes that they are thereby delaying UNSCOM's verification work and therefore also the final discharge of its mandate.

**15 April** Luxembourg and Tunisia deposit with the UN Secretary-General their instruments of ratification of the Chemical Weapons Convention, bringing up to 74 the total number of signatory states so to do.

**15 April** In the US Senate, the Committee on Foreign Relations holds a further hearing [see 9 Apr] on the Chemical Weapons Convention, taking evidence from several prominent opponents of ratification, including multimillionaire publisher Steve Forbes (who had announced two days previously that he would be funding a public information campaign against the treaty) and Kathleen Bailey of Lawrence Livermore National Laboratory, as well as from two supporters, namely the president of the Chemical Manufacturers Association, Fred Webber, and the Undersecretary of Commerce for Export Administration, William Reinsch.

Committee minority leader Senator Biden tells reporters that, in his negotiations [see 25 Apr] with the committee chairman, Senator Helms, tentative agreement has been reached on 23 of 33 conditions proposed for the resolution of ratification. Of the 10 remaining conditions, he says that 4 could kill US participation in the treaty. Senator Biden releases a summary of the 23 conditions. The White House releases an identical list next day, describing the Biden-Helms talks as "a second phase" of its own still-continuing discussions with Senator Lott's task force, and stating that the 23 points of agreement "underscore the extraordinary progress achieved since January". National Security Council staff describe to reporters the past course of the negotiations and indicate that Senate agreement on bringing the CWC to a vote is now imminent.

**16 April** The Russian State Duma adopts a decision, on the proposal of Speaker Gennady Seleznyov, to consider ratification [see 17 Mar] of the Chemical Weapons Convention on 23 April. Deputy Speaker Sergei Baburin talks in favour of ratification before the treaty's entry into force on 29 April, but expresses concern that the government had not yet provided information about the financing of Russian participation in the treaty. The absence of this information will, he says, impair the process of ratification. He says that expenditure on implementation would, in the final analysis, be less than the damage connected with continuing maintenance of CW arsenals, and less than the losses resulting from restrictions in international trade imposed upon countries that do not join the treaty.

He continues: "With due regard for the actual financial position of Russia, it is essential to introduce an additional point to the Convention ratification law text, urging the parties to the Convention to render international assistance to our country in the implementation of the Convention-stipulated obligations assumed by Russia." {Interfax 16 Apr, ITAR-TASS 17 Apr}

**16 April** In Moscow, there is a meeting between National Defence Council Secretary Yuri Baturin, in his capacity as chairman of the Interdepartmental Commission on Chemical Disarmament, and administrators from those regions — Saratov, Kurgan, Penza, Bryansk and Kirov in Russia, and Kizner in the Udmurt Republic — where chemical weapons are stockpiled. Afterwards, the press service of the Council describes the discussion as "frank and exhaustive" and as having centred on a "wide range of issues connected with the fulfilment of Russia's international commitments as regards the elimination of its chemical arsenals". Secretary Baturin, says the communiqué, "expressed his concern over declining annual appropriations for the federal target program that aims to scrap all chemical weapons in the Russian Federation", adding that "Russia's regions react negatively toward the program's implementation". The communiqué continues: "Those taking part in the conversation were unanimous that all operations connected with the elimination of chemical arsenals must be 100-percent safe and environmentally friendly; this is seen as a mandatory precondition. With this in mind, we intend to monitor the environment and public health inside those particular areas where it is planned to locate chemical-weapons dumps and elimination facilities."

**16 April** In the US House of Representatives, at a joint hearing by two subcommittees of the Veterans' Affairs Committee, CIA witness Robert Walpole [see 9 Apr] states that both his agency and the Defense Intelligence Agency had warned military commanders of the possible presence of Iraqi chemical weapons in the stores at Khamisiyah prior to their demolition by US Army engineers. He concedes that, before the war, Khamisiyah had not been listed as a possible CW site. An Army witness, Maj-Gen Robert Flowers, testifies that no such warning had been transmitted down the command chain to the engineers who carried out the demolition, of which he had been in charge. Defense Department official Bernard Rostker [see 21 Feb] testifies that, of the 20,000 troops who had been in the vicinity of Khamisiyah at the time, about 300 of the 6000 thus far responding to inquiries have reported illnesses; there had been no reports of serious health problems immediately after the demolitions. He says that chemical exposure has not been ruled out as a possible causal factor.

**17 April** In Russia, Ministry of Defence RKhB Protection Forces Chief of Staff Lt-Gen Yuri Leonov is quoted as denying a report in the French newspaper *Figaro* that Russia is secretly experimenting with new chemical weapons. He describes the report as "absurd". (*Izvestia* 17 Apr)

**17 April** In the US Senate, at a hearing by the Veterans' Affairs Committee, General Colin Powell, who had been Chairman of the Joint Chiefs of Staff during the Gulf War, testifies at length about the conduct of the war and about the bearing upon it of CBW and nuclear weapons. In the course of his remarks he says that neither he nor other senior military commanders had received specific warnings from the CIA about where Iraq stored its chemical weapons [see also 16 Apr], but he also observes that US forces had taken all necessary precautions

against the weapons. He says: "neither I nor my colleagues ... had any reason to believe that the blowing up of these bunkers [at Khamisiyah] was exposing our troops to a hazard for which they were not prepared, and had no indication that we should have been more prepared than we were".

General Powell also speaks strongly in favour of US ratification of the Chemical Weapons Convention.

**17 April** In the US Senate, the Committee on Foreign Relations holds a further hearing [see 15 Apr] on the Chemical Weapons Convention, taking evidence from the chairman of the House Select Intelligence Committee, Representative Porter Goss, who is critical of the treaty; from a former director of the National Security Agency, General William Odom, who testifies against ratification; a former FBI Assistant Director for Counter-intelligence, Edward O'Malley, who suggests that the treaty could assist industrial and other forms of espionage; and a former director of the US Arms Control and Disarmament Agency, Ronald Lehman, who supports ratification.

The Senate subsequently adopts a unanimous consent agreement, the effect of which is to bring the Kyl bill, S.495 [see 9 Apr], immediately to the floor for consideration, and, on 23 April, to discharge the Foreign Relations Committee from consideration of the CWC. According to the agreement, the treaty is then to be advanced through its remaining parliamentary stages, culminating in consideration of a resolution of ratification in the form of Executive Resolution 75, which has today been submitted by Senator Helms and which contains 33 conditions, including all those on which agreement has been negotiated [see 15 Apr]. The unanimous consent agreement further specifies that the first 28 of the conditions be identified as agreed to between the chairman and the ranking minority member and not be subject to further amendment; they are to be taken in a single vote. The remaining 5 conditions are each to be subject to a motion to strike (determined by simple majority), voted separately. President Clinton issues a statement welcoming the Senate unanimous consent agreement, and observing that the last three of the first 28 conditions, including the one on riot control agents, had only been agreed to that day.

The Senate then moves into consideration of S.495, the Kyl-Lott-Helms Chemical and Biological Threat Reduction Act [see 20 Mar], adopting it by a 53-44 vote, one Democrat senator voting in favour but otherwise along party lines. The administration has been opposing the bill as a "deficient and unworkable alternative" to the Convention. The legislation would among other things criminalize activities associated with CBW weapons in the United States, require support for the Australia Group and for efforts to add an enforcement mechanism to the 1925 Geneva Protocol, increase anti-CBW protective efforts, and legitimize some uses of riot control agents (here defined to include the arsenical irritant adamsite and the psychotropic incapacitant agent BZ) in international armed conflict.

On the CWC itself, the *Washington Post* reports that upto 17 Republicans may still be undecided, and that many of them will be looking to Senator Lott for guidance. Senate Minority Leader Thomas Daschle is speaking of a 50-50 chance of the treaty passing.

**18 April** Jamaica signs the Chemical Weapons Convention, becoming the 163rd state to do so.

**18 April** US administration officials begin briefing Congress on a plan to reorganize the foreign-policy agencies, much as advocated by Senator Helms [see 3 Feb and 24 Apr]. The US Arms Control and Disarmament Agency and the US Information

Agency would be consolidated into the State Department. The Agency for International Development would remain a separate entity, but with its director reporting to the Secretary of State rather than to the President.

**20 April** In Seoul, former Korean Workers Party Secretary Hwang Chang-yop, described as the highest ranking official ever to defect from North Korea, arrives from China where he has been for the previous two months. He is reputed to be the architect of the North Korean policy of *juche*, or self-reliance. The "summary" of a "secret thesis" which he is said to have written in August 1996 is published two days later in *Choson Ilbo*. It presents a broad analysis of conditions in North Korea, of the psychology and power of its leader, and of North Korean policies towards the South. Here it states that North Korea fully intends to bring about reunification through force. Further: "North Korea is capable of annihilating South Korea by mobilizing nuclear, chemical and rocket weapons to make it a sea of fire. Thus, it is capable of reducing the South side to ashes. ... In the event of intervention by the United States, the North has a plan to annihilate Japan." This portrayal of military capability does not coincide with current assessments in the South, and the summary provides no substantiating details at all; nor is the authenticity obvious of the summary as a whole.

The US Deputy Assistant Secretary of Defense for Asian and Pacific Affairs, Kurt Campbell, is quoted {in *Jane's Defence Weekly* 30 Apr} as saying that US officials hope to begin talking to Hwang shortly. Campbell is also quoted as saying that North Korea has stored large amounts of chemical weapons close to the demilitarized zone along with its long-standing inventory of artillery pieces, mortars and rocket-launchers, and that there is "nothing we can do [if North Korea] wanted to roll out artillery and fire on Seoul". He adds that US officials do not believe any attack to be imminent.

**20 April** In Washington, the Chemical Weapons Working Group [see 24 Feb] concludes its annual national conference. Speakers at its news conference next day speak of hazards associated with the incineration of chemical weapons in the US chemdemil programme. Parallels are drawn – notably by James Tuite [see 19 Sep 96 and 30 Oct 96], director of the Gulf War Research Foundation – between low-level toxic emissions from incinerators and the possible involvement of low levels of organophosphorus or other chemicals in Gulf War illnesses.

**20 April** US Defense Department Special Assistant for Gulf War Illnesses Bernard Rostker meets with Gulf War veterans in Cleveland, Ohio, as part of an outreach effort. The meeting is the first stop in a nine-city town-hall tour over the coming three weeks sponsored by the Veterans of Foreign Wars and the American Legion.

**22 April** Iraqi Deputy Prime Minister Tareq Aziz writes to the UN Security Council with detailed critical comments on the latest UNSCOM report [see 11 Apr]. He rejects the suggestion which UNSCOM Executive Chairman Ekéus had repeated during his briefing of the Council four days previously, that Iraq may still be concealing proscribed missiles and CBW warheads for them. He writes: "There are no banned weapons, their components or means of manufacturing them in Iraq, and there are no prohibited activities. The Special Commission's statements about the possibility of the existence of a small amount of these weapons are nothing but suspicions and assumptions that have not been verified." [Note: Iraq does not usually comment publicly on UNSCOM reports. This and other elements of the Dep-

uty Prime Minister's letter echo the implicit criticism of UN-SCOM which the representatives of Egypt, France and Russia are reported to have made during the briefing session, when they asked Ambassador Ekéus to provide a specific list of what Iraq must do in order to comply fully with the ceasefire terms. Ambassador Alain Dejammet, the representative of France, had afterwards told reporters that the Council "cannot just be satisfied with expressions on general, very general, and vague prejudicial deductions" about Iraqi noncompliance; "we need specifics".]

**22 April** Kurdish victims of mass-poisoning by thallium present in the drinking water of a KDP/Iran camp on the Iran-Iraq border are to be brought to Germany by Medico International, the nongovernmental aid organization, for treatment in Mainz and Munich. This is announced by Professor Ulrich Gottstein in Frankfurt on behalf of Medico, who also calls for public donations to help defray the costs.

**22 April** In Ohio, a US District Court finds former white supremacist Wayne Harris guilty of illegally acquiring bubonic plague bacteria [see 28 May 96]. Harris is sentenced to 18 months probation and 200 hours of community service. His book *Bacteriological Warfare: A Major Threat to North America* is currently being offered for sale at survivalist trade shows and advertised on the Internet. His resumé, as posted with the advertisement on the Internet, records him as having worked on BW civil defence at US Army Aberdeen Proving Ground during 1969–72.

**22 April** The US Institute of Medicine publishes the latest in its series of overview studies of the Defense Department clinical evaluation programme for active-duty veterans of the Gulf War with unexplained illnesses [see 9 Oct 96]. The new report recommends, among other things, that the Defense Department include more neurological and psychiatric data in its evaluations. A final report from the IOM committee tasked with the work, chaired by Professor Dan Blazer of Duke University Medical Center, is due in October.

**23 April** In Tokyo, a member of Aum Shinrikyo, Yoshihiro Inoue [see 16 May 95], testifies in court that the cult could not have produced sarin nerve-gas without the help it had received from the former Russian Security Council Secretary Oleg Lobov, who, he states, had sold plant blueprints to the cult for \$79,000. Next day, the Russian Procurator-General's office states that Lobov will be summoned for questioning, even though a Russian government official, among others, has rejected the accusation. Lobov later testifies to the Procurator-General that he had nothing to do with the cult's nerve gas.

**23 April** The Russian State Duma has the question of ratifying the Chemical Weapons Convention on its agenda [see 16 Apr] but takes no decision. The Foreign Ministry urges ratification, but ITAR-TASS reports: "Alas, the MPs did not heed all these calls. They are undecided on the methods and deadlines of chemical disarmament. Some MPs even claim that the Convention's ratification will mean 'one more concession to the West', and, therefore, it would be 'unpatriotic' to 'play according to the Western rules' against the background of NATO's eastward enlargement." *Izvestia* later criticises President Yeltsin for having done too little — for not having emulated President Clinton's intensive efforts to convince sceptical legislators of the need to support the treaty.

Next day, on a resolution proposed by Duma Economic Policy Committee member Nikolay Sapozhnikov, the Duma instructs the Audit Chamber of the Russian Federation to check how effectively and usefully the R 50 billion that had been allocated from the federal budget during 1994-96 had been spent on carrying out measures to pave the way for Russia to honour its international commitment to scrap chemical weapons.

**23 April** In Brussels, Russian Defence Council Secretary Yuriy Baturin proposes, in the course of his meeting with NATO Secretary-General Javier Solana and later when addressing the SHAPEX-97 international scientific conference, that Russia and NATO countries should cooperate in rendering harmless the CW munitions that were sunk in the Baltic and the Skagerrak after World War II. It is later announced in Moscow by Vice Admiral Tengiz Borisov, who heads a working group of the Interdepartmental Commission for Chemical Disarmament [see 11 Mar], that Russia has developed unique technologies for such a task.

**23 April** Togo deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 75th signatory state to do so.

**23 April** In the United States, as the Senate once again begins to debate the Chemical Weapons Convention, former Senator Robert Dole declares his support for ratification. He explains that the conditions now attached to the resolution of ratification [see 17 Apr] address the concerns which, during his campaign for the presidency the year previously, had led him to question ratification [see 11 Sep 96]. Prior to this development, there had been few knowledgeable commentators who cared to predict whether the treaty would attract the requisite 67 or more votes in the Senate: the 45 Democrat senators would all vote in favour but, of the Republicans, only 9 had declared themselves in favour, and between 10 and 15 remained undecided, possibly as many as 20. Senator Dole is speaking at a bipartisan White House event, alongside General (ret'd) Colin Powell, the present Chairman of the Joint Chiefs of Staff, General John Shalikhvili, and other prominent supporters of ratification.

By voice vote later in the day, the Senate accepts the package of 28 agreed conditions in the resolution of ratification.

**24 April** In London, the International Institute for Strategic Studies states in its new edition of *Strategic Survey*: "Preventing determined proliferators acquiring biological and toxin weapons appears to be virtually impossible. ... The industrial democracies must be prepared to defend their forces and populations by force if and when deterrence and diplomacy fail to prevent aggression by rogue states armed with biological weapons."

**24 April** In the US House of Representatives, there are more hearings on Gulf War illness before the Government Reform and Oversight Subcommittee on Human Resources and Intergovernmental Relations, chaired by Congressman Shays [see 21 Jan]. Their announced purpose is to examine the impact of missing chemical logs [see 27 Feb] and incomplete medical records on the diagnosis and treatment of sick Gulf War veterans. Testifying are Gulf War veterans, officials from the Defense Department and Central Intelligence Agency, and a number of independent researchers. Particular attention is paid to the testimony of Dr Jonathan Tucker, who currently directs the CW nonproliferation project at the Monterey Institute for International Studies. He had worked as a researcher for the Presi-

dential Advisory Committee on Gulf War Veterans' Illnesses until the committee abruptly dismissed him for, he explains, not limiting his investigation to evidence gathered from Defense Department and other official sources [see 24 Dec 96]. Dr Tucker now testifies: "Evidence in the public domain from a variety of sources indicates a far larger number of credible chemical-weapons detection and exposure incidents than [the Defense Department] or CIA have thus far acknowledged. ... Considerable evidence suggests that the Iraqi forces engaged in sporadic, uncoordinated chemical warfare during the Gulf War." He goes on to exemplify that evidence. He describes the Khamisiyah release [see 17 Apr] as "just the tip of the iceberg".

**24 April** In Washington, a package containing a petri dish labelled "anthrachs" and holding a foul-smelling red gelatinous substance is received in the mail at the international headquarters of B'nai B'rith, the Jewish social service organization. Authorities — reportedly including the Secret Service {*Jane's Defence Weekly* 4 Jun} — activate extensive anti-CBW-terrorism measures, but the package is subsequently proved harmless.

**24 April** In the US Senate, shortly before it goes into closed session to discuss intelligence information relating to the Chemical Weapons Convention, Majority Leader Trent Lott announces that he has received a pledge in a letter from President Clinton which has inclined him more favourably towards ratification. The White House publishes the letter. In it, President Clinton gives assurances that he would withdraw the United States from the treaty in the event of certain gross abuses of Article X or Article XI [see 8 Apr] by one or more states parties. Later in the day, after the Senate votes 71-29 to reject the first of the five non-agreed conditions (no 30) in the resolution of ratification, Senator Lott announces his intention of voting for ratification. The four remaining non-agreed conditions are then all stripped out in succession, by votes ranging from 66-34 to 56-44, and the vote is finally taken, late in the evening, on the resolution of ratification itself. The resolution is carried by a vote of 74-26, 29 Republican senators having voted in favour. The 26 voting against the resolution are Senators Allard, Ashcroft, Bennett, Bond, Brownback, Burns, Campbell, Coverdell, Craig, Faircloth, Gramm, Grams, Grassley, Helms, Hutchinson, Hutchison, Inhofe, Kempthorne, Kyl, Mack, Nickles, Sessions, Shelby, Smith (New Hampshire), Thompson and Thurmond.

**25 April** China deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention [see 7 Apr], becoming the 78th signatory state to do so. The Chinese Permanent Representative to the United Nations, Ambassador Qin Huasun, also presents to the Secretary-General a statement which President Jiang Zemin and Foreign Minister Qian Qichen had issued upon ratification. The statement contains no formal reservation and is largely though not entirely the same as the declaration which China made upon signing the Convention on 13 January 1993. It reads as follows:

"1. China has always stood for complete prohibition and thorough destruction of chemical weapons. As CWC has laid an international legal foundation for the realization of this goal, China supports the purposes, objectives and principles of CWC.

"2. China calls on the countries with chemical weapons arsenals to ratify CWC without delay with a view to attaining its purposes and objectives at an early date.

"3. The purposes, objectives and principles of CWC should be strictly observed. The provisions concerning challenge in-

spection shall not be abused and the national security interests of state parties not related to chemical weapons shall not be compromised. China is firmly opposed to any act of abusing the verification which endangers its sovereignty and security.

"4. Any country which has abandoned chemical weapons on the territory of another country should effectively implement the relevant CWC provision, undertake the obligations to destroy those chemical weapons and ensure the earliest complete destruction of all the chemical weapons it has abandoned on another state's territory.

"5. CWC should play a sound role in promoting international trade, scientific and technological exchanges and cooperation for peaceful purposes in the field of chemical industry. It should become the effective legal basis for regulating trade, cooperation and exchange among the state parties in the field of chemical industry."

**25 April** In Pakistan, an unidentified "official source" on ratification of the Chemical Weapons Convention is quoted as follows: "Pakistan has expedited the process but the decision to ratify has not yet finally been taken because of a variety of reasons, though Pakistan is preparing itself to ratify the treaty. ... Most of the work has already been done [see also 3 Mar]." A statement issued four days later by Foreign Minister Gohar Ayub Khan welcoming the entry into force of the Convention says that Pakistan "will accede to the CWC as soon as its national preparations are complete". The statement goes on to say that Pakistan "will initiate steps to set up a national authority and conduct survey and documentation of its chemical industry, and take measures to give legal effect to the provisions of the Convention through an Act of Parliament".

**25 April** The Russian State Duma adopts the Federal Law *On the Destruction of Chemical Weapons* with 336 deputies in favour, thereby overturning the Federation Council veto [see 23 Jan]. The upper chamber of the Russian Federal Assembly had opposed the legislation reportedly because its members — regional leaders — had not been consulted about where the chemical weapons were to be destroyed. The new law specifies how, but not when, the Russian chemdemil programme is to proceed.

The Duma also returns to the question of Russian ratification of the Chemical Weapons Convention [see 23 Apr] but, instead of approving the treaty, decides, by a vote of 331-0 with one abstention, to send a message to the impending inaugural session of the Conference of the States Parties. The text of the message states that Russia has been prevented by *force majeure* from ratifying the treaty prior to its imminent entry into force, the Duma here observing "that the difficulties related to the ratification of the Convention stem from an extremely difficult economic situation prevailing in Russia while the prospects of economic development in the near future do not allow to envisage a significant increase in the allocation of financial resources for solving this problem". But the message declares that the Duma "has initiated the process of ratification of the Convention with a view to complete it, if possible, in the autumn of this year, given the necessary conditions for that." The message calls upon the Conference to promote the creation of those favourable conditions, including the promotion of "substantially" increased financial assistance.

The Duma now goes into recess and will not reconvene until after the CWC is in force. President Yeltsin issues a statement expressing regret that "a radical part of the State Duma, having wasted time on various resolutions which have no legal force and show signs of various kinds of phobias, did not examine

one of the main disarmament questions in time". {Reuter 29 Apr}

**25 April** Russia stockpiles about 9000 tons of the irritant agent CS in addition to the 40,000 tons it has of choking, blister and nerve gases, according to Lev Fedorov, president of the Union for Chemical Security, speaking at a press conference in Moscow. He says that those 9000 tons are controlled, not by the Ministry of the Interior, but by the Ministry of Defense.

**25 April** President Clinton transmits to the US Congress the several certifications required from him by conditions contained in the Senate resolution consenting to US ratification of the Chemical Weapons Convention [see 24 Apr].

In connection with Condition 26, he certifies that "the United States is not restricted by the Convention in its use of riot control agents, including the use against combatants who are parties to a conflict, in any of the following cases: (i) the conduct of peacetime military operations within an area of ongoing armed conflict when the United States is not a party to the conflict (such as recent use of the United States Armed Forces in Somalia, Bosnia, and Rwanda); (ii) consensual peacekeeping operations when the use of force is authorized by the receiving state, including operations pursuant to Chapter VI of the United Nations Charter; and (iii) peacekeeping operations when force is authorized by the Security Council under Chapter VII of the United Nations Charter." He states in his message to the Congress that all three cases "are situations in which the United States is not engaged in a use of force of a scope, duration and intensity that would trigger the laws of war with respect to U.S. forces".

One of the 28 conditions finds expression in the declaration associated with the instrument of ratification which the United States later this day deposits with the UN Secretary-General. It is Condition 18, on which President Clinton certifies to the Congress that "no sample collected in the United States pursuant to the Convention will be transferred for analysis to any laboratory outside the territory of the United States". To the depositary of the Chemical Weapons Convention, the United States declares that its ratification is "Subject to the condition which relates to the Annex on Implementation and Verification, that no sample collected in the United States pursuant to the Convention will be transferred for analysis to any laboratory outside the territory of the United States".

In a separate message to the Senate, in which he confirms his intention to implement the 28 conditions, President Clinton states: "I will, of course, do so without prejudice to my Constitutional authorities, including for the conduct of diplomatic exchanges and the implementation of treaties. A Condition in a resolution of ratification cannot alter the allocation of authority and responsibility under the Constitution."

**25 April** In New York, the United Nations Secretary-General receives instruments of ratification of the CWC not only from China and the United States (in that order) [see above] but also from Bangladesh, Equatorial Guinea, Kenya and Zimbabwe. This brings to 81 the number of signatory states that have deposited ratifications.

**26 April** The UK science and engineering company AEA Technology, which has been developing its 'Silver II' electrochemical oxidation process for chemdemil applications [see 13 Nov 95] and also for destruction of conventional high-explosive munitions, announces that it is looking for a US partner to complement its marketing efforts, especially in regard to mobile plant capable of destroying weapons at more than one location.

The company estimates that about 60 countries have chemical weapons disposal problems, and that the associated business could be worth tens of millions of pounds. {London *Financial Times* 27 Apr, Reuter 28 Apr}

**28 April** Chinese Foreign Minister Qian Qichen and US Secretary of State Madeleine Albright meet in Washington for talks. Chinese chemical exports to Iran [see 10 Apr Iran] are discussed. {Reuter 28 Apr}

**28 April** In the United States, unidentified administration officials are quoted in *Christian Science Monitor* as saying that the US would "almost certainly" press for challenge inspections of Iran if "discrepancies" were found in Iranian declarations under the Chemical Weapons Convention. The officials are convinced that Iran has produced "sizable" quantities of CW agents. If Iran fails to ratify the Convention, "that will be prima facie evidence consistent with our concern".

**28 April** In New York, the United Nations Secretary-General receives instruments of ratification of the CWC from Bahrain, Iceland, Mali [see 13 Jan], Malta, South Korea [see 12 Mar 96] and, following signature of the treaty this same day, Suriname. There are now 165 signatory states, of which 87 have also deposited ratifications. Cuba, whose UN mission had earlier informed the Secretary-General of its intention to deposit today, just fails to do so.

**28 April** In Athens, Georgia, the inaugural annual Sam Nunn Policy Forum on *Terrorism, Weapons of Mass Destruction, and US Strategy* is hosted by the University of Georgia. The keynote address is given by US Defense Secretary William Cohen, who places particular emphasis upon bio-terrorism in his remarks. The University's Center for International Trade and Security publishes a special issue of its journal, *The Monitor: Nonproliferation, Demilitarization and Arms Control*, on terrorism and weapons of mass destruction to mark the occasion.

This special issue contains an article by Masha Katsva of the Center for Political Studies in Russia (PIR) in Moscow about the threat of CBW terrorism in Russia. The article draws attention to how little is known about the present location of CW agents and munitions that had once been stored for use at testing sites in the former Soviet republics. The article refers to several such places, including a now-closed CW weapons laboratory in a suburb of Naryn in Kyrgyzstan.

**29 April** The Chemical Weapons Convention enters into force with 87 states parties. States that ratify or otherwise accede from now on become states parties only on the 30th day following the deposit of their instrument of ratification or accession.

**29 April** Cuba deposits with the UN Secretary-General its instrument of ratification of the CWC [see 28 Apr], the 88th signatory state to do so but just too late to qualify as an Original State Party. Its status during the impending first session of the Conference of the States Parties will be that of 'contracting state'.

In the declaration deposited with its ratification, the Cuban government designates its Ministry of Science, Technology and Environment as its CWC national authority. Also:

"The Government of the Republic of Cuba declares, in conformity with article III (a) (iii) of the Convention, that there is a colonial enclave in its territory — the Guantanamo Naval Base — a part of Cuban national territory over which the Cuban State does not exercise its rightful jurisdiction, owing to its illegal oc-

cupation by the United States of America by reason of a deceitful and fraudulent treaty.

"Consequently, for the purposes of the Convention, the Government of the Republic of Cuba does not assume any responsibility with respect to the aforesaid territory, since it does not know whether or not the United States has installed, possesses, maintains or intends to possess chemical weapons in the part of Cuban territory that it illegally occupies.

"The Government of the Republic of Cuba also considers that it has the right to require that the entry of any inspection group mandated by the Organization for the Prohibition of Chemical Weapons, to carry out in the territory of Guantanamo Naval Base the verification activities provided for in the Convention, should be effected through a point of entry in Cuban national territory to be determined by the Cuban Government.

"The Government of the Republic of Cuba considers that, under the provisions of article XI of the Convention, the unilateral application by a State party to the Convention against another State party of any restriction which would restrict or impede trade and the development and promotion of scientific and technological knowledge in the field of chemistry for industrial, agricultural, research, medical, pharmaceutical or other purposes not prohibited under the Convention, would be incompatible with the object and purpose of the Convention."

**29 April** Israeli Defence Minister Yitzhak Mordechai confirms a press report that Syria has been producing VX nerve gas with Russian assistance. He says that Israel came to learn of this "a few months ago" and that he has been discussing it with the US and UK governments. The report, which had attributed unidentified Western intelligence sources, was by Zeev Schiff, the military analyst of *Ha'aretz*. According to Schiff, Syria is also in the initial stages of preparing warheads for ground-to-ground missiles to deliver the VX, and already has sarin weapons. The VX is said to be the Russian isomeric variety. Israeli Foreign Minister David Levi, speaking live on Israeli radio, also comments on the report: "We are following this and similar developments. Rest assured that our defence establishment is doing whatever is necessary. All the parties involved in this understand that we have capabilities beyond the other side's imagination."

Speaking later in Egypt where he has been conducting talks with President Mubarak, President Assad of Syria tells a news conference: "He who has nuclear weapons has no right to criticise others for whatever weapons they have. If they want disarmament, let's start with nuclear weapons. Arabs in general are ready to get rid of other weapons."

Noting that there had been a similar cycle of disclosure, alarm, threat and riposte on Syrian VX some months previously [see 25 Nov 96], *The Economist* {10 May} observes that an explanation for the recycling exists in a "reported disagreement within Israel's defence establishment" over whether Israel should, as the US administration has been urging, ratify the Chemical Weapons Convention.

An analyst at the Bar-Ilan University Begin-Sadat Center for Strategic Studies, Dany Shoham [see 9 Mar Libya], tells the *Jerusalem Post* {9 May} that VX, with its persistence and percutaneous as well as respiratory effectiveness, is the kind of weapon that could tilt assessments in Damascus in favour of attacking Israel: "I am sure that Iran will have nuclear weapons and give Syria a nuclear umbrella. The minute that Syria has the umbrella it will not hesitate to use chemical weapons against Israel because it won't fear an Israeli nuclear attack." Shoham also states that the CW scenarios which have been used in preparing Israel's current civil defence involve attack by sarin, not VX, weapons.

A new report from the State Comptroller indicates inadequacies in Israeli anti-CW civil defence {*Jerusalem Post* 8 May}, but funding for it now seems set to increase {*Defense News* 5 May}.

**29 April** In Luxembourg, EU foreign ministers agree on a joint policy towards Iran, including the return to Tehran of their ambassadors [see 10 Apr] but the continued cessation of the "critical dialogue". They also decide to call upon Iran to ratify the Chemical Weapons Convention.

**29 April** In the UK, the Chemical Industries Association welcomes the entry into force of the Chemical Weapons Convention. The Association estimates that compliance with the provisions of the treaty will cost the UK industry between £5 million and £7 million per annum. {PA 29 Apr}

**30 April** The US Marine Corps Chemical-Biological Incident Response Force [see 15 Jun 96] deploys a team to Capitol Hill in Washington in response to a simulated detonation of a nerve-gas terrorist bomb. At the request of elements of the Congress, the CBIRF is demonstrating its ability to "effect consequence management".

**30 April** President Clinton receives the interim status report he had requested from his Advisory Committee on Gulf War Veterans' Illnesses [see 26 Feb]. The report says that the government is still not doing enough to investigate the reasons for the illnesses. It also suggests that the Defense Department is not being as candid as it should be in disclosing information to the Advisory Committee about possible chemical exposures during the Gulf war [see also 24 Apr]. It is critical of the lack of communication now evident between intelligence agencies and military forces in 1991. It criticises the CIA and the Defense Department for the delays in producing the long-awaited computer model of potential chemical fallout from the Khamisiyah demolitions.

Next day Defense Secretary William Cohen names Warren Rudman, who retired from the US Senate in 1992 and is currently vice-chairman of the President's Foreign Intelligence Advisory Board, to act as "independent overseer" and to advise on the issue of coöperation between the department and the intelligence community. Department spokesman Kenneth Bacon says that Senator Rudman, who will be acting as a part-time unpaid adviser, will also function as an ombudsman in evaluating complaints about the thoroughness of the investigation.

**1 May** US Secretary of State Madeleine Albright is scheduled to be in Moscow for talks with Russian Foreign Minister Yevgeny Primakov. The Chemical Weapons Convention is one of the items on their agenda. {Reuter 25 Apr}

**1 May** At UN Headquarters it is announced that, on 1 July, the Executive Chairmanship of UNSCOM will pass from Ambassador Rolf Ekéus to the present Permanent Representative of Australia to the UN, Ambassador Richard Butler. The two ambassadors conduct a joint press briefing. The Swedish government later announces that Chairman Ekéus is to become the Swedish ambassador to Washington.

**1 May** The UN Security Council conducts its 37th 60-day review of the sanctions imposed on Iraq, leaving them in place.

**2 May** President Yeltsin signs into Russian Federation law the bill *On the Destruction of Chemical Weapons* just passed by the



Duma [see 25 Apr]. Commenting to reporters on the new law, the first deputy commander of the Ministry of Defence RKHB Protection Troops, Lt-Gen Viktor Kholstov, says that all utilization of toxic agents is now restricted to the provisions of the federal programme *The Destruction of Chemical Weapon Stockpiles in the Russian Federation* which the government has endorsed [see 21 Mar 96] He notes that the federal programme specifies that its implementation is to be completed by 2009.

**4 May** On Moscow television, Chechen field commander Salman Raduyev says he is prepared to use chemical weapons against Russia in certain eventualities. Russian Federal Security Service spokesman Alexander Zdanovich describes the threat as mere bluff, since no chemical weapons are available, he says, to Raduyev. An unidentified "high-ranking officer from the Russian chemical and biological defense force" says that chemical weapons were not and are not kept in Chechnya or the rest of the North Caucasus, and that those in Russia are properly guarded. But the chair of the State Duma Ecology Commission, Tamara Zlotnikova, tells reporters that, as Greenpeace members had demonstrated, the Russian storage depots are "guarded awfully badly" so that "of course" Raduyev could have chemical weapons. And *Argumenty i Fakty* {8 May} reports "information that Chechnya has modern chemical arms of her own and also obtained some 'lethal gas' from Azerbaijan" produced in 1989–90.

**5 May** In Tel Aviv District Court, an Israeli businessman, Nahum Manbar, is indicted on charges of assisting an enemy nation and endangering Israeli security by selling precursor chemicals for mustard and nerve gas to Iran during 1990-94. He had been arrested on 27 March after arriving in Israel from Europe where he lives. In 1994 he and two of his companies had been sanctioned by the US government for involvement in "chemical weapons proliferation activities" [see 3 Aug 94]. The indictment asserts that his contact had been Majid Abassfour, described as the head of the Iranian CW-weapons development project, and that by 1994 he had been paid \$16 million for his supplies. His defence will reportedly be that he had sold only agricultural fertilizers to Iran. Prior to his arrest, he had told a newspaper that he had broken off his ties with the Iranians in 1992, after they began asking for CW-related materials — information he says he then "passed on to the proper authorities in Israel". The indictment states that Israeli intelligence officials had received warnings in 1992 about Manbar's suspected chemical-weapons deals with Iran and had warned him to stop them, but he nevertheless continued dealing until 1994.

The US publication *Iran Brief* today publishes an account of how a Hong Kong company, Rex International Development Company Ltd, which is an overseas trading arm of the Chinese state-owned arms-manufacturer Norinco, had been discovered attempting to ship chemical-weapons manufacturing equipment to Iran. It recalls other such incidents involving shipments of Chinese chemicals to Iran, such as one on which a CIA report had been leaked some six months previously [see 21 Nov 96]. The publication states that the US government had sanctioned Manbar and his companies because they were "allegedly serving as intermediaries for some of the Chinese chemical deals".

**5 May** Cuba, in a note to the UN Secretary-General, charges the United States with "biological aggression", giving details of how what it says was an unprecedented infestation of potato plantations in Matanzas province by *Thrips palmi* Karay insects at the end of 1996 could be correlated with the overflight of a US aircraft, of a kind used in anti-narcotics herbicidal dusting, that

had been observed emitting some sort of spray or dust. The US State Department dismisses the charge as "disinformation", but it does confirm that a US crop-dusting plane on its way to Columbia had overflowed Cuba at the time stated. The pilot had used his smoke-generator to warn a passing airliner of his presence. Cuban official sources continue, nevertheless, to voice the charge.

**6 May** In South Korea, Foreign Minister Yu Chong-ha informs the Unification and Foreign Affairs Committee of the National Assembly that "North Korea has the capability to produce 5,000 tonnes of chemical weapons a year; at present, North Korea is estimated to possess 5,000 tonnes of chemical weapons". Being five times larger than previous official disclosures [see 9 Feb 96, but see also 1 Aug 96], these tonnages excite speculation that the recent high-level defector from North Korea, Hwang Chang-yop [see 20 Apr], may have had detailed information about the North's chemical weapons to disclose. If so, the chief of the South Korean intelligence service, National Security Planning Agency Director Kwon Young-hae, makes no reported mention of it in his testimony about Hwang three days later before the National Assembly Intelligence Committee.

**6–24 May** In The Hague, the first session of the Conference of the States Parties to the Chemical Weapons Convention takes place. Participating are 80 of the 87 states parties (all of them except Albania, Equatorial Guinea, the Maldives, Moldova, St Lucia, the Seychelles and Tajikistan), 3 other contracting states (Cuba, Singapore and Turkey), 33 other signatory states and one observer (Botswana, a non-signatory). Also participating are representatives of 8 intergovernmental organizations (including the ICRC) and of 24 NGOs and research institutes. [For further details, see *Progress in The Hague* above]

**6 May** Iraq is suspected by UNSCOM of sending its scientists to Sudan to pursue work there on weapons of mass destruction, so the Amsterdam newspaper *De Volkskrant* reports, attributing UNSCOM Commissioner Koos Ooms. Dr Ooms was drawing a parallel with the secret collaboration with Russia to which Germany had resorted in the 1920s in order to evade the Military Inter-Allied Control Commission established under Article 208 of the Treaty of Versailles to implement its disarmament stipulations.

**7 May** Israel informs the first session of the Conference of the States Parties to the CWC of its intentions regarding ratification of the treaty. Its representative reaffirms its previously stated position, namely that Israel would "seek to ratify the Convention subject to regional concerns as well as to its constitutional constraints and legislative timetable". He goes on to say: "What I have previously described ... must not necessarily be construed as prejudging the outcome of a future Israeli decision on the matter of the ratification, or of the continued Israeli support of the Convention. Favorable changes in the security climate will, of course, favorably affect Israel's attitude toward the ratification issue." In short, Israel does not appear to be excluding the possibility of ratifying the treaty even if its neighbours do not.

**7 May** In the Vatican City, Pope John Paul II speaks of the Chemical Weapons Convention while addressing a congregation of 15,000 people attending his weekly audience in St Peter's Square. Welcoming the entry into force of the treaty, he says: "I appeal to government leaders to work without delay to put into practice what the convention foresees. All of humanity



expects such an attitude so that it can look to the future with greater serenity.”

**8 May** UK Foreign Office Minister of State Tony Lloyd announces that the United Kingdom is withdrawing its residual reservations to the 1925 Geneva Protocol. He is addressing the First Session of the Conference of the States Parties.

**11 May** In Iran, air and naval forces join in large-scale military manoeuvres commencing today in the south of the country. The manoeuvres, *Ya Hussein Shahid*, include exercises of defence against attacks with conventional and chemical weapons.

**11 May** In the UK, the Armed Forces Minister of the new government, Dr John Reid, announces an action plan for tackling the health problems of Gulf War veterans. He says that additional resources are to be made available to accelerate the Defence Ministry's Medical Assessment Programme, which currently has a backlog of some 300 veterans still to be examined. Also, the existing research programme is to be expanded to include study of possible interaction among the different forms of anti-CBW medication that had been given to service personnel. This work will proceed alongside the two epidemiological studies commissioned by the previous government.

**12 May** Turkey deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 89th signatory state to do so.

**13 May** The US Senate Judiciary Committee conducts a hearing on the administration's proposed legislation for implementing the Chemical Weapons Convention in the United States, S.610 [see 8 May 96].

**14 May** The US National Research Council publishes the findings from its study of the toxicological hazards presented by the 33 biological-warfare attacks which the US Army simulated with clouds of zinc cadmium sulphide particles over both urban and rural parts of North America during the 1950s and 1960s [see 31 Jul 95]. The study had been commissioned by the Army at the request of Congress. The NRC panel, chaired by Rogene Henderson of the Lovelace Respiratory Research Institute, had conducted an exhaustive independent review but found “no evidence that exposure to zinc cadmium sulfide at these levels could cause people to become sick”.

**15 May** At US Army Dugway Proving Ground, a series of tests begin which simulate the demolition of Iraqi chemical munitions at Khamisiyah. The aim is to obtain dispersion and other data that can be used for the joint CIA/DoD computer model [see 30 Apr] of possible agent-releases during the original demolitions. The current due-date for publication of the model is 21 July.

**16 May** In Yerevan, Armenian Defence Ministry spokesman Ovik Charkhchian describes as “groundless” an Azerbaijani statement that Armenia had received chemical weapons from Russia. The statement had been made by the President of Azerbaijan, Heydar Aliyev, during an interview with a Moscow newspaper, *Moskovskiy Komsomolets*. The newspaper had reported apparently confirmatory evidence from unidentified sources in Georgia.

**19 May** US Defense Secretary William Cohen and the Chairman of the US Joint Chiefs of Staff, General John Shalikashvili, release the *Report of the Quadrennial Defense Review*, which

## CWC Non-Signatory States

Antigua & Barbuda	Andorra
Barbados	
Belize	Iraq
	Jordan
Angola	Kiribati
Botswana	Lebanon
Egypt	Niue
Eritrea	North Korea
Libya	Palau
Mozambique	Solomon Islands
Sao Tome & Principe	Syria
Somalia	Taiwan
Sudan	Tonga
	Tuvalu
Serbia & Montenegro	Vanuatu

presents preliminary plans to reshape the defence modernization programme. The review, which had been initiated six months previously, places emphasis on the need for the United States to be able to respond to “asymmetrical challenges”, such as terrorism or CBW. To this end, Secretary Cohen tells reporters that, in the forward budget planning, “[w]e've ... added about a billion dollars to the chemical weapons and biological weapons protection for counterproliferation purposes [see 5 Mar] with a near term emphasis upon the protection against chemical weapons for our troops”. Asked to explain this increase, Secretary Cohen cites the example of South Korea, saying that “we have underestimated the capacity for the launching of a chemical weapon attack by the North” [see also 6 May]. He continues: “I think we are deficient in many respects across the spectrum as far as dealing with chemical weapons. I think the chemical weapons threat is proliferating far beyond North Korea. They are being manufactured by a number of countries and are spreading.”

The expectation is that the additional \$1 billion would be spent during FY99-FY03, with increased procurement of chemical personal protective equipment a top priority. (*Jane's Defence Weekly* 4 Jun)

**21 May** Singapore deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 90th signatory state to do so.

**21 May** The European Union General Affairs Council decides to offer Russia assistance for the destruction of its chemical weapons. It adopts a declaration which states: “The European Union is conscious of the financial implications for the Russian Federation of ratification [of the CWC]. The European Union is prepared to offer assistance in fields related to the CWC, once Russia has ratified the Chemical Weapons Convention. To that end the European Union, subject to consultation with Russia through the normal TACIS [see 20-21 Feb] country procedures, is prepared to allocate up to 15 Mecu from the TACIS programme for the period 1997-1999 to projects related to this area of CWC implementation. The approval of projects will be conditional upon the deposit by the RF of its instrument of ratification. These projects, in fields like environment and safety related is-

sues as well as conversion and restructuring of former chemical weapon industries, in conformity with the provisions of the Convention, should have clearly defined objectives, a limited duration, and be subject to the normal TACIS conditions and procedures. The implementation of this assistance should be accompanied by a dialogue between the European Union and the Russian Federation. This assistance is in addition to the bilateral initiatives taken by several member states to assist the Russian Federation in this context. The European Union notes and welcomes these initiatives, and effective coordination will be ensured.”

The decision is announced two days later by the Netherlands, which currently holds the EU presidency, at the close of the first session of the Conference of the States Parties to the CWC in The Hague.

**21 May** The US government imposes trade sanctions under the Chemical and Biological Weapons Control and Warfare Elimination Act of 1991 on a Hong Kong company (Cheong Yee Ltd), two Chinese companies (the Nanjing Chemical Industries Group, and Jiangsu Yongli Chemical Engineering and Technology Import/Export Corporation) and five Chinese individuals (Liao Minglong, Tian Yi, Chen Qingchang, Pan Yongming and Shao Xingsheng) for knowingly and materially contributing to Iran's chemical-weapons programme. The sanctions are announced next day in the *Federal Register*, and by Secretary of State Madeleine Albright in testimony before a Senate Appropriations subcommittee. State Department spokesman Nicholas Burns issues a statement saying: “The sanctions are against these individuals and entities, and not against the governments of China or Hong Kong. We have no evidence that the Chinese or the Hong Kong governments were involved in the specific transfers that have provoked these sanctions.”

Unidentified US officials are quoted as saying that the companies had shipped glass-lined reaction vessels to Iran, as well as “sufficient quantities” of three dual-use chemicals, namely thionyl chloride, dimethylamine and 2-chloroethanol {*Reuter* 22 May, *New York Times* 23 May}.

Chinese Foreign Ministry spokesman Shen Guofang later announces that China is resolutely opposed to the United States imposing sanctions on Chinese companies and persons pursuant to its domestic law. The two Chinese companies issue a joint statement denying that they are involved in the proliferation of chemical weapons. {*Xinhua* 23 May}

**22 May** The US Defense Department has posted on the Internet the second in its series of Gulf War case-narratives [see 21 Feb], this one on *Reported Detection of Chemical Agent, Camp Monterey, Kuwait*. At the press conference announcing it, Special Assistant for Gulf War Illnesses Bernard Rostker describes the episode as one in which a detection device gave a positive for sarin nerve gas when in fact it was sensing agent CS.

**22 May** In the Iranian presidential elections, Ayatollah Mohammed Khatemi is voted to succeed Ali Akbar Rafsanjani. Speaking later to reporters, outgoing President Rafsanjani is asked whether Iran was buying chemical weapons from China, as the US government had been saying [see 21 May]. He replies: “This is a sheer allegation against Iran. We are not interested in any sort of chemical weapons”. He goes on to recall the war with Iraq, saying: “We have had such a malevolent experience of the use of chemical weapons that we would never want to have or use them. At the time, I was the sole commander of the war, and we were fighting in the [Iraqi Kurdish] Halabja area — and I witnessed such terrible scenes, I could

never forget them. The people of Halabja co-operated with us and didn't fight us and so Saddam was angry and resorted to the advanced chemical weapons he had received from Germany and used them against those people. ... I saw such awful things there, and I hope this scene will never be repeated in any country.” {*Xinhua* 25 May, *London Independent* 26 May}

**23 May** The US Senate adopts S.610 [see 13 May], *The Chemical Weapons Convention Implementation Act of 1997*. Substantial changes and compromise language have by now been introduced into the bill. Particularly striking are the exemptions for low concentrations of scheduled chemicals, this issue being one of the many matters on which the OPCW has still to achieve consensus. Section 402 of the Senate bill now sets the low-concentration threshold at 10 percent for Schedule-2 chemicals and 80 [sic] percent for Schedule-3 chemicals. The House of Representatives has yet to take up the legislation.

**26 May** In China, an official Japanese team of 15 people arrives on a week-long survey mission for abandoned chemical weapons [see 10–11 Apr]. It is the eighth such mission. The team will visit Mudanjiang in Heilongjiang Province and then Fushun and Shenyang in Liaoning Province.

**26–30 May** In the Czech Republic, the Purkyne Military Medical Academy at Hradec Kralove hosts an international symposium on medical countermeasures against CBW.

**27 May** In Paris, President Yeltsin and the 16 NATO heads of government assemble to sign the *Founding Act on Mutual Relations, Co-operation and Security between the Russian Federation and the North Atlantic Treaty Organization*. Part III of the accord specifies “Areas for Consultation and Cooperation” and includes: “preventing the proliferation of nuclear, biological and chemical weapons, and their delivery means”.

**27 May** The United Kingdom makes public the *Declaration of Past Activities relating to its Former Offensive Chemical Weapons Programme* which, in compliance with Article III of the Chemical Weapons Convention, it is now submitting to the OPCW. Of its 240-odd pages, some 40 are withheld from public disclosure “for reasons of national security”; they describe the storage arrangements for old chemical weapons currently awaiting disposal.

The declaration covers former production facilities, former development facilities, international transfers, storage facilities for Old Chemical Weapons (OCW), the general destruction plan for OCW, and the annual OCW destruction plan through to the end of 1997. Eight former Chemical Weapons Production Facilities are declared, four of them principally CW-agent production plants and four munition-filling plants. Seven former development facilities are declared, three of them overseas — in India, Nigeria and Malaysia. Two OCW storage facilities are declared. One is in Germany, at a UK ammunition depot where there are 9140 CN/DM irritant-agent hand grenades retrieved from the land-burial site in which they had apparently been abandoned by the US forces that had briefly occupied the place in June 1945. Besides the agents CN and DM just mentioned, three toxic chemicals not at present listed in the CWC schedules are declared, in relation to OCW: cyanogen bromide, ethyl iodoacetate, and bromobenzyl cyanide (agent CA).

The declaration also provides a history of the UK chemical weapons programme that somewhat extends the existing public record [see 1 Feb 96]. It notes, for example, the decision taken in 1946 to retain a 6-month operational supply of CW

agents and 30 percent of the World War II CW-agent production capacity. The wartime production is described in detail. For the post-1946 stockpile, the decision was to go on using supplies of existing agents until new weapons based on nerve gas had been developed. In 1951 an order was approved for 10,000 mustard-gas bombs of a new 1000-pound design; the bombs were produced and, during 1953-54, filled from existing agent stocks. In March 1957, after a decision the previous year to halt the development of large-scale nerve-gas production, the decision was taken to dispose of the entire stockpile. The declaration states that “[i]n 1960 the UK disposal of its offensive CW stocks was announced in a written ... answer to a Parliamentary question”. Weapons-related research, with some development work too, continued intermittently into the 1960s, but the 1963 decision by the Cabinet Defence Committee to “seek a limited retaliatory capability as a deterrent to others” remained effectively unimplemented.

The Ministry of Defence has been responsible for the declaration. The Ministry also discloses the initial declaration of the UK Single Small Scale Facility for Schedule-1 chemicals, namely the New Boscombe Laboratory Complex at CBD Porton Down. Not made public are the UK industry declarations under the CWC, or any declarations of other facilities for Schedule-1 chemicals. According to the *Sunday Telegraph* {25 May}, they will give particulars of an additional Schedule-1 facility and 37 Schedule-2 and Schedule-3 facilities.

**27 May** In Texas, more than 5000 Gulf War veterans have now joined the \$1 billion class-action lawsuit that has been filed in a State court in Brazoria County against some 75 US, foreign or multinational firms alleged to have been involved in supplying the Iraqi CBW programme [see 7 May 96].

**28 May** In Taipei, 90 delegates from 10 countries — Australia, Germany, Indonesia, Japan, New Zealand, Peru, South Africa, Taiwan, the United States and Vietnam — convene for *1997 The 1st Asian Conference on Chemical Weapons Convention*, which is organized jointly by the Industrial Development Bureau of Ministry of Economic Affairs of Taiwan, the Union Chemical Laboratories of the Industrial Technology Research Institute, and the Chinese Specialty Chemical Association. ITRI Vice President and Organizing Committee chairperson, Dr Johnsee Lee, describes the conference as Taiwan’s first opportunity for facilitating collaboration in the implementation of the CWC

among nations and chemical industries. There are five lectures about different aspects of the CWC given by Taiwanese, Japanese and US experts, followed by discussions. Addressed during the discussions is the special predicament, within the emerging CWC regime, of a country whose government and extensive chemical industries are committed to conforming to the objectives of CWC [see 14 Feb], but whose status under the treaty is that of an “excluded state party”. There is attention to possible options for reducing the impact of the CWC, under these anomalous circumstances, upon the country’s chemical economy. In closing comments, the Director of the Chemical Industry Division of the Industrial Development Bureau, Ministry of Economic Affairs, Mr Pin-Ho Yen, expresses his hope that the conference will become an annual event.

**28 May** The United States has proposed that China should join the Australia Group, according to an unidentified official who also tells reporters that the United States is aware of more than 15 Chinese individuals and companies exporting dual-use chemicals to Iran [see also 5 and 21 May] {Kyodo 28 May}

**28 May** In Buenos Aires, the Argentine Foreign Ministry issues a declaration, as is required under Article III of the Chemical Weapons Convention, that Argentina “has no chemical weapons installations or deposits in its territory”. The Foreign Ministry also announces that, shortly, “a federal body will be set up to monitor the enforcement of the obligations imposed by the Convention throughout Argentine territory”.

**29 May** Kuwait deposits with the UN Secretary-General its instrument of ratification of the Chemical Weapons Convention, becoming the 91st signatory state to do so.

**29 May** Libyan leader Colonel Mu’ammar al-Qadhafi speaks on Tripoli television about the banning of chemical weapons: “Why do [the Americans] not ban the atomic bomb? Which is the more dangerous, the atomic bomb or the chemical bomb? The atomic bomb is more dangerous. But they would not ban it, because they are an atomic power and can possess it, while the others cannot. The important thing is that the chemical bomb belongs to the poor [countries], which can make it. They [want] to disarm the poor of the weapons to defend themselves.” {FBIS-NES 30 May}

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#### Editors

Matthew Meselson  
Department of Molecular and Cellular Biology  
Harvard University  
7 Divinity Avenue  
Cambridge, Massachusetts, 02138  
United States of America  
[Tel: 617-495-2264. Fax: 617-496-2444]

Julian Perry Robinson  
Science Policy Research Unit  
University of Sussex  
Brighton, BN1 9RF  
England  
[Tel: 01273-678172. Fax: 01273-685865]

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