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A WINDOW OF OPPORTUNITY FOR THE BWC AD HOC GROUP

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A verification regime for the Biological Weapons Convention (BWC) is a missing link in a web of verification and compliance regimes to counter weapons of mass destruction. This shortcoming was recognised in 1991 when the Ad Hoc Group of Governmental Experts (which became known as VEREX) was established to examine possible verification measures from a scientific and technical viewpoint. However, the importance of a verification regime is even stronger today as recent international developments have emphasised the need for a strengthened regime.

Verification regimes are currently being strengthened across the board. The entry into force on 29 April 1997 of the Chemical Weapons Convention (CWC) provided an important strengthening of the legal and verification regime for the banning of chemical weapons. The indefinite extension in 1995 of the nuclear Non-Proliferation Treaty (NPT) was another important development, which further consolidated the regimes for the prohibition of weapons of mass destruction. The conclusion of the Comprehensive Test Ban Treaty (CTBT) was a further important development. In addition in the context of the International Atomic Energy Agency, the recent conclusion of the "93+2" negotiations has resulted in a strengthening of the regime related to non-routine inspections. These developments have all resulted in strengthening the regimes for nuclear weapons and for chemical weapons.

There has been no similar strengthening of the BWC despite the increasing pace of the negotiations which have taken place since 1991. However, these negotiations have been taking place against a background of other important negotiations which have received priority and has meant that for several years the negotiations on verification of the BWC could be regarded as the orphan negotiations. Initially, in 1991, the end-game of the CWC negotiations dominated the disarmament landscape, to be followed by the preparations for the NPT extension conference, and later the CTBT negotiations in Geneva. The next few months provide a window of opportunity for the strengthening of the BWC. The key issue for this "to be or not to be" ques-

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RUSSIA AND THE CHEMICAL WEAPONS CONVENTION: WHAT NEXT?

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The entry into force of the Chemical Weapons Convention (CWC) on 29 April 1997 brought into reality the most ambitious multilateral disarmament project designed so far. Unfortunately for the CWC, during much of the time since its signing in 1993 national agendas and international priorities were largely influenced by other arms control initiatives (CTBT, NPT extension, land mines) and politico-military developments (NATO expansion). Together with the inability of the OPCW Preparatory Commission to find solutions to many of the problems that had been left unresolved during the Convention's negotiation in Geneva, this led to a situation in which the implementation of the Convention had to begin under conditions that were less than perfect. One of the obvious imperfections was Russia's absence from the ranks of ratifying countries at entry into force. The purpose of this article is not so much to discuss the reasons for this outcome — they were already quite clear at least a year ago, during the period leading to the "triggering" of the CWC — but rather to consider what can be done to change the situation for the better.

Ratification of the CWC is, constitutionally, the prerogative of the Russian parliament, with the leading role to be played by its lower house — the State Duma. The parliament's decision to ratify would be achieved if the

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tion is whether as a result of the progress made so far, this window of opportunity can be used to forge an effective protocol for the verification of the Biological Weapons Convention. This opportunity should not be missed.

There are several reasons why it is extremely important to use the present window of opportunity. The developments which have occurred in the 1990s in respect of proliferation underline the importance of a comprehensive and integrated approach to the effective prohibition of biological and toxin weapons. It is clear from the case of Iraq and from the activities of UNSCOM that only an integrated approach to the proliferation challenge can succeed. Such an integrated approach includes the establishment of new institutions, of verification regimes, of counter-proliferation strategies and other efforts; these should be complementary and go hand in hand.

Against this background, it is important to recognise that the work of the Ad Hoc Group and other diplomatic efforts have to be realistic. Even when a protocol to strengthen the BWC has been agreed and implemented, there will continue to be some concerns and challenges. The verification protocol will not and cannot be the answer to all such challenges.

The Ad Hoc Group

The Ad Hoc Group (AHG) has made considerable progress. A successful transition was made at the July 1997 meeting to negotiation of a rolling text for a legally binding instrument to strengthen the BWC. Prior to the July 1997 meeting, the AHG had largely functioned through the efforts of four Friends of the Chair — Definitions and Objective Criteria (Iran), Confidence-Building Measures (Hungary), Compliance Measures (UK) and Article X Measures (initially Chile and now Brazil) — who have produced papers which have been attached to the procedural reports. The rolling text considered at the July AHG meeting incorporated the language developed by these Friends of the Chair into an integrated first draft of the Protocol. This meeting saw the fleshing out of many of the Articles of the draft and this process was developed further at the September 1997 meeting. The first rolling text issued in June 1997 had language for only two of the over 20 proposed Articles; by the end of the July 1997 AHG meeting there was text, albeit with extensive square brackets, for 18 of the 23 Articles; and at the end of the September 1997 AHG meeting there were only two Articles without any text.

There is thus now a nearly complete draft of the legally binding instrument which contains a multiplicity of square brackets. This comprises some 23 Articles, 8 Annexes and 5 Appendices; some elements currently in the Articles may be transferred to the Annexes and Appendices and *vice versa*. Further progress was made at the July 1997 AHG meeting by the appointment of two additional Friends of the Chair to address the Annex on Investigations (South Africa) and Legal Issues (Australia); the September 1997 AHG meeting saw the appointment of two further Friends of the Chair to address Confidentiality (Germany) and National Implementation and Assistance (India). All eight Friends of the Chair are now engaged in developing the rolling text related to their areas.

There are several clusters of issues that the Ad Hoc Group has been addressing for some time and needs to resolve. One such cluster concerns on-site visits and investigations and another what kind of declarations there should be. A further set of issues relates to definitions, lists and criteria with a fourth set addressing Article X (scientific and technological cooperation) and Article III (non-transfer) measures. Although there are other important issues, this article considers these four areas.

On-Site Visits and Investigations

In respect of on-site inspections, the big question being considered by delegations is how much verification might be needed? A second question is what should be the relationship between so-called 'visits' and 'investigations'? A third question relates to what kind of measures might be used in carrying out the various types of visits and investigations. A critical issue is the procedure for initiating an investigation. A further point in relation to on-site visits and investigations is how to ensure that there is no loss of commercial proprietary information (CPI) or sensitive military information unrelated to the compliance concern. It is, however, notable that in the general disarmament and arms limitation area, the present trend is towards more on-site inspections; this trend is demonstrated by the entry into force of the Chemical Weapons Convention, the opening for signature of the CTBT, and as a result of developments in the IAEA Programme "93+2". There are an increasing number of activities which can be regarded as on-site investigations or visits.

As a result of the implementation of the Chemical Weapons Convention, many countries which hitherto were not affected by such intrusive measures have accepted for the first time that on-site inspections will be carried out on their territory. Such inspections will include both routine inspections and the possibility of challenge inspections. Thus an extremely important psychological and political barrier has been crossed by the entry into force of the CWC.

There is an increased and shared appreciation that the OSCE countries have enhanced their security by their implementation of the on-site measures which were introduced in the framework of the 1986 Stockholm Document (succeeded by the Vienna Documents), and in the framework of the 1990 Conventional Armed Forces in Europe (CFE) Treaty, to which many OSCE states are parties. Military personnel in these countries have come, over time, to accept more and more that their activities will be subjected to international scrutiny and to see security benefits in such measures. This increased transparency should also be the trend for the states parties of the CWC in the coming months and years. The importance of this development needs to be stressed as it should help the Ad Hoc Group to address and resolve the issues relating to on-site visits and investigations.

In respect of visits, the right filters need to be found to select which declared facilities will be subjected to random visits. A number of trade-offs need to be made between the different requirements. One requirement is to have a certain assurance that the countries which participate in the future regime will, through random visits and clarification visits which might complement declaration activities, achieve a

sufficient degree of openness to make it difficult for any would-be cheater to carry out illegal activities in declared facilities. Another trade-off will need to be made between covering those facilities of particular relevance to the BWC whilst at the same time not imposing an unreasonable burden on the biotechnology industry, which is regarded as the industry of the 21st Century.

The aim is to have a verification regime which is effective yet is tolerable both from a financial point of view and from the point of view of a future organization. The right trade-off between these viewpoints needs to be found, not just in the context of visits but also in the relationship between visits and investigations as well. A number of countries have identified visits and investigations as being complementary on-site activities. These are complementary in that declarations together with random and clarification visits have a low political and security cost and offer an effective means of providing checks and assurances while having investigations to provide the ultimate guarantee.

Some other countries question the value of visits in the light of the perceived potential loss of CPI, and in regard to the complications that biotechnology poses for arms control experts who need to enact an effective verification system. Biological weapons are easy to develop, easy to hide and difficult to identify. The countries which question the value of visits favour a two-pillar regime based on declarations and investigations of non-compliance concerns, covering both facility and field investigations in an integrated manner. The Ad Hoc Group needs to find consensus and to sort out whether the future regime will have two pillars, declarations and investigations, or three pillars, involving visits as well.

Another question is how much will the verification regime cost. Will a future BWC organization have, for example a couple of dozen experts and cost US\$20–30 million a year, or will a more elaborate regime be necessary which might cost the international community about US\$60–80 million a year which is similar to the cost of the CWC or the CTBT? It will be necessary to consider how many visits and investigations might be needed each year and how many inspectors will be required to carry out these visits and investigations. The costs will depend upon the number of inspectors as well as the cost of carrying out each visit and investigation. It will also be necessary to consider how many facilities might be of particular relevance to the Convention and decisions will be needed as to how many such declared facilities might be subjected to random visits and how infrequent such visits might be. Different filters could be used to determine which facilities should be declared and which should be subjected to random visits.

Appropriate safeguards will need to be included in the verification measures to satisfy those countries concerned about the possible loss of CPI. The process of bringing together all these different elements of visits, investigations, and declarations into an integrated regime will be addressed in future meetings of the Ad Hoc Group. It is evident that these three elements are mutually reinforcing and underpin each other. Issues which have been identified for consideration at the next meeting of the Ad Hoc Group in respect of Article III of the protocol on compliance measures relate to

declarations, to consultation, clarification and cooperation and to visits and investigations.

Definitions, Lists and Criteria

Another set of issues relates to definitions, lists and criteria. These are complicated as definitions have become a politicised issue for many countries. At least one country in the Ad Hoc Group is in favour of a more specific definition of the prohibitions which are contained in the BWC such as what are the prohibited activities, what are the prohibited agents and what are the prohibited quantities.

This is seen as a dangerous approach by numerous other countries because defining the terms falling under the BWC might actually create ambiguities or future loopholes. They consider that as soon as a set of activities, which are prohibited by the general purpose criterion of the BWC, is defined in detail there will be activities which will fall outside such a definition. Similarly, if an attempt is made to draw up a list of agents prohibited by the BWC, there will be other agents that are not on this list. As for quantities, these will vary depending on the different ways in which legitimate activities are carried out in different countries. Many countries strongly favour the general purpose criterion, which provides the most important foundation to the prohibitions in both the CWC and BWC. The general purpose criterion is simple: any activities involving biological agents and toxins which are not for peaceful purposes are prohibited by the convention. The interpretation of this criterion requires a different kind of filter which will have to be specifically based on the requirements of the given country, of the given company, and of the given facility at a particular time. The difficulty insofar as the BWC is concerned is that there is no verification system which would enable the states parties to apply all of these additional filters to see whether activities are justified by peaceful needs or not. This is not a problem of definition but rather one which arises from the absence of a verification mechanism. The aim of the states parties in the Ad Hoc Group is to develop a lasting solution through the building of a regime comprising of declarations and on-site measures.

Insofar as consideration of definitions, lists and criteria by the Ad Hoc Group are concerned, the solution may be that for the implementation of the protocol itself, there will need to be some definitions, lists and criteria in respect of specific measures. Thus definitions will be needed so that participating states know what has to be included in their declarations. They will need to have a clear understanding of what agents, what facilities and what activities are to be declared. The latest rolling text includes a number of definitions in Article II together with lists of agents and criteria in Annex A. Definitions, lists and criteria used to implement the protocol may also have a role in the verification measures to be used by the future organization. This approach of focussing on the definitions required for the protocol should provide a way forward.

International Cooperation and Verification of Non-Transfer

The next cluster of issues is that relating to international cooperation and the verification of non-transfer. These issues are not unique to the BWC as the same issues surface

in the negotiation and development of regimes for other weapons of mass destruction. For several non-aligned countries, the advantage of having an additional treaty or regime element is clearly linked to whether there are some built-in benefits in the treaty or regime. Consequently the non-aligned countries are keen to see some cooperative and assistance measures as part of the legally binding instrument. The provision of more assistance provides an incentive to encourage such countries to participate in the negotiations and agree to a protocol.

On the other hand, the developed countries do not consider that the verification protocol of the BWC is necessarily the right framework for providing more assistance to developing countries in the field of biotechnology, as they regard a wide array of bilateral and other arrangements as being more effective. Nevertheless, several developed countries are not opposed to considering some additional cooperation and assistance measures which might be helpful for the implementation of the protocol. For example, in areas where developing countries lack the expertise and the infrastructure for the implementation of the protocol, international cooperation would be helpful. Another area for potential cooperation is that relating to biosafety and public health. There is a close relationship between an epidemiological investigation of a natural outbreak of a disease and an investigation of a possible use of a biological agent. Various publications and the media have drawn attention to the dangers posed world-wide by emerging and re-emerging diseases. In the early stages of both types of investigation, the aims of the investigation, the methods and the technologies used might be quite similar. Possible cooperation in this area might provide positive benefits for both the BWC and for public health in developing countries. Such activities are identified in the current language for Article VII of the rolling text.

Non-transfer is another highly politicised issue. This issue was one of the most difficult ones in the end game of the CWC. The issue is that some developing countries seek to eliminate the existing export control regimes, such as the Australia Group, and to replace these by a truly multilateral verification regime to implement the obligations of states parties under Article III of the Convention not to transfer or to assist in any of the activities prohibited under the Convention. The solution which was agreed in respect of the CWC was an undertaking to revisit the need for the export control regimes in a couple of years time. A similar solution seems unlikely to be acceptable to the developing countries in respect of the BWC. These countries consider that the undertakings given under the CWC are too weak and that these undertakings are not being met, and consequently the developing countries are keen to see a true elimination of export control regimes in the verification protocol. However, several industrialized countries regard export control regimes both now and in the future as being a necessary element to meet their obligations under Article III of the BWC and as an important ingredient of an integrated non-proliferation regime. The current rolling text contains language in Article III for measures to strengthen implementation of Article III of the Convention and to investigate possible transfers in violation of Article III of the BWC.

Prospects

The Ad Hoc Group is making good progress. Language is included in the current rolling text on all of the above issues as well as on issues such as privileges and immunities of inspectors carrying out visits and investigations, national implementation, assistance and confidentiality. Although the text currently contains many square brackets, it seems probable that the Ad Hoc Group in its meetings in 1998 will move forward to remove these square brackets recognising throughout that 'nothing is agreed until everything is agreed'.

The uncertainty is when a critical mass will be reached in the negotiations and when the case for an early protocol can be presented to decision makers. In other words, when will the political expectation and the technical work on the protocol be in harmony. A question is whether or not a protocol can be delivered if this is expected to be completed by the end of 1998. The political expectation and the so-called technical readiness of the protocol are complementary issues. If the feeling grows amongst the delegations and the states parties that good progress is being made, the political expectations will be encouraged. However, political expectations alone will not suffice to put a completed protocol on the table. The challenge for all the negotiators is to be innovative enough to solve all these issues recognising that only a limited time is available for negotiations. Although one might think that six years should have been long enough to solve these issues, in practice, all the sessions since 1992 amount to a total of only four months negotiation, which is less time than the Conference on Disarmament in Geneva spent in one year on the CTBT. More time definitely needs to be devoted to negotiations and the agreement of the Ad Hoc Group at their September 1997 meeting to engage in 11 weeks of negotiation in 1998 is welcomed. It is vital that these negotiations are taken seriously as the end-game time will approach.

It needs to be recognised that there is no alternative to the protocol. Arms control is not the only approach — it is only one ingredient in an integrated regime to counter the proliferation of weapons of mass destruction. However if the arms control element is not strengthened with an effective verification protocol, it will become more and more difficult to maintain an effective consolidated non-proliferation regime. This is because if the arms control element is weak, although there is no doubt about the importance of the 1925 Geneva Protocol and the BWC itself, it will become more difficult to build the legal and political case for action in the event of any future non-proliferation, counter-proliferation or sanction effort as it will become more difficult to prove the need for investigations and sanctions.

Insofar as costs are concerned, it needs to be recognised that if a multilateral verification regime for the BWC is not agreed, it could be more expensive for states than the cost of an international arrangement which might cost a couple of dozen million dollars per year. If the UN expenses and the bilateral contributions provided by a number of UN member states are added together, the UNSCOM price tag is around US\$100 million per year. It is clearly more effective to build a verification arrangement which is not a symptomatic treatment for a particular situation and which only

applies to one country. It would be more forward-looking to create a verification protocol which creates a more extensive safety net covering a wide variety of countries, large and small, developed and developing, as well as those countries which are of particular importance in a future regime.

The progress made by the Ad Hoc Group to negotiations based on a rolling text for the verification protocol of the BWC is significant. All delegations need to focus on negotiating a text that provides an effective strengthening of the BWC. The strengthened BWC will provide an important contribution to enhanced integrated approaches to counter-

ing the proliferation of weapons of mass destruction with consequential benefits for all countries. We must seize this window of opportunity.

This article is developed and updated from a presentation made by Ambassador Tóth to the NATO Advanced Study Institute on New Scientific and Technical Aspects of Verification of the Biological and Toxin Weapons Convention held in Budapest on 6 to 16 July 1997.

The Progress of the BWC Protocol Rolling Text				
Article	Title	No of pages		
		AHG/35 9 Jun 1997	AHG/36 4 Aug 1997	AHG/38 6 Oct 1997
Preamble		1	4	4
Article I	General Provisions	Title only	Title only	Title only
Article II	[Definitions]	—	5	6
Article III	Compliance Measures	29	31	36
Article IV	Confidentiality Provisions	Title only	1	2
Article V	Measures to Redress a Situation and to Ensure Compliance	Title only	Title only	1
Article VI	Assistance and Protection against Biological and Toxin Weapons	Title only	Title only	3
Article VII	Scientific and Technological Exchange for Peaceful Purposes and Technical Cooperation	8	9	10
Article VIII	Confidence-Building Measures	Title only	Title only	Title only
Article IX	[The Organization] [and Implementational Arrangements]	Title only	18	14
Article X	National Implementation Measures	Title only	Title only	1
Article XI	Relationship of the Protocol to the BWC and Other International Agreements	Title only	1	1
Article XII	Settlement of Disputes	Title only	1	2
Article XIII	Review of Protocol	Title only	1	1
Article XIV	Amendments	Title only	2	2
Article XV	Duration and Withdrawal	Title only	1	1
Article XVI	Status of Annexes [and Appendices]	Title only	1	1
Article XVII	Signature	Title only	1	1
Article XVIII	Ratification	Title only	1	1
Article XIX	Accession	Title only	1	1
Article XX	Entry into Force	Title only	1	1
Article XXI	Reservations	Title only	1	1
Article XXII	Depositary/ies	Title only	1	1
Article XXIII	Authentic Texts	Title only	1	1
Annex A	Declarations	14	24	26
Annex B	[[Non-Challenge][Random] Visits]	1	Title only	Title only
Annex C	[Measures to Strengthen the Implementation of Article III]	Title only	Title only	Title only
Annex D	Investigations	6	25	64
Annex E	Confidentiality Provisions	Title only	Title only	3
Annex F	Scientific and Technological Exchange for Peaceful Purposes and Technical Cooperation	Title only	Title only	Title only
Annex G	Confidence-Building Activities	14	13	18
Annex H	The [Technical] Secretariat	—	—	9
Appendix A	[Information to be provided in declarations of [biological] defence programmes]	2	2	2
Appendix B	Information to be provided in declarations of facilities taking part in [biological] defence programmes	3	3	3
Appendix C	Information to be provided in declarations of past biological and toxin offensive and/or defensive research and development programmes	1	1	1
Appendix D	[Information to be provided in declarations of other facilities]	3	3	3
Appendix E	[Information to be provided in declarations of facilities]	—	—	9

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Duma and after that the upper chamber — the Federation Council — both adopt by a simple majority the draft federal law on the ratification of the Convention. The law must then be signed by the President of Russia. Drafting work has been under way in a specially appointed parliamentary commission bringing together representatives of various standing committees and political factions which is expected to come up with specific proposals to be reviewed by the Duma during the period 8–22 October 1997.

The unprecedented step taken by the Duma in directly addressing the First Conference of the States Parties to the Convention¹ offers an important insight into the Russian ratification process. The Duma's message appears remarkable in a number of aspects worth being briefly analyzed here.

First, the document clearly states that economic considerations are the sole reason that has impeded Russia's ratification. Secondly, the Duma demonstrated its readiness for dialogue with the OPCW, aimed at facilitating the ratification process, particularly as regards looking for solutions to questions that could not find an immediate answer either in the executive or in the legislative branches of the government.

The cost of implementing the obligations under the CWC is what is at stake in the Russian ratification debate. Both branches of government are taking this issue very seriously. Although estimates range considerably, \$5 billion cited recently by Russian officials seems to provide a credible assessment. This does not include the cost of destruction or conversion of former chemical weapons production facilities and the cost of international inspection. The situation is complicated by persistent underfunding of the national destruction programme: 1994 saw only 18.3 percent of the sum authorized by the parliament, 1995 — 17.5 percent, 1996 had to put up with just one percent of the sum requested by the executive.² The 1997 Federal Budget includes an extremely modest provision of 190 billion roubles (\$32 million) for these purposes.³ Not an encouraging record, particularly now, at a time when the government is pressing for further spending cuts.

All this does not mean that the ratification chances are doomed. With the federal chemical weapons destruction programme in place, having been approved by the Duma on 25 April 1997 and signed into law by President Yeltsin on 2 May, the Russian government is already legally bound to proceed with practical destruction efforts, with a view to destroying all chemical weapons stocks by 2005. It has not been overlooked in Moscow in this connection that, ironically, the same factors that make the ratification decision so difficult — destruction time lines and costs — also represent important incentives to speed up the ratification of the CWC: the time lines for chemical weapons destruction in the Convention are linked to its own entry into force and not to its entry into force for a particular state party, while the costs of destruction and verification will naturally increase with any extension of the destruction period.

To break away from this vicious circle of impossible circumstances and to help pave the road to a positive ratification decision, one clearly needs to look for a solution that

would be reassuringly flexible. Fortunately, the Convention itself provides a reliable basis for such flexibility as regards the issues referred to by the Duma in its above mentioned address to the First Conference of the State Parties, namely destruction time lines, verification related cost-sharing and conversion. What would be very desirable in this situation is support from the OPCW. Practical measures taken by its Technical Secretariat with the aim of reducing the running costs of the Convention both for the Organization as a whole and for its individual members are very welcome. A reasonable degree of political encouragement as regards cost-related issues from the Executive Council would also be extremely helpful.

A substantial increase in destruction-related financial assistance to the Russian Federation by States Parties to the Convention and international institutions was another point raised by the Duma. It is assumed that external assistance to the Russian destruction programme would not exceed 3 to 3.5 per cent of total costs.² What could be done about it? Basically — to provide Russian legislators with concrete cases of international commitment to support elimination of chemical weapons stockpiles in the Russian Federation.

A very useful example of such commitment is provided by Germany which has come, probably closer than others, to an understanding that it would be impossible to link assistance to an accomplished ratification and to expect immediate results at the same time. The statement made in May 1997 by the European Union was also useful in clarifying the Union's position of principle on this issue.⁴ If one could think of enhancing the practical definition of European commitment, it would make sense to look at the format and content of future assistance programmes, to ensure that this assistance both supports needs that cannot be filled by other programmes and directly contributes to Russian chemical weapons destruction capability. Further progress on the Russian-American project in Shchuch'ye would be very useful as well.

As regards the Duma's reference to international institutions as an additional source of destruction assistance, one could take another look at a proposal made at an early stage of the Preparatory Commission's work to see whether some form of international assistance in carrying out chemical weapons destruction obligations under the Convention cannot be implemented through the mechanisms provided in Articles X and XI. After all, notwithstanding the definition of "assistance" in Article X, the best protection against chemical weapons might be ensured through their complete and timely elimination by all possessors.

Finally, in its appeal to the OPCW the Duma mentioned the importance of taking into account by the Organization of vital Russian interests in resolving the remaining issues of substance on its agenda, indicating that this too could become a factor to facilitate the completion of the ratification process. In doing so, the Duma specifically confirmed what had been stated by the Russian Government when it was putting its signature under the Convention in 1993: namely, the relevance of those decisions which will deal with inspection-related cost-sharing and with conversion of former chemical weapons production facilities. By the time of the publication of this article, the discussion in The Hague of important substantive issues like the two above will proba-

bly be at an advanced stage. It is hoped that the broad political agreement reached in the OPCW's First Conference in May regarding the need to "consult, as appropriate and in accordance with the rules and procedures adopted by the States Parties" will be translated into adequate practical arrangements giving due recognition to "the active support of the Russian Federation for the work of the Organization".⁵

For its part, during the time leading to its ratification of the Convention, Russia is ready to maintain its support to and cooperation with the OPCW. President Yeltsin in his message to the Organization personally confirmed that the Russian Federation fully shares and supports the object and purpose of the Convention and, pending its ratification, will refrain from any contrary action.⁶ Specifically, Russia will continue honouring the commitments regarding the non-development and non-production of chemical weapons; their non-transfer, directly or indirectly, to anyone; the non-use of chemical weapons; the renunciation of engaging in any military preparations to use them, of providing assistance, encouraging or inducing, in any way, anyone to engage in any activity prohibited by the Convention; the non-use of riot control agents as methods of warfare. Russia has also taken measures to ensure that toxic chemicals and their precursors are developed, produced and acquired, stored, transferred and used only for purposes not prohibited in the Convention.

There should be no doubt about Russian intentions. Russia will proceed with the destruction of its chemical weapons stockpiles. Its leadership is strongly committed to the earliest possible ratification of the CWC. The world community and primarily States Parties to the OPCW have

a chance to support this process, making a truly universal and effective CWC a reality.

Notes

1. State Duma of the Russian Federation, *On the Address of the State Duma to the Conference of the State Parties to the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction*, Moscow, 25 April 1997. Compendium of the Legislative Acts of the Russian Federation no 19, 12 May 1997 p 2212.
2. Colonel General S. V. Petrov, speaking to reporters at the Russian Ministry of Defence, 20 June 1997: see *News Chronology* below.
3. A. Tarasov, "[On the progress of preparation in the State Duma for the ratification of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction]", *Yadernoe Rasprostranenie* [Carnegie Center, Moscow] no 18, July 1997, pp 5–10.
4. See 21 May 1997 in *News Chronology* below.
5. Organization for the Prohibition of Chemical Weapons, *Statements during the General Debate of the First Session of the Conference of the State Parties 6–24 May 1997*, vol II, pp 235–39.
6. Organization for the Prohibition of Chemical Weapons, *Statements during the General Debate of the First Session of the Conference of the State Parties 6–24 May 1997*, vol I, pp 63–64.

The views expressed are those of the author and do not necessarily reflect the official position of the Russian government.

Signatures of the CWC awaiting full ratification

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

Total: 67 states

As of 18 September, 167 states had signed or acceded to the CWC

Developments in the Organization for the Prohibition of Chemical Weapons

It is now over four months since the entry into force of the Chemical Weapons Convention and work is well under way on its implementation. The initial publicity which accompanied the first session of the Conference of the States Parties (CSP) has receded, to be replaced by the less newsworthy, but vitally important, tasks of processing initial declarations, conducting inspections and of course encouraging more states to become party to the Convention. At the time of writing 100 states have ratified or acceded to the Convention, leaving 67 signatory states still to ratify. In addition, a number of important states have yet to sign the Convention. To date three states have publicly declared possession of chemical weapons, two of which, the USA and India {see 26 June *News Chronology*}, have also ratified the Convention. So far, a total of eight states have reportedly declared past or present chemical weapons related activities, which shows that the Convention is succeeding in its aim of transparency in the military field.

India's public declaration that it possesses chemical weapons, and its willingness to destroy them in accordance with the Convention, are encouraging developments. OPCW inspectors are already overseeing the destruction of chemical weapons in the USA and by the end of August the Organization had carried out 66 routine inspections of military and industrial facilities. This is still a period of transition, but these events and activities demonstrate that the OPCW is very much a functioning Organization carrying out real work in the field of chemical weapons disarmament.

Executive Council

During the period covered by this review, the Executive Council held three sessions: its second during 23–27 June, its third during 28 July–1 August and its fourth during 1–5 September 1997.

Since the end of the first session of the CSP the Executive Council has been holding monthly sessions. While neither the Convention nor the Council's rules of procedure specify how often the Council should meet (both documents refer only to regular meetings), the frequency of meetings since entry into force demonstrates the workload facing the Council and the Organization as a whole. It appears unlikely, however, that the Council will continue to hold monthly sessions once the initial requirements of the Convention have been successfully implemented.

Finance Finance, in particular contributions to the OPCW budget, has become a major issue at Council meetings during this period. In his closing statement to the second session the Director-General, José Mauricio Bustani, reminded states parties to pay their contributions as delays were beginning to affect the performance of the Organization. By the third session the situation had deteriorated.

The Director-General issued a separate report on the status of contributions and outlined the seriousness of the situation in his opening and closing statements. Most of the OPCW's expenditure is non-discretionary, for example, staff salaries, hence any savings have to come from reductions in discretionary expenditure, which includes verification and inspection costs. The Director-General warned that, if the financial situation did not improve quickly, the verification timelines laid down in the Convention might not be met, as inspections would have to be curtailed and no further inspectors could be recruited. The root of the problem was that a number of states parties had not paid their contributions to the 1997 OPCW Programme and Budget. In many cases administrative procedures were responsible as many states parties had not allocated money from their national budgets in the mistaken belief that the OPCW would not be fully operational this year. In addition, notices of assessment could only be sent out to individual states parties after the first session of the CSP approved the OPCW budget in May, resulting in many states parties having difficulties processing the payments quickly. The total budget for 1997 (29 April–31 December) amounts to NLG 88.87 million (about US\$44.8 million), NLG 59.15 million for verification costs and NLG 29.71 million for administration and other costs.

Political problems also delayed the payment of contributions due from some states parties. Contributions are calculated on the basis of the UN scale of assessment, adjusted to take into account the smaller membership of the OPCW. The scale of assessment for 1997 was decided by the first session of the CSP in May and the decision {C-I/DEC.75} clearly lays out the obligations of states parties. However, questions were raised during the third and fourth sessions of the Council as to whether any single state party should pay more than 25 per cent of the budget. In some other international organizations 25 per cent is the ceiling for contributions and it was argued that this should also be the case for the OPCW. The fourth session provisionally agreed to apply this principle retroactively to the 1997 budget, pending a decision of the second session of the CSP. It was also agreed that no state party will pay more than the assessed contribution at the first session of the CSP, the shortfall must be absorbed by the Secretariat. This agreement should ensure the payment of more contributions and thus ease the Organization's cash flow crisis. During August intensive efforts were made to encourage more payments from states parties and with the developments during the fourth session the situation is now beginning to improve.

Attention is now likely to focus on the budget for 1998. A draft 1998 OPCW Programme and Budget and a Medium-Term Plan have been prepared and were submitted to the fourth session of the Council. They will be considered at the fifth and sixth Council sessions and the Advisory Body on Administrative and Financial Matters meets to dis-

cuss them on 15–19 September. As it currently stands the 1998 draft budget amounts to approximately NLG 130 million, split almost equally between administration and verification costs.

Confidentiality During the period under review the implementation and development of the confidentiality regime became a major topic of debate.

The Confidentiality Annex of the Convention, the OPCW Confidentiality Policy and the OPCW Media and Public Affairs Policy together form the basis of the OPCW confidentiality regime, which also incorporates all handling procedures for confidential information, as detailed in the recently circulated Manual of Confidentiality Procedure. The regime outlines and regulates the responsibilities of the OPCW and states parties in relation to the receipt, handling, dissemination and release of information. Now that the Organization is processing information submitted by states parties, the protection of confidential information has become a major concern, as reflected in the Director-General's reports on the confidentiality regime and in the decision not to use the Electronic Data Management System (EDMS) to process confidential information until it is certified as secure. As implementation proceeds it is becoming apparent that there are fundamentally different conceptions of confidentiality in general, and of the role of the confidentiality regime in particular among states parties. On the one hand it is argued that the Convention is designed to promote transparency in military affairs, while protecting commercial information from the chemical industry. On the other, it is argued that national security demands confidentiality in both the military and commercial fields.

The confidentiality regime is still in the early stages of development and the current debates can be seen as part of a struggle to determine its future scope and direction. There appear to be two alternatives on offer: whether the confidentiality regime will be used to perpetuate the secrecy which has traditionally pervaded the field of chemical warfare; or, whether it will be used to protect commercial and governmental information while opening up the military arena, thus demonstrating that verification can work and that states parties are destroying their own stockpiles of chemical weapons. The current situation, in which access to Council documents is limited to Council members, and the requests for tighter restrictions on information provided during Council sessions, appears to suggest that many states parties lean towards continued secrecy.

Official documents of the Executive Council are not normally classified, but their distribution is limited to states parties and signatory states which request them. Part VII, paragraph 2.1(a) of the OPCW Confidentiality Policy states that the Director-General may release unclassified general information on the course of the implementation of the Convention which does not contain material relating specifically to any state party. The Director-General has communicated to states parties that he considers it important to convey the successes of the OPCW to the world and encourage other states to ratify the Convention. Recognising this, many states have authorised the Director-General to release information pertaining to themselves. However, other states parties argue that for reasons of national secu-

urity they do not want such limited information to be made public and definitely do not want a precedent to be set on this issue. This is perhaps the clearest example of the struggle over confidentiality and there is no doubt that it will continue to play out in the coming months.

Status of implementation The Director-General has reported to each session on the status of implementation of the Convention, providing details of the receipt and processing of declarations and summary information of the progress of inspections.

During the second session the Council expressed its concern that many states parties had not yet submitted their national declarations and suggested that the Secretariat adopt a proactive approach. The Director-General agreed and promised to report further at the next session. This report, submitted to the third session, detailed measures to encourage the submission of initial declarations including offers of assistance, visits by Secretariat staff, the provision of simplified forms and arranging regional meetings. Proposed further measures included a list of national authorities willing to share their experiences of compiling declarations, regional meetings, courses for personnel, bilateral or multilateral contacts between states parties and a Council resolution requesting states having special problems to inform the Secretariat before a certain deadline. In addition to the so-called initial declarations the Convention requires a range of other notifications and declarations to be submitted.

Progress in this regard still leaves room for improvement. At each of the Council sessions during this period the Director-General has reminded states parties to submit notifications of national authorities, points of entry for inspection teams, diplomatic clearance numbers for non-scheduled aircraft carrying inspection teams and of the transfer of Schedule 1 chemicals.

Transitional Verification Arrangements As reported in the last quarterly review it was expected that, during its second session, the Council would consider three Transitional Verification Arrangements (TVAs) for Chemical Weapons Destruction Facilities (CWDFs) in the USA, in accordance with the Convention which states that arrangements for CWDFs operating at EIF should be approved not later than 60 days after EIF (28 June 1997). Delays in the bilateral negotiations between the Secretariat and the United States government deferred a decision until the third session of the Council, where the three agreements were considered and duly approved. During the fourth session, the Director-General submitted two further TVAs for CWDFs in the USA, which the Council decided to consider at its next session. In all, three CWDFs are now operating in the USA at two locations.

Other issues During the third session a number of delegations expressed concern at the proposed layout of the Executive Council chamber in the new OPCW building because it lacks adequate space for observers to attend and participate in proceedings. When the layout was agreed in 1994, it was envisaged that Council meetings would only be open to Council members.

However, Rule 22 of the Council's rules of procedure provides for greater flexibility in relation to the attendance of observers by defining both open (attendance by non-Council delegates as observers) and closed (only Council members) sessions. This issue recalls views expressed by a number of delegations at the first session of the CSP on the subject of access to Council meetings by non-members. As reported in the last quarterly review, the Irish delegation (supported by the delegations of Austria, Canada, Greece, Switzerland and New Zealand) considered that Rule 22 of the Council's rules of procedure did not go far enough in ensuring the participation of observers in Council sessions. The Council requested that the Director-General consult with the developer to accommodate the necessary changes to make the chamber consistent with the rules of procedure by providing space for observers. This was done during August and the Council was told at its fourth session that the possibility exists of accommodating up to 20 observers without requiring any structural changes.

During the fourth session the Council agreed upon a consultative mechanism for updating the OPCW Central Analytical Database, which it recommended for approval to the second session of the CSP. Additional spectra for the database will be provided by states parties and will be validated by an open-ended validation group before being presented to the Council. Spectra recommended for inclusion in the database will be listed in the Council's report to Conference for final approval. The Council also recommended that the second session of the CSP consider adopting the spectra already validated under the Preparatory Commission (PrepCom).

During the period under review the Council also addressed various administrative matters. As delegated to it by the first session of the CSP, during its second session the Council appointed the Auditor-General of India, V.K. Shunglu as the OPCW External Auditor for one period of three years. The External Auditor is completely independent and has responsibility for the conduct of annual audits of the OPCW's financial statements. In accordance with the OPCW Financial Regulations, the Council also decided to establish an Advisory Body on Administrative and Financial Matters, without decision-making powers, to which will be appointed between 10 and 15 recognised experts in the financial and administrative fields. The body continues the work of the Finance Group under the PrepCom. At the time of writing the nominations are: Dudley Lashmar (UK); Peter Döllekes (Germany); Christopher Park (USA); Lim Won-Hyun (Republic of Korea); A.V.M. Cals (Netherlands); Gianfranco Tracci (Italy); Javier Abud Osuna (Mexico); Gamze Artun (Turkey); Liu Zhixian (China); Kazuo Tsukada (Japan); and B.N. Jha (India). The Advisory Body will be tasked to examine and report on financial and budgetary proposals and to advise on various administrative and financial matters.

The Advisory Body holds its first meeting on 15–19 September 1997 to discuss the 1998 Draft OPCW Programme and Budget.

Verification and Inspection Activities

Declaration processing The deadline for the submission of initial declarations was 29 May 1997. The supply of information is essential for the successful implementation of the Convention. The Convention obliges states parties to provide information of a confidential nature in the form of declarations and, in turn, it establishes a stringent regime for handling confidential information within the Secretariat. The receipt and processing of initial declarations is the first stage in this exchange of information between states parties and the Organization. Once received by the OPCW those initial declarations that arrived within 30 days of EIF were stored in the safes of the Confidentiality Branch until a 30-day embargo on processing had expired or had been waived by the state party. This embargo was purely to allow time for OPCW staff to be cleared to access confidential information (see below) and will not apply to future declarations.

There are four main phases through which each declaration passes: receipt, registration, acknowledgement and archiving of the original documents. Once available, declarations are sorted, split and given OPCW file numbers. When the computerised document management system is available they will also be registered and scanned into the declarations database. Declarations will be translated into English when necessary and masked and coded beforehand if substantial translation is required. Throughout processing, access to declarations is extremely limited and based strictly on the principle of need-to-know. For example, Inspectorate staff can only access sections related to the facility they are to inspect, staff overseeing chemical demilitarisation can only access CW-related sections and so on, and in each branch only the head and perhaps one other will even see those sections. In addition the Secretariat maintains a rigid audit trail of access to confidential information, which is available to states parties, so that it is clear who accessed what, when and why.

Before being used for inspection planning declaration data undergoes validation and evaluation. Validation involves checking the completeness of declarations, ensuring logical consistency between declaration forms and declaration items and checking the confidentiality classification of the declared data if necessary. Specific tasks involve checking that country and facility codes are correct and that CAS numbers and names of chemicals are entered correctly. Thorough evaluation ensures and maintains the accuracy of declaration data, while the Secretariat is also responsible for communicating with states parties in order to clarify questions relating to declarations. Many declarations have been submitted only partially completed, while some states parties have submitted amendments to declaration data during processing, all of which must be incorporated into the declaration data stored by the Secretariat.

Once the declarations have been validated and evaluated the relevant data can be accessed by the branches of the Secretariat concerned with chemical demilitarisation and industrial verification. These branches are jointly responsible for medium-term inspection planning and performing risk assessments of declared facilities in their respective fields. The declaration data submitted on the particular fa-

cility is used as the baseline for both inspection planning and risk assessment.

Assessments are based upon the risk to the object and purpose of the Convention posed by the chemicals present at the facility, the characteristics of the facility and the nature of the work carried out there. Using this information facilities are selected for initial inspections and inspection plans drawn up.

A further part of the verification process is the dissemination of declaration data, in the form of reports, to other states parties. This is provided for by subparagraph 2(b) of the Confidentiality Annex:

Data required by States Parties to be assured of the continued compliance with this Convention by other States Parties shall be routinely provided to them. Such data shall encompass:

(i) The initial and annual reports and declarations provided by States Parties under Articles III, IV, V and VI, in accordance with the provisions set forth in the Verification Annex;

(ii) General reports on the results and effectiveness of verification activities; and

(iii) Information to be supplied to all States Parties in accordance with the provisions of this Convention.

The dissemination of such data serves the dual aims of transparency and enhanced mutual confidence between states parties.

Confidentiality regime The concerns of states parties about confidentiality can be clearly seen in the levels of classification applied to declarations submitted under Articles III, IV, V and VI and attempts to limit the dissemination of, and access to, declaration data. While the struggle over the confidentiality regime is played out in the Executive Council, it also affects the day-to-day operations of the Secretariat, particularly declaration processing.

During the second session of the Council some states parties expressed concern that the Confidential Information Access Register (CIAR) listed too many staff members proposed for clearance for access to confidential information. The Director-General assured all states parties that clearance for access was not the same as actual access to a declaration, which is only granted to those who require it in order to fulfil the specific requirements of their job. In practice the number of staff who had access to a declaration was in single figures. During the third session a revised CIAR was circulated which, despite including more names, showed much more clearly the application of the need-to-know principle as described above.

Some states parties have adopted the approach of classifying their entire declaration as OPCW Highly Protected, perhaps on the assumption that the information contained would thus go no further than the Organization's safes.

However, the information contained in declarations needs to be processed by Secretariat staff, and the Convention dictates that certain information is routinely disseminated to states parties. Part V, paragraph 1 of the Confidentiality Policy lists three levels of classified information: OPCW Restricted, OPCW Protected, and the highest, OPCW Highly Protected. Processing information

classified as OPCW Highly Protected, particularly without the EDMS, is a very time and resource-consuming job.

During the third session of the Council differences emerged over the scope of the dissemination of declaration data. The Director-General told the Council that there is no legal basis upon which the dissemination of declaration data to other states parties can be restricted, and detailed the obligations in subparagraph 2(b)(i) of the Confidentiality Annex. Dissemination of information under these obligations applies no matter what the classification. Part VI, paragraph 1.5 of the Confidentiality Policy states that: level of classification does not in itself determine the scope of access to classified information but simply the manner in which it is to be handled and protected against unauthorised disclosure. At the fourth session of the Council the Director-General announced that in future states parties requesting declaration data would be required to provide the Secretariat with details of their procedures for handling confidential information, thereby strengthening the provision in paragraph 4 of the Confidentiality Annex, which requires all states parties to respect the classification of information provided to them. Many states, however, have expressed concern that some states parties which have not submitted their own declarations should not demand access to others' declarations.

The confidentiality regime is designed to reflect the concerns of states parties by protecting confidential information, while simultaneously encouraging chemical weapons disarmament by building confidence between states parties through the dissemination of certain data.

In a press release on 9 September, the Secretariat stated that, as of 28 July, 49 states parties had submitted declarations, of which five requested that information pertaining to their implementation not be released. The press release also stated that three declarations relating to Article IV (chemical weapons) had been received, and seven states, five of which consented to information being released, declared existing or former CWPFS (China, France, Japan, UK and USA) for purposes of Article V. Seven states (Belgium, China, France, Germany, Italy, Japan and the UK) declared old and/or abandoned chemical weapons on their territory under Part IV(B) of the Verification Annex. {See further *News Chronology*, 28 July}

Electronic Data Management System The EDMS should play a crucial role in the process just described, especially during validation, evaluation, risk assessment and inspection planning. The system is designed to manipulate large quantities of data and make comparisons across states parties, types of facility, types of chemical and so on, in addition to monitoring trends in the production and transfer of scheduled chemicals. It also manages essential tasks such as the generation and updating of inventories for chemical weapons storage and destruction sites and the maintenance of an accurate confidential information audit trail. However, the Director-General had to inform the Council's second session that, until the system has been updated and certified as secure, it would not be used for processing declaration information. The original Information Management System (IMS) Security Study dates from 1995 and is therefore in need of updating.

At the time of writing an update has been completed and a report will be presented to the fifth session of the Council. Once approved by the Council the updated Security Study will become the IMS Security Plan. Following an external security audit, the EDMS will eventually be certified to process confidential information. This process could well take until the end of 1997 to be completed. The unavailability of the system appears to have caused two main problems so far. The first is the slow rate at which declarations can be processed as staff have to use hard copies and making each copy is a resource-intensive job, particularly with many declarations classified as OPCW Highly Protected. This has a knock-on effect on the planning and conducting of inspections and also in preparing declaration reports to disseminate to other states parties. The second problem has become more apparent as the Secretariat has begun to analyse the data contained in declarations. To date the Secretariat has only been able to carry out very limited screening of which states parties have declared and a general overview of declared facilities by type, instead of the sophisticated data manipulations described above. Over time this would hamper the Secretariat's ability to effectively implement the Convention and monitor compliance, so the Secretariat has resorted to other measures, including the use of stand-alone PCs not connected to the OPCW network.

Inspectorate activities One of the first tasks for the Inspectorate was to notify states parties of the list of inspectors proposed for designation. The Director-General circulated a note to this effect on 20 May and reported at the third Council session that 56 states parties had completed the designation process in accordance with Part II, paragraph 1 of the Verification Annex. On 20 August the Director-General began the designation process for inspectors in challenge inspections by sending out a list of proposed members of inspection teams. Inspectors will be regarded as designated if no objections are forthcoming within 30 days of states parties receiving the list.

An extremely important requirement is that all inspectors and assistants are provided with travel documents to ensure that they can travel to, and enter all states parties. On 2 June the Director-General entered into a temporary agreement with the Secretary-General of the UN which allows OPCW inspectors and assistants to use UN laissez-passer (UNLP) while travelling to and from inspections. At the time of writing 136 of 139 UNLPs requested have been delivered, with the remainder expected in the near future. The agreement will remain in place until the conclusion of a formal relationship agreement between the UN and OPCW, which will include provision for the use of UNLPs by Inspectorate staff and also by other Secretariat staff, such as the Director-General. Inspectorate staff also need visas for those states parties which require visas for people travelling on UNLPs. Ideally, each inspector and assistant should have a two-year multiple-entry visa for each country which requires it, but until the Secretariat receives application forms from all states parties, *ad hoc* arrangements are being used.

With the receipt and processing of declarations by the Verification Division, the Inspectorate began the task of implementing the inspection plan for 1997, with the target of

completing over 100 initial inspections by the end of the year. The initial priority is to inspect all Chemical Weapons Production Facilities (CWPFs) before EIF + 120 days and all other chemical weapons and Schedule 1 facilities before EIF + 180 days (28 October 1997), in order that facility agreements can be completed and submitted to the Council for its approval. Within these parameters facilities are selected on the basis of risk assessment and the need to visit facilities requiring complex facility agreements first. The purposes of initial inspections are fourfold: to verify the accuracy of the data provided by the inspected state party in its initial declaration, to obtain any additional information needed for planning future verification activities at the facilities; to compile data for further assessment of the facilities with regard to the object and purpose of the Convention, and to develop an initial draft of the facility agreement if necessary. Staff in the Inspectorate only work with data which pertains to the facility for which they are preparing an inspection and the data which inspection teams take with them on their portable computers is erased when the inspection report is finalised.

With the information available in the Secretariat the short-term planning of each individual inspection can be undertaken. Constant operational and logistical support to inspection teams around the world is available 24 hours a day, seven days a week. The activities of inspection teams are coordinated with the cooperation of the national authorities of inspected states.

Once a facility has received its initial inspection the inspection team prepares an inspection report detailing the findings of the inspection and also begins drafting a facility agreement with the inspected state party. The inspection report should normally be transmitted to the Director-General within four days of the team's return to The Hague. The final report contributes to the completion of the facility agreement, which is mandatory for Schedule 1 and chemical weapons facilities.

Facility agreements are legal undertakings between the Organization and the inspected state party, governing the conduct of inspections at a particular facility.

The agreements themselves are drawn up at OPCW headquarters and negotiated with the inspected state party. As can be appreciated, the negotiation of facility agreements is a long and complex task, but in accordance with the Convention, the Secretariat hopes to have all the necessary agreements completed by the EIF + 180 days deadline on 28 October.

One of the Inspectorate's first tasks was to undertake initial visits to three Chemical Weapons Destruction Facilities (CWDFs) in the USA which were operating at EIF in order to conclude Transitional Verification Arrangements (TVAs).

As already reported these documents were approved by the third session of the Council and permanent monitoring of two of these facilities began on 28 July 1997. The Council will consider at least two more TVAs (one for continuous the other for non-continuous monitoring) at its fifth session. The Director-General submitted a report to the fourth session of the Council on a request by the USA for the conversion of a CWPF to purposes not prohibited under the Convention. The Council is to consider the request at its

fifth session and refer it to the second session of the CSP, in accordance with part V, paragraph 75 of the Verification Annex. If the Conference approves the request, then the Convention requires that a facility agreement, including verification measures, be completed within 90 days (Part V, paragraph 76).

By the end of August the Inspectorate had undertaken 66 inspections of chemical weapons and Schedule 1 facilities including the continuous inspections at CWDFs. The month of August was taken up with the inspection of all declared CWFs in accordance with the inspection timelines of the Convention. Inspectors also visited 11 Schedule 1 facilities. During the period 1 June–28 July the OPCW conducted inspections in the following countries: Australia, Italy, Japan, New Zealand, Norway, Spain, Sweden, UK and USA, and in three others which did not want information related to inspections on their territory released publicly. CW and Schedule 1 facilities will continue to be the main focus of attention as facility agreements must be completed by EIF + 180 days, that is 28 October 1997.

Actions by the Technical Secretariat

International Co-operation and Assistance According to the Director-General's opening statement to the fourth session of the Council, international co-operation and assistance is one of the areas which was worst affected by the OPCW's financial situation during July and August. A number of its projects have been delayed, for example a programme for interns and various support projects for national authorities.

Article X, paragraph 7 gives states parties the choice of three options for providing assistance through the Organization, from which they can pick one or more.

Paragraph 7(a) provides for the Voluntary Fund for Assistance, paragraph 7(b) recommends that the OPCW and states parties adopt bilateral agreements and paragraph 7(c) encourages states parties to declare the type of assistance which they can offer. As the Director-General reminded the fourth session of the Council, 28 October is the deadline for states parties to submit such declarations. At this session the Director-General also reported on the implementation of the Conference decisions on the Voluntary Fund for Assistance and on model bilateral agreements. The Voluntary Fund for Assistance is intended to finance OPCW activities in response to a request for assistance from a state party, for example after a chemical weapons attack. The report sets out criteria to aid states parties when deciding how much to contribute to the fund and also six scenarios to demonstrate situations to which the Organization might have to respond. To provide assistance for the worst-case scenario (first chemical attack in an armed conflict) the report suggests that the fund should amount to approximately NLG 8 million. The report notes that the Organization cannot specify an amount that each state party should contribute, but suggests that payments might be based on a percentage of their contribution to the OPCW budget, and could, if necessary, be spread over a number of years.

Before assistance can be sent by the OPCW, an inspection team must visit the site of alleged use to verify that chemical weapons have been used and to assess what assis-

CWC Ratifications and Accessions

deposited since CWC entry into force

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
Burkina Faso — 8 July 1997
Ghana — 9 July 1997
Brunei Darussalam — 28 July 1997
Qatar — 3 September 1997
Guyana — 12 September 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, Niger, Saint Lucia, Luxembourg, Tunisia, Togo, Bangladesh, China, Equatorial Guinea, Kenya, United States of America, Zimbabwe, Bahrain, Iceland, Mali, Malta, Republic of Korea, Suriname

As of 18 September, 100 states had deposited instruments of ratification or accession.

tance is required. To help the inspection team make its assessment, the Organization has requested that states parties nominate qualified experts who could provide additional expertise for investigations of alleged use. In accordance with Part XI, paragraph 7 of the Verification Annex, a provisional list of 55 such experts was circulated to states parties on 12 June. Most of those on the list have either medical or scientific expertise and many have participated in either trial OPCW inspections or UNSCOM activities in Iraq. An inspection team in a case of alleged use of chemical weapons would be made up of inspectors and assistants designated for challenge inspections and any of the names on the list of experts whom the Director-General considered could provide expertise not available among the inspectors.

UN Relationship Agreement During the fourth session of the Council, the Director-General submitted a draft relationship agreement with the United Nations.

This agreement is one of the many unresolved issues from the PrepCom, but is needed urgently because of the requirement to issue inspectors with UNLPs. In addition to formalising the use of UNLPs by OPCW staff, the agreement also covers co-ordination and co-operation between the two organizations, the establishment of a mechanism for co-operation in case of the alleged use of chemical weapons by a state not party to the Convention, technical assistance and the protection of confidentiality. The Secretariat is currently working to produce a simplified version of the agreement to be presented at the fifth session.

Second and Third Official Inter-Laboratory Proficiency Tests The second official inter-laboratory proficiency test took place during 14 October–5 November 1996, and the third during 22 April–28 May 1997. Both tests were conducted in accordance with criteria adopted by the PrepCom and the first session of the CSP {C-I/DEC.62, 65 and 66}. 26 laboratories from 25 states parties participated in the third test, of which 23 had completed the follow-up actions from the first and second tests. Nineteen laboratories met the adopted criteria allowing them to be scored. Of the seven laboratories that did not qualify for scoring, five reported false positive results, one exceeded the test time, and one did not provide a report.

The Secretariat is holding a meeting on 16 September to discuss the results of the third test.

Official visits In recognition of the importance of Russian ratification of the Convention, the Director-General is to travel to Moscow on 17–18 September and is expected to meet with the Minister of Foreign Affairs, Evgeni Primakov, the Chairman of the Duma's Foreign Affairs Committee, Vladimir Lukin, and other senior government officials. In addition, a delegation from the State Duma of the Russian Federation, led by Lukin, visited the Secretariat on 10 September. The Director-General will visit Ukraine on 19 September and will also be received by high-level officials there. On 11 October he is to address the North Atlantic Assembly in Bucharest and on 16 October he will address the First Committee of the UN General Assembly. Contact with non-ratifying states is a topic of the Director-General's visit to the UN where he will also meet with rep-

resentatives of a number of states which have yet to ratify the Convention on 16–17 October. The following day the Director-General is expected to meet the UN Secretary-General. In The Hague, the Director-General met with the Polish Secretary of State of Foreign Affairs, Eugenieniusz Wyzner, on 18 August, the Dutch Prime Minister, Willem Kok, on 25 August and the Dutch Deputy Prime Minister and Minister of Foreign Affairs, Hans van Mierlo, on 11 September.

Staffing Since the last review there have been some personnel and structural changes within the Organization. The head of the Administration Division resigned in August and has been replaced by Reginald van Raalte (USA). The Industry Relations Branch in the External Relations Division has been dissolved and its functions moved to the Government Relations and Political Affairs Branch while the Training Branch has been moved from the Verification Division to the Administration Division and becomes the Training and Staff Development Branch. Among the 405 posts provided for in the 1997 budget there are still a number of vacancies and recruitment is continuing. Within the Inspectorate 111 of the 140 available posts are presently occupied by personnel from 44 states parties. Group B training is expected to begin early in 1998 and to be completed in order that the Organization can possibly hire up to 90 additional inspectors and assistants from 1 August. During 1998 the number of inspectors and assistants is anticipated to reach 211.

Future work During its first four months the Organization has performed the tasks required of it and implementation of the Convention is progressing steadily. Having said this there are numerous issues which will need to be tackled over the coming months and years. Among these is the relationship between the organs established by the Convention, namely the Conference, Council and Secretariat, and how it copes with future developments. The Convention itself carefully delineates the responsibilities of each body and establishes checks and balances similar to those in other international organizations. During this transitional phase these organs and the relationship between them needs to be bedded down and procedures worked out to deal with difficult issues which undoubtedly lie ahead and those which are left over from the PrepCom, such as the conversion of CWPFs, costs of verification under Articles IV and V, the verification regime for old and abandoned chemical weapons and various chemical industry issues. There is little history or precedent in this field for these constitutional and practical aspects. The Council has inevitably taken a leading role, highlighted by its retroactive decision on the scale of assessments, in guiding the Organization through this period. Clearly though, the Conference, made up of all states parties, is the supreme decision-making body of the Organization and the development of the relationship between the two bodies over time will be a significant factor in determining the success of the Organization.

This review was written by Daniel Feakes, the HSP researcher in The Hague.

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

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

1 May In Oregon, near the small farming community of Hermiston, representatives of the US Army and of Raytheon Demilitarization Company conduct a ground-breaking ceremony for the Umatilla Chemical Agent Disposal Facility [see 7 Feb]. Mustard gas in 1-ton containers and toxic chemical (mustard, GB and VX) munitions have been stored at the Umatilla depot since 1962, and 220 599 of them currently await incineration. In the overall US chemdemil programme, rather more than 250 tons of sarin has been incinerated at the Tooele Chemical Agent Disposal Facility [see 26 Jan], while at the JACADS facility [see 7 Feb] on Johnston Atoll, the total now exceeds 1300 tons of CW agents. {PMCD Newsletter Jun}

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 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* 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]. And 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".

The trial of Nahum Manbar begins in Tel Aviv, under tight security, on 9 June. As he is led into court, he shouts to reporters: "The authorities all knew what I was doing".

5 May Cuba, in a note to the UN Secretary-General dated 28 April released today, 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* 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 {A/52/128}. The US State Department dismisses the charge as "disinformation", while apparently accepting that plant-eating insects are biological agents within the meaning of the 1972 Biological Weapons Convention. The State Department press statement confirms that a US crop-dusting plane on its way to Columbia had overflowed Cuba at the time stated and relates what the US government had already told the Cuban government during an earlier exchange of notes, namely that 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". He says that the 5000 t/y chemical-weapons production capacity is the combined total of 8 plants in Oaji in the northeastern-most area and elsewhere in the North. He attributes all this information to the testimony of defectors. Being five times larger than previous official disclosures [see 9 Feb 96, but see also 1 Aug 96], the tonnage figures he quotes 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. {Seoul *Choson Ilbo* 8 May in FBIS-TAC 8 May} 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 {*Korea Herald* 10 May}.

6 May The Indian government announces that it is setting up a CWC National Authority under the administrative control of the Cabinet Secretariat. Its chairman is to be supported by a technical secretariat to look after its various functions, and it will be suitably empowered through legislation. A high-level steering committee is to oversee its functions. This committee will be chaired by the Cabinet Secretary, and will comprise the Foreign Secretary, the Defence Secretary, the Secretary of Defence Research and Development, the Secretary of Chemicals and Petrochemicals, and the Chairman of the National Authority. {New Delhi PTI 6 May} *India Today* {31 May} later reports that the staff of the National Authority is likely to comprise "one secretary-level officer, three additional secretaries, 11 joint secretaries and numerous lower-level functionaries".

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. Commissioner Ooms had also spoken of Iraq's weaponization of aflatoxin [see 20 Jan] and is quoted thus: "Aflatoxin causes fatal liver cancer after a period of five or six years. Because of this delay it has no military significance whatsoever. Therefore the only possible conclusion is that the Iraqis have developed aflatoxin as a weapon of genocide against the Kurds." The Rotterdam newspaper *NRC Handelsblad* {24 May} subsequently carries a longer interview in which Ooms adds further detail about proscribed-weapons connections between Iraq and Sudan.

6 May In Quantico, Virginia, the director of the Nonlethal Weapons Coordination Office (an element of the US Marine Corps established to harmonize Army and Marine work on non-lethal weapons technologies [see 22 Mar 96]), Susan Levine, says in interview that about half of the 30 different systems hitherto under study are now to be shelved. This follows a Marine Corps decision to focus only on nonlethal weapon systems in which there is a joint service interest. Such systems include disabling chemicals delivered by unmanned aerial vehicles. The FY 1998 budget request includes \$16.8 million for the all-service nonlethal-weapons programme, with \$23.5 million programmed for FY 1999. {*Defense News* 19-25 May}

6 May Armenian First Deputy Foreign Minister Vartan Oskanian addresses the Conference of the States Parties to the CWC during its first session in The Hague. Having recalled that Armenia and Georgia are the only states of his region to have ratified the treaty, he says: "Without Azerbaijani ratification, it will be difficult to see how an effective chemical weapons ban and control regime can be established in Caucasus. At the same time, it will be difficult to believe that Azerbaijan will not use its non-declared chemical potential, when necessary, to threaten the very physical existence of the population of Nagorno-Karabakh, either by the regular army, or through an individual terrorist. We have evidence that Azerbaijan is actively engaged in developing and producing toxic chemical agents." Later he refers to the May 1992 agreement on chemical weapons reached by CIS states meeting in Tashkent [see 28-29 Apr 92], and states that Armenia has "never had before, does not possess now and is not going to have any chemical weapons in future".

6-24 May In The Hague, the first session of the Conference of the States Parties to the Chemical Weapons Convention takes place. [For further details, see *Progress in The Hague* in CBWCB 36] Although the session formally ends on 23 May, in fact it continues late into the following day, pending resolution of interconnected issues within the Executive Council.

7 May In South Africa, the Truth and Reconciliation Commission hears testimony from General Magnus Malan who, as South African Defence Minister, had in 1981 approved Project Coast [see 27 Feb], which he describes as an effort to develop "effective countermeasures" against the CBW threat ascribed to Soviet and Cuban forces in Angola. He provides the Commission with a 1990 document from project-leader Brigadier Dr Wouter Basson [see 6 Mar] which had sought approval of amended procedures and which, he says, did not indicate that the project had "any sinister motive or intention of killing people". The document refers to four Project Coast "sub-projects", namely Bluet, Kassa, Rod, and Chancellor, and indicates that the annual costs of Project Coast had been R28.70 million in 1985/86 and then, in successive years to 1989/90, R27.34 million, R32.9 million, R45.46 million and R31.7 million. Malan testifies: "I have been informed that the members responsible for the project briefed President Mandela fully on the existence, scope and ambit of Project Coast, and that he thereafter granted his approval for its continuation". {*Africa News* 8 May}

7 May Israel informs the first session of the CWC Conference of the States Parties of its intentions on 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." [Note: So Israel does not seem to be excluding the possibility of ratifying the treaty even if its neighbours do not join.]

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 Cuban Foreign Minister Roberto Robaina Gonzalez addresses the Conference of the States Parties to the CWC during its first session in The Hague. Recalling the declaration which had accompanied the deposit by Cuba of its instrument of ratification of the treaty [see 29 Apr], he says: “[A]ccording to the provisions embodied in Article XI of the Convention itself, the economic, commercial and financial blockade which US government enforces against Cuba is incompatible with the goal and the purpose of this international legal instrument. Mindful of our government’s [declaration], I would like to distinctly assert that if US government does not take the appropriate measures to fulfill the provisions of Article XI of the Convention, according to the obligations it has pledged upon ratifying, Cuba reserves its right to contest the case at the relevant OPCW authorities.”

8 May Australia informs the first session of the Conference of the States Parties to the CWC that it has completed the review of its existing national regulations in the field of trade in chemicals, as specified in CWC Art XI.2(e), and will be distributing a paper “outlining the adjustments made to our national export licensing procedures in order to reflect treaty obligations arising from entry into force”. As for its obligation to provide assistance under Article X, the head of the Australian delegation to the conference, Ambassador Howard Bamsey, states that this would be done in response to appeals by the OPCW. He lists the general types of assistance that could be provided.

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.

9 May Denver, Colorado, is currently undergoing assessment of its ability to contend with acts of terrorism involving chemical, biological or radiological weapons, as will 119 other US cities over the next three years under the new federal Domestic Preparedness Program. This civil-defence effort is required by the Nunn-Lugar-Domenici legislation in the FY 97 Defense Authorization Act [see 23 Sep 96], which is intended to enhance the capability of federal, state and local emergency-response agencies to prevent and respond to domestic terrorist incidents involving weapons of mass destruction. For the current fiscal year, \$42.6 million has been provided for assessment of the first 27 cities and for training in nine of them. One of the reasons why Denver has been selected to begin the process is the impending G7 summit. Next come New York, Los Angeles, Chicago, Houston, Washington DC, Kansas City, San Diego and Philadelphia. The Denver assessment includes an exercise of the classroom training which federal and military experts had, over previous months, provided for ‘first responders’ — police, firefighters, medical personnel and 911 operators. The exercise involves 550 people and requires the Denver emergency-response system to cope with what might be hundreds of chemical/biological casualties.

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

11 May US Defense Secretary William Cohen, who has not yet taken a decision on the proposal that US troops should be

inoculated against anthrax [see 2 Oct 96], is expected to brief Congress on the plan in the next few weeks, so the London *Sunday Times* reports. The newspaper also reports that the plan will certainly encounter opposition in Congress as a consequence of the current furore over ‘Gulf War Syndrome’. Preparations to implement the anthrax-immunization plan have long been in place. Marines deployed aboard amphibious warfare tasks forces in the Persian Gulf, and the 3500-strong quick-reaction brigade of the 82nd Airborne Division, would be the first to receive the projected three-shot anthrax vaccination.

12–16 May At Krivolak in the former Yugoslav republic of Macedonia, nearly a thousand troops, including CBW defence troops, from 4 NATO countries (Greece, Italy, Turkey and the United States) and 5 NATO Partnership for Peace countries (Albania, Bulgaria, Macedonia, Romania and Slovenia) participate in *Rescuer 97*, an exercise simulating rescue operations following a chemical accident or environmental catastrophe. There are observers from the Czech Republic, Hungary and Poland.

13 May In Russia, Security Council Secretary Ivan Rybkin speaks on television about conceivable circumstances under which the country might use its nuclear weapons. He says: “If something already exists, it should continue to exist as a sort of a response which no-one ever makes public, since the very uncertainty of the response is the most important deterrent. We are not threatening anyone. But if terrible damage is done to our country through the use of chemical, bacteriological or other kinds of weapons, we will naturally hit back with everything we’ve got. This is our right as it would be in any other country.”

13 May In The Hague, at the first session of the OPCW Conference of the States Parties, Ambassador José Mauricio Bustani of Brazil is appointed as the Director-General of the OPCW Technical Secretariat for a four-year term commencing forthwith. Addressing the Conference after taking the oath of office, Mr Bustani stresses the qualities of conciliation, equanimity and initiative in his performance as Director-General. He expresses 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.

The Conference also appoints, by acclamation, Ambassador Prabhakar Menon of India to be the first chairman of the OPCW Executive Council.

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”.

15–30 May At US Army Dugway Proving Ground, a series of tests are conducted that 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 origi-

nal 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 President Yeltsin, during his meeting with leaders of the two chambers of the Russian Parliament, urges ratification of the Chemical Weapons Convention. Gennady Seleznyov, Speaker of the State Duma, tells him that the government has not yet submitted the financial and economic information necessary for decision on joining the treaty: “We should know how much the ratification of this Convention will cost to the state”. (Tass 19 May)

Among the opponents of ratification in the Duma is General Makashov [see 1 Feb], who now publishes a lengthy attack on the CWC in the Communist and ultranationalist journal *Zavtra* {21 May}, linking ratification to the issue of NATO expansion: “By retaining these weapons of mass destruction and psychological intimidation, we retain extra guarantees of our security against the NATO military bloc, which is roaring toward our borders”. He advocates destruction only of Russia’s obsolete chemical weapons: “As for the solid and intact shells, bombs and rockets containing sarin, soman and V-gas, let them lie on the shelf for our own peace of mind and to sober up Russia’s neighbours on the planet. They will fear us a little and respect us a bit because the strong always blame the weak and the latter cannot hope for respect. But how can you achieve world peace without mutual respect?”

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 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 South Korea]. 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.” In the course of the review, the Defense Department had run a TACWAR simulation of North Korean invasion of South Korea which, for the first time, according to *Jane’s Defence Weekly* {4 Jun}, “fully analysed the impact of chemical weapons in a full-blown land campaign”. 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.

Speaking later about the Review, Deputy Defense Secretary John White observes: “since our armed forces are the most powerful in the world, we stand a greater chance of being attacked not directly, head-to-head, but by ‘asymmetric’ means, including terrorism, chemical or biological weapons, or information warfare”.

20 May Iranian Oil Minister Gholamreza Aghazadeh is in Beijing for negotiations with his Chinese counterparts aimed at “expanding cooperation”. The US newsletter *Iran Brief* [see 5 May Tel Aviv] later reports that “US intelligence believe the Iranians now want to boost oil sales to China to pay for chemical weapons manufacturing gear”. The newsletter also quotes unidentified sources as saying: “We believe China is not only a direct source of CW production technology for the Iranians, but is becoming a major diverter of technology purchased from other sources”.

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 10 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 issues 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 [see also 20 May], as well as "sufficient quantities" of three dual-use chemicals, namely thionyl chloride, dimethylamine and 2-chloroethanol {*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 Department of Commerce publicizes procedures it is applying for implementing the catch-all export control introduced in 1991 under the Enhanced Proliferation Control Initiative [see 7 Mar 91]. The EPCI catch-all requires a licence to be applied for, even for goods not on the control lists, if the exporter knows, by being told as much by the government, that the goods may contribute to weapons of mass destruction. The department now maintains an 'Entity List' identifying foreign corporate bodies which it believes are engaging in nuclear, CBW or missile programmes. Nothing may be exported to a listed entity without an export licence. Only two entities are currently listed — Ben-Gurion University in Israel, and Bharat Electronics Ltd in India — but many more names are said to be in the pipeline.

The Department publishes a new Entity List on 27 June. It now specifies more than a dozen nuclear centres in China, India, Israel, Pakistan and Russia, but reportedly still represents only a fraction of the foreign entities that are monitored by US agencies. {*Journal of Commerce* 30 Jun}

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 detection devices on two Fox NBC reconnaissance vehicles had initially given positive responses for sarin nerve gas when in fact, as the detectors subsequently showed, they were actually sensing agent CS.

23 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." {London *Independent* 26 May}

23 May The US Senate adopts S.610, *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(a) of the 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 its version of the bill, H.R. 1590, introduced by Representative Lee Hamilton.

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 May The UN General Assembly adopts without vote a resolution empowering the Secretary-General of the United Nations to conclude an agreement with the Director-General of the OPCW Technical Secretariat that would regulate the relationship between the OPCW and the UN.

26-30 May In the Czech Republic, the Purkyne Military Medical Academy at Hradec Kralove hosts what is planned as the first of an international symposium series on medical counter-measures against CBW. Participating are 54 specialists from 21 countries. The symposium is chaired by Prof Jiri Bajgar of PMMA, with Dr Barbara Price of Applied Science and Analysis Inc as co-chair. The focus is on international standardization. Many of the participants agree in principle that their countries should join an interlaboratory comparison of measurement of human erythrocyte acetylcholinesterase level by a standard method. The round-robin is to be organized from Switzerland by workers at the University of Berne and NCL Spiez. (*ASA Newsletter* 23 Jun)

27 May In the Israeli Knesset, the commander of the Home Front Command, Major-General Shmuel Arad, tells the State Comptroller's Committee that the CW capability of countries such as Syria [see 29 Apr] and Iran [see 21 May] has increased dramatically since the war over Kuwait in 1991 and that 1.9 million Israelis are insufficiently protected against CW attack {*Defense News* 16-22 Jun}.

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 submits to the OPCW its initial declaration under the CWC. It includes industrial and military parts, and also the declaration of riot-control agents required under Article III.1(e). Made public is the military part, *Declaration of Past Activities relating to its Former Offensive Chemical Weapons Programme*. This comprises 240-odd pages of which 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 military part of the initial declaration. Included in the public disclosure is 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 is the industry part of the UK initial declaration. This includes reference to a facility at RMCS Shrivenham where small quantities (up to 175 grams) of Schedule 1 chemicals are produced for CW-protective research purposes, as is permitted under Part VI.10 of the CWC Verification Annex. According to the *Sunday Telegraph* {25 May}, 37 Schedule-2 and Schedule-3 facilities are also declared.

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] {Gannett 27 May}.

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 stating 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”. Argentina today submits to the OPCW its initial declaration under the CWC.

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.”

29 May NATO foreign ministers, meeting as the North Atlantic Council in Sintra, Portugal, adopt a communiqué which includes the following: “We noted with satisfaction the progress report of the Joint Committee on Proliferation (JCP) regarding the activities of the Senior Political-Military Group on Proliferation and the Senior Defence Group on Proliferation. We note the *Policy Guidelines for Military Operations in a NBC Weapons Environment* developed by the Senior Defence Group on Proliferation. We direct the JCP to continue its vital work. We reaffirm that these political and defence efforts against proliferation remain an integral part of adaptation to the new security environment and welcome further consultations and cooperation with Partner countries to address the common security risks posed by proliferation.”

29 May In the UK, Armed Forces Minister John Reid pledges to leave “no stone unturned” in the investigation into the so-called Gulf War Syndrome. He is addressing representatives of Gulf War veterans whom he has invited to a meeting at the Ministry of Defence.

29 May The United States submits a 3-volume initial declaration under the CWC to the OPCW, but withholds it from public disclosure. Industry declarations are not included because the Congress has not yet passed the CWC implementing legislation that would enable them to be made. Instead the United States informs the OPCW that it has about 2000 commercial facilities on which it will eventually be reporting data. {*Chemical & Engineering News* 21 Jul}

29 May The OPCW Technical Secretariat has received initial declarations under the CWC from 30 of the states parties. Today is the deadline specified in the Convention for submitting the declarations.

30 May The UN Centre for Disarmament Affairs issues a compilation of the 1997 annual returns of information received thus far from states parties to the Biological Weapons Convention in accordance with the expanded confidence-building measures agreed at the Third Review Conference. The compilation comprises declarations by 32 states, namely Argentina, Armenia, Australia, Austria, Belarus, Bulgaria, Canada, Chile, China, Cuba, Cyprus, Czech Republic, Denmark, Fiji, Finland, France, Germany, Hungary, Iraq, Ireland, Italy, Luxembourg, New Zealand, Norway, Poland, Romania, Russia, Slovak Republic, South Africa, Sweden, Switzerland, and the United States. The due-date each year for the declarations is 15 April, but there are always late submissions.

Two countries include declarations of past offensive BW research and development programmes, namely Canada and the United States. The Canadian declaration repeats prior-year ones. So does the US declaration [see 26 Aug 96], but with the addition of new information concerning the disinterment of old *Brucella*-loaded 4-pound bombs at Wright Patterson Air Force Base [see 29 Nov 95]: "The M-114 bomblets and their M33 delivery system were utilized in a series of tests conducted at Wright-Patterson in 1954 as part of a classified program, Operation White Floor. After research and development experiments were completed, the *Brucella* bacteria in the M-114 bomblets were sterilized by subjecting them to several long duration heat treatments. The M-114 bomblets were then disposed of by deep ground burial, the accepted practice of the 1950s time period. The testing and disposal took place in 1954. The recovery operations were completed on September 13, 1996. A total of 2306 M-114 bomblets were recovered. The number is consistent with the number of M-114 bomblets that were used in Operation White Floor and subsequently disposed of in 1954."

1 June The Russian military journal *Armeyskiy Sbornik* publishes a long interview with the chief of the Timoshenko Military Academy of Chemical Defence, Lt-Gen Yuriy Koryakin [see 9 Mar 92]. He describes the Academy, which was founded in 1932, as now "the only multiprofile center for scientific research and training of qualified NBC defense specialists, research engineers, and designers for industry". He continues: "And I think we still will be performing this function for a very long time. Along with the probability of use of mass destruction weapons, technogenic accidents at installations of the Ministry of Defense and the industrial complex and problems of military ecology are becoming no less important for the NBC Defense Troops, which recently acquired a dual-purpose status."

Also: "We take pride in the achievements of various scientific schools which have formed here: that of academicians Knunyants and Fokin in the field of chemistry of organofluorine compounds; of Academician Dubinin and Professor Nikolayev on the theory and equipment of protective gear; and of professors Kuznetsov and Shesterikov in the field of ionizing radiation dosimetry."

2 June In Mauritania, the National Assembly approves a draft law on ratification of the Chemical Weapons Convention.

2-5 June In Norfolk, Virginia, the US Defense Special Weapons Agency sponsors its 6th Annual International Conference on Controlling Arms. There are some 300 participants. The

keynote address is by US Arms Control and Disarmament Agency Director John Holum, who characterizes arms control as "preventive defense". On CBW, he says that US ratification of the CWC "lets us turn more negotiating resources to the threat of biological arms", continuing: "The 1972 Biological Weapons Convention is virtually toothless in terms of ensuring compliance. So we are now negotiating in Geneva to exploit advances in technology and in arms control techniques, to make this treaty, too, into an effective instrument."

5 June In the United States, the *New England Journal of Medicine* {336:1650-56} publishes a Defense Department epidemiological study of some 34,000 children born in military hospitals through 1993 to US service personnel who had been on active duty during the Persian Gulf War. The study has found no evidence of an increase in the risk of birth defects among the children of Gulf War veterans.

6 June In Addis Ababa, three officials of the previous Ethiopian government, said to have belonged to the Revolutionary Campaign Co-ordinating Committee, appear before a criminal court charged with killing 24 people from the Ethiopian Peoples' Revolutionary Party and the Tigray People's Liberation Front with poison gas. The deaths occurred in the Wollo region during the late 1970s. {*Africa News* 6 Jun}

6 June In the US Senate, the Permanent Select Committee on Intelligence reports on S.858, the FY 1998 Intelligence Authorization bill. The committee proposes that the legislation should require an annual National Intelligence Estimate on the likelihood of terrorist nuclear or CBW attacks in North America [see also 9 May and 19 May]. The NIE should include assessments of the current threat of an attack using a weapon of mass destruction; of the degree to which the threat will increase by the year 2010; of sources of such threats; of the potential WMD delivery means that might be used; and of the vulnerability of the United States to such attack.

6-8 June In Noordwijk, the Pugwash Study Group on Implementation of the CBW Conventions holds its seventh workshop [see 11-13 Oct 96], on *The CWC at Entry into Force*. Participating are 41 people from 23 countries.

8 June In Iran, the Majlis approves ratification of the Chemical Weapons Convention, notwithstanding the arguments of several deputies that doing so would weaken Iran's position against "aggressive and hostile" countries in the region. The locus of decision on Iranian ratification now passes to the Council of Guardians of the Islamic Republic.

9 June In Tokyo, during a meeting of the Japanese-Russian economic commission, Russian First Deputy Prime Minister Boris Nemtsov proposes to Japanese Foreign Minister Yukihiko Ikeda the sale to Japan of a Russian chemdemil technology for destroying the old Japanese chemical weapons abandoned in China. The two sides agree to discuss the matter further with the participation of China. The technology offered by Nemtsov is described by ITAR-TASS {9 Jun} as having been "designed and successfully employed by a defense factory of Chapayevsk" other commentary, however, refers to the "plasma thermal" technology (this is apparently the so-called "Platex system" {*Obshchaya Gazeta* 26 Jun}) said to be under development at Shikhany {*ASA Newsletter* 23 Aug}. Nemtsov is in Beijing two weeks later where, prior to a meeting with Chinese President Li Peng during which the matter is reportedly discussed, he speaks to reporters of the high importance with

which Russia views the potential multi-billion-dollar contract {RIA Novosti 25 Jun}.

9 June In Ukraine a search has begun, under government directive, for chemical ammunition sunk in the Black Sea in June 1942 [see 17 Apr 96]. Just prior to the retreat of Soviet troops from Sevastopol then, the order had been given, and carried out, to dump the stockpiles of CW munitions held in Black Sea Fleet depots. {Moscow Mayak Radio 9 Jun}

9 June BWC Ad Hoc Group chairman Tibor Tóth distributes an initial version of the "rolling text" for a protocol to the BWC that he had been asked to produce during the sixth session of the Ad Hoc Group [see 3-21 Mar] in good time for the seventh. His 114-page text comprises 22 articles, 7 annexes on implementation matters, and 5 appendices. Of the articles, 19 have only titles, no text yet, while the other 3 contain many square brackets or footnotes recording variant approaches.

10 June In the UK, the Defence Ministry informs Parliament that CBW-treaty-related verification work had generated 5.24 percent, or about £2.29 million, of the income of the CBW defence establishment at Porton Down during the 1996-97 financial year. Of that income, £150 000 had come from the Department of Trade & Industry for technical support to the UK CWC National Authority.

10 June UNSCOM Executive Chairman Rolf Ekéus, addressing a conference in Washington hosted by the Carnegie Endowment, says that the Iraqi BW weapons programme had been so secret that even the country's deputy prime minister, Tariq Aziz, had not at first been aware of it. Later, during the week before he steps down from his 6-year chairmanship of UNSCOM [see 1 May], the *New York Times* {25 Jun} publishes an interview during which he states that scientists in Iraq are required to keep the country capable of manufacturing CW weapons at short notice: "We have documentary evidence about orders from the leadership to preserve a strategic capability. That means to keep the production equipment ready to produce at any given moment." One other matter on which he now expresses himself perhaps more trenchantly than in the past is the extent to which Iraqi officials have sought to deceive UNSCOM investigators — fabricating accounts of the destruction of the now-proscribed weapons, manipulating evidence, interfering with UNSCOM inspections, and lying to interviewers until confronted with documents: "They come up with a new explanation every time. They are very, very innovative. This is frustrating and irritating sometimes, but also amusing, highly amusing. They tell the most incredible stories. It is like the *Thousand and One Nights*, where every night they tell a different story to save themselves."

10-12 June In Iraq, where during the previous week officials had reportedly interfered with UN helicopter flights, an UNSCOM inspection team led by Scott Ritter of the United States is denied access to three sites in the vicinity of Baghdad. Deputy Prime Minister Tariq Aziz later characterizes the sites as Intelligence Service headquarters and presidential sites, stating that they are therefore sensitive for security reasons. UNSCOM Executive Chairman Rolf Ekéus seeks a firm reaction from the Security Council, citing to it other recent instances of Iraqi noncoöperation, including attempted concealment of university papers later found to relate to development of "a major biological warfare agent" and denial of UNSCOM requests to interview five people about Iraqi development of CBW weap-

ons. Britain and the US propose a Security Council resolution that would impose strong punitive measures on Iraq.

10-12 June In Finland, some 250 specialists from 23 countries attend *NBC Defence '97*, the third such international symposium to be organized by the Chemistry Section of the Defence Forces Research Centre. It is opened by Defence Minister Anneli Taina.

11-13 June In New York, talks between North Korea and the United States resume. Matters discussed reportedly include the control of chemical and biological weapons, as well as US concerns regarding North Korean transfers of missile technology to Iran and Syria and regarding North Korean plans to deploy missiles capable of striking Japan.

12 June NATO defence ministers, meeting in Brussels as the North Atlantic Council [see also 29 May], adopt a communiqué which includes the following: "We reaffirmed our commitment to address proliferation risks as an integral part of the Alliance's ongoing adaptation to the new security environment. In this context we noted the Senior Political-Military Group on Proliferation's *Recommendations for Possible Political and/or Diplomatic Initiatives Aimed at Preventing or Reversing Proliferation*. While prevention remains our primary aim, we recognise that proliferation of nuclear, biological and chemical (NBC) weapons and their means of delivery, which at present poses risks to the Alliance, can continue to occur despite our preventive efforts and can pose a direct military threat to the Alliance. We therefore welcomed the increased attention which Alliance defence planning is now paying to the capabilities and concepts needed to deter and, if necessary, respond to, the use of NBC weapons, with particular emphasis on enhancing protection for deployed forces at or beyond NATO's periphery and improving protection against biological weapons. We endorsed the Senior Defence Group on Proliferation's *Policy Guidelines for Military Operations in an NBC Environment*, the implementation of which would constitute an effective contribution to enhancing NATO's political and operational flexibility, reducing vulnerabilities, and enabling NATO forces to accomplish their required missions despite the presence, threat, or use of NBC weapons."

12 June In the US House of Representatives, the National Security Committee reports on HR 1119, the FY 1998/99 National Defense Authorization bill. The committee proposes an increase of \$21.5 million in the budget request of \$370.5 million for Chemical-Biological Defense and Counter-Terrorism Response. The committee also proposes deletion of \$41 million from the \$65.4 million sought for the FY98 Cooperative Threat Reduction chemdemil programme in Russia.

16 June The OPCW Technical Secretariat now has 279 staff members from 54 states parties, including the 110 inspectors and 4 inspection assistants who completed their training on 31 May {*OPCW Synthesis* Jul}.

The Secretariat has by now embarked upon the on-site initial visits and inspections required under the CWC, beginning with the Chemical Weapons Destruction Facilities that now fall within the jurisdiction of the treaty. These are the three operating CWDFs declared by states parties, all of them US facilities, including the chemdemil plants in Tooele, Utah, and on Johnston Atoll. {*Daily Yomiuri* 11 Jun} Initial inspections have begun at Schedule-1 facilities in Europe, where two Secretariat inspection teams are in action.

Initial inspections at other Schedule 1 facilities and at Chemical Weapons Storage Facilities are planned for July, and, during August, all declared Chemical Weapons Production Facilities are to receive their initial inspections. The CWC requires the conclusion of all CWDF, CWPF, CWSF and Schedule 1 facility agreements by 28 October, so the plan is to complete all the requisite initial inspections by mid-October.

16 June In the United States, the Chemical Weapons Working Group announces that the arsenic which US Army documents show occurs in effluent from the Tooele chemdemil incinerator could indicate that CW agents other than sarin nerve-gas, such as lewisite, are currently being burned there, in which case the incinerator has been wrongly permitted and operations should be shut down pending investigation. The Army suggests that arsenic has leached out from the steel of the 1-ton storage containers in which some of the sarin is held. {*Salt Lake Tribune* 17 Jun} Later, the Army embarks upon a systematic sampling activity to determine whether the sarin held in these containers is contaminated by chemicals previously stored in them. Of the 5,200 containers, only about 1000 had been used exclusively for sarin; others had once been used for storing mustard, lewisite or Freon. {*Salt Lake Tribune* 30 Aug}

17 June In Azerbaijan, a team of US government officials led by Stephen Geis of the State Department arrives in Baku. Its mission is to help strengthen the country's borders against imports and exports of narcotics and weapons of mass destruction, including chemical weapons, so Geis is reported as saying to Zahid Garalov, the chairman of the parliament's Standing Commission on Legal Policy. Garalov speaks of the adverse impact which illegal deliveries of weapons from Russia to Armenia [see also 16 May] were having on the region: "In particular, these weapons are being used by Kurdish terrorists against Turkish government forces". {*Turan* 17 Jun}

18-19 June In Minsk, representatives of eight CIS member-states participate in a meeting of the Joint Consultative Commission on Disarmament. Belarus volunteers to represent the interests of CIS member-states on the OPCW Executive Council. {*Tass* 19 Jun}

19 June In South Korea, the Ministry of Trade, Industry and Energy announces that, in accordance with the Chemical Weapons Convention, it will add 20 more chemicals to the list of 23 chemicals which, in furtherance of undertakings to the Australia Group, are already subject to national export controls. The additions are to include phosgene and hydrogen cyanide.

19 June Syria is arming Scud missiles with VX nerve-gas warheads and is also developing biological weapons, according to the *Jerusalem Post* quoting an interview with the head of Israeli Defence Forces intelligence, Maj-Gen Moshe Ya'alon.

19 June In the United States, the Alabama Department of Environmental Management signs a multi-volume permit enabling construction of the projected chemdemil incinerator at Anniston Army Depot [see 3 May 96] to commence.

19 June The US Defense Advanced Research Projects Agency is soliciting proposals for two undertakings within its Biological Warfare Defense programme [see 30 Aug 95]. One is the Pathogen Countermeasures Program [see 11 Jul 96], in which DARPA is looking to develop revolutionary broad-spectrum medical countermeasures. The other is a new venture, the Advanced Diagnostics for Pathogens Program, of which the

goal is to provide the capability to detect in real time, in the absence of recognizable signs and symptoms and while pathogen counts are still low, the presence of infection in the body by any pathogen, under any environmental conditions. Today is the due-date for pre-proposals; full proposals are due by 11 September. During FY 1998-2000, \$55 million is reportedly programmed for this work {*Jane's Defence Weekly* 4 Jun}. [Note: the DARPA BW Defense programme has a detailed explanatory homepage on the World Wide Web, at <http://saturn.hpc.org/UPC>.]

20 June In Russia, the commander of the Radiation, Chemical and Biological Defence Troops, Col-Gen Stanislav Petrov, speaks about the Russian chemdemil programme at a Defence Ministry press conference. He states that the programme will be implemented in Russia "regardless of whether or not the State Duma ratifies" the CWC. He says that, given stable financing, the programme could be completed by 2007; but he also says that the government is not providing the requisite funding. (Interfax and Reuter 20 Jun) A press release the day previously had said: "The Ministry of Defense of the Russian Federation has been appointed state contractor for destroying the chemical weapons because it is the only agency that has the necessary structures and skilled personnel. But because of the difficult economic situation in the country no money has actually been allocated for measures connected with the destruction of chemical weapons. In 1994 only 18.3 percent of the required sums were allocated, 17.5 percent in 1995 and only 1 percent in 1996. This brought the implementation of the programme virtually to a standstill and the lag behind schedule is 2-3 years."

General Petrov also tells the conference that some 20 countries currently have chemical weapons, among them Iran, Iraq and Pakistan {*Kommersant-Daily* 21 Jun}.

21 June In North Korea, the allegations of US germ warfare during the Korean War once again receive publicity [see 23 Jun 94], this time in the English-language *Pyongyang Times*, which states that Japan had participated by transferring to the United States germ weapons developed by Unit 731 of the former Kwantung Army. The publication also states that Japanese bacteriologists "helped [the US] in using the weapons in Korea".

21-22 June In Denver, Colorado, the leaders of the world's seven major industrial nations and Russia meet for their annual summit. Among other documents, they issue a new declaration on international terrorism. Their final communiqué includes a passage welcoming the entry into force of the Chemical Weapons Convention which also says: "We advocate its full, effective and universal implementation, and look forward to the early ratification of the Convention by the States that have not yet done so". The communiqué continues: "Recognizing that enhancing confidence in compliance would reinforce the Biological and Toxin Weapons Convention, we reaffirm our determination to complete as soon as possible through negotiation a legally-binding and effective verification mechanism".

Meanwhile, the Colorado Disaster Medical Assistance Team, which has been assigned a specialism in responding to terrorist or accidental nuclear or CBW events, is holding a training session at the former Fitzsimons Army Medical Center [see also 9 May].

21-24 June In Iraq, UNSCOM Deputy Chairman Charles Duelfer conducts talks with senior officials. His visit coincides with deliberations within the UN Security Council on how to respond to the latest complaints from UNSCOM about Iraqi

noncoöperation [see 10-12 Jun]. The Council achieves consensus, not on the Anglo-American proposal for severe punitive measures, but on a resolution {SCR 1115 (1997)} that would first give Iraq four months to comply and which would postpone the next regular Council review of sanctions until after the UNSCOM six-monthly report that falls due on 11 October. This condemnatory resolution is adopted during the first day of Duelfer's visit, following discussion between Presidents Clinton and Yeltsin during the G-8 summit in Denver [see 21-22 Jun], and after reported French and Chinese opposition to the proposed punitive measures has been accommodated. Iraq rejects the resolution, but at the close of his visit Duelfer tells reporters that "Iraq has indicated that it will continue its cooperation with the Special Commission". He also says: "It is our assessment that Iraq retains prohibited weapons, materials and documentation". Deputy Prime Minister Tariq Aziz, interviewed later on CNN television, says: "I can and I will guarantee [UNSCOM's] access to any site that is within their mandate ... [but] not beyond their mandate". The disagreement between UNSCOM and Iraq on the scope of that mandate evidently continues.

23 June In the UK, clinical trials on the use of *Clostridium botulinum* toxin to relieve muscle contracture in children suffering from cerebral palsy are in progress.

23 June In the US Congress, the General Accounting Office presents the report on *Gulf War Illnesses* and how government departments have been responding to them which the Senate Armed Services Committee and the House National Security Committee had requested and on which the GAO had worked during the period October 1996 through April 1997. The 140-page report {GAO/NSIAD-97-163} summarizes the results of the study as follows: "Our review found that (1) although efforts have been made to diagnose veterans' problems and care has been provided to many eligible veterans, neither the Department of Defense nor the Department of Veterans Affairs has systematically attempted to determine whether ill Gulf War veterans are any better or worse today than when they were first examined; (2) while the ongoing epidemiological research will provide descriptive data on veterans' illnesses, formidable methodological problems are likely to prevent researchers from providing precise, accurate, and conclusive answers regarding the causes of veterans' illnesses; and (3) support for some official conclusions regarding stress, leishmaniasis, and exposure to chemical agents was weak or subject to alternative interpretations." On (3), the report argues that the extent of Post Traumatic Stress Disorder may have been overestimated; that the extent of asymptomatic Leishmania infection is actually unknown; and that evidence of exposure to CBW agents has not been pursued with sufficient vigour. This last point received much publicity following pre-publication reports which, misleadingly, portrayed the GAO as having found "substantial evidence" of exposure to CW agents as a causative factor. Defense Secretary William Cohen, when asked about this at a news conference while visiting Kuwait, responded: "I don't believe that the report established that there was a linkage, simply that there was a premature judgement that there was no linkage."

Drafts of the report had been severely criticized by the departments mentioned, and even more heavily attacked by the Presidential Advisory Committee on Gulf War Veterans' Illnesses (whose own reports have laid emphasis on stress as a contributing factor). The GAO reproduces the comments of these bodies in its report and responds in detail to them, either by amendment or with its own evaluation of the comments.

The GAO testifies on its report at committee hearings over the next two days: before the Subcommittee on Human Resources of the House Committee on Government Reform and Oversight [see 24 Apr], and before the Senate Veterans Affairs Committee [see 5 Feb, 16 Apr and 17 Apr].

23-27 June In The Hague, the OPCW Executive Council [see 13-23 May] convenes for its second session. [For further details, see *Progress in The Hague* above].

24 June In Teheran, the head of the Iranian judiciary, Ayatollah Mohammad Yazdi, tells a news conference that the trial will soon open of German chemical companies alleged to have supplied the Iraqi chemical weapons programme [see 10 Apr]. He says that the judiciary has now received some 50 claims against German firms from Iranian victims of Iraqi chemical weapons. {*Frankfurter Rundschau* 25 Jun}

25 June In Moscow there are talks between Russian Defence Minister Igor Sergeev and visiting US First Deputy Defense Secretary John White, who also has visits arranged with Duma officials. The agenda includes preparations for ratification and implementation of the CWC.

25 June In the United States, the Central Intelligence Agency has just published an updated edition of its "tutorial" on CBW [see 3 Jun 95], *The Biological & Chemical Warfare Threat*. The readership envisaged for it once again appears mainly to be people concerned with antiproliferation export controls. It is not always accurate on technical matters, as for example in its discussion of the toxicity of different CW agents, and on some topics its assessments seem perverse, as where it states "Only recently [apparently meaning "since the 1970s"] has the technology existed to produce militarily significant quantities of BW agents". It includes selective lists of companies world-wide that produce dual-use chemical or biological processing equipment of types on the Australia Group control lists.

25-27 June At Fort McClellan, Alabama, the US Army Chemical School hosts its fifteenth annual international *Worldwide Chemical Conference*. Among the papers presented is one from the Army Environmental Center at Aberdeen Proving Ground by Dr Joseph King addressing the possible dangers of low-level exposure to CW agents.

26 June India submits to the OPCW its initial declaration under the CWC, which includes information on chemical weapons stockpiles and production facilities, and publicly announces this fact. The announcement stands in contrast to earlier official statements denying Indian possession of chemical weapons or any intention to acquire them. The announcement also represents a decision to submit that which has now been declared to the procedures of an international treaty regime rather than, as certain other states parties, such as Spain, are reported to have done prior to entry into force, to embark upon a secret destruction programme. The existence of an Indian chemical-weapons capability is described by the Defence Ministry as, hitherto, one of its most closely guarded secrets. *Asian Age* had the day previously reported that the disclosure was imminent, stating that the Prime Minister's cabinet had taken the decision on the evening of 24 June. The newspaper also reports that the Indian government had received an assurance from the United States that Pakistan "would also make public its arsenal".

The Indian government issues a statement which includes the following: "The Convention enjoins upon all States Parties

to declare their chemical weapons, their production [and] storage facilities and to submit a phased plan of destruction of such weapons and facilities over a period of ten years. Based on available information, initial declarations have been filed by India on testing and development of chemical weapons and their related facilities which were developed only to deal with any situation arising out of possible use of chemical warfare against India. Now that the Convention has come into force which collectively aims to eliminate such weapons, India has declared without any reservation all such materials in stock, production and storage facilities which will be open to international expert inspection at any given time. Declarations have also been made [under] the Convention in respect of manufacture of other specific chemicals by the chemical industry in India. However, this will not inhibit their production and growth [for] purposes not prohibited by the Convention. Besides the United States and China, 37 other countries have already filed their declarations." The statement also says: "Adequate safeguards are in place for giving primacy to our national security interests and for protection of the interests and rights of our chemical industry. Should a situation threatening our security arise, our response will not be found wanting and our compliance with the CWC will not in any way compromise the security of our country."

This last point is emphasized by Prime Minister Gujral during a television interview in which he also states that the CWC will greatly help the country's chemical manufacturers: "Many of our chemical industries were not getting their required materials from outside because these were dual-use items. Now with this treaty this problem can be overcome." {Bangalore *Deccan Herald* 30 Jun}

The actual content of the Indian declaration to the OPCW remains undisclosed. According to press reports, there are still stocks of old chemical weapons remaining from the British era, for example 25-pounder mustard-gas artillery shell; these are described as "under storage and not under the operational control of the Indian Army". The declared holdings are also reported to include more modern weapons. One account states that these were acquired during the 1980s "in response to Pakistan's acquisition of chemical agents and protective clothing" {Bangalore *Deccan Herald* 1 Jul}. Another commentary suggests they may be use binary technology; it says, too: "What is known is that the weapons were developed by the Defence Research and Development Organisation (DRDO) in what Dr A.P.J. Abdul Kalam calls 'experimental facilities'. Officials insist that such 'sensitive' weapons have not been given to the armed forces and remain under civilian control." This commentary states further that the chemical weapon production facilities identified in the Indian declaration are "on a sub-industrial scale". {*India Today* 7 Jul}

A former chief of the Defence Planning Staff, Maj-Gen Ashok Mehta, is quoted thus: "It is widely believed that Pakistan used chemical weapons against our soldiers in Siachen in 1987. Intelligence reports say they have enough stockpile of weapons." {Bangalore *Deccan Herald* 30 Jun}

26 June In the US House of Representatives, the Government Reform and Oversight Subcommittee on Human Resources chaired by Congress Christopher Shays [see 24 Apr] continues its hearings on Gulf War illnesses [see 23 Jun]. There is testimony on depleted uranium as a possible contributory factor in Gulf War illnesses and also, from Dr Garth Nicolson [see 9 Mar], on his theory that the apparent transmission of Gulf War illness from veterans to their families may be due to mycoplasma infection. Defense Department testimony, from Dr Bernard Rostker [see 22 May], is reactive to the critical new

GAO report, on which the subcommittee had taken evidence two days previously. He informs the subcommittee that the Defense Department has commissioned the RAND Corporation "to conduct an extensive review of medical, epidemiological, occupational and environmental literature in several areas including: pesticides, immunizations, chemical warfare agents, pyridostigmine bromide, stress, biological warfare agents, depleted uranium, infectious diseases, and environmental exposure to oil fires. Their process involves identifying the biologic relationship between possible exposures and reported symptoms, identifying new areas of research for further investigation such as the health effects of multiple chemical exposures, and conducting focused reviews of these new hypotheses. RAND plans to complete the literature review by the end of August and have their findings undergo peer review and publication."

Earlier in the day, Dr Rostker had announced that the estimate of 21,000 US troops having possibly been within the affective vicinity of the Khamisiyah demolitions [see 15-30 May] has now been revised upwards to 27,000.

26-28 June In Hanoi, Vietnamese Communist Party leader Do Muoi raises the issue of Agent Orange with visiting US Secretary of State Madeleine Albright. *Nhan Dan* reports him as saying that he hopes the two countries can now overcome "consequences left by the war including functional rehabilitation for handicapped people and consequences caused by Agent Orange" {AFP 14 Aug}.

Agent Orange has just been receiving renewed attention recently in the Vietnamese media. *Vietnam Courier* and *Vietnam Investment Review*, for example, have both been reporting that two million Vietnamese people were affected by chemicals during the war, mainly Agent Orange, and that, in the first decade after the war, about 50,000 deformed children had been born to parents affected by the chemicals. Also, the chairman of the 10-80 Committee (the Vietnamese committee for research into the effects of Agent Orange), Hoang Dinh Cau, has recently offered to arrange the return of papers seized at Noi Bai airport from a visiting US scientist, Dr Arnold Schecter of New York State University, who had been inquiring into the effects of Agent Orange [see 20 Jun 95].

28 June In China, Russian Prime Minister Viktor Chernomyrdin concludes an official visit during which he has signed several bilateral agreements with his Chinese counterpart Li Peng. He tells reporters that Russia has offered to help destroy the old chemical weapons abandoned by Japan in China [see 9 Jun].

28 June Sudan Peoples Liberation Army commander John Garang says in interview that the Sudanese government possesses chemical weapons [see also 26 Jan and 6 May Iraq] "although it has not used them yet". He states that his forces had intercepted a communication between the army chief and the commander of the Talya region in which the latter had sought permission to use chemical weapons. {Dubai *Al-Bayan* 28 Jun}

The Sudanese government factory for chemical weapons [see also 18 Oct 96] is in the region of Kafuri, north of Khartoum, according to a subsequent statement by the Secretary-General of the Sudanese National Democratic Alliance {MENA 16 Jul}

29 June-3 July In Kentucky, a team of 12 OPCW inspectors led by Niklos Meglec of Hungary conducts an initial inspection of the chemical weapons storage facility at Lexington Blue Grass Army Depot. Accompanying the team are 15 escorts from the US Defense Department On-Site Inspection Agency

plus a 6-person host team of senior Defense officials. This is reportedly the third on-site inspection to have been conducted by the OPCW, the two earlier ones having been at Schedule-1 facilities in the UK and Sweden [see 16 Jun]. An unidentified US official is subsequently reported as saying that "what the inspectors found tallied with what the US had declared". {*Chemical & Engineering News* 14 Jul} The OPCW had notified the United States on 24 June of its intention to inspect, and the team had arrived in Washington on 27 June {*Richmond Register* 28 Jun}, where, according to a press release by a Kentucky congressman, it had "provided an update to Army officials at the Pentagon".

30 June In the Saratov region of Russia, Shikhany, which in Soviet days used to be the closed city known as 'Volsk-18', once again becomes a closed city, through presidential decree {no 646 of 30 Jun}. The decree states that the closure is "[f]or the purpose of providing a safe protective zone to ensure the safe functioning of the State Institute of Organic Synthesis Technology [see 31 Jan 93 and 18 Feb 94] and ecological safety of the population". Commentaries on the decree note that locally collected taxes will remain with the city instead being transferred to Moscow; that Shikhany has now become off-limits to outsiders, thus giving an additional degree of privacy to, for example, the private investments in chemdemil technology [see 9 Jun Tokyo] which senior military figures are known to have made, or even to a resumption of development and testing of chemical weapons; and that Moscow will now become directly responsible for funding schools, housing and welfare. {*Moscow News* 19 Jun, *Obshchaya Gazeta* 17-23 Jul}

30 June In Trondheim, during a routine cleanup in April at the Norwegian Police Museum there, a small glass capsule had been found bearing a label warning that it contained *Bacillus anthracis*. The local newspaper *Adresseavisen* now reports that the capsule, which had been confiscated in January 1917 from a German officer, Baron Otto Karl von Rosen, at the reindeer-herding centre of Karasjok, has been examined at the Military Microbiological Laboratory in Oslo: the capsule does indeed contain anthrax germs, and they are still viable. The newspaper reports, further, that Germany had authorized the use of anthrax at that time in order to kill the reindeer with which it feared Britain would transport supplies to Russia. {*AP in St Louis Post-Dispatch* 13 Jul}

30 June Cuba pursues its complaint that the United States has been waging biological warfare against it by means of phytophagous insects [see 5 May] by requesting that a consultative meeting of states parties to the Biological Weapons Convention be convened in accordance with the procedure agreed at the 1986 review conference. Cuba has just transmitted a technical report on its thrips allegation to the UN Secretary-General {A/52/213}, and now submits its request for a consultative meeting through one of the BWC co-depositaries, Russia. Russian Deputy Foreign Minister Georgiy Mamedov meets with Cuban chargé Julio Garmendia on 15 July to discuss the matter. Eventually the co-depositaries agree that the formal consultative meeting requested should take place in Geneva on 25 August under the chairmanship of the presidency of the last BWC review conference, namely the United Kingdom.

Cuba has in the meanwhile submitted a working paper containing particulars of *Thrips palmi* to the BWC Ad Hoc Group entitled *Unlisted pathogens relevant to the Convention*. Cuba has also made an emergency request to the UN Food and Agriculture Organization for assistance in eradicating the thrips; the FAO agrees to a \$176,000 technical assistance project to

this end. There is US newspaper speculation that in fact the arrival of the insects in Cuba has been due to wind transport from other parts of the region where these particular thrips are known, for example from Haiti, Jamaica or the Bahamas.

1 July In Edinburgh, the annual conference of the British Medical Association is told that a report on the feasibility of genetic weapons has been commissioned by the BMA Board of Science. The report, due in a year's time, is to include recommendations on regulatory measures that might be needed in order to preclude research into such weapons. The head of the Science and Ethics Division of the BMA, Dr Vivienne Nathanson, speaks of the great potential of genetic research for medical purposes, citing in particular the Human Genome Project, but notes also its potential for abuse: "No one has been able to tell me why, if we can produce genetically targeted drugs with a good effect, we won't be able to produce similar drugs with a bad effect in the same time-scale". {*London Independent* 2 Jul} She is also quoted as saying: "Biological or chemical weapons could be targeted at certain gene receptors in the human body. It may be possible in the future to design ethnic weapons which recognise the cluster of genes only seen in particular groups. The weapons would only be activated in the presence of particular genes. We don't know whether such weapons can be produced, but they are a frightening prospect." [Note: Such notions were rather widely discussed while the 1972 Biological Weapons Convention was being negotiated, this being one of the reasons why that treaty uses a general purpose criterion to define its scope, thereby capturing those of the conceivable genetic-warfare agents that have not since come within the scope of the 1993 Chemical Weapons Convention. It is not clear from the available reporting of the conference whether the assembled doctors either knew or were told about these treaties.]

1 July The UN Centre for Disarmament Affairs says that, over the past month, five more states parties to the Biological Weapons Convention have filed their 1997 returns under the expanded confidence-building measures agreed at the Third Review Conference [see 30 May], bringing the total to 37.

1 July UNSCOM Executive Chairman Richard Butler, interviewed on the first day of his chairmanship [see 1 May], expresses particular concern about the Iraqi biological weapons programme. Asked about the latest crisis in Iraq-UNSCOM relations [see 21-24 Jun], he speaks of a meeting he has just had with Iraqi Deputy Prime Minister Tareq Aziz, saying: "the chances are that there can be a renewed sense of purpose here and we might be able to move forward". Later: "rest assured that when there are actions such as those that occurred a few weeks ago, the chairman of UNSCOM must report them to the Security Council. ... I emphasized to him that this is a scientific and technical and objective job. With Iraq's cooperation we can do it. ... But I want to make this very clear. My job is not to decide the politics or the policies of the Security Council. My job and those of the other staff in the Commission is to go and look for weapons of mass destruction, to identify them, to verify them ... to get rid of them. The technologies that I am responsible for should drive the politics, not the politics the technology." There is press commentary urging the UN Security Council to present a less divided appearance in the stance of its permanent members towards Iraq, and to be more supportive of UNSCOM.

1 July In the United States, the commander of the US Army Medical Research Institute of Infectious Diseases, Colonel David Franz, has been speaking about biological terrorism and

protection against it to *Government Executive*, which quotes him thus: "I believe in order to make an effective terrorist weapon that will wipe out half of a city, you will need state sponsorship. You're not going to make [such an agent] in your bathtub in Rockville. That's the good news. The bad news is, with the break up of the Soviet Union, that capability is out there, and there are people who are interested in obtaining it." USAMRIID, located at Fort Detrick, is the country's only organization dedicated to doing research on medical methods of protection against biological warfare. It has a staff of 430 people and an annual budget of about \$20 million. Colonel Franz observes that the 1991 levels were more than 600 people and about \$30 million, and he says that further cuts are in the offing: although the Quadrennial Defense Review [see 19 May] had recommended a major increase in spending on anti-CBW protection, it also recommended major cuts to Defense infrastructure, and the research & development function of the medical community was likely to be a prime target.

2 July The US Director of Central Intelligence has transmitted to the Congress the first of the statutory 6-monthly reports on the acquisition by foreign countries of dual-use and other technology applicable to weapons of mass destruction [see 24 Sep 96 US Congress], and an unclassified 6-page version is now released. Prepared by the CIA Nonproliferation Center, it states that firms in both China and India have, during the previous six months, supplied Iran with equipment for making poison gas [see 21 May]. {*Washington Post* 2 Jul} Chinese Foreign Ministry spokesman Tang Guoqi characterizes the report as "purely fictitious and concocted".

3 July The US Department of Veterans Affairs announces the pilot phase of a new study of Vietnam War veterans to determine the possible health effects of exposure to Agent Orange. The study, recommended by the Institute of Medicine [see 23 Mar 96], will use a combination of telephone surveys, medical-records review and blood tests to compare rates of illness among Chemical Corps veterans with the rates among other veterans. The pilot phase will involve 250 veterans from each of the two groups.

4 July In Russia, the governor of Bryansk Region, Yuriy Lodkin, tells reporters that he and the governors of Kirov, Kurgan, Penza and Saratov Regions, and also the government of the Udmurt Republic, have established a coordinating council in regard to the elimination of the chemical weapons that are stored on their respective territories. Falling within the purview of the new council, he says, will be expansion of the social infrastructure of the chemdemil facilities needed for implementation of the new federal law *On the Destruction of Chemical Weapons* [see 2 May]. {RIA 4 Jul}

4 July The US House of Representatives has still not considered legislation for the implementation of the CWC in the United States, despite a unanimous consent that it would consider the Senate bill [see 23 May], S.610, prior to the Fourth of July recess. The International Relations Committee has jurisdiction. Its chairman, Representative Benjamin Gilman, is said still to be reviewing the House bill, H.R.1590. {*Chemical & Engineering News* 21 Jul}

5 July In Pakistan, funding for a CWC National Authority has been included in the 1997/98 budget, according to an unidentified official quoted in the *Islamabad News* [see also 25 Apr Pakistan]. The function of CWC National Authority is to be assigned to a Disarmament Cell that has been established at

the Ministry of Foreign Affairs to deal with a range of different disarmament and nonproliferation matters. The newspaper reports that Rs 2 million have been earmarked in the budget, and that, "[k]eeping in view the highly technical and sensitive nature of its functions, the Cell will have four officers, but no staff".

5 July In Moscow, Deputy Foreign Minister Georgiy Mamedov receives a delegation of three European Union representatives urging Russian ratification of the Chemical Weapons Convention. He tells the delegation that, on personal instructions from the President of the Russian Federation, the executive branch is working actively to ensure that the State Duma completes the ratification process, as promised, this coming autumn.

The day previously, the question of chemical-weapons destruction had been among the topics discussed by a visiting senior UK defence official, John Willis, Deputy Chief of the Defence Staff, and Federal Security Council Vice-Secretary Boris Agapov.

6-16 July In Hungary near Budapest, there is a NATO Advanced Study Institute on *New Scientific and Technical Aspects of Verification of the Biological and Toxin Weapons Convention* co-directed by Ambassador Tibor Tóth and Dr Graham Pearson. This summer school is attended by some 60 individuals from 21 countries, not all of them NATO or NATO Partnership countries. Its organizing committee has been headed by Professor Malcolm Dando of the University of Bradford Department of Peace Studies, UK. An exercise simulating BWC Ad Hoc Group negotiations is organized by one of the lecturers, Dr Marie Chevrier of the Harvard Sussex Program. There are 9 lecturers from 5 countries (France, Germany, Hungary, the UK and the USA), whose presentations will in due course be published.

7 July In Germany, the Minister of State responsible for the Federal Intelligence Service, Bernd Schmidbauer, has been speaking to *Der Spiegel* about the latest WMD proliferation report from the Service, and the magazine now publishes the interview. Asked whether political pressure had ever stopped a WMD programme, he had responded: "Certainly. In South America, in Argentina, for example, we see a decline in these development activities. Egypt, too, has completely renounced the continuation of such research in one sector or the other. However, no one really knows what Libya is developing." Later: "Generally the illegal drain of technology from Germany has gone down considerably. Our security authorities have learned something. We have established an effective control system. One weakness, however, is data protection, which makes the necessary exchange of information between the authorities more difficult. Industry, too, has understood the signs of the times. The changes can be seen in the number of current legal proceedings. I estimate that there are only about 30 cases that our criminal prosecution authorities are still following in connection with illegal acquisitions."

8 July In Madrid, heads of state or government of the member countries of NATO, meeting as the North Atlantic Council, issue a *Declaration on Euro-Atlantic Security and Cooperation*. It includes the following: "We call on all states which have not yet done so to sign and [*sic*] ratify the Chemical Weapons Convention. Recognising that enhancing confidence in compliance would reinforce the Biological and Toxin Weapons Convention, we reaffirm our determination to complete as soon as possible through negotiation a legally binding and effective verification mechanism."

8-10 July In Russia, public meetings on the chemdemil programme take place in Kurgan and in Shchuch'ye. They are official Justification of Investment hearings held with the coöperation of the Russian Defence Ministry, the federal government, the Kurgan regional administration and the Shchuch'ye local administration in order to move forward on the projected chemdemil facility at Planovyi near Shchuch'ye [see 8-11 Apr]. The Russian government has proposed a two-stage neutralization and bitumenization process for the nerve-gas munitions in storage there. The hearings have been organized by Green Cross Russia in coöperation with Global Green USA and Green Cross International [see 13 Nov 96] as the third in a series convened in Russia through the Green Cross Legacy Programme [see 14-16 May 96]. They are supported by the Cooperative Threat Reduction (Nunn-Lugar) Program of the US Defense Department and by the Russian and Swiss governments. The speakers include experts from or representatives of the organizing, coöperating and supporting organizations. Col-Gen Stanislav Petrov, commander of the Russian Defence Ministry RKhB Protection Troops, speaks of the hearings during a radio interview: "The Green Cross is an organization with which we have an agreement and signed a cooperation accord. I call it an organization with a human face, as they say now, and a completely civilized organization."

Hearing participants agree a Final Declaration which contains 17 specific recommendations on next steps. It concludes thus: "The hearing participants acknowledge the substantial benefits of public hearings as a means to assure a free exchange of opinion between, on the one hand, the authorities and institutions involved in the decision-making process regarding chemical weapons destruction and, on the other hand, public organizations that represent the view of the local population. Hearings are necessary to promote accord in the decision-making process regarding this complicated issue of national and international significance. The participants express their gratitude, in particular, to the United States Government and to other countries for their assistance in the chemical weapons disposal process. It is recommended to put into practice similar measures in other regions with storage sites and planned chemical weapons destruction facilities."

Subsequent local press reporting lays stress on the danger to the population of continuing to store ageing chemical weapons as compared with hazards entailed in destroying them.

According to a subsequent report on the hearings by one of the participants, Professor Lev Fedorov [see 12 Nov 96 and 24 Apr], the officer in charge of the Shchuch'ye chemical weapons storage facility had spoken of there being four types of CW missile warhead in his depot; a statement which stood in contrast to what Professor Fedorov states are the holdings of munition types listed in one of the official planning documents, a document which itemizes 15 different types of munition, only two of them being CW missile warheads. His report speculates that there may be 540-mm and 880-mm sarin or soman warheads of the submunition type in storage at Shchuch'ye, as well as the known bulk-filled V-gas warheads.

10 July In South Korea it is announced that increased preparedness for chemical warfare is being promoted [see also 16 Jun]. *Choson Ilbo* quotes a military official: "Because it is highly possible that North Korea could use chemical weapons as a last means of breaking out of its deadlock [see 19 May], the army is considering measures to expand the current chemical force into an independent brigade-level force. ... In order to respond instantly to an urgent situation, we are considering another method of strengthening our defensive power against a chemical war by increasing staffing and equipment while keep-

ing the current system." The newspaper quotes unidentified "ROK military authorities" as believing that North Korea has been developing chemical weapons since the 1960s and that it now has eight chemical plants that can produce 5,000 tonnes of chemical agent per year [see also 6 May]. North Korean commentary subsequently refers to this as "absurd remarks filled with the frenzy of northward aggression".

10 July In Canada, Eco Logic International Inc of Rockwood, Ontario, announces that it is teaming with the US firm Lockheed Martin for chemdemil business. This is in anticipation of the Request for Proposal which the US Defense Department will soon be issuing for demonstration of an Assembled Chemical Weapons Disposal System [see 11 Mar] as an alternative to the present baseline incineration system. The Eco Logic high-temperature hydrogenation process has already been doing well in the US Army's examination of alternative chemdemil technologies [see 13 Nov 95]. The company says it has achieved 99.99999 percent destruction and removal efficiencies for mustard and VX in pilot tests.

11 July South Korean government plans for the impending four-power talks on Korean affairs are described as follows by an unidentified government official: "We will show our willingness for government-level mass food aid, but we will link the issue with North Korea's pullback of multiple rocket launchers, long-range guns and fighter jets from the frontline and Pyongyang's entry in the Chemical Weapons Convention". A preparatory meeting of the four participating states — the two Koreas, China and the United States — is set for 5 August.

11 July In Israel, the former deputy director of the Ness-Ziona biological institute, Dr Marcus Klingberg [see 18 Feb] appeals for the fifth time for an early release from the 20-year jail sentence that followed his conviction for spying in 1983. A former head of the General Security Service, Ya'acov Perry, is testifying that Dr Klingberg, who is now 78 years old and in deteriorating health, no longer poses a security risk. {*Jerusalem Post* 13 Jul}

11 July In the Czech Republic, Deputy Defence Minister Vladimir Suman announces completion of the extended investigation of the present health status of the Czechoslovak Gulf War veterans [see 1 Apr]. According to the Czech News Agency, his report "refutes the veterans' fears stemming from their presence in regions in which a low quantity of mustard gas and sarin had been measured". The study shows no connection between the health problems of the veterans and their service in the war, and suggests that the problems may originate either in ageing or in the publicity which 'Gulf War syndrome' has attracted.

11 July In the US Senate, the FY 1998 Defense Authorizations bill [see also 12 Jun] continues to be debated. An amendment proposed by Senator Kyl seeking to condition Cooperative Threat Reduction funding, including funding for the Russian chemdemil programme, is adopted in an amended form. The \$60 million cut from the programme in committee has been successfully restored.

13 July In Beijing, the Anti-Chemical-Warfare Corps of the People's Liberation Army is the subject of a briefing given by an official of the General Staff Headquarters. It is one of many such briefings, publications and displays marking the 70th anniversary of the founding of the PLA. The briefing describes the establishment of an Anti-Chemical-Warfare school in 1950 and

the approval by the Central Military Commission, in 1956, of an Anti-Chemical-Warfare Department. The Corps is described as now having considerable protective capability against nuclear or chemical warfare. The briefing also refers to the combat successes of a flamethrowing detachment of the Corps in the "Sino-Indian self-defence counterattack war", and also refers to use of flamethrowers in 1955 during the "battle to liberate Yijiangshan Island". The briefing states that "China has always opposed the development of chemical and biological weapons". {Zhongguo Xinwen She 13 Jul}

14 July UK Armed Forces Minister John Reid [see 29 May] announces a 20-point plan for dealing with the issue of 'Gulf War syndrome'. The plan has been developed with the help of a new internal advisory group and is set out in a detailed Defence Ministry policy document, *Gulf Veterans' Illnesses: A New Beginning*. Dr Reid tells the House of Commons that his new approach is based on three guiding principles: "Gulf veterans will be given prompt access to medical advice; appropriate research will be conducted into veterans' illnesses; and the Ministry of Defence will make public any information it possesses which is of potential relevance to veterans' illnesses". He continues: "We have pledged our resources to that task and the package that we have produced today, which will double the resources allocated, will cost about £6.5 million over the next three years." This includes an extra £2.25 million that will go on an investigation, partly to be done at CBD Porton Down, of the possible health effects of combinations of vaccines and drugs such as pyridostigmine — the 'cocktails' administered to many service personnel during the Gulf War [see also 28 Jun]. This investigation will be supervised by an independent panel of scientific experts, including a Gulf-veterans' representative. The Ministry of Defence Gulf Veterans Illness Unit is to be strengthened. Reportedly, nearly 1800 of the 50,000-odd British personnel that served in the war zone have become ill. Another report says that upto 4000 veterans or members of their families are ill.

The UK government today transmits to the House of Commons its detailed observations on the last Defence Committee report on Gulf War illnesses [see 20 Mar], concluding that "the new approach now being adopted is in harmony with the Committee's comments, conclusions and recommendations".

14 July–1 August In Geneva, the Ad Hoc Group of states parties to the Biological Weapons Convention reconvenes [see 3-21 Mar] for its seventh session. Participating are 54 states parties, of which all but Armenia, Costa Rica, Croatia, Ecuador, Jordan, Malaysia and Senegal had participated in the sixth session, and two signatory states (Morocco and Burma). Sixth-session participants not participating in the seventh are Iraq, Malta, Philippines and Sri Lanka, and one signatory state, Egypt. Ambassador Tibor Tóth of Hungary continues to chair the group, assisted this time by five Friends of Chair: Dr Ali Mohammadi of Iran (definition of terms and objective criteria), Ambassador Michael Weston of the UK (measures to promote compliance), Peter Goosen of South Africa (measures to promote compliance: annex on investigations), Carlos Duarte of Brazil (measures related to Article X), and Ambassador John Campbell of Australia (legal issues). Dr Ogunsola Ogunbanwo of the UN Centre for Disarmament Affairs continues as Secretary. National delegations submit some 41 working papers. The Group also has before it the paper which, during the previous session, it had requested from the chairman: a paper that would reflect in a structured manner the progress of the work of the Group and thus serve as the basis for a "rolling text" of the projected legally binding instrument [see 9 Jun]. On the under-

standing that this text was without prejudice to the positions of delegations, and that it did not imply agreement on its scope or content, it serves to direct the work of the Group. A much expanded version is included in the agreed Procedural Report of the session {BWC/AD HOC GROUP/36}, as Annex I. It now has 167 pages organized into a Preamble, 23 articles (with at least some text for 18 of them), 7 annexes and 4 appendices, all containing numerous qualifying footnotes and many square brackets enclosing variant approaches.

15 July In Hong Kong, Rex International Development Company [see 5 May], which is 52 percent owned by Norinco of Beijing, closes voluntarily. Just prior to the end of British rule, the Executive Council had ruled that Rex should be struck off the Companies Register following an investigation of alleged illegal exports to the Middle East. The company had appealed the decision during the first week of Chinese rule, but a settlement was reached out of court prior to the hearing and prior, therefore, to any public disclosure of the evidence in the case. The voluntary character of the closure means that the company officers are free to continue in business under a new company name. The Special Administrative Region government next day denies that it has done a "secret or under-table deal" with the company. {*Wall Street Journal* 16 Jul and *South China Morning Post* 16 and 17 Jul} According to *Far Eastern Economic Report* {31 Jul}, the allegation against Rex was that the company had "sold high-grade steel pipes to Iran which could be used to produce chemical weapons".

15–17 July In Honolulu, there is a further round of bilateral talks on nonproliferation matters between South Korean and US officials [see 10-11 Jun 96]. There is agreement on a revision of the bilateral agreement which prevents South Korea from developing missiles of range greater than 180 km (a limit which is 120 km less than that of the Missile Technology Control Regime). There is also discussion of possible ways for persuading North Korea to join the Chemical Weapons Convention. A Seoul Foreign Ministry official is quoted as saying: "North Koreans ... have so far been strongly resisting the idea of joining the CWC, mainly because of the fact that the [OPCW] is empowered to conduct mandatory inspection of chemical weapons production and stockpile facilities in its member states".

16 July In Britain, the chairman of NBC UK (the trade association of nuclear, biological and chemical protective-equipment manufacturers), Tim Otter of Graseby Ionics Ltd, speaks to *Defense News* {21-27 Jul} about difficulties which NBC companies continue to face [see 15 Feb 96] in getting export licences for what are harmless nonlethal goods: "Within the NBC field, manufacturers have found reluctance to deal with export licenses at the speed that modern commercial practice expects".

17 July In Iraq, President Saddam Hussein speaks as follows during a three-hour televised address: "As we do not want for the relations between Iraq and the [UN] Security Council or between Iraq's representatives and [UNSCOM] to reach a deadlock [see 1 Jul], we hope that the Council will take measures which could convince us that it has actually started to fulfil its obligations. ... Iraq has fulfilled its obligations."

17 July The US Defense Department, at a briefing in which the Department of Veterans Affairs and the Central Intelligence Agency also participate, releases the report of its panel [see 13 Nov 96] to review the computer model which a CIA contractor, Science Applications International Corporation, has been de-

veloping as a tool for assessing CW-agent release during the Khamisiyah episode [see 26 Jun].

17 July US Defense Special Weapons Agency deputy director George Ullrich speaks to *Defense News* {21-27 Jul} about ways for neutralizing underground facilities, such as the suspected Libyan chemical-weapons plant, other than through direct attack. There are problems associated with both the new nuclear weapon that has been designed for this task, the B61-11 penetration bomb, and with corresponding new conventional weapons, such as the 1000-pound GBU-27 and the 5000-pound GBU-28. An alternative is to attack the facility "umbilicals": communications antennae of the facility, its ventilation shafts or its power stations. The Defense Science Board has been tasked to study these and related matters, and to report by the end of the year {*Jane's Defence Weekly* 5 Mar}.

18 July In Florida, a retired Army colonel, Robert Fairchild, and a former US Marine, Donald Proven, are arrested following a US Customs sting operation. They are charged with conspiracy and violating export controls in planning to broker the resale to Iraq of 34 US military helicopters bought by a Canadian businessman, Gary Finlay, who is himself arrested in Canada the following day. The prospective Iraqi purchasers had wanted 16 of the helicopters, which had not yet been shipped, to be fitted with chemical spray equipment. {Fort Lauderdale *Sun-Sentinel* 22 Jul}

21–25 July UNSCOM Executive Chairman Richard Butler makes his first visit to Iraq for talks with officials, including Deputy Prime Minister Tariq Aziz, Foreign Minister Mohammad Said al-Sahhaf, Oil Minister Amer al-Rashid, and Presidential Adviser Amir al-Saadi. His team of nine people includes Deputy Chairman Charles Duelfer as well as UNSCOM experts on missiles, chemical weapons and biological weapons — respectively, Nikita Smidovich of Russia, Horst Reeps of Germany and Richard Spertzel of the United States. On his way in, Ambassador Butler tells reporters in Bahrain: "We have had a change at the top of UNSCOM. ... They must seize this moment because history moves on. ... Maybe this is the moment to do what is required. They will not find UNSCOM wanting. We will meet them at every step of the way." After the visit, in Kuwait, he tells reporters: "In general, I believe that I got a positive response. We drew up some plans for the future which are likely to lead to a good result if they are implemented." He says that Iraq has pledged by next month to turn over "materials, interviews and documents" related to missiles and to CBW weapons. Interviewed later for London newspaper *Al-Quds al-'Arabi* he says: "The important thing is to complete the work and to sit together to form working teams. I am pleased to say that these teams have been formed, and they have been working since I left Iraq. They are doing a good job. ... I am very satisfied with the talks held in Baghdad."

UNSCOM subsequently reports that "a specific additional programme of work" has been agreed during the talks. In the CW area, it is to involve clarification of certain particular issues and the destruction both of precursor chemicals and of recently identified equipment that had been removed from Muthanna prior to the first UNSCOM inspection there [see 9 Jun 91]. In the BW area, it requires Iraq to "expedite the provision of a new declaration containing its full, final and complete disclosure" [see 11 Oct 96]. {S/1997/774}

23 July In Tokyo, the Sino-Japanese joint working-level group on the Japanese abandoned chemical weapons in China [see 10-11 Apr] convenes for its second meeting. Agreement is

reached that a further investigatory mission [see 26 May] should be mounted, to Shenyang in late September. Also, China accepts the proposal which Japan had made during the first meeting that a "small make-shift facility" should first be built for interim storage of chemical weapons pending construction of a "larger, comprehensive facility".

23 July In Japan, at Omiya in Saitama Prefecture, OPCW inspectors are at the Chemical School of the Ground Self-Defense Force to begin a three-day Schedule 1 initial inspection in accordance with Article VI of the CWC {Kyodo and AFP 29 Jul}.

23 July In Israel, Prime Minister Binyamin Netanyahu establishes a special ministerial committee to make recommendations on ratification of the Chemical Weapons Convention [see also 7 May Israel] {Tel Aviv *Ma'ariv* 24 Jul}. It is reported that Defence Minister Yitzhaq Mordekhay is inclined towards ratification, while National Infrastructure Minister Ari'el Sharon opposes it {Tel Aviv *Yedi'ot Aharonot* 11 Jul}.

23 July In Geneva, the Quaker United Nations Office, in conjunction with the University of Bradford Department of Peace Studies, hosts a meeting within the UN building for representatives of states parties to the Biological Weapons Convention at which the first of what is to be a series of Bradford briefing papers is presented. The series is edited by Dr Graham Pearson and Professor Malcolm Dando, and the first paper is on *The Importance of On-Site Investigations*. The meeting is attended by 46 people from 21 delegations.

24 July OPCW Director-General José Maurício Bustani informs the Conference of the States Parties that he has found that some Secretariat staff had not been performing to the standards required, and that he has therefore relieved them of their functions, with immediate effect. The problem had come to light two days previously when he found that some 80 members of staff had not yet signed a secrecy agreement. The Deputy Director-General has now been asked to assume responsibility for the day-to-day functioning of the Administration Division. {OPCW C-II/DG.4}

24 July The US Defense Department publishes the results of the computer-modelling of the nerve-gas release following the Khamisiyah demolitions [see 15-30 May and 17 Jul]. The new estimate is that nearly 99,000 service personnel could have been exposed to a very low level of nerve gas vapourized during the demolition. The analysis also indicates that no US units were close enough to experience any noticeable health effects at the time. The Department says that, while little is known about delayed effects from low-level exposure, current medical evidence indicates that long-term health problems are unlikely.

25 July In Paris, *al-Watan al-'Arabi* publishes an account of an alleged Iranian purchasing and recruiting mission to Moscow eight months previously that had, "through the courtesy of leading Russian Mafia figures", gained access to Russian expertise and materiel for chemical-weapons production. According to this story, which is attributed to a single unidentified "top Western security source", Russian scientists had been hired on large salaries to work at secret locations in Iran, and goods had been smuggled out of Russia through Azerbaijan or across the Caspian Sea.

25 July The US Army awards Raytheon Demilitarization Company [see 7 Feb and 1 May] a \$512 million construction and operation contract for the projected chemdemil incinerator

at Pine Bluff Arsenal [see 22 Aug 96. Actual construction cannot begin until the Arkansas Department of Pollution Control and Ecology issues the requisite permits, for which the Army filed application in Summer 1995. The commander of the Pine Bluff Chemical Activity, Lt-Col Donnie Anderson, says that no "stumbling blocks" face the permit application.

27 July In Malaysia, at Subang Jaya, ministers of the ASEAN countries conclude their fourth Regional Forum [see 23 Jul 96]. The chairman of the meeting, Abdullah Haji Ahmad Badawi, the Minister of Foreign Affairs of Malaysia, issues a statement which includes the following: "The ministers welcomed the entry into force of the Chemical Weapons Convention which provides for a verifiable global ban on chemical weapons. The ministers called on all states which have not ratified the Convention to do so. The ministers expressed the hope that progress would be made in the work on the protocol dealing with compliance and verification of the Biological Weapons Convention."

27 July In Iran, the Majlis approves the bill on ratification of the Chemical Weapons Convention, now amended in order to satisfy the Guardian Council [see 8 Jun].

27-28 July In Cairo, an Arab League committee of experts meets for the sixth time since 1994 to continue work on an agreement that would establish the Middle East as a zone free of weapons of mass destruction [see also 14 Feb 95]. According to committee president Mahmud Karem, who is director of the disarmament department of the Egyptian Foreign Ministry, this meeting is aimed at developing a verification mechanism.

28 July The OPCW Technical Secretariat has now completed or started 31 inspections and has received initial declarations from 49 states parties, according to a paper by the Director-General. The paper, *Overview of Declarations Received and the Status of Completed and Ongoing Inspections* (OPCW EC-III/DG.4/Add.2), is an addendum to a report to the Executive Council, and is publicly released some 7 weeks later. As released, the paper contains deletions, these reflecting requests by Finland, India, Singapore and South Korea from among the countries that had submitted declarations by 28 July "that information pertaining to their implementation of the Convention" should not be disclosed (Finland later withdraws its request). Contained in the release is a tabular summary of the status of declarations, identifying for each declaring country the due-date of its initial declaration, its actual date of submission, the CWC articles or parts of the Verification Annex to which the initial declarations relate, and their security classification. Only 13 of the declarations are completely unclassified: those of Argentina [see 28 May], Armenia, Austria, Belgium, Cuba, Ecuador, El Salvador, Hungary, Lesotho, Mexico, Monaco, Philippines and Suriname. Of the remainder, at least 17, possibly as many as 21, comprise or include material which the states parties concerned have thought fit to mark with the 'Highly Protected' classification. Part IV(B) declarations, indicating possession of Old and/or Abandoned Chemical Weapons, have been made by Belgium, China, France, Germany, Italy, Japan and the UK. An Article IV declaration, indicating possession of chemical weapons, has been made by the United States. Of the three disclosure-withholding countries noted above, at least India [see 26 Jun] must also have made an Article IV declaration and an Article V declaration as well, indicating possession of an existing or former Chemical Weapons Production Facility. China, France, Japan, the UK and the USA have all made Article V declarations. A subsequent OPCW press release {9 Sep} indicates that two other countries, unidentified, had by now also made

Article V declarations, bringing the total to 7, and that a total of three states now made Article IV declarations.

28 July The US Army issues a request for proposals on alternatives to incineration technology for application in chemdemil operations at Pueblo Army Depot, Colorado, and at Blue Grass Army Depot, Kentucky [see 28 Jun 96 and 10 Jul]. Potential vendors must have alternative technologies that have been tested with CW agents or simulants. Those that get through the first round of the evaluation will be awarded \$50,000 to prepare for the next round.

28 July-1 August In The Hague, the OPCW Executive Council [see 23-27 Jun] convenes for its third session. [For further details, see *Progress in The Hague* above]

Among the papers for the meeting is a report from the Director-General on the status of implementation of the Convention which, like all Executive Council papers, is withheld from public release. The Secretariat press release {11 Aug} on the session includes the following: "The Director-General, motivated by a concern for transparency and a wish to demonstrate that the Convention is being effectively implemented, is seeking approval on an individual basis from the States Parties which have provided declarations, to be able to provide more information to non-Member States, as well as to the media." Later, in September, these efforts by the Director-General bear fruit, and a part of his report is released [see 28 Jul].

29 July In Japan, at Kamiku-Isshiki in Yamanashi Prefecture, OPCW inspectors enter the Seventh Satian on the site once owned by Aum Shinrikyo [see 22 Apr 95] to begin a three-day Initial Inspection under the CWC of what Japan has declared as a Chemical Weapons Production Facility [see 28 Jul]. The building and its contents have been seized by Japanese authorities for use as evidence in the murder and other trials of Aum Shinrikyo cultists. {Kyodo and Jiji 29 Jul}

29 July In Geneva, the World Health Organization issues a new progress report on the revision of the International Health Regulations that its Assembly called for in 1995 in order to increase security against the spread of communicable diseases, including emerging diseases, in the face of expanding international traffic and trade.

29 July In the UK House of Commons, the new Select Committee on Defence takes evidence on Gulf War illnesses from Armed Forces Minister John Reid [see 14 Jul]. He says that a number of British units could have been within the area downwind of Khamisiyah which the latest findings from the US computer simulation of the event suggest may have been traversed by a highly dilute nerve-gas cloud from the March 1991 demolitions [see 24 Jul]. He also refers to recently rediscovered reservations which the Department of Health had expressed to Defence officials in 1990 about the safety of the anti-CBW medical protection then being considered and later provided for service personnel in the Gulf theatre.

29 July In Buffalo, New York, the US Presidential Advisory Committee on Gulf War Veterans' Illnesses holds a public hearing during which it learns from UNSCOM Deputy Chairman Charles Duelfer that Iraq had only recently disclosed that it had stored CW artillery shell and rockets in a depot in Ukhaydir, southern Iraq, which coalition forces had bombed on 14 February 1991. The resultant plume of airborne CW agent could have come close to US troops in Rafha, Saudi Arabia, so cognizant Defense Department and CIA officials, also testifying be-

fore the committee, later acknowledge. It subsequently transpires that some computer-modelling of possible downwind releases of CW agent from storage depots that might be targeted during the coalition air campaign had been undertaken before the campaign began, notably by Lawrence Livermore National Laboratory, for the US Air Force.

29 July In the US Congress the House of Representatives completes action on its FY 1998 Defense Appropriations bill, which had been reported out of committee a week previously. The committee had cut \$97.5 million from the \$382.2 million requested for the Cooperative Threat Reduction programme, notwithstanding a letter from the Office of Management and Budget threatening Presidential veto of the legislation if the programme were not left intact. The Senate had completed its action on 15 July, its Appropriations Committee having cut the programme by \$60 million. The legislation now passes to a House-Senate conference committee. The FY 1998 Defense Authorization legislation [see 11 Jul] is also at conference-committee stage.

30 July In the US House of Representatives, Congressmen Patrick Kennedy and Jim Leach introduce a bipartisan sense-of-Congress resolution that the United States should continue to support and fully participate in the negotiations to establish a permanent International Criminal Court. The UN preparatory committee for the court [see 20 Feb] will shortly be reconvening in New York for its fourth session. Apart from Senator Jesse Helms, there is reported to be broad support in the US Congress at least for a court having jurisdiction over three types of crime: genocide, crimes against humanity, and war crimes. The US administration has opposed the inclusion of terrorism within this core list. {*Washington Times* 2 Aug}

31 July The American Medical Association releases the 6 August issue of its Journal, much of which comprises contributions on different aspects of biological warfare. These have been marshalled by Dr Joshua Lederberg, who himself contributes a closely argued editorial urging physicians to concern themselves with the subject. Receiving substantial media attention is the detailed article on the Iraqi BW programme by Dr Raymond Zilinskas of the University of Maryland Center for Public Policy Issues in Biotechnology. Also widely noted are the articles addressing biological terrorism, which are accompanied by detailed medical reports on a heavy outbreak of *Salmonella* infection in a small Oregon town in 1984, found to have been due to deliberate contamination of restaurant salad bars by followers of Bhagwan Shree Rajneesh, and on another episode of intentional food contamination in October 1996 in which 45 people at a medical centre in Texas came down with bacillary dysentery after eating pastries evidently inoculated with *Shigella dysenteriae* type 2.

1 August In South Korea the government establishes a task force of 80 people to "probe into North Korea's war provocations and formulate a defence strategy", so Yonhap news agency reports. The task force is to begin its work by the end of the year, and is to assess the threat posed by, among other things, the CW capability of North Korea. It is to be headed by Lt-Gen Choe Ton-kol of the Joint Chiefs of Staff, and is to include 48 field-rank army, navy and air force officers and 32 national and provincial government officials. Commentary from Pyongyang characterizes this as provocation: "If they persistently seek a war against the North, they will be held fully responsible for all its consequences and will have to pay dearly for them".

2 August The European Commission's Moscow office has announced an ECU 2 million project, within the framework of the TACIS programme [see 21 May], for conversion of former chemical-weapons plants in Russia, pending decision by the Russian State Duma to ratify the Chemical Weapons Convention. The Russian side of the project is to be handled by the Metallkhim association, which will be assisted by a foreign corporation that is to be selected next month on the basis of a tender announced in the Spring for companies in member-countries of the European Union.

3 August In Russia, at the Stroitel sanatorium in Vladimir Oblast, a summer camp opens for groups of 20-30 children coming from the chemical weapons stockpile locations in Udmurtiya and in Bryansk, Kirov, Penza, Saratov and Kurgan oblasts. The camp is organized by Green Cross Russia [see 8-10 Jul].

4-15 August At United Nations headquarters in New York, the Preparatory Committee on the Establishment of an International Criminal Court [see 30 Jul] convenes for its fourth session. Two more sessions are scheduled before the conference in Rome in June 1998 where it is expected that statutes for the court will be approved.

5 August In China, an outbreak of plague in the Beijing suburb of Yanshan is attributed by residents to a recently unearthed Japanese bomb {UPI 5 Aug}.

5-9 August In the UK, OPCW initial inspections take place at four former Chemical Weapons Production Facilities — the sites of the old chemical-munition filling stations at Lords Bridge, Barnham Heath, Norton Disney and West Cotingworth {*Trust & Verify* Aug}.

6 August In India, Prime Minister Gujral is questioned in the Lok Sabha about the safeguards that India should take, now that it has abandoned its chemical weapons [see 26 Jun], in the face of the failure of Pakistan to ratify the Chemical Weapons Convention. He says that India still has capability in chemical weapons: "We can manufacture them and this by itself is a deterrent. Moreover, the destruction of the chemical weapons under the Convention would be gradual and we can have a second look at it." He also says that Indian manufacture of the weapons had begun before he became prime minister. He adds: "But I stand by the policies the successive governments have followed". {*Hindu* 7 Aug}

7 August In Syria, army brigades have been using CW agents during exercises in the desert near the Golan Heights in the course of which, several days previously, three soldiers had died, according to the military correspondent of the Israeli newspaper *Hatzofe*.

8 August In India, an OPCW initial inspection is taking place at the Defence Research and Development Organization establishment at Ozra, near the western town of Nashik, where chemical weapons [see 6 Aug] are reported to have been made. In July, a smaller OPCW team had inspected the DRDO establishment at Gwalior. {*South China Morning Post*, 8 Aug}

8-15 August In Iraq, there is a further UNSCOM biological mission, BW 53 (UNSCOM 193). The 12-person team is headed by Richard Spertzel of the United States and conducts interviews with Iraqi officials who had been involved in the BW programme.

11 August In Tokyo district court, a group of 108 Chinese file suit against the Japanese government seeking compensation for biological warfare waged against China by Japan during the war of 1937-45. This action has been in preparation for some while [see 1 Jul 96]. The plaintiffs are three men who had contracted cholera when the Japanese Imperial Army withdrew from Jiangshan, Zhenjiang Province, in August 1942, plus 105 people from families of nonsurvivors. They seek a total of Yen 1.08 billion (US \$9.3 million) in damages. After the suit is filed, representatives of the plaintiffs deliver a letter to the office of Prime Minister Ryutaro Hashimoto calling upon him to clarify Japanese use of biological warfare, to make apology and to provide compensation. A similar compensation suit in regard to chemical warfare [see 9 Dec 96] is still before the court. So is another suit concerning BW-related experimentation on human beings by Unit 731 [see 3 Dec 96].

11–16 August In the UK, OPCW initial inspections take place at four former Chemical Weapons Production Facilities — the sites of the old CW-agent pilot-plants and factories at Sutton Oak, Nancekuke, Rhydymwyn and Randle.

12 August In Amman, the Council of Ministers decides that Jordan should join the Chemical Weapons Convention.

12 August The US Defense Department issues a report concluding that it is unlikely that members of the 24th Naval Reserve Construction Battalion had in fact been exposed to CW agents near Al Jubayl in Saudi Arabia in January 1991 as they believed [see 20 Sep 96]. The report is the latest in the series of case narratives being produced by the Office of the Special Assistant for Gulf War Illnesses. It is released together with another case narrative, this one relating to a fragment said to have originated in a Scud missile that had been hit by a Patriot anti-missile missile over Saudi Arabia on 19 January 1991, an incident which some have claimed resulted in exposure to CW agent. The report concludes from analysis of the fragment that it is unlikely that CW agents were present.

13 August US Defense Secretary William Cohen has once again [see 28 Apr] laid stress on the threat of biological weapons, in an interview published by *Jane's Defence Weekly*. He is quoted as saying that, during the 1990-91 Gulf War, there were serious concerns in the United States that the ventilation systems of buildings might be attacked by terrorists using BW agents. He has also said that scientists are "very close" to being able to produce "genetically engineered pathogens that could be ethnically specific". Here he seems to be alluding to a new Defense Department study currently in draft which, among other things, addresses possibilities for "novel biological agents". These include, in the words of *Jane's*, "Benign agents altered to produce a toxin, venom or bioregulator; Immunologically-altered agents to defeat standard identification, detection and diagnostic methods; Pathogens resistant to antibiotics, standard vaccines and therapeutics; Pathogens increasingly stable in the environment and in aerosol dispersion". *Jane's* quotes the draft report as saying: "Each of these techniques seeks to capitalize on the extreme lethality, virulence, or infectivity of BW agents and exploit this potential by developing methods to deliver more efficiently and to control these agents on the battlefield."

15 August The US Arms Control and Disarmament Agency releases the administration's latest annual report to Congress on arms control treaty compliance [see 7 Aug 96]. In regard to the Biological Weapons Convention, the unclassified version of

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

the report says, as its predecessor did, that China, Egypt, Iran, Iraq, Russia and Syria either retain or are trying to acquire the capability to produce BW weapons. It also says that purchases of sophisticated biotechnology equipment have raised suspicions that Taiwan may have a biological weapons programme. {*Washington Times* 16 Aug, *Defense News* 25-31 Aug}

In Taipei, a spokesman for the Ministry of National Defense insists that there is no Taiwanese biological-weapons development programme, and never has been. Denials are also made by Egyptian and Russian officials.

17 August South Korea has declared possession of chemical weapons to the OPCW, according to the *New York Times*. Later, a US National Public Radio {25 Aug} correspondent reports that, as now required under the Chemical Weapons Convention, South Korea has "admitted to acquiring chemical weapons". His report continues: "In addition, France, Italy and Spain already destroyed their small stockpiles of poison gas before the treaty went into force in April". Neither report identifies its source of information. Both also list China as having declared a chemical-weapons programme — a reference, presumably, to its Article V declaration [see 28 Jul].

18–29 August In South Korea, *Ulchi Focus Lens '97* takes place: a large-scale annual ROK-US Combined Forces Command and civil-defence command-post exercise. This year it includes testing the country's preparedness against North Korean chemical-warfare attack. {*Pacific Stars and Stripes* 20 Aug}

Immediately prior to the exercise, publicity is given in the press to the menace of North Korean CW, with reports of a recent classified study, *Coral Breeze*, by the RAND Corporation. This study had reportedly concluded that North Korean chemical weapons posed a very serious threat against the South and against US forces based there. A report by the South Korean Joint Chiefs of Staff, said to draw from the study, has estimated that North Korea is capable of producing chemical weapons, in eight factories, at a total rate of 15.2 tons per day, increaseable to nearly 40 tons per day in wartime. The current stockpile is estimated at 1000 tons, perhaps more, of which 70 tons could be used immediately [see also 6 May]. A JCS official says: "We

believe that the North has no qualms about using chemical weapons and they will use long range field pieces, missiles and all means available to deliver massive amounts of poisonous gas to our population centers and military positions. The South Korean government is mapping out an anti-chemical weapons strategy which will include bunkers and an early-warning system to protect civilians." {*Korea Times* and *Korea Herald* 18 Aug, London *Daily Telegraph* 19 Aug}

19 August Moscow television {NTV *Segodnya Vecherom*} carries a special report on how the health of people living in the Penza Region is threatened by secret burials and lake-dumpings of discarded chemical weapons that had taken place during 1968-85.

25 August Israel is building "an advanced chemical weapons plant" in the Negev desert at Adon, near a phosphate-processing plant, according to the Cairo weekly *Rose al-Yusuf*, quoting an unidentified source in the Egyptian Atomic Energy Agency. The plant is said to be Israel's fourth, the others being at the Technion Institute in Haifa, at Ramad Hof 17 km from Beer-sheba, and at the Weizmann Institute.

25-27 August In Geneva, the Cuban biological-warfare allegation against the United States [see 30 Jun] is the subject of a formal consultative meeting of states parties to the Biological Weapons Convention, 74 of which participate, as well as three states signatories. The meeting, closed to the public, is chaired by Ian Soutar, head of the UK delegation to the Conference on Disarmament, assisted by six vice-chairs, from Brazil, Canada, Iran, the Netherlands, Nigeria and the Russian Federation. The principal documents — long since distributed as UN General Assembly papers: A/52/158 and A/52/213 — are those of Cuba, setting out the circumstances of the thrips infestation and relating that to the movement of a US aircraft over the affected region. Cuba, with a delegation headed by Deputy Foreign Minister Maria de los Angeles Flores, introduces the case. The US delegation, headed by Donald A Mahley, responds. Both delegations provide additional materials. The participants ultimately agree that states parties should submit written views on what had been presented during the consultative meeting, including comments from technical experts if they so choose, by 27 September; these would be reviewed for a chairman's report which Ambassador Soutar, in consultation with the six vice-chairs, would prepare and deliver by 31 December. These arrangements are set out in the agreed report of the meeting {BWC/CONS/1}, which is issued on 29 August.

Ambassador Soutar tells reporters that, so far, two facts have been verified: "It became clear that there had been a flight

on the date alleged, and at the time alleged. There was also, regrettably, a considerable infestation in the territory of Cuba." He says that the meeting had not found it possible to draw "a direct causal link" between the two. Minister Maria de los Angeles Florez says that her government was "satisfied" with the manner in which its complaint had been handled and would now be investigated further.

26 August The Japanese government decides to establish a new group in the Cabinet Secretariat to oversee and expedite the disposal of the Japanese abandoned chemical weapons in China. The new task-force will be chaired by Deputy Chief Cabinet Secretary Teijiro Furukawa and will include bureau chiefs from the Foreign Ministry, the Defence Agency and other government bodies.

27 August North Korea is continuing to transfer chemical and biological weapons to Iran, according to the Israeli Ambassador to South Korea, Arik Arazi, speaking to reporters in Seoul.

28 August In Russia, the Chairman of the Duma International Affairs Committee, Vladimir Lukin, has spoken of the prospects for Russian ratification of the Chemical Weapons Convention in an interview now published in *Krasnaya Zvezda*. He says that ratification, which he regards as "quite possible", will confront the executive with a heavy funding problem. He continues: "Other financial problems involved in the ratification include the reception of international inspection teams, the destruction or, still better, conversion of the factories making chemical weapons to civilian production, &c. There are also environmental and ecological problems. That is why I believe that the ratification, if it indeed takes place, will be accompanied by certain reservations linked primarily with our domestic problems. However, I think that the Convention will eventually be ratified because otherwise the outside world would think that Russia is against chemical disarmament."

28 August In France, the Ministry of the Interior announces that it is going to build the country's only disposal site for chemical weapons. This follows a number of accidents at locations where unearthed munitions, including World War I chemical munitions, are kept, often poorly guarded.

29 August The Biological Weapons Convention now has 140 states parties and 18 other states signatories, according to a paper prepared by the secretariat of the Ad Hoc Group of states parties {BWC/AD HOC GROUP/INF.11}.

Forthcoming events

A Wilton Park conference on *Building an Effective International Consensus Against Nuclear Proliferation: What More Can Be Done?* will take place at Wiston House, England during 1-5 December 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.

A joint workshop of the Egyptian Society of Pesticide Hazards (ESPH) and Applied Science and Analysis (ASA) in the *Chemical and Biological Medical*

Treatment Symposia Series will be held in Cairo 7-11 December. For details, contact fax: + 1 207 829 3040, e-mail: asa@ime.net

The BWC Ad Hoc Group will reconvene for its ninth session on 5-23 January 1998 in Geneva. Dates for the succeeding session are still to be arranged.

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