

# CHEMICAL WEAPONS CONVENTION BULLETIN

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## EDITORIAL

The complete chemical weapons ban being sought in Geneva has been brought much closer to achievement by developments of the past few weeks.

At their bilateral talks in June, US and Soviet negotiators reached substantial agreement on ways to resolve two of the remaining bottleneck issues. One is the procedure for mandatory challenge inspections, which constitute the "safety net" of the treaty. The other is the order in which chemical weapons stocks and factories are to be destroyed. The agreed procedures are expected to be communicated soon to the 40-nation Conference on Disarmament, the CD, whose task it will be to achieve consensus on how best to deal with these two issues in the multilateral draft treaty.

In addition, following the Baker-Shevardnadze talks in Paris on 29 July, the US and Soviet governments neared agreement on bilateral verified exchanges of data on their chemical weapons stocks and facilities prior to conclusion of the Chemical Weapons Convention. The information exchanges would be in two stages, the first concerned primarily with locations and gross quantities of stocks, the second with detailed inventories. There would then be on-site inspections to validate the exchanged data, including challenge inspections. The bilateral data exchange may begin soon. Its verification on-site, however, would not begin until the work of the CD reaches the point at which both parties agree that the Convention is nearly ready to be initialled.

Meanwhile, US Senators have expressed overwhelming endorsement of the chemical treaty negotiations. More than two-thirds of the Senate, including majorities of both political parties,

stated their support in a strong letter to President Bush released on 29 June. Then, on 27 July, the House of Representatives voted 414-4 in favor of sense-of-Congress language stating that "successful completion of [the Chemical Weapons Convention] should be one of the highest arms-control priorities." The House resolution also agreed with the Senate letter in reflecting a view widely expressed throughout the world, that the projected treaty is the "most comprehensive and effective response to the threat posed by the proliferation of chemical weapons."

These developments are tangible evidence that the US and the Soviet Union are genuinely committed to the Chemical Weapons Convention, as President Bush and President Gorbachev have repeatedly said. It is important that the momentum generated by the new bilateral agreements be carried over into the CD to help work out a substantial number of details in the rolling text and to resolve certain issues of special concern to the developing countries. But the prospects for accelerated progress in the negotiations are good.

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## MAKING CHEMICAL WEAPONS USERS PAY A PRICE

*Lewis A. Dunn*

*Assistant Vice President*

*Science Applications International Corporation*

The spread of chemical weapons to conflict-prone regions of the Third World -- punctuated by use of chemical weapons by Iraq in the Gulf War and against its own citizens -- has pushed chemical weapons proliferation to the top of the global security agenda. International actions to contain this threat are moving ahead on three fronts: multilateral negotiation of a complete and total chemical weapons ban; parallel US-Soviet talks; and the Australia Group efforts to tighten controls on exports of chemicals usable for making chemical weapons.

Sanctions legislation currently under consideration in the US Congress would open up another line of attack. One proposal would impose economic and trade penalties against countries that use chemical weapons in violation of international law or against their own citizens. Specific penalties include bans on US military assistance and sales, on certain other exports, on government and private lending and credits, and on US economic assistance; a ban on imports to the United States; and US opposition to financial and technical assistance from multilateral agencies.

Closely related, other legislation would penalize persons or firms that had assisted countries to acquire chemical weapons. Imports to the United States would be banned and business dealings prohibited with the US government.

In testifying before Congress, Bush Administration spokesmen have been skeptical of sanctions legislation. But accepting what appears inevitable, they have also signalled readiness to work with Congress to craft a suitable bill. This is a return to President Bush's well-placed emphasis during last fall's presidential campaign, that "the nations guilty of chemical warfare must pay a price. They must know that continued violation of the ban against the use of such weapons carries a heavy penalty."

Enactment of sanctions legislation to penalize use of chemical weapons would be an initial step to that goal. Such action would signal that failure to punish Iraq's use of chemical weapons would not

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**Editors:**

*Matthew Meselson  
Harvard University  
Cambridge, Massachusetts*

*Julian Perry Robinson  
University of Sussex  
Brighton, UK*

**Producers:**

*Gordon Burck  
FAS Staff Associate for  
Chemical and Biological Warfare*

*Lora Lumpe  
FAS Research Assistant for  
Chemical and Biological Warfare*

**Chemical Weapons Convention  
Bulletin Advisory Committee:**

*Ambassador Jonathan Dean, Washington, DC  
Ambassador Charles Flowerree, Washington, DC  
Ambassador James Leonard, Washington, DC  
Dr. A.J.J. Ooms, Delft, The Netherlands*

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be repeated, helping thereby to restore the Geneva Protocol's ban on use. Threatened sanctions also could affect decisions in countries now thinking about acquiring chemical weapons. By raising the potential costs of using chemical weapons -- and, thus, lowering their utility -- it might lead them to reassess whether to go ahead. Moreover, the prospect of credible sanctions against countries that use chemical weapons is likely to be especially important to ensure widespread adherence to a future chemical weapons ban.

Measures to penalize firms and persons that assist countries to acquire chemical weapons also have a role to play. Though the actual economic impact may often be limited, passage of such legislation again would signal to other governments the seriousness with which the United States views chemical weapons proliferation. This would strengthen diplomatic initiatives to convince US allies and others to take the chemical export control job seriously. Besides, for some foreign firms, the prospect of loss of access to the US market probably would lead them to look closely at questionable export requests and steer clear of them.

With both types of legislation, key questions remain. Should sanctions be automatic, or should they be imposed only if the president so decides? Should they be retroactive, or apply only to future actions? The degree of automaticity of sanctions might track the action sanctioned. In response to chemical weapons use, sanctions should be automatic, subject only to presidential waiver under tightly specified conditions. For penalties against firms, more leeway could be permitted for executive branch determinations, both in light of potential uncertainties about the facts and the seriousness of the offense. Retroactive sanctions against firms will serve only to antagonize the governments of other countries whose support is essential for a multilateral chemical weapons ban. Retroactivity, therefore, is best avoided.

Additional steps should be pursued internationally to create a global presumption that chemical weapons users will pay a heavy price. Last fall, speaking at the United Nations General Assembly, President Mitterrand proposed "an embargo on all deliveries of products, technologies and, more generally, weapons to that state [using chemical weapons]." Building on that statement, American diplomacy should seek an informal private consensus among key allies about what actions to take if chemical weapons are used again. The next Western Summit would be an appropriate occasion for a public statement condemning use of chemical weapons and putting countries on notice that such use will not go unpunished. A similar statement might be made by Bush and Gorbachev at their first summit meeting. Other governments also ought to be urged to speak out now.

These steps to chemical weapons sanctions can start to reverse the damage done by past failure to respond strongly to Iraq's use of chemical weapons. They also can buttress the chemical weapons export control effort. For both reasons, the time has come to make them part of chemical weapons arms control.

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## SOME FORTHCOMING EVENTS

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\* Second 1989 meeting of the UN Group of Qualified Experts on Measures to Uphold the Authority of the 1925 Geneva Protocol and to Support the Conclusion of a Chemical Weapons Convention, Geneva, 31 July to 11 Aug

\* Australian Initiative regional seminar in Canberra, 3-4 Aug

\* Twelfth round of bilateral US-USSR chemical weapons talks, Geneva, 15-24 Aug

\* Summer session of the CD ends 31 Aug

\* International Government-Industry Conference Against Chemical Weapons, Canberra, 18-22 Sep

\* Meeting of Foreign Minister Shevardnadze and Secretary of State Baker, tentatively to be held in Wyoming, 19-20 Sep

\* International Studies Association panel on chemical weapons proliferation, Whittier College, Whittier CA, 11 Nov

\* AAAS Program on Science, Arms Control, and National Security Colloquium, Washington, 16-17 Nov

\* Meeting of the Australia Group, December

\* "Implications of Chemical Weapons for Australia and the Region: Future Problems and Possible Arms Control Solutions," workshop at the Peace Research Centre, Australian National University, Canberra, 14-15 Dec

\* "Lessons of the Iran-Iraq War," 17 Feb 90, and "Chemical Weapons Proliferation or Chemical Disarmament?," 18 Feb 90, AAAS Annual Meeting, New Orleans

*What follows is taken from the Sussex-Harvard rolling CBW chronology. The intervals covered in successive Bulletins have a one-month overlap in order to accommodate late-received information. The basic chronology, which is continuously updated, is fuller and provides complete citations of sources. For access to it, apply to Julian Perry Robinson at SPRU, University of Sussex, Brighton, BN1 9RF, England.*

**1 March** The Director of Central Intelligence, William Webster, testifies to the Senate Foreign Relations Committee that the United States continues "to receive information relative to specific kinds of assistance" to the Libyan CW program from foreign governments. And he says it would take Libya as little as 24 hours to make the Rabta site appear to be a pharmaceuticals factory. Unidentified officials are later quoted in the American press as believing that Libya was now seeking to hire technicians to refit the plant to make pharmaceuticals. {NYT 2 Mar, WT 8 Mar}

During a closed session in the afternoon, so it is reported a week later with attribution to Defense Department and Congressional sources, the Committee is told by the CIA that a 50-strong team from Mitsubishi Heavy Industries was working at the Rabta complex and had set up two production lines for poison-gas canisters in a plant next to the chemical production facility {DetN 8 Mar}. Mitsubishi and the Japanese Government both deny the allegations {Kyodo in FBIS-EAS 10 Mar}.

**2 March** The foreign ministers of West Germany and Italy jointly address the CD once again [see 4 Feb 88]. Hans-Dietrich Genscher, speaking of the Biological Weapons Convention, says that his government "will advocate adequate verification measures to supplement the Convention" at the 1991 review conference. He argues in some detail that the only effective counter to CW proliferation is the projected global treaty, on which he says that it "is possible to solve the problems still obstructing conclusion of a convention by the end of this year," including verification. He states that the FRG carried out its first National Trial Inspection "a few weeks ago," simulating a routine inspection. In preparation now was a simulated "ad hoc check" at a major chemical plant; and, when the time comes for international trial inspections, the "German chemical industry will also make a plant available for that purpose." {CD/PV.491}

**6 March** US Secretary of State James Baker, in a speech at the CFE talks in Vienna on their opening day, says: "I am happy to announce that, as one of his first acts, President Bush has directed our new administration to explore ways to accelerate the removal of our existing chemical weapons from Germany."

Secretary Baker says, further, that the Australian Government has agreed to organize an international conference of governments and the chemical industry on ways to prevent the spread of CW weapons; it is to discuss what he terms "the growing problem of the movement of chemical weapons precursors and technology in international commerce" {official text}. Australian Foreign Minister Gareth Evans issues a press release on the projected conference, indicating that its "date ... and details relating to participation in it are still to be finalized" {CD/897}.

**7 March** The British government, in a written response to a parliamentary question, says: "We do not believe that a chemical weapons non-proliferation treaty along the lines of the NPT would effectively remove the threat of chemical weapons. With other states we are, therefore, pursuing an effectively verifiable global convention, completely prohibiting the development, production, acquisition, stockpiling or retention, and transfer of chemical weapons." {HansC 7 Mar}

**7 March** French CD Ambassador Pierre Morel tells a press conference in Geneva that France will shortly be conducting a National Trial Inspection; 6 countries have already done so, and up to 15 more are expected. {NYT 8 Mar}

**10 March** The German Democratic Republic submits to the CD a report on its National Trial Inspection, which had been conducted the previous autumn at a production-unit processing dimethylaminoethanol in a pharmaceutical multipurpose facility of Arzneimittelwerk Dresden. {CD/899}

**10 March** The *New York Times*, once again with attribution to unidentified US officials, now publishes a story about Egypt having "made a major effort to improve its ability to produce poison gas by acquiring the main elements of a plant from a Swiss company" {NYT 10 Mar}. The plant is said to be for sarin nerve gas. The company is named as Krebs AG of Zurich, which is reported to have been warned by Swiss authorities in 1987 and then, a week ago, asked by them to sever connections with the "pharmaceutical factory" under construction near Cairo, at Abu Zaabal; which it did {FT 11 Mar}. [It is later reported that Krebs AG, again at the urging of Swiss authorities, had broken off negotiations with Iran for construction there of a production plant for phosphorus pentasulfide, apparently because of US belief that the pentasulfide was intended as precursor for amiton {C&EN 27 Mar, NYT as in TL 10 May}.]

The President of Egypt, Hosni Mubarak, who is in Brussels, denies the report; he is quoted as saying: "We are against chemical weapons and, of course, don't make any such factories" {AP as in IHT 11-12 Mar}. The Egyptian Ambassador to Israel, Muhammad Basyuni, says in an interview: "In an official capacity and in my capacity as a representative for the Arab Republic of Egypt ... I like to affirm that Egypt does not have chemical weapons and does not produce such weapons" {Jerusalem radio in FBIS-NES 10 Mar}. Later, President Mubarak reportedly says: "The Americans are making a grave mistake when they accuse Egypt of acquiring chemical weapons. We don't tell lies. We have no chemical weapons. You should not put us on the same level as Libya" {WP 1 Apr}.

**11 March** Reporting US State Department concerns about the proliferation of CW weapons, the *Washington Post* quotes unidentified US officials as saying "privately that the United States would like to see international negotiations produce a worldwide list of firms that would be certified as legitimate producers of pesticides or pharmaceuticals or other chemical products and that would be able to buy equipment and materials for their production on world markets." The report continues: "But obtaining this certification would require these firms to submit to periodic, internationally supervised inspections to ensure that their facilities are not being used to produce chemical warfare agents." {WP 11 Mar}

**13 March** Japan submits to the CD a report on the on-site inspections conducted as its NTI [see 7 Dec] during the autumn at three (unidentified) chemical production facilities. {CD/CW/WP.228}

**13 March** An unidentified British official tells *Arms Control Reporter* that the concept of writing a "pause" into the CWC was being discussed by the United States and other countries; such a pause would comprise an option of withdrawal from the treaty 4-5 years after its entry into force. During the interval states-parties would be able to judge from experience how well the compliance-verification system was working, and they would also know whether "the countries which posed a proliferation danger" were joining the treaty. {ACR no 3-89 at 704.B.375}

**15 March** Czechoslovakia submits to the CD a report on its National Trial Inspection [see 25-26 Jan], which had been conducted at a plant for continuous production of dimethyl phosphite and its discontinuous processing into the flame-retardant Spolapret OS, of which some 500 tons are produced there annually. {CD/900}

**15 March** In the FRG, new export control legislation concerning CBW weapons [see 15 and 17 Feb] is approved in Cabinet {FAZ 16 Mar, TZ 31 Mar}. It passes swiftly through the Bundestag and the Bundesrat, entering into force on 1 April {*Wirtschaftswoche* 28 Apr in FBIS-WEU 16 Jun}.

**16 March** Finland informs the CD of an agreement recently concluded with Switzerland under which the two countries will cooperate in developing methods that can be standardized for use in CWC compliance-verification. Further, Finland reiterates to the CD the offer which Foreign Minister Kalevi Sorsa had made at the Paris Conference to "train each year, free of charge, chemists from the developing world in the use of technical methods and instruments relevant to the verification tasks of the convention." {CD/PV.495}

**22 March** In Algeria, President Chadli Bendjedid says to the visiting Federal German Minister for Economic Cooperation that Libyan leader Gadhafi has agreed to put the chemical factory at Rabta under international control; experts from Algeria, the FRG and Italy should join the management of the plant. {FAZ 23 Mar}

**22 March** Australia provides the CD with a compilation of data about its CW status and its production of scheduled chemicals, following the CD/828 guidelines proposed by the FRG [see 14 Apr 88] and the examples set by the Netherlands [see 19 Jul], Britain [see 16 Aug], the FRG [see 16 Aug] and the GDR [see 12 Sep]. Included also is information about the Australian CW-defense research establishment. {CD/907}

**22 March** In testimony to the Congress on progress in the Chemical Demilitarization Program, the US Army says that its first fullscale facility -- the Johnston Atoll Chemical Agent Disposal System -- is nearing the start of its 16-month Operational Verification Test; and that requests for proposals to build the first stateside disposal facility, at Tooele Army Depot, have recently been issued. {Prepared statement of Michael Owen before the HDAS}

In testimony on the Chemical Retaliatory Program, the Defense Department says that production of the Bigeye bomb and the binary MLRS warhead, complementing the binary artillery projectile currently in production, will not begin until 1991 and 1992 respectively; further, "our recent classified report to the Armed Services Committees describes our plan for intensifying our research and development efforts for a long range standoff CW system." {Prepared statement of Thomas Welch before the HDAS}

**23 March** On the proposal of Iran, the CD observes one minute of silence in memory of the victims of chemical weapons at Halabja one year previously. {CD/PV.497}

**26 March** The *New York Times* reports an unidentified US official as saying that there was no firm proof that India or Pakistan are developing or have achieved CW capability [see 22 Feb]. {NYT 26 Mar}

**28 March** The Netherlands tells the CD that it is preparing to "test certain challenge inspection procedures in military establishments" and that it has "started an initial modest research programme on mobile verification equipment." Further, it puts forward suggestions on ways for reducing the time required for completing the chemical treaty. It remarks that some matters might be left for the Preparatory Commission and the Technical Secretariat to settle; and the negotiating process itself might be made more efficient by alternating 4-6 week periods of negotiation with 3-5 week periods of preparatory work. It further asks whether as much as 10 years really needed to be allowed under the treaty for completion of the requisite destruction processes: "In fact, would it not be worth considering creating the technical facilities that would enable parties to shorten the destruction period?" {CD/PV.498}

**28 March** Viet Nam informs the CD that "it neither produces nor holds any chemical weapon," and that it "supports the Australian initiative for the nonproliferation of chemical weapons in Southeast Asia and the Pacific." {CD/PV.498}

## GLOSSARY OF ABBREVIATIONS FOR NEWS CHRONOLOGY

ACR	<i>Arms Control Reporter</i>	DPA	Deutsche Presse Agentur	JDW	<i>Jane's Defence Weekly</i>
AFP	Agence France Press	DTel	<i>Daily Telegraph</i> (London)	JPRS	Joint Publications Research Service (Washington)
AP	Associated Press	FAZ	<i>Frankfurter Allgemeine Zeitung</i>	KZ	<i>Krasnaya Zvezda</i>
BS	<i>Baltimore Sun</i>	FBIS	Foreign Broadcast Information Service (Washington)	LAT	<i>Los Angeles Times</i>
BT-Drs.	<i>Bundestag-Drucksache</i>	FR	<i>Frankfurter Rundschau</i>	ND	<i>Neues Deutschland</i>
C&EN	<i>Chemical &amp; Engineering News</i>	FT	<i>Financial Times</i> (London)	NYT	<i>New York Times</i>
CBW	Chemical/biological warfare	G	<i>Guardian</i> (London)	SFC	<i>San Francisco Chronicle</i>
CD	Conference on Disarmament	HansC	<i>Hansard</i> (Commons)	SovN	<i>Soviet News</i> (Soviet Embassy, London)
CD/	CD document series	HASC	House Armed Services Committee	TL	<i>Times</i> (London)
CR	<i>Congressional Record</i>	HC	<i>House of Commons Papers</i>	TZ	<i>Tageszeitung</i> (West Berlin)
CW	Chemical warfare	HDAS	House Defense Appropriations Subcommittee	UN	United Nations
CWC	The projected Chemical Weapons Convention	IHT	<i>International Herald Tribune</i>	WP	<i>Washington Post</i>
CurPol	<i>Current Policy</i> (US State Dept)	Ind	<i>Independent</i> (London)	WT	<i>Washington Times</i>
DetN	<i>Detroit News</i>	izv	<i>Izvestiya</i>	WSJ	<i>Wall Street Journal</i>
DN	<i>Defense News</i>			ZV	<i>Zarya Vostoka</i> (Tbilisi)
DW	<i>Defense Week</i>				



**29 March** Under the auspices of the CD Ad Hoc Committee on Chemical Weapons in Geneva, an informal meeting is held for exchanges of information on the National Trial Inspections. The number of countries participating in the NTI project has now risen to 18, the additions since the previous information exchange meeting [see 7 Dec] being Austria, Brazil [see 14 Feb], Czechoslovakia [see 15 Mar] and France [see 7 Mar]. Of the 18, only Austria and the Netherlands have still to conduct their planned inspections. Several other participating countries have yet to submit their reports. {CD/CW/WP.236}

**30 March** Kenya repeats at the CD the declaration which its Foreign Minister had made in January at the Paris Conference: "Kenya has no capacity to manufacture chemical weapons. Kenya does not desire to acquire such a capacity, and Kenya will neither purchase chemical weapons nor use them on humans or on any living thing .... Kenya ... will sign and ratify the convention as soon as it is concluded." {CD/PV.499}

**30 March** The UK tables a paper at the CD on a system for "Ad Hoc Inspections" to augment the routine and the challenge systems for CWC compliance verification. The system is modelled on Stockholm-Document inspections, and would be applicable, on the initiative of States Parties rather than the International Authority, to both civil and military facilities, operating under a quota system whereby each State Party would be obliged to receive a certain number of such inspections each year. {CD/909, CD/PV.500}

**31 March** The Comptroller General of the United States transmits to the Secretary of Defense the summary of the findings of an expert panel concerning the Bigeye binary munition. The panel had been convened at the request of the Defense Department Inspector General. The panelists concluded that the General Accounting Office had been correct in its evaluation that major developmental issues affecting the weapon remained unresolved [see 20 May 88], and were strongly critical of the way the Bigeye program had been managed. One panelist had observed that the weapon "seemed to have no real home or advocate within DOD at a high level." {DW 17 Apr, C&EN 1 May}

**April** *NATO Review* publishes an article by the Foreign Minister of France, Roland Dumas, in which, after speaking of "the considerable superiority of the USSR in chemical weapons," he says: "As far as Europe itself is concerned, a counterbalance to that superiority may be found in the general deterrent posture of the West, to which the United States' chemical stockpile contributes. This arsenal of older-type weapons is soon to be replaced by binary weapons stored exclusively on American soil. France, for its part, is carrying out research aimed at maintaining a capability in the old technology but, in view of present circumstances, is not intending to go beyond that." {*NATO Review* Apr 89}

**4 April** Austria tells the CD in Geneva that export controls adopted in the interests of CW nonproliferation "ought to become part of the future global convention and be internationally supervised, possibly with the help of a multilateral information centre which could assist countries in establishing their own export control systems, arrange for the exchange of information and inform all parties concerned of disruptions to enable them to react accordingly. Such a centre could be incorporated in the verification system of a global convention banning all chemical weapons." The CD is also informed that Austria has "recently introduced export controls on 12 relevant chemicals which can serve as key precursors in the production of chemical weapons." {CD/PV.500}

**4 April** The US National Trial Inspection, conducted with Akzo Chemicals Inc of Gallipolis Ferry, West Virginia [see 21-23 Feb], is described to the CD by Ambassador Friedersdorf. The process inspected was production of dimethyl methylphosphonate from trimethyl phosphite, some of the product being used at the facility to make a polymeric flame-retardant that also falls within Schedule [2]. A detailed report is to be submitted to the CD later.

Ambassador Friedersdorf also informs the CD that the United States had destroyed about 15 million pounds of CW agents since 1970 and that it planned to destroy the remainder of its stockpile of unitary CW weapons by April 1997. {CD/PV.500}

**4 April** Australia circulates at the CD a report on its National Trial Inspection, introducing it two days later. The NTI had been conducted during October/November 1988 at the multipurpose complex of an unidentified agrochemical company. The process inspected was production of the herbicide Trifluralin from 2-chloro-1,3-dinitro-5-trifluoromethylbenzene, the latter compound being treated for the purposes of the NTI as a Schedule [2] chemical and the process inspected as a declared activity. {CD/910, CD/PV.501}

**4 April** Finland provides the CW Ad Hoc Committee of the CD with a report on its National Trial Inspection, which had been conducted during March 1989 at the multipurpose plant of an unidentified company producing carbamate pesticides. {CD/CW/WP.233}

**5 April** In Geneva, under the auspices of the CD Ad Hoc Committee on Chemical Weapons, two days of open-ended consultations on the National Trial Inspections are concluded [see 29 Mar], the discussion of results and experiences serving to facilitate work on the next stage envisaged, namely Multilateral Trial Inspections. {CD/CW/WP.237}

**5 April** In Moscow, *Krasnaya Zvezda* publishes an interview with Lt-Gen S V Petrov, Chief of Chemical Troops of the USSR Ministry of Defense, in which he says: "the Soviet Union's announcement of its chemical weapons stocks was met in the West with apparent distrust. As previously, the West figures a much higher and clearly invented figure -- up to 300,000 tons. I want to assert once again that the size of our toxic chemical agent stocks does not exceed 50,000 tons. This volume includes all of our stocks - fitted out as munitions or stored in containers. We do not have any binary chemical weapons at all." {KZ 5 Apr in FBIS-SOV 14 Apr}

**6 April** Belgium introduces into the CD its report on the Belgian National Trial Inspection, which had been conducted at an unidentified multi-purpose facility where scheduled chemicals were not, however, being produced. The primary aim of the inspection had been "to make sure that it is possible to check that no activity prohibited by the convention is taking place in a facility which has legitimately not been declared." {CD/PV.501, CD/917}

**6 April** UK Prime Minister Thatcher, while receiving President Gorbachev during his official visit to London, raises with him the discrepancy between the Western and the Soviet figures for the Soviet CW stockpile [see 5 Apr] {HansC 11 Apr}. Speaking to the press, President Gorbachev says that more exchanges of experts and specialists should be arranged if Mrs Thatcher was not satisfied with his frankness; and USSR Foreign Ministry spokesman Gennadiy Gerasimov says: "We invite British experts to check on chemical weapons and arsenals. We do not want to hide anything" {Press Association dispatch 6 Apr in FBIS-WEU 7 Apr}. However, at a press briefing in Moscow on 20 April, the Foreign Ministry states: "If doubts about the figure announced by the USSR are not the result of misunderstanding, we will be ready to have our information checked, naturally, on the basis of reciprocity from the United States. Such mutual checks could be conducted even before the signing of the Convention" {TASS 20 Apr in FBIS-SOV 21 Apr}. The Ministry statement continues: "We are holding consultations with the United States on the verification procedures within the framework of a confidential bilateral exchange of data" {KZ 22 Apr in FBIS-SOV 26 Apr}.

**6 April** The US Defense Department releases the latest annual report to the Congress by its Directorate of Operational Test and Evaluation. On the Bigeye binary chemical munition the report states that further testing is needed before the weapon can go into full-rate production. "Low-rate initial production to create articles for testing should be conducted, and further operational testing should be conducted on production-representative Bigeye weapons to determine, prior to a full-rate production decision, whether or not the system's deficiencies and limitations to the scope of testing have been satisfactorily resolved." The OTE report questioned whether the delivery techniques prescribed for the weapon might not increase pilot/aircraft vulnerability in combat. And it said: "While the ... criteria for agent deposition density were met, the delivery accuracy and reliability criteria were not." [See also 31 Mar] {DN 17 Apr, JDW 27 May}

**7 April** The FRG circulates to the CD a report on its National Trial Inspection [see 2 Mar], introducing it on 13 April. The inspection had been conducted on 9 February at an unidentified multi-purpose facility producing for sale an unidentified Schedule [2] chemical on a scale of about 100 tonnes per year, corresponding to about 10 percent of the theoretical capacity. The aim of the NTI had been "to clarify to what extent an effective control of the quantity and use of certain substances for civilian purposes and an on-site inspection of the facilities which produce and process them are compatible with a feasible control system which takes account of the legitimate economic interests of the industry with regard to the protection of confidential information and data." {CD/912, CD/PV.503}

**9 April** In Tbilisi, Georgia, there are many casualties when a large nationalist demonstration in front of Government House is dispersed in the early hours of the morning by Army and Interior Ministry (MVD) troops: 16 people dead on the streets, several subsequent deaths, and more than 250 people hospitalized {ZV 11 Apr in FBIS-SOV 24 Apr, *Argumenty i Fakty* 22-28 Apr in FBIS-SOV 27 Apr}. Several dozen of them have symptoms attributed to poisoning {ZV 19 Apr in FBIS-SOV 27 Apr}.

On 4 May a Foreign Ministry spokesman tells the press that, according to a USSR Ministerial Commission, a "modified version" of the tear gas generally used by MVD forces had been employed, one which could not cause deaths in the open air {AFP as in IHT 5 May}. Earlier, this agent had been described as Cheryomukha, and identified as chloroacetophenone (CN) {KZ 22 Apr in FBIS-SOV 24 Apr}. Later, the Georgian investigatory commission is told by one of its subcommissions that laboratory test results suggested that the second, as yet unidentified gas, whose use was widely suspected but unconfirmed officially, was CS {ZV 7 May in FBIS-SOV 18 May, ZV 11 Jun in FBIS-SOV 22 Jun}.

**10 April** In the FRG, Parliamentary State-Secretary Wimmer writes in response to a parliamentary question: "The US chemical weapons stored in the FRG are in a highly safe condition. There are no 'leakers'." {BT-Drs.11/4353}

**11 April** The Federal German Government, responding to a parliamentary *grosse Anfrage*, states that it will not abandon its practice of secrecy regarding the storage locations of nuclear and chemical weapons. {BT-Drs.11/4328}

**11 April** France circulates at the CD a report on its National Trial Inspection [see 7 Mar], which had been conducted during March 1989 at a multipurpose plant within an unidentified industrial complex where a large number of chemicals were in production. {CD/913}

**12 April** At the CD in Geneva, in the Ad Hoc Committee on Chemical Weapons, the British delegation tables a paper on the problem of accommodating novel toxic compounds within the non-production-verification system. The example of perfluoroisobutene is used to illustrate the problem. {CD/CW/WP.239}

**13 April** Norway informs the CD that it has imposed export controls on 13 dual-purpose chemicals. {CD/PV.503}

**13 April** Poland reaffirms to the CD the undertaking given by Foreign Minister Tadeusz Olechowski at the 43rd UN General Assembly that Poland would join the CWC as soon as it was open for signature [see also 11 Jan]. "In the meantime we are making all the necessary modifications of our internal law. At the beginning of January 1989, for example, new strict controls on the export of dual-purpose chemical agents were introduced." {CD/PV.503}

**13 April** Egypt addresses the question of sanctions in the course of a detailed position statement to the CD on outstanding issues in the CWC negotiations. "Egypt ... would like to see provisions containing specific sanctions should any State (party or non-party) violate the provisions of the convention. We would also like to have guarantees to ensure that sanctions are applied effectively and without discrimination or delay. Sanctions should not be construed as a mere device for punishment. In our view the reference to sanctions encompasses a more comprehensive approach that could provide requisite elements of security."

Further, Egypt advocates the initiation as soon as possible of preparatory work for a special UN conference at which the draft CWC would be considered. It states that it is "imperative that certain key countries, including all those in the 'hot' regions, should become parties simultaneously." {CD/PV.503}

**13 April** Finland tells the CD about the Finnish NTI [see 4 Apr]. "The main purpose of the trial inspection was to try to find evidence of the previous production of a chemical which was not currently produced. The inspected facility produces two structurally closely related pesticides, one of them in large quantities and the other in a relatively small quantity, and only during short production periods during the year. The latter was chosen to be a mock Schedule [1] chemical. The production of this chemical had been stopped two months before the inspection. The most important result of the inspection was that it revealed clear proof of the now ceased production of the mock Schedule [1] substance. This proof was obtained by analysis of wipe samples, air samples and waste samples, while the samples taken from the process did not bear any traces of the previous production." {PV/CD.503}

**15 April** On this day annual declarations of information to the UN are due, in accordance with the agreement reached at the second Biological Weapons Convention Review Conference. Bulgaria, China, Czechoslovakia, Denmark, the FRG, France, Sweden, the US and the USSR submitted declarations.

**17 April** France makes detailed proposals to the CD regarding the structure, tasks and organization of the projected CWC Scientific Advisory Council. {CD/916}

**18 April** GDR Foreign Minister Oskar Fischer, addressing the CD, proposes "a meeting of the CD at foreign minister level to set the course for a purposeful effort to complete the Convention." Thus assembled, the foreign ministers "could concentrate on key issues, i.e., challenge inspections, the composition and decision-making of the Executive Council of the future organization for chemical disarmament, and sanctions in cases of violation of the Convention."

He offers a facility of the pharmaceutical plant VEB Arzneimittelwerk Dresden for an international trial inspection [see 5 Apr].

He raises the idea of experimental challenge inspections, including ones in the military field, continuing: "We consider that trial inspections 'on challenge' might be undertaken in a bilateral as well as a multilateral framework. For example, the GDR would be ready to prepare such an inspection together with the FRG and carry it out on the basis of reciprocity."

He reiterates the GDR proposal for an international instrument that would establish a zone free of chemical weapons in Central Europe. {CD/PV.504}

**18 April** At the CD, US Ambassador Friedersdorf expresses concern that more tangible results have not been achieved in the CW negotiations, adding: "our delegation was concerned that, with the new US administration reviewing arms control and disarmament policy, progress in the chemical weapons negotiations might outdistance our delegation's instructions. That has not proven to be the case. On almost all issues examined in our working groups, there is such wide divergence of views that consensus seems as distant as it was before the Paris Conference."

He addresses one of the issues where a US lead has come to be expected. Trying to decide on schemes intermediate between routine and challenge verification -- such as the West-German "ad hoc checks" [see 25 Jan 88] or the British "ad hoc inspections" [see 30 Mar] -- will remain premature, he says, until agreement has been reached on Article IX setting out modalities for challenge inspections. He describes mandatory, short-notice, on-site inspection as the "linchpin" of the projected CWC verification regime, adding that "until we all have acknowledged that fact, there will be no firm foundation for the resolution of other verification issues." {CD/PV.504}

**18 April** Iraq calls at the CD for the declaration of the Middle East as a zone free of nuclear, chemical and all other weapons of mass destruction, with all countries of the region becoming parties to the nuclear-weapons Non-Proliferation Treaty. {CD/PV.504}

**23 April** Prime Minister Papandreou of Greece and President Zhivkov of Bulgaria make a joint declaration aiming to establish their territories as a zone free of nuclear and chemical weapons. {ND 26 Apr, CD/919}

**24 April** The British deputy supreme commander of NATO forces in Europe, General Sir John Akehurst, tells the press that disagreement with the USSR over the size of Soviet CW stocks [see 6 Apr] must not be allowed to stand in the way of early agreement. "It is to our advantage to get a chemical weapons treaty even if we cannot agree on the size of the Soviet stockpile," he said, adding that he was confident that "the Soviet Union will hold to any agreement that it will sign." {G 25 Apr}

**25 April** At a plenary session of the CD, Ambassador Hytlenius of Sweden, taking stock of progress towards the CWC during the Spring session, concludes that progress had been far too modest, given the urgency expressed at the Paris Conference [see 11 Jan], this raising the question of "whether there exists a gap between declared intent and real commitment." {CD/PV.506}

**25-26 April** In the FRG, at the invitation of the Environment Minister of Lower Saxony, experts convene for a two-day meeting on the hazards presented by material remnants of war, especially CW munitions remaining from the two world wars.

**27 April** The CD hears a detailed analytical account by the Chairman of its Ad Hoc Committee on Chemical Weapons, Ambassador Pierre Morel, of the results of his committee's work during the Spring session. The account is based on the (written) informal interim report which, on the day previously, he had introduced into the Committee as a "Statement by the Chairman." He describes what was accomplished thus: "In a word, I would say that it was work in depth. We worked on the foundations, and if we have not really seen the building rise into the sky, it must be said that without solid foundations, nothing can be done." He explains that his interim report, which had been drawn up in conjunction with the chairmen of the five working groups, is designed to promote that work in national capitals which is now essential to further pro-

gress. He is unrepentant of the greatly increased workload which his "thematic" approach [see 7 and 17 Feb] has imposed on delegations: "*labor omnia vincit improbus* -- 'never-flinching labour proved lord of all'," he quotes from Virgil. {CD/PV.507}

**27 April** The CD Group of Socialist Countries presents its evaluation of progress towards the CWC during the spring session of the CD: "Certain strides have been made concerning a number of issues, in particular the annex on chemicals, the regime for laboratory synthesis of schedule [1] chemicals, the confidentiality annex, a number of issues regarding the future organization, assistance for protection against chemical weapons, as well as some final clauses .... It is deplorable that no noticeable progress has been achieved on the outstanding key problems." {CD/PV.507}

**28 April** In Geneva the Spring session of the CD ends. Commenting to the press, the new head of the Soviet delegation, Sergei Batsanov, regrets the absence of any decisive breakthroughs during the session, but says that "the foundation has been laid for the adoption of compromises in the course of the summer session" {TASS 28 Apr in FBIS-SOV 2 May}. The Summer session is due to begin on 13 June.

**1 May** In Washington, the visiting Japanese Minister of International Trade and Industry, Hiroshi Mitsuzuka, reportedly tells the US President's National Security Adviser, Brent Scowcroft, that the Japanese Government is expanding its export controls on materials that could be used in the production of chemical weapons. Tighter regulations would now apply to 44 items. Also, there will be restrictions on the freedom of Japanese firms to participate in overseas chemical plants that could be converted to production of chemical weapons [see 17 Jan, 3 Feb and 15 Feb]. {Kyodo in FBIS-EAS 2 May}

**2 May** The British Defence Ministry includes the following in its annual defence White Paper, released today: "We find it difficult to accept a number of the Soviet Union's statements about its CW activities. We strongly suspect that, contrary to Soviet claims, production of CW agents in the Soviet Union is still continuing and the testing of chemical weapons has not ceased. We estimate the size of the Soviet stockpile (in terms of weight of agents alone, and excluding the weight of the weapons in which they are encased) to be several times higher than the 50,000 tonnes claimed. We believe that the stockpile includes types of agent that were not disclosed to our experts during their visit to Shikhany, and that research and development into new agents continues. Finally, contrary to Soviet claims, we have good reason to believe that the Soviet Union has stationed chemical weapons in Eastern Europe and that such weapons have also been produced by other members of the Warsaw Pact." {*Statement on the Defence Estimates 1989*, vol I}

President Gorbachev thus stood accused as a liar. The White Paper provided no substantiation for any of these charges.

**2 May** The Senate Governmental Affairs Committee begins hearings on export control legislation. Richard Perle, formerly Assistant Secretary of Defense for International Security Policy, testifies that allies of the United States, particularly the FRG, had ignored hundreds of diplomatic protests levelled by the USA in recent years over exports of weapons technologies, including CW technology, to the Soviet Union and the Third World. Deputy Assistant Secretary of Commerce for Export Administration, James LeMunyon, testifies that he does not know of any plans to change US export laws relating to CW weapons. {NYT 3 May}

**4 May** An Afghan Foreign Ministry spokesman, responding to rumors about use of CW weapons by Afghan armed forces in the region of Jalalabad, says: "The Republic of Afghanistan has acquired no chemical weapons of any type whatsoever. It does not



and will not in the future seek to acquire such weapons, the use of which it considers a crime against humanity." {Kabul domestic service 4 May in FBIS-NES 5 May}

**4 May** Subcommittees of the House Foreign Affairs Committee hold joint hearings on CW weapons. Committee Chairman Dante Fascell states their purpose thus: "In Congress, there are a variety of legislative remedies pending [see 25 Jan] ... such as banning chemical weapons production, establishing sanctions against country users, and regulating suppliers of chemical weapons materials and technology .... Over the past few months, the Bush administration has just completed its own review of the direction of our chemical weapons proliferation policy. We meet here today to receive from the executive branch the results of this review and its views on the various legislative approaches to redressing the problem of chemical weapons proliferation and use." {Prepared statement}

The State Department testifies that it accepts "in principle that some form of sanctions, if appropriately formulated, would give the Administration an additional instrument against countries that use CW [weapons], and companies that aid proliferation .... Application of such sanctions must be subject to executive discretion, and there must be no automatic triggering or retroactive application." {Prepared statement of H Allen Holmes, Assistant Secretary of State; WP 5 May}

**4 May** Secretary of State Baker speaks as follows at the Center for Strategic and International Studies in Washington: "... in the areas of ballistic missile and chemical weapons proliferation, we have only begun to establish new international rules addressing these problems -- rules to which the Soviets have not, as yet, agreed. It will be an objective of mine in Moscow next week to determine whether we might develop a framework for working together to control a phenomenon which threatens us all." {CurPol no 1170}

**5 May** In Moscow, *Pravda* publishes a reaffirmation by the Chief of Soviet Chemical Troops, Lt-Gen S Petrov, that the USSR does not possess chemical weapons outside its national territory and that there are no stocks of chemical weapons in the other Warsaw Treaty countries [see 2 May]. {*Pravda* 5 May in FBIS-SOV 11 May}

**9 May** The Senate Foreign Relations Committee begins hearings on CW export control legislation. The Chemical Manufacturers Association testifies as follows: "A more restrictive US regime would help prevent the further proliferation of CW materials only if all countries with significant potential CW manufacturing capabilities participate in the new restrictions. New unilateral or more extensive sanctions for violations of the US export control laws are not likely to have any positive effect on CW proliferation." The CMA testimony continues: "... the existing export control system works well. Some fine-tuning ... may be necessary, but extensive changes are not required. CMA strongly believes that action on a multilateral basis, first with our Western Allies and then with others, is more likely to provide positive restraints on CW proliferation .... Competitive and legitimate business concerns can be addressed in an effective global system for restricting chemical weapons production, proliferation and use." {Prepared statement of Dr Will Carpenter}

**9-11 May** In Paris the Australia Group [see 12-13 Dec 88] holds the first of its scheduled 1989 meetings. Agreement is reached to add 6 more chemicals to the warning list, namely sodium cyanide, tris-ethanolamine, phosphorus pentasulfide, diisopropylamine, diethylaminoethanol and sodium sulfide.

**10 May** In West Germany, a hundred Federal and State police officers raid the headquarters in Lahr of Imhausen-Chemie GmbH and of its subsidiary in Bochum, the Gesellschaft für Automation.

The head of the latter company, who was formerly chairman of the parent company, is arrested on suspicion of violating export laws by having acted as moderator in the planning and building of a CW-weapons production plant at Rabta, Libya [see 1, 9, 10-25, 16 & 25 Jan, 27 Feb]. {G & NYT 11 May}

**10-11 May** Secretary of State James Baker is in Moscow for talks with Foreign Minister Shevardnadze, meeting also with President Gorbachev. A Soviet account includes the following on CW: "A serious and principled exchange of opinions on the problem of a complete ban and elimination of chemical weapons was held. During it both sides emphasized the priority importance of concluding a comprehensive, global and effectively controlled international convention on this subject.

"The sides agreed that the delegations of the USSR and the USA will hold in Geneva a new round of bilateral consultations on banning chemical weapons in the quest for mutually acceptable solutions on the outstanding questions, including bilateral measures of confidence building in connection with the formulation of the convention. This round of consultations will be started in the first days of the summer session of the Conference on Disarmament at Geneva whose formal opening is fixed for June 13, 1989.

"The sides also pointed to the closeness of the positions of the two countries regarding the problem of nonproliferation of chemical weapons, specifically as concerns the need for joint actions to check the present unfavorable tendencies in this field. It was agreed that representatives of the two countries will hold a regular meeting for a detailed discussion of the problem." {SovN 17 May; TASS in FBIS-SOV 11 May}

**12 May** In Thailand, an article by former Prime Minister Khukrit Pramot is published about the Libyan chemical plant at Rabta [see 10-25 Jan], where it says 300 Thai workers are employed. The article states that the US Government has said it will give Thailand advance notice if it decides to bomb Rabta [see 21 Dec 88]. But Thailand has also been threatened, the article continues, by Libya, which has said it will expel all 75,000 Thais currently in Libya if those at Rabta are evacuated. {*Siam Rat* 12 May in FBIS-EAS 16 May, *Thai Rat* 10 & 11 May in FBIS-EAS 11 May, *The Nation* in FBIS-EAS 11 May}

An unidentified Thai Government official reportedly states that withdrawal of Thai labor at Rabta had been urged by the US Government in a letter to the Foreign Ministry shortly before the visit of Vice-President Dan Quayle on 3 May, and that the letter had said Thailand provided equipment as well as manpower for the Rabta plant {*Bangkok Post* 13 May in FBIS-EAS 15 May}. Later, the State Department says that the US Government had made "a series of demarches escalating in degree of forcefulness" to the Thai Government on the issue since October 1988. A high-level meeting of Thai officials to discuss responses to the twin pressures is held on 15 May. {WP 1 Jun}

**12 May** President Bush, in his first major public address on East-West relations, one that follows a 5-month policy review, states: "We're going to continue to seek a verifiable global ban on chemical weapons." {Official text}

**16 May** In the US Senate a bill to implement the Biological Weapons Convention, S.993, is introduced by Senators Kohl, Pryor, Hatfield, Glenn and Leahy {CR 16 May, pp S5377-9}. It is similar to H.R.237 introduced into the House by Rep Kastenmeier [see 3 Jan].

**17 May** British Defence Secretary George Younger, in testimony before the UK House of Commons Defence Committee, repeats but then repudiates the assertion in his annual defence White Paper that other members of the Warsaw Pact besides the USSR have produced chemical weapons [see 2 May]. Asked whether any of those countries "have gone to the production stage," he

replies: "We have no knowledge of that but we believe [some of them] have gone to the development stage." {HC 483 of 88-89}

**17 May** The US Senate Governmental Affairs Committee and its Permanent Subcommittee on Investigations hold hearings on BW proliferation. Assistant Secretary of State for Politico-Military Affairs Allen Holmes speaks in his prepared statement about the 1979 outbreak of anthrax in Sverdlovsk: "After ten years, we can probably never know with certainty what happened. At this stage, it is more important to resolve our concerns about the very unusual military biological facility at Sverdlovsk that was reportedly the source of the outbreak. That facility still exists and raises serious apprehensions."

Deputy Assistant Secretary of Defense for Negotiations Policy Jim Hinds says in his prepared statement: "When the BWC was signed in 1972, four states were believed to possess biological weapons. Today we judge that at least ten countries have confirmed or suspected offensive BW programs. Most of these are in the Third World. Some programs are still in the research and development stage. Weaponization and stockpiling may be years away. But other countries, such as the Soviet Union, currently have significant offensive capabilities."

**18 May** In the US House of Representatives, Congressman Porter, with 80 co-sponsors, introduces a bill, "The Chemical and Biological Weapons Non-Proliferation Act of 1989," H.R.2426, requiring the Department of Commerce to issue new export controls aimed at stopping the export of chemicals and technology easily used for production of CW weapons. {CR 18 May, p H2017}

**23 May** In West Germany, around the US Army depot at Fischbach/Pflaz, there is a sit-in by some 500 demonstrators protesting US storage of CW weapons in the Federal Republic. {TZ 24 May, DPA as in FR 24 May, *Pirmasenser Rundschau* 26 May}

**24 May** In Tbilisi, Georgian SSR, teams of French and American doctors, the former from *Médecins sans Frontières*, the latter from Physicians for Human Rights, who had been working with Georgian doctors and health officials tell journalists of new findings about the gas poisoning cases [see 9 Apr]. In collaboration with the Americans, a local university laboratory had detected chloropicrin in a spent canister said to have been recovered from the site of the demonstrations; and much of the symptomatology was consistent with chloropicrin. {TASS 24 May FBIS-SOV 2 Jun, WT 24 May, NYT 25 May, WP 26 May, Sci 9 Jun} [Note: mixtures of CN and chloropicrin dissolved in solvents such as chloroform were once widely used as CW-defense training agents by the military of many countries, including the Soviet Union and the United States {see the description of agent CNS in *Department of the [US] Army Field Manual FM 3-9*, Oct 75}.]

**25 May** In Washington DC, the Chemical Manufacturers Association in conjunction with the US Government holds a seminar for member companies, other trade associations and professional organizations in order to acquaint them with the status of the chemical treaty talks and the CW proliferation issue. The seminar also serves to bring the industry's concerns before a Congressional and governmental audience. {C&EN 29 May}

**28 May** The Egyptian Minister of State for War Production, Dr. Jamal al-Sayyid Ibrahim, states in a newspaper interview today that Egypt and Iraq are cooperating in the manufacture of anti-CW protective devices but are not cooperating in the production of CBW weapons. {WAKH 28 May in JPRS-TAC 14 Jun}

**29-30 May** NATO Heads of State and Government meet in Brussels. President Bush states that "the Alliance should support efforts to move ahead toward an effectively verifiable global chemical weapons ban. We must achieve a global chemical weapons ban as quickly as possible" {as quoted by Roger Harrison, Deputy

Assistant Secretary of State, in his prepared statement before a subcommittee of the SASC, 8 Jun}. The *Comprehensive Concept of Arms Control and Disarmament* which the meeting adopts states that the "allies are committed to conclude, at the earliest date, a worldwide, comprehensive and effectively verifiable ban on all chemical weapons."

**7 June** The UK House of Commons Defence Committee, in its report on the annual defence White Paper [see 2 May], states its position on the CWC negotiations in the following terms: "We said last year that 'although the possibility of clandestine violations of a convention means that a prohibition on chemical weapons could not of itself entirely remove the problem posed by such weapons, we believe that, provided NATO maintains its chemical defences at a realistic level, a convention could contribute significantly to our security.' That remains our view; we believe that the risk of proliferation adds to the urgency of obtaining agreement on a global, comprehensive and adequately verifiable convention and we note with concern the apparent slowing of progress to that end." {HC 383 of 1988-89}

**8 June** In the US Senate, an Armed Services subcommittee holds hearings on CBW budgets and programs. The Office of the Secretary of Defense testifies that, compared with the budget submitted in January, an extra \$24.9 million is sought for Fiscal Year 1990, and \$4 million for FY 1991, in order to accelerate the "retrograde" of US chemical weapons from the FRG [see 6 Mar]. {Prepared statement of Dr Billy Richardson, Acting Deputy Assistant to the Secretary of Defense}

**10 June** *Jane's Defence Weekly* publishes an interview with Israeli Defence Minister Yitzhak Rabin, in which he says that, in contrast to chemical warfare, "we are not aware of the existence of any dangerous biological capability in our area of interest, so we don't think it is necessary to give this a high priority in our plans." {JDW 10 Jun}

**11-16 June** In Umeå, Sweden, is held the Third International Symposium on Protection against Chemical Warfare Agents. It is opened by the King of Sweden. The presentations include papers by scientists from the CW defense establishments of China, France, the FRG, Hungary, Israel, the Netherlands, Norway, Sweden, Switzerland, the UK, the US and Yugoslavia. {Swedish Defence Research Establishment, report C 40266-4.6,4.7, Jun 89}

**13 June** In Geneva, the private US-Soviet bilateral talks on CW resume [see 10-11 May]. Each side is led by the head of its CD delegation. This round of talks ends on 29 June.

**13 June** In Geneva, the CD reconvenes for its summer session.

**13 June** Australian Foreign Minister Gareth Evans speaks to the CD in Geneva of the Government-Industry Conference Against Chemical Weapons which his government is to host in Canberra during 18-22 September [see 6 Mar]. All CD member countries have been invited, as have "other countries with significant chemical industries and those countries with a particular interest in chemical weapons issues." Senator Evans says also: "The Conference will bring together governments and representatives of chemical industries worldwide, with the aim of raising their awareness about the problems of chemical weapons, and considering ways in which they can work together, in partnership, both internationally and domestically, in support of a comprehensive Convention .... Let there be no misunderstanding as to what we are about. It is fundamental to our approach that the Government-Industry Conference takes place in the context of the important negotiations being conducted here ... on a Chemical Weapons Convention; that it support fully those negotiations; and that in its own way it contributes to and moves forward those negotiations." {CD/PV.508}

**14 June** A joint FRG-USSR declaration on CW weapons is issued following talks between the Foreign Ministers of the two countries during the visit of President Gorbachev to Bonn. It expresses the intention of both countries to become initial signatories of the CWC [see 8 Jan] and records agreement to intensify bilateral discussions on CW, including regular expert consultations in Geneva.

Further: "The two sides declare their readiness to support any verification measure which will create greater security .... [They] attach special significance to strengthening trust and regard practical measures in this sphere as an effective way to promote the earliest possible conclusion of the convention. The two sides have agreed to step up their efforts for greater openness and a further exchange of data necessary for progress at the talks."

And on CW proliferation: "They have agreed that the enforcement of a global and all-embracing ban on chemical weapons will give the only lasting solution .... At the same time they believe that it is important to take effective measures in the intervening period to prevent the spread of chemical weapons. They are united in believing that the continuing proliferation of chemical weapons requires a high degree of responsibility from the community of nations which cannot be ignored by any government." {Pravda in FBIS-SOV 15 Jun}

**15 June** British Foreign-Office Minister William Waldegrave introduces a paper into the CD in Geneva describing initial findings from a program of "practice challenge inspections" (PCIs) on military facilities. Two PCIs are described in the paper, one conducted during October 1988, the other during March 1989, both at ammunition storage depots. Further PCIs are planned which will include more sensitive facilities. The exercise is described as having three objectives: (a) assessing the security implications of challenge inspections under the projected CWC; (b) examining ways of demonstrating CWC compliance while protecting legitimate security interests unrelated to CW weapons; and (c) learning how challenge inspections might be conducted in reality. {CD/921, CD/PV.509}

**20 June** The Federal German government, responding to parliamentary questions, states that the planning for the withdrawal of US CW weapons from the FRG has still to be completed; the government will inform the public in good time. The weapons themselves are in good condition and present no danger to the environment or population. {BT-Drs.11/4600}

**20 June** The Canadian Assistant Deputy Minister for Political and International Security Affairs, Fred Bild, addressing the CD, questions the view that "requests for challenge inspections would generate political sensitivities and suggestions of guilt," therefore being provocative. Such a danger is, he suggests, "a problem that can be overcome as long as we keep our eyes firmly on the following: first, an essential concern of the convention is to ensure that international inspectors have access to any facility where clandestine activities might be undertaken; second, the essential obligation is on the challenged State to demonstrate its compliance, and not on the requesting State to prove non-compliance." He goes on, however, to speak of possible additional forms of recourse, such as "mutually agreed bilateral measures, fact-finding 'clarification visits' or other means of demonstrating [compliance] short of invoking the challenge provisions." {CD/PV.510}

**21 June** Federal German Foreign Minister Hans-Dietrich Genscher, visiting Washington, is told by Secretary of State James Baker of US concern about a deal in which a West German company has arranged the sale to Iran of large quantities of a potential CW-agent precursor [see also 29 Jan and 30 Jan]. Details are soon afterwards leaked to the US press. The deal reportedly involves some hundreds of tons of thionyl chloride [which is one of the more convenient of a number of chlorinating agents that can

be used either to convert thiodiglycol into mustard gas or to produce a precursor of a wide variety of nerve gases] manufactured in India, the bulk of which had not yet been delivered. The Iranian diplomat implicated in overseeing this and earlier [see 29 Jan] deals is said by the Bonn Foreign Ministry to have left the country {NYT 27 & 28 Jun}. Federal Government inspectors begin an urgent inquiry {TL 28 Jun}. The premises of the company, Rhein-eisen Chemical Products GmbH of Dusseldorf, are raided by police on 29 June. Prosecutors say they have evidence indicating that the company had illegally failed to seek an export permit required for the deal {WP 30 Jun}. The company acknowledges the deal but denies any wrongdoing {NYT 29 & 30 Jun}.

Unidentified US officials reportedly say that, over the past two years, Indian firms have sold hundreds of tons of poison-gas precursors to Iraq and Egypt as well as to Iran. A spokesman for the particular Indian firm involved here reportedly states that its production of thionyl chloride had increased from 150 tons in 1979 to 2203 tons in 1987; several hundred tons had been exported in the past year {NYT 10 Jul}. Indian officials state that their country has no export restrictions on thionyl chloride or other such chemicals, and that the Indian Government will not ban their manufacture until there is a comprehensive global agreement to ban chemical weapons {G 11 Jul, IHT 12 Jul}.

**22 June** The Soviet Union informs the CD that it is "carrying out a national experiment related to challenge inspections [see 18 Apr and 15 Jun], within the framework of which one visit to a military storage facility has already taken place." {CD/PV.511}

**22 June** In the US Senate, the Subcommittee on International Finance and Monetary Policy of the Committee on Banking, Housing and Urban Affairs holds a hearing on chemical and biological weapons proliferation. Testimony from Under Secretary of State Reginald Bartholomew reiterates [see 4 May] the administration's opposition to automatic sanctions, whether against countries that use CW weapons or against companies that aid proliferation, but reaffirms the administration's readiness to work with Congress on developing some form of sanctions legislation.

Current US export controls are described by Under Secretary Bartholomew as follows: "Through the Department of State Office of Munitions Control, the International Traffic in Arms Regulations (ITAR) govern the export of munition items, including chemical agents and related equipment. The US currently exercises foreign policy export controls on 40 designated chemical weapons precursors, eleven of which [see 28 Feb] require a validated export license for export to all destinations, except to members of the Australia Group .... The remainder require a validated export license for COCOM proscribed destinations and/or Iran, Iraq, Syria and Libya as well as Cuba, Vietnam, Cambodia and North Korea. The licensing policy is to deny applications for Iran, Iraq, Syria and Libya, while applications for Cuba, Vietnam, Cambodia and North Korea are denied in conjunction with the general trade embargo for these countries. Exports to other destinations may be approved unless we believe they will be used for CW purposes. The ... controls set by the US and other members of the Australia Group have not prevented acquisition of chemicals by countries of concern. Suppliers and producers are becoming more adept at circumventing the controls, few countries practice reexport control over the chemicals, and chemicals may be purchased from countries that do not belong to the Australia Group."

He continued: "In order to coordinate our intragovernmental efforts to constrain CW proliferation, in February of this year [see 10 Feb] we formed an interagency interdiction committee to ensure timely and appropriate action on information on the flow of CW materials and technology to problem countries. The group monitors intelligence, coordinates proposed demarches, and provides a centralized mechanism for obtaining clearance to downgrade or release intelligence information and ensure necessary follow-up." He went on to describe the major diplomatic ef-

fort in which the US is currently engaged "specifically to prevent the acquisition by problem countries of a CW capability." {Prepared statement}

**26-30 June** In Geneva, representatives of the US Chemical Manufacturers Association, the Canadian Chemical Producers Association, the Australian Chemical Industry Council, the European Federation of Chemical Manufacturing Associations and the Japanese Chemical Industry Association meet, first among themselves, and then with CD experts, to discuss CWC issues.

**27 June** The United States submits to the CD the report on its National Trial Inspection [see 4 Apr] {CD/922}. The US CD delegation this day includes 7 Senators, members of the Senate Arms Control Observer Group, and their staff.

Ambassador Friedersdorf describes the US NTI to the CD as "the beginning of a process to develop and refine inspection procedures, not as a test of procedures that are close to final form .... Thus, it is clear to us that further work on a national level, especially additional trial inspections, will be necessary to establish a realistic data base." He cautions against proceeding with multilateral equivalents of the NTIs, saying that "it would be better to undertake several types of multilateral activities related to chemical industry verification."

He comments on the proposals for ad hoc checks and ad hoc inspections [see 18 Apr]: "While the two approaches are somewhat different, both have strong points that could be incorporated in an eventual provision for ad hoc verification. We hope that such a provision can be developed relatively soon." {CD/PV.512}

**27 June** The FRG informs the CD that a trial ad hoc check has just been concluded and that a report on it will soon be submitted. "The results ... are encouraging and corroborate our view that ad hoc checks are effective and feasible." {CD/PV.512}

**27 June** The Netherlands submits to the CD reports on two National Trial Inspection exercises, which had been conducted earlier in the year at an unidentified chemical manufacturing complex {CD/PV.512}. One exercise had aimed at verifying the declared processing of a Schedule [2] chemical, triphenylmethylphosphonium bromide, in a particular batch reactor of a multipurpose plant within the complex {CD/924}. The other, simulating aspects of a non-routine inspection and focussing more on equipment than on chemicals, had aimed at verifying nonproduction of Schedule [1] substances within the complex as a whole {CD/925}.

**27 June** In the United States, the House Armed Services Committee approves an amendment to the Defense Authorization bill requiring that, before certain funds are released, the President cer-

tifies that safety standards for the withdrawal of the CW weapons in West Germany will be met. {AP as in SFC 29 Jun}

**29 June** Ghana is formally admitted to observer status at the CD {CD/PV.513}, as Qatar had been one week previously {CD/PV.511} and Jordan at the start of the summer session {CD/PV.508}. They join the 20 other CD-nonmember countries given observer status at the start of the 1989 session [see 16 Feb] plus Chile, the Holy See, Malaysia, Oman and Viet Nam admitted later on {CD/INF.22}, thus bringing the total number of countries involved in the CWC negotiation up to 68.

**29 June** In the United States, 74 senators [i.e., more than a two-thirds majority of the Senate and a majority of both political parties] release a letter (written previously in June) to President Bush expressing their full support for his efforts to achieve "a total, verifiable, international treaty banning the production and stockpiling of all chemical weapons" {WP 30 Jun}. The letter speaks of the grave dangers in CW proliferation and says: "It is clear to us that [such a] treaty will be the most effective way of addressing this threat" {text}.

**30 June** In Geneva, a Soviet official tells reporters that, in the bilateral US-Soviet CW talks [which ended yesterday] [see 13 Jun], agreements have been reached in the areas of preliminary exchanges of CW-capability data [see 6 Apr], order-of-destruction of CW stocks, and challenge inspection. The head of the US team, CD Ambassador Max Friedersdorf, describes the talks as "one of the more productive sessions we have had." {FT 1 Jul}

In a later press interview, Ambassador Friedersdorf says: "We have an agreement in principle on order of destruction but we don't have all the details worked out. There should be a total destruction of all existing arsenals after 10 years. After 8 years there would be a levelling out, and after that everybody would go down to zero at the end of 10 years. We have an agreement on data exchange, except on the timing .... And we have an agreement on the conduct of a challenge inspection. With all of these papers we agreed upon tentatively, in principle and have submitted them to Washington for review and final approval there .... [That] could take several weeks" {TZ 19 Jul}. In another press interview he says: "We reached agreement on a very complete, detailed proposal for the conduct of challenge inspections." And his deputy, James Granger, reportedly says that the agreement on chemical-weapons data exchange covered production and storage sites, and provided for trial inspections to validate exchanged data: the disagreement was whether the exchanges should happen before, as the US wanted, or after initialling of a treaty {NYT 18 Jul}. It is reported later that the USSR has agreed to exchange data before initialling the Convention, proposing that initialling occur within four months of the exchange {NYT 3 Aug}.

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## We recommend the following basic readings on CW to newcomers to the field:

Brown, Frederic J, *Chemical Warfare: A Study in Restraints*, Princeton University Press, 1968 [still in print]

Meselson, Matthew, and Julian Perry Robinson, "Chemical warfare and chemical disarmament," *Scientific American*, vol 242 no 4 (April 1980), pp 38-47

Stockholm International Peace Research Institute (SIPRI), *The Problem of Chemical and Biological Warfare*, New York: Humanities Press, 6 vols, 1971-75; also see documented annual reviews of developments in the CBW field are to

be found each year back to 1982 in the *SIPRI Yearbook: World Armaments and Disarmament*, Oxford University Press [The 1989 edition has just been published.]

United Nations, *Chemical and Bacteriological (Biological) Weapons and the Effects of their Possible Use*, Publication No E69 124, 30 June 1969

World Health Organization, *Health Aspects of Chemical and Biological Weapons*, report of a WHO group of consultants, Geneva: WHO, 1970 [still in print]

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# REVIEW: WORLD CW ARMAMENT

Part I of this survey, on the United States, was published in CWCB issue no. 2; part II, on the Soviet Union, in CWCB issue no. 4; part III is being held over. In the meanwhile, here is an update of the listing in CWCB issue no. 3 of countries whose governments have made public declarations about their CW-weapon-possessor status. Representative documentation of these declarations is also noted. The cut-off date is mid-June 1989. An updated version will be published in due course.

In few, if any, instances did a government making such a declaration also state what it meant, or did not mean, by "chemical weapon."

## COUNTRIES THAT HAVE SAID THEY POSSESS CHEMICAL WEAPONS

Soviet Union	CD/PV.400, 14 Apr 87
United States	CD/711, 9 Jul 86

**Note:** Iraq has publicly admitted to using CW weapons against Iran [see Chronology, 1 Jul 88]. Iran has stated that it "is capable of manufacturing chemical weapons and possesses the technology" but has denied actual production [see Chronology, 30 Dec 87].

## COUNTRIES THAT HAVE SAID THEY DO NOT POSSESS CHEMICAL WEAPONS

Argentina	A/S-15/PV.2, 1 Jun 88
Austria	CD/PV.471, 4 Aug 88
Bulgaria	CD/PV.457, 14 Apr 88
Chile	Paris Conference
China	CD/PV.453, 31 Mar 88
Cook Islands	Paris Conference
Cyprus	Paris Conference
Czechoslovakia	CD/878, 18 Jan 89
Egypt	CD/PV.459, 21 Apr 88
Ethiopia	CD/PV.487, 16 Feb 89
Federal Republic of Germany	CD/PV.437, 4 Feb 88
France	A/43/PV.10, 29 Sep 88
German Democratic Republic	CD/871, 12 Sep 88
Greece	Paris Conference
Iceland	Paris Conference
Indonesia	CD/PV.437, 4 Feb 88
Italy	CD/PV.437, 4 Feb 88
Kuwait	Paris Conference
Madagascar	Paris Conference
Malta	Paris Conference
Mexico	CD/PV.421, 14 Jul 87
New Zealand	CD/PV.445, 3 Mar 88
Norway	CD/PV.448, 15 Mar 88
Panama	Paris Conference
Papua New Guinea	Paris Conference
Peru	CD/PV.472, 9 Aug 88
Romania	CD/PV.440, 16 Feb 88
South Africa	Paris Conference
Sweden	CD/PV.481, 13 Sep 88
Switzerland	CD/PV.270, 5 Jul 84
Thailand	official statement broadcast on Voice of Free Asia, 8 Jan 88
Uganda	Paris Conference
United Kingdom	CD/PV.474, 16 Aug 88
Viet Nam	CD/PV.498, 28 Mar 89



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COUNTRIES THAT HAVE SAID THEY NEITHER POSSESS CHEMICAL WEAPONS  
NOR PLAN OR INTEND TO DO SO

Bahrain	Paris Conference
Belgium	CD/PV.424, 23 Jul 87
Brazil	CD/PV.460, 26 Apr 88
Canada	CD/PV.433, 25 Aug 87
Denmark	A/43/PV.7, 28 Sep 88
Guinea-Bissau	Paris Conference
Kenya	CD/PV.499, 30 Mar 89
Malaysia	A/S-15/PV.13, 14 Jun 88
[Mexico	Paris Conference]
Mongolia	CD/PV.442, 23 Feb 88
Netherlands	CD/PV.309, 18 Apr 85
Nicaragua	Paris Conference
Pakistan	CD/PV.339, 13 Feb 86
Poland	CD/PV.419, 7 Jul 87
Senegal	Paris Conference
Spain	CD/PV.422, 16 Jul 87
[Sweden	CCD/PV.480, 21 Jul 70]
[Switzerland	Paris Conference]
Tanzania	Paris Conference
Togo	Paris Conference
Turkey	Paris Conference
Venezuela	A/S-15/PV.3, 2 Jun 88

COUNTRIES THAT HAVE SAID THEY DO NOT AND WILL NEVER  
POSSESS CHEMICAL WEAPONS

Afghanistan	official statement broadcast on 4 May 89
Australia	A/S-15/PV.3, 2 Jun 88
[Austria	Austrian State Treaty, 15 May 55]
Burma	CD/PV.452, 29 Mar 88
Finland	CD/PV.441, 18 Feb 88
[Federal Republic of Germany	Paris Agreements, 23 Oct 54]
Hungary	CD/PV.437, 4 Feb 88
India	CD/PV.459, 21 Apr 88
[Indonesia	Paris Conference]
Japan	CD/PV.424, 23 Jul 87
Korea, South	Paris Conference
Morocco	CD/PV.367, 3 Jul 86

**Note:** A "Paris Conference" citation refers to the statement made by the country's representative at the chemical weapons conference in Paris during 7-11 January 1989. The official record of the Conference has not yet been published. What has been relied on here is the "Compilation of declarations of States concerning the possession/non-possession of chemical weapons" that was prepared and distributed in April by the CD delegation of the GDR.

A bracketed entry indicates that a declaration by that country appears previously in the chart.

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