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"LAW ENFORCEMENT" AND THE CWC

Any chemical comes under the prohibitions of the CWC if, "through its chemical actions on life processes it can cause death, temporary incapacitation or permanent harm to humans or animals" — unless it is "intended for purposes not prohibited" under the Convention, and only as long as "the types and quantities are consistent with such purposes".

Among the "purposes not prohibited" are "law enforcement including domestic riot control purposes". As for "domestic riot control", the very term restricts it to activities in conformity with the domestic jurisdiction of the state party preparing for or conducting it. More than that, the Convention goes on to require that chemicals held for riot control be restricted to those "not listed in a Schedule, which can produce rapidly in humans irritation or disabling physical effects which disappear within a short time following termination of exposure". And the chemical name and structural formula of each such chemical must be declared in advance to the OPCW.

In contrast to these provisions regarding domestic riot control, the only specific exculsion the Convention places on the identity of the chemicals that may be used for other law enforcement purposes is that they not be in Schedule 1. Neither is there any requirement for declaration to the OPCW. Nevertheless, two of the fundamental restrictions the Convention places on all chemicals apply equally to those intended for law enforcement.

No chemical may be developed, produced, otherwise acquired, stockpiled, transferred or used as a method of warfare that is dependent on its toxic properties (Article II.9(c)). It is prohibited, for example, for a state to use weapons dependent on the toxic properties of chemicals in a civil war, claiming that the opposing forces are violating its national law or to use such weapons in a civil war in another state, with or without that state's permission.

Furthermore, any chemicals intended for law enforcement, along with their associated munitions or other delivery devices, must be of types and quantities consistent with such purposes (Art. II.1(a)). The development, production, or stockpiling of chemical howitzer projectiles would hardly conform to the notion of "law enforcement".

But what in the context of the Convention is "law enforcement"? Important guidance may be found in the term itself. First, there must be applicable law, as in a nation's penal code or as specifically provided under the authority of the United Nations. Second, there must be jurisdiction to enforce such law. Thus, it is recognized in

international law that a state may enforce its own laws on its own territory or against its own citizens, but it may not enforce its national law in the territory of another state without that state's consent. And third, no law can be considered valid if it contravenes international humanitarian law or the established laws of war. It would be prohibited, for example, for a state to use toxic chemicals to inflict death, temporary incapacitation or permanent harm on a national minority.

The foregoing principles are encapsulated in a guideline proposed in an article that appeared in the March 1997 issue of this *Bulletin*:

The term "law enforcement" in Art. II.9(d) means actions taken within the scope of a nation's "jurisdiction to enforce" its national laws, as that term is understood in international law. When such actions are taken in the context of law enforcement or riot control functions under the authority of the United Nations, they must be specifically authorized by that organization. No act is one of "law enforcement" if it otherwise would be prohibited as a "method of warfare" under Art. II.9(c).

Even with these several requirements under the CWC and the suggested guideline defining law enforcement, there is inadequate constraint against the misuse of chemicals for "law enforcement". This appears to have originated in the requirement of one state to protect its practice of using toxic chemicals to inflict capital punishment as a means of law enforcement. But that does not account for the lack of any provision for at least declaring the identity of chemicals held for law enforcement. Rather, it appears that what kept the negotiators from including a declaration requirement was shortage of time under the pressure of the agreed August 1992 negotiating deadline for completion of the Convention.

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What would be accomplished by advance declaration to the OPCW of the identity of chemicals held by a state for law enforcement? Secrecy in chemical weapons matters has a special potential to evoke the sort of dread and suspicion that undermines public confidence in the Convention and may fuel renewed state interest in chemical weapons. An example of such suspicion was seen before the powerful chemical used in hostage rescue operations in Moscow in October was identified as an opioid of the fentanyl group — a class of compound that has long been of interest to US and other armed forces for possible use as

calmatives (i.e., incapacitants). A declaration requirement could help avert the erosion of public and official confidence in the Convention, and remove a possible stimulus to government chemical weapons programmes risked by excessive secrecy.

With the approach of the First CWC Review Conference, scheduled for April 2003, the states parties have an opportunity to think carefully of measures the Conference might recommend to preclude the damage to the Convention that would result from not attending to the problem of law enforcement.

Provisions of the CWC regarding chemicals that may be used for domestic riot control or for other law enforcement purposes		
Relevant provision	"domestic riot control"	other "law enforcement" purposes
Types and quantities must be consistent with such purposes	Article II.1(a)	Article II.1(a)
Must not be used or intended as a method of warfare dependent on its toxic properties	Article II.9(c)	Article II.9(c)
Must not be in Schedule 1		Verification Annex VI.2
"Any chemical not listed in a Schedule which can produce rapidly in humans irritation or disabling physical effects which disappear within a short time following termination of exposure."	Article II.7	For law enforcement chemicals other than "riot control agents" there is no such specification of properties
Chemical name and structural formula must be declared	Article III.1(e)	no declaration requirement

Forthcoming events

- 9 January, Washington DC National Academies and Center for Strategic and International Studies meeting "Scientific Openess and National Security", details on national-academies.org
- **28 February–2 March**, Wiston House, Sussex Wilton Park conference on *Meeting the Threat of Biological Terrorism*, details on www.wiltonpark.org.uk
- **18–21 March**, The Hague Thirty-Second session, OPCW Executive Council. Further sessions EC-33: 24-27 June; EC-34: 23-26 September; and EC-35: 2-5 December.

- **26–27 April**, The Netherlands —19th workshop of the Pugwash Study Group on Implementation of the CBW Conventions
- **28 April–9 May**, The Hague CWC First Review Conference
- **11–16 May**, Bucharest CBMTS–Pharameceutical I, contact info@asanltr.com
- 20–22 May, Prague CWD2003 [International CW Demil Conference], contact dmil@dstl.gov.uk
- **15–18 June**, Jyväskylä, Finland Association of Finnish Chemical Societies symposium "Nuclear,

- Biological and Chemical Threats A Crisis Management Challenge", details on www.nbc2003.org
- **7–12 September**, Dubrovnik, Croatia — CBRMTS – Industry III [World Congress on Chemical, Biological, Radiological Terrorism], details on www.asanltr.com
- 10–12 October, Wiston House, Sussex — Wilton Park conference on Chemical and Biological Weapons: the Threats of Proliferation and Use, details on www.wiltonpark.org.uk
- **20–24 October**, The Hague Eighth session, OPCW Conference of the States Parties

ON THE BRINK: BIODEFENCE, BIOTECHNOLOGY AND THE FUTURE OF WEAPONS CONTROL

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Introduction — the BWC and the Protocol

The Biological Weapons Convention (BWC), signed in 1972 and entered into force in 1975, was the first treaty to ban the possession of an entire class of weapon of mass destruction. It prohibits the development, production, and stockpiling of microorganisms or of toxins for other than peaceful purposes, and it categorically prohibits development, production, and stockpiling of devices designed to disseminate such agents for hostile purposes. It is rightly regarded as a landmark in weapons control.

However, the BWC has essentially no verification provisions, and there have been some notable violations. The Soviet Union (and then Russia) maintained a massive capability rapidly to produce biological agents and delivery devices into the 1990s, and Iraq was found by the UN Special Commission to have had a significant biological weapons capability including both agents and munitions. Currently at least two nations (Israel and Iraq) are widely thought to have an offensive biological warfare capability, and a number of other countries (North Korea, Iran, Syria, Libya, China, and others) have been mentioned as possibly having, or pursuing, one. These latter allegations are based on classified intelligence, and the evidence may be very weak; it is unclear how much of a proliferation threat these countries really constitute.

Given the documented failure of the BWC to prevent bioweapons proliferation, and the increasing proliferation concerns, parties to the Convention began, in 1995, to negotiate an addendum to the treaty, informally termed the BWC Protocol, that would establish legally-binding multilateral measures to promote compliance with the BWC. As the Protocol took shape, it contained several major elements:

- annual declarations requiring states parties to identify and give brief descriptions of their biodefence facilities and programmes, and of industrial facilities that could be used to produce microbial cultures in quantity;
- random visits to declared facilities to increase confidence in the completeness and accuracy of declarations;
- a clarification process for cases in which a facility was not declared that another state party suspected should have been, or in which a state party questioned the accuracy of a specific declaration; and
- provision for a multilateral team to be sent on short notice to investigate facilities that were suspected of being used to illegally produce microbial weapons agents, allegations of use of BW, or disease outbreaks that were suspected to be the result of accidental release of microbes from an illegal facility.

Negotiations were arduous, as many controversial issues were involved. Nevertheless, by mid 2001 a possible

consensus text had emerged, more than 200 pages in length. The 24th negotiating session convened on 23 July with delegates expecting that a final text would result from their efforts in that session, or at the latest in a concluding session later that year. The opening plenary sessions extended over three days, during which over 50 states parties spoke in favour of prompt completion of the negotiations. Then it was the turn of the US, and Ambassador Donald Mahley brought that process to an end:

After extensive deliberation, the United States has concluded that the current approach to a Protocol to the Biological Weapons Convention...is not, in our view, capable of ... strengthening confidence in compliance with the Biological Weapons Convention ... We will therefore be unable to support the current text, even with changes

Without US participation, few other countries were expected to sign on to the Protocol so it was effectively dead. The US announcement, of which even its closest allies had little official forewarning, cost the US a great deal of good will. Moreover, this ill will was compounded later in the year when, at the Fifth Review Conference of the BWC, a consensus on a final document could not be found following a last-minute US attempt to terminate the Protocol negotiations completely. As the review process is the only mechanism available for developing the BWC to meet changing conditions, this was a particularly serious outcome. The Conference was suspended until late 2002 and when it was resumed the states parties were able to maintain a multilateral process intact only by agreeing on a minimal agenda for meetings through to the next Review Conference in 2006. [See also *Report from Geneva*, below.]

US reasons for rejecting the Protocol

Why did the US take such a dramatic and unpopular action so late in the game? Why did the US, unlike any other major western power, conclude that the Protocol would not enhance its security? What was perceived as so threatening in the Protocol that it justified opening a serious rift between the US and its closest allies?

The US gave three reasons. First, it criticized the Protocol as inadequate to detect covert proliferation. It is true that the signatures of a covert programme may differ so slightly from legitimate biotechnological industry that a single inspection might not be able to discriminate with certainty. However, this limitation was understood from the very beginning of the negotiations. The value of the Protocol was seen as greatly increasing the transparency of the biological industry and biodefence activities of all countries, thus lessening unjustified suspicions. The routine visits, coupled to the possibility of an intrusive investigation

to resolve specific suspicions, were thought to be a significant deterrent to all but the most determined proliferator. Of course there was no certainty that a proliferator would be caught; but the chances would increase with time, and would become significantly greater as a covert programme progressed from research to development to production to stockpiling. The Protocol was seen as a modest improvement in security in the short term, whose value would increase with time. When coupled to other measures such as intelligence, export controls, and biodefence, the Protocol was considered by all of the US's close allies to be a significant improvement. All of this was well understood by US negotiators throughout the negotiating process, and cannot explain its 11th hour action.

The second reason given was that the Protocol would unacceptably jeopardize commercial proprietary secrets. Yet many efforts had been made in the drafting of the Protocol to specifically protect such industrial secrets. Most importantly, all visits and investigations would be conducted under rules of managed access, meaning that the visited facility could shroud equipment, prevent access to parts of the site, turn off computer monitors, etc, as necessary to protect its proprietary secrets. In so doing, it would assume a responsibility to provide alternate means for the visiting team to satisfy itself that the facility was in compliance.

Unlike its allies, the US made little effort to work with its industries to test whether the visits and inspections envisaged under the Protocol would be acceptable. A number of European and other countries, individually and in collaboration, made numerous trial visits to various different industrial sites. The results were clear — visits could be effective in verifying declarations and demonstrating compliance with the BWC, without putting confidential proprietary information at risk.

pharmaceutical industry organization, US Pharmaceutical Research and Manufacturers of America (PhRMA), released a position paper early in the negotiations that opposed routine visits and called for strict limits on the approval of investigations. However, this initial position might well have changed if the government had worked with PhRMA to conduct trial inspections and to determine what measures might satisfy industry concerns. Among the measures that had great potential was appropriate legal protections in the domestic legislation that would be needed to implement the Protocol; a joint paper authored by representatives from the pharmaceutical industry and from the Federation of American Scientists outlined the elements of such legislation that could have protected industry should visits be implemented despite the industry opposition. All of this makes it look very much like the US government was not interested in working with industry to develop a Protocol that could be both effective and yet protect industry's legitimate interests.

The third reason given by the US was that the Protocol would endanger its biodefence programme. This too appears puzzling; most of the US's principal allies have biodefence programmes, some of them quite substantial, and they all concluded that these programs would not be unacceptably compromised. Furthermore, the US biodefence programme has traditionally been largely unclassified. It is hard to see how such a programme could be seriously compromised by visits and investigations,

unless the historical openness of the US biodefence programme has changed in the last few years.

This leaves us with a conundrum — none of the reasons given for the US rejection of the Protocol seems sufficient to explain such a diplomatically costly step, nor are they consistent with the unanimous endorsement of the Protocol by the US's major allies, all of which have the same proliferation concerns, the same kind of biotech and pharmaceutical industry, and active biodefence programmes.

The classified components of the US biodefence programme

The one place where it is plausible that the US differs significantly from its allies is in recent classified biodefence activities. Many countries probably conduct classified biodefence activities, but from the allies' enthusiasm for the Protocol we can infer that there is nothing that can't both be described in general terms on declarations, and sensitive details protected by managed access during visits and inspections. The US rejection of the Protocol raises the possibility that there are new classified biodefence programmes that are deemed too sensitive politically or technically for even the limited disclosure that the Protocol would require.

After the 1969 renunciation of offensive bioweapons and the destruction of US biological weapons stockpiles, by President Nixon's Executive Order, the US biodefence programme was essentially all unclassified. As late as 1989 the Pentagon claimed:

The BDRP [Biological Defense Research Program] does not include the development of any weapon, even defensive ones, nor does it attempt to develop new pathogenic organisms for any use. All work conducted under the BDRP is unclassified. However, results may be classified if they impinge on national security by specifying US military deficiencies, vulnerabilities, or significant breakthroughs in technology.²

This openness appears to have changed, as a result of the growing recognition of dangers created by the Soviet biological weapons programme, and increasing concern on the part of the US government over the threat of bioweapons in terrorist hands. The Department of Energy, the Pentagon, and even the Central Intelligence Agency (CIA), all began doing classified "biodefence". Much of this is presumably legitimate defensive work, but last fall it was revealed that there were less savoury activities as well. Of course, there is no reason to believe that there are not other problematic activities that remain to be revealed.

One of the described projects, conducted by the CIA, involved the fabrication of a cluster munition to disseminate bacterial agents, modelled on fragments of a Soviet biomunition. The weapon was constructed, and tested using non-pathogenic agents as simulants. A second project, under the Pentagon's Defense Threat Reduction Agency, tested whether terrorists could construct a sophisticated bioweapon plant from commercially available materials, without raising suspicions. Project personnel bought the necessary materials, constructed the facility, and used it to demonstrate that nonpathogenic bacterial spores could be prepared which were then dried and weaponized. The third

project was to be administered by the Defense Intelligence Agency, another Pentagon unit, but it may not have gone past the planning stage. It would have genetically engineered Bacillus anthracis (the causative agent of anthrax) to recreate a Soviet strain thought to be resistant to the US vaccine

In addition, the investigation into the anthrax attacks led to the revelation that the US had an ongoing programme in which unspecified amounts of dried, weaponized anthrax spores for defensive testing were prepared. It is not clear what the cumulative amount was, but over more than a decade, the total was probably in the 10s or 100s of grams of dried spores.

These programmes raise concerns about the US's own compliance with the BWC. Article I of the BWC reads:

Each State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile, or otherwise acquire or retain:

- (1) Microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective, or other peaceful purposes;
- (2) Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.³

The fabrication of a munition is particularly troublesome, as it falls within the scope of prohibitions specified in the BWC. Unlike the prohibitions relating to biological agents, there is no provision for "prophylactic, protective, or other peaceful purposes" as a justification to fabricate a munition — indeed this prohibition is reinforced by the statement "never in any circumstances". At the very least this act presses hard against the limits of what is legal.

Certainly the preparation of some weaponized anthrax spores could fall under the peaceful use exclusion for biological agents, but only if the amount prepared was appropriate to the peaceful purpose. Very few defensive experiments require live, virulent, weaponized anthrax spores — aerosol challenge experiments to test new vaccines, and tests of antibiotic therapy regimes for inhalational anthrax are virtually the only legitimate uses of such material. Almost all other tests, such as tests of decontamination regimes and materials, detectors, protective devices, or measurements of aerosol movements and patterns, can be done with avirulent strains or simulants (related, nonpathogenic, sporeforming Since a single gram of spores contains approximately 100 million ID50 doses for monkeys (the dose that will infect half of the exposed population), it seems likely that far more spores were produced than can be easily justified under the BWC. Whether excess spores were stockpiled or destroyed, and whether they can be adequately accounted for, remain open questions.

The US not only pressed, or passed, the limits of legality under the BWC; it also failed to honour its obligation to report these programmes under the Confidence-Building Measures (CBMs) adopted by the states parties at the second and third Review Conferences. These measures require states parties to declare annually information on, among other things, their biodefence programmes, including facilities and description of biodefence activities. None of the above programmes was mentioned in US declarations. As the CBMs were designed to reduce uncertainty among

states parties, this selective omission of information seriously compromises their effectiveness and invites an interpretation that the programmes have a malign intent.

Hypothesis

A variety of possible explanations for the US's rejection of the Protocol might be considered. Chevrier, for example, has suggested explanations based on changing US perceptions of secrecy, sovereignty, and self-reliance. ⁴ It is also possible that the political sensitivity of unrevealed covert programmes was the basis of US rejection of the Protocol. Certainly a country that was actively involved in such borderline programmes, and that was already deceiving the international community by not reporting them as required by the CBMs, would have a good reason to be unenthusiastic about having to reveal its activities. Yet had the US wished, the covert programmes could have been terminated well before entry into force of the Protocol, largely escaping disclosure requirements.

Here we wish to consider a possible alternative explanation which has not, to our knowledge, been discussed much, but which seems to be in the air. Perhaps the US rejected the Protocol not just because it currently has secret, offensively-oriented "biodefence" programmes, but because it is committed to continuing and to expanding them.

It appears that the US government has come to the conclusion that the global proliferation of bioweapons is inevitable; for instance, the US DOD's Quadrennial Review in 1997 stated that:

the threat or use of chemical or biological weapons (CBW) is a likely condition of future warfare.

Furthermore, former US Secretary of Defense William Perry and former Assistant Secretary of Defense Ashton Carter wrote in a 1999 book that:

future military challengers of the United States will heed the lessons of Iraq's devastating defeat and will seek to pose "asymmetric threats" instead, using weapons of mass destruction in an attempt to contend with an otherwise unbeatable U.S. military and as a way of intimidating U.S. allies.

The distressing fact is that nearly all military opponents whom U.S. forces are likely to meet on the battlefield possess chemical and biological weapons and the means to deliver them, including ballistic missiles.⁶

The US might well have concluded that an offensively-oriented research programme is needed to adequately evaluate the threat, to devise countermeasures, and possibly eventually to develop its own sophisticated bioweapons if the BWC fails completely. This could be the result of a coherent policy in response to the known instances of proliferation, or the result of convergent belief among those with policy responsibility in different agencies. The September terrorist attacks and the September/October anthrax letter attacks would have lent urgency and credibility to such perceptions, as well as bringing greatly expanded funding for biodefence work.

Since the late 1970s the US has based its military strategy on technological superiority. In Carter and Perry's words:

America's military strategy depends on the full use of its technological leadership ... And so today, America's

military strategy calls for maintaining battlefield dominance over any regional power with whom we might be engaged in conflict in the near term, for sustaining that lead against the new threats that might emerge through failures of Preventive Defense, and to do so through leadership in technology...⁷

Bioweapons proliferation is clearly a threat emerging from a failure of preventive defence; indeed the US abandonment of the BWC Protocol looks very like abandonment of prevention, in favour of response. Thus a programme to stay at the cutting edge of military biotechnology would be attractive as a response to this emergent threat. This would logically include exploring in detail the ways in which biotechnology could be used to create novel biological and toxin weapons. In addition to helping understand the threat, this would of course constitute the first steps towards an offensive capability, should the US at any point decide that such a capability is necessary. We note with concern calls from the US military for changes in, or elimination of, the BWC in order to pursue the development of genetically engineered bioweapons that target military material, such as camouflage paint, tires, stealth coatings, electronic insulation, runway tarmac, lubricants and fuel, etc.

The US military has already, for nearly a decade, been actively pursuing the development of "non-lethal" chemical weapons, with the expectation of using them in military operations other than war (such as counter-terrorism, hostage rescue, embassy protection, peacekeeping operations, and the like). This programme exploits a loophole in the Chemical Weapons Convention (the CWC prohibits chemical weapons in the same manner that the BWC prohibits biological weapons), that permits production, stockpiling and use of chemical agents for law enforcement purposes. Under this questionable justification, the US is developing "non-lethal" chemical weapons agents, and military munitions to deliver them. Biotechnology is increasingly used in the service of this programme. Exploratory efforts to evaluate the potential applications of biotechnology to bioweapons would be a natural complement to this programme. Indeed within the same agency that administers the "non-lethal" chemical weapons programme there is serious interest, and apparent projects, in the area of genetically engineered bioweapons directed against military materiel.

Implications for arms control

If we are correct in our hypothesis, the US is embarking on the secret study of the application of biotechnology to new weapons development, a process that began as much as a decade ago for "non-lethal" chemical weapons, probably more recently for biological weapons. The potential utility of biotechnology for weapons development is formidable, and it is questionable whether this course is wise, as the rest of the world will certainly be obliged to follow. In its rush to stay ahead technologically, the US runs the very real danger of leading the world down a pathway that will greatly reduce the security of all. This constitutes a significant change in US policy since 1969, when the offensive biological warfare programme was ended by executive order in part because the US feared that the very existence

of its programme invited other nations to follow suit. The wisdom of that decision has never been seriously contested, yet it seems to have been forgotten in Washington.

Furthermore, the secrecy required by such a programme is antithetical to the transparency on which the long-term bioweapon prohibition regime must be founded. A world in which many nations are secretly exploring the offensive military applications of biotechnology is ripe for proliferation of biological and chemical weapons. When the offensive capabilities of potential adversaries is uncertain, prudence requires military strategists to assume the worst and uncertainty will be chronic, as one of the clear lessons of recent history is that even the best intelligence agencies are incapable of accurately assessing chemical and biological warfare capability. The assumption that others possess or are developing bioweapons then invites the development of a retaliatory or deterrent capability. Consequently, many countries may embark on a biological arms race that none desires. Once biological weaponsare established in military arsenals and planning, they become accepted as legitimate weapons. Thus in the long term, secret biodefence programmes can lead to the proliferation of bioweapons and erosion of the global norm against their use. In this way the perceived need to respond to immediate threats with a secret biodefence programme can, in the long term, be exceedingly unwise.

Perhaps the greatest danger is that we will embark on this path without public debate. The US is one of the most open societies in the world, with one of the most democratic governance processes, but as the world's preeminent power, the military has great influence, especially when projects are secret and with little oversight. Decisions to institute programmes may be taken at too low a level and with inadequate consultation. The review and oversight of covert biodefence programmes thus needs to be strengthened considerably. It is critically important that the US Congress and people, and those of the US's allies, understand and debate the possibilities of the use of biology for military purposes — not just for immediate purposes, but mindful of the long-term consequences, and with attention to the implications for arms control or proliferation. Similarly, the secrecy with which an increasing portion of its biodefence program is shrouded should be reconsidered. The only way of being assured that bioweapons proliferation is not a serious global problem is transparency in biodefence world-wide. The US must lead by example, or no-one will follow.

Conclusion

Secret US programmes of producing and testing a biological agent production facility, weaponized biological agent, and a biological munition, and to consider genetically engineering a biological agent to defeat existing vaccines, show a willingness to ignore treaty constraints in favour of technological responses to the emerging bioweapons threat. The likelihood that the US programme goes well beyond the projects so far revealed further suggests that the US may be embarking on an exploration of the military applications of biotechnology — actively exploiting it to develop an offensive "non-lethal" chemical weapons capability; beginning to use it to explore possible offensive bioweapons

development strategies as part of threat assessment; and eager to use it to develop antimateriel BW. We fear that this is pioneering very dangerous ground.

Matthew Meselson, Thomas Dudley Cabot Professor of the Natural Sciences at Harvard University, has issued a plea for the world to guard against the military misuse of biology:

Every major technology — metallurgy, explosives, internal combustion, aviation, electronics, nuclear energy — has been intensively exploited, not only for peaceful purposes but also for hostile ones. Must this also happen with biotechnology, certain to be a dominant technology of the twenty-first century?...During the century ahead, as our ability to modify fundamental life processes continues its rapid advance, we will be able not only to devise additional ways to destroy life but will also become able to manipulate it — including the processes of cognition, development, reproduction, and inheritance. A world in which these capabilities are widely employed for hostile purposes would be a world in which the very nature of conflict had radically changed. Therein could lie unprecedented opportunities for violence, coercion, repression, or subjugation... At present we appear to be approaching a crossroads — a time that will test whether biotechnology, like all major predecessor technologies, will come to be intensively exploited for hostile purposes, or whether our species will find the collective wisdom to take a different course...

If we are correct in our sense of the emerging philosophy guiding the US programmes in bioweapon threat assessment and "non-lethal" chemical weapons development, then Meselson may be being optimistic. Rather than teetering on the brink, the US may already be plunging recklessly forward into the military applications of biotechnology, whose legacy, we predict, will be as troubling to our children as is our parents' nuclear legacy to us.

We call on the US Congress: to determine the full scope of the classified biodefence programmes; to review these, and programmes of "non-lethal" chemical and biological weapons development, with an eye to their long-term consequences, especially for weapons control; to develop, with maximum public input, a clear philosophy by which to guide these programmes; to establish effective ongoing oversight mechanisms; and to promote as much transparency in biodefence as is possible. We call on US allies to press the US government to explicitly disavow offensive bioweapons development, to renounce "non-lethal" chemical weapons, and to become more transparent so as to not provoke destabilizing suspicions. Cooperation with US initiatives against suspected CBW proliferators might also be conditioned on full US compliance with the letter and spirit of the BWC, its CBMs, and the CWC. And we call on arms control organizations and on the media to aggressively investigate the issues we have raised here.

Hopefully we will be proven wrong. We reiterate that we have proposed an hypothesis: that the US belief that bioweapons proliferation is ongoing and unstoppable, coupled to its long-standing belief that its security is based on technological superiority, lead logically to the embrace of military biotechnology. If we are right, the implications for arms control are very serious, and threaten to fatally undermine the BWC and the CWC by leading to a new biological and chemical arms race.

What might such a world look like? All major military powers would be armed with bombs, missiles, shells, and

spray tanks on unmanned aerial drones, loaded with chemical agents that cause stupor, convulsions, panic attacks, hallucinations, or violent sensory experiences, or with genetically engineered biological agents that degrade paint, plastic, rubber, fuel, and lubricants. In addition, several regional powers would have stockpiles of lethal agents such as third generation nerve gases, and genetically engineered pathogens that secrete powerful combinations of "Non-lethal" chemical weapons, anti-materiel weapons, and possibly also lethal chemical and biological weapons would likely have been used repeatedly in regional conflicts. The proliferation of these technologies would dramatically increase the chances that terrorists would become capable of true mass-casualty attacks. And finally, police forces of the world would be armed with new riot control agents, based on the military "non-lethal" chemical weapons, and much more effective than tear gas. This would greatly increase government power to control civil unrest — a dangerous tool in totalitarian hands, and one for which democracies have little use.

Even if we are wrong, the US and other countries are at the very least standing on the brink that Meselson describes. The arms race that he fears could begin at any time, without notice, so long as the US and others maintain substantial classified biodefence programmes without sufficient public oversight. We also observe that our suspicions themselves prove the danger of secrecy. If two moderate and cautious academics (as we would characterize ourselves), with decades of experience in biological arms control and a generally positive opinion of the US, can seriously entertain such suspicions, then political and military leaders who feel threatened by or distrustful of the US must imagine much worse, and these imaginings will certainly influence their actions to the detriment of global security.

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- 4. M. Chevrier, "The biological weapons control regime at a crossroads" Paper presented to the International Studies Association Annual Conference, New Orleans, Louisiana, 27 March 2002.
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This paper was originally presented at Pugwash Meeting No. 278, the 18th Workshop of the Pugwash Study Group on Implementation of the CBW Conventions; Geneva, Switzerland, 9-10 November 2002. A related paper "Back to Bioweapons?" appears in the January/February 2003 Bulletin of the Atomic Scientists.

Progress in The Hague

Developments in the Organization for the Prohibition of Chemical Weapons

The major event during the period under review, from mid-September to mid-December 2002, was the convening of the seventh session of the Conference of the States Parties to the Chemical Weapons Convention (the Convention) in The Hague during 7–11 October. This was the first meeting of the Conference of the States Parties since the special session had met on 25 July to appoint the new Director-General of the Technical Secretariat of the OPCW, and the first regular session of the Conference attended by Director-General Pfirter.

As discussed below, budgetary issues were the focal point of this year's Conference, though attention is also clearly now focusing on the first Review Conference, due to be held during 28 April–9 May 2003. The other significant issue addressed during the period under review related to the Russian Federation's request for an extension of intermediate and final deadlines for Category 1 chemical weapons (CW) destruction. While action has been taken on this issue by both the Executive Council and the Conference, as yet no deadline has been set for one per cent destruction of the Russian Category 1 CW.

Seventh Session of the Conference

The seventh session of the Conference of the States Parties in October was attended by 109 of the 145 then states parties and two signatory states, Israel and Thailand. Observer status was also granted to three non-signatory states, Andorra, Iraq and Libya, five international organizations and six non-governmental organizations.

The Conference was largely preoccupied with issues relating to the Programme and Budget for 2003, on which no consensus had been able to be reached prior to the Conference. Under this heading, the two key areas of debate were the distribution of inspections under Article VI and the amount of funding to be allocated to International Co-operation and Assistance (ICA). Decisions on these issues, including a budget totalling EUR 68,562,966, was agreed on the final day of the Conference following intensive consultations and work in the Committee of the Whole. Other high-profile decisions adopted by the Conference included extensions of intermediate destruction deadlines for Russia (in principle) and another state party.

Opening of the Session The Conference was opened on 7 October by the outgoing Chairman of the Conference, Amb. Heinrich Reimann of Switzerland. The Conference then received a statement delivered by Enrique Roman-Morey, Director of the Geneva Branch of the UN Department for Disarmament Affairs, on behalf of UN Secretary-General Kofi Annan. While noting the progress being made in CW destruction, the Secretary-General referred to the terrorist acts of September 11 and stated that "vigilance and a renewed commitment to the full implementation of the [Chemical Weapons Convention] are

more necessary than ever". Stressing the need to work towards universality of the Convention, the Secretary-General also urged states parties to extend full co-operation to the OPCW, not least by providing it with "necessary resources for its effective functioning".

The Director-General's opening statement, his first to the Conference since his appointment, focused primarily on the practical matters to be resolved during the Conference, the majority of which were financial. Other items touched upon included the destruction, as of 1 October, of more than ten per cent of the total declared CW stockpiles, and the fact that the United States and India had met their obligations to destroy twenty per cent of their declared CW stockpiles within five years after entry into force.

Mr Pfirter also expressed his intention, once the Conference concluded, to make an "overall assessment" of the OPCW to look into concrete steps that could be taken to make the OPCW more efficient and better performing this assessment is currently underway. The Director-General noted that the OPCW was in dialogue to explore the possible application of cost-saving verification measures. Further on verification, the need for monitoring the global chemical industry in line with the provisions of the Convention was noted, as were the financial implications of the coming on line of new destruction facilities in the next few years. The importance of ICA was also highlighted, while Africa was identified as an area of priority in terms of achieving universality of the Convention as were SE Asia and the Caribbean. The Director-General noted that there had been four ratifications to the Convention between June 2001 and October 2002; Nauru, Saint Vincent and the Grenadines, Samoa and Uganda.

General Debate Thirty-two delegations made statements during General Debate. Those addressing the Conference included Denmark, on behalf of the European Union and countries associated with the EU and the EFTA, and Nigeria, on behalf of the African Group.

In addition to issues relating to the Programme and Budget, discussed below, one of the items discussed in General Debate was the forthcoming Review Conference. One statement frequently made was that the Review Conference was not, and should not become, an "amendment conference". Additionally, frequent reference was made during General Debate to the desire for a return to normality in the operations and functioning of the OPCW, with a new Director-General now at the helm. China and Japan also took the opportunity to report on progress to date in respect of Abandoned Chemical Weapons (ACW) in China; China indicating that, despite co-operation, a substantial amount of work remained to be done.

Election of the Chairman and Vice-Chairmen Amb. Noureddine Djoudi of Algeria was elected as the Chairman of the Conference — he will hold office until a successor is

elected at the eighth session of the Conference. New Vice-Chairmen were elected from China, Cuba, Ecuador, Iran, Nigeria, the Russian Federation, South Africa, Spain, the United States of America and Yugoslavia.

Organization of Work and Establishment of

Subsidiary Bodies Three items were on the agenda for the five meetings of the Committee of the Whole under the guidance of its Chairman, Amb. Marc Vogelaar of the Netherlands. The first item related to the list of approved equipment and technical specifications of approved equipment, the second to all items relating to the *Programme and* Budget of the Organisation for 2003, and the third to the scale of assessments to be paid by states parties. As discussed below, extensive debate during the course of the Conference resulted in decisions being adopted in the plenary body on the second and third items. In respect of the first, the Committee of the Whole recommended that the Conference approve the draft decision on procedures for updating the list of approved inspection equipment. While the Committee also considered the draft decision on procedures for revising technical specifications for on-site inspection equipment, no final agreement was able to be reached. This item was subsequently taken up at the thirty-first session of the Council, as discussed below.

The reports of the subsidiary bodies, the Committee of the Whole, the General Committee, and the Credentials Committee, were noted by the Conference. The Conference noted that there had been no meeting of the Confidentiality Commission since January 2001 and that its next meeting is due to occur shortly after 19 May 2003. The Conference elected 20 members of the Confidentiality Commission, four from each of the five regional groups, for a term of two years, beginning 19 May 2003.

Ten members of the Credentials Committee were also appointed at the Conference and will hold office until the next regular session of the Conference. Those appointed were from Belgium, Botswana, Brazil, Cameroon, Colombia, Finland, Kuwait, Romania, Republic of Korea and Slovakia.

Annual Report The Conference approved the Report of the OPCW on the Implementation of the Chemical Weapons Convention in the Year 2001. This report will be printed and distributed early in 2003.

Status of Implementation of the Convention No report on the status of implementation of the Convention was presented to the Conference. The Conference reaffirmed its decision at the fifth session of the Conference on national implementation measures and requested states parties to respond promptly to the two legislation questionnaires issued by the Secretariat. The Conference also encouraged states parties that need assistance in fulfilling their obligations under Article VII, paras 1 and 5, to present their requests to the Secretariat.

Report of the Executive Council The Conference noted the report of the Council, introduced by the Chairman of the Council, Amb. Lionel Fernando of Sri Lanka, on the performance of its activities between 24 February 2001 and 16 July 2002. The report contained a number of

recommendations of the Council to the Conference, almost all of which were adopted by the Conference at its seventh session. Those adopted included decisions approving nine Russian requests for conversion of chemical weapons production facilities (CWPFs) for purposes not prohibited under the Convention, four of which are at the Open Joint Stock Company (OJSC) Khimprom site in Volgograd, four are at the OJSC Khimprom site in Novocheboksarsk and one is in Dzerzhinsk.

Two significant decisions were adopted on the recommendation of the Council in respect of technical matters. The first was on guidelines for the declaration of Aggregate National Data (AND) for Schedule 2 chemical production, processing, consumption, import and export and Schedule 3 import and export. This had been referred to the Conference from the thirtieth session of the Council in September. The second decision adopted, after referral to the Committee of the Whole, was on procedures for updating the list of approved equipment.

The recommendations of the most significance, however, related to extensions of deadlines for the destruction of Category 1 CW stockpiles. A decision had been reached at the resumed twenty-first meeting of the Council on 10 October (during the period of the Conference) in respect of the Russian request for an extension of intermediate and final destruction deadlines, a matter which had been before the Council since December 2001. The resulting recommendation of the Council, adopted by the Conference without debate, granted, in principle, extensions of the deadlines for destruction of one per cent and 20 per cent of the Russian Category 1 CW stockpiles. The Conference authorised the Council to establish the specific dates for those deadlines, with a view to the Council taking a decision in respect of the one per cent deadline at its thirty-first session in December; the Council's action in respect of this is detailed below. There are detailed periodic reporting requirements for Russia, the Director-General and the Chairman of the Council. For example, Russia is required to provide updates at each session of the Council on the status of its destruction programme and, in particular, on progress in construction of destruction facilities necessary to meet a revised 20 per cent deadline. The decision sets benchmark targets for construction to begin at the destruction facility at Kambarka on 31 January 2003 and to be completed, with destruction commencing, on 1 December 2005. On the basis of the Council's recommendations, the Conference is to set a substitute 20 per cent deadline at its eighth session. On the same basis, it will also consider Russian proposals with a view to establishing substitute "practical deadlines" in respect of 45 per cent and 100 per cent destruction of Russian Category 1 CW.

The decision calls upon Russia to take necessary steps to meet its proposed revised destruction schedule (detailed in the previous *Bulletin*) and states that this will be taken into account in subsequent decisions on destruction deadlines. However, it also calls on states parties to provide assistance where possible to support Russian efforts to implement the CW destruction programme.

The Conference also approved a second deadline extension request by the traditionally unnamed state party in respect of its intermediate phase 2 (20 per cent) deadline for the destruction of its Category 1 CW stockpiles. The

decision provided that the state party is to complete destruction of 20 per cent of its Category 1 CW stockpiles before the end of the timeframe in the Convention for completion of phase 3 of destruction, i.e., before 29 April 2004. Reporting requirements were a feature of this decision too: the state party is to inform the Council at each alternate regular session of the status of its plans for implementing its destruction obligations and periodic reports to the Council by the Director-General and Chairman on progress in destruction are also required.

On other matters coming from the Council, the Conference noted the audited financial statements of the OPCW and Provident Fund for the period ending 31 December 2001, the Acting Director-General's response to the External Auditor's report and the reports and comments on the work carried out by the Office of Internal Oversight (OIO).

Finally, the Conference noted that several of the seven issues referred by it to the Council at its sixth session remained under consideration by the Council. These items include the recommendation of guidelines regarding low concentration limits for declarations of mixtures containing Schedule 2A and 2A* chemicals and a proposal for the fostering of international co-operation for peaceful purposes in the field of chemical activities. Another relates to the implementation of section B of Part IX of the Verification Annex (methodology of selecting OCPFs). The Council was urged to report on these issues as soon as appropriate recommendations have been formulated.

Election of members of the Executive Council

Twenty-one states parties were elected to the Executive Council for a two-year term of office which will commence on 12 May 2003. Those elected were, for Africa: Cameroon, Nigeria, Tunisia, Sudan, and Zambia; for Asia: China, India, Japan, Kuwait, Republic of Korea, and Saudi Arabia; for Eastern Europe: Czech Republic and Slovakia, for Latin America and the Caribbean: Argentina, Brazil and Mexico; and for Western European and other states: France, Germany, Italy, the United Kingdom and the United States.

Programme and Budget of the Organization The Conference was once again dominated by discussions on financial issues. This was a continuation of the situation leading up to the Conference, where, despite intensive rounds of consultations in the weeks preceding the Conference, the Executive Council had been unable to reach consensus on a draft *Programme and Budget for 2003*, a version of which had been produced by the Secretariat in late May.

Nevertheless, as a result of ongoing consultations during the Conference, a *Programme and Budget for 2003* was adopted on the last day of the Conference. It appropriated a total of EUR 68,562,966, of which the amount assessed to states parties is EUR 64,026,741. This represents a 9.9 per cent increase over the 2002 pre-adjusted assessments to states parties, while the original proposal by the Secretariat for 2003 was for an 11.3 per cent increase. It is, however, a significant improvement on previous years' zero budget growth. The budget anticipates verification payments under Articles IV and V in the sum of EUR 3 million. It funds 474 staff posts and leaves 33 positions within the Secretariat vacant.

Some of the more significant budgetary increases lie in International Co-operation and Assistance (ICA) programmes. Funding for ICA programmes was an issue of contention at the Conference, with some delegations referring to the need for increased funding to ICA during General Debate and others taking the view that ICA should not be funded at the expense of other core programmes. The Programme and Budget adopted by the Conference allocates additional funds of EUR 450,000 to ICA programmes. The funds will come from the following sources: EUR 114,000 originally intended for replenishing the special account and EUR 336,000 to be acquired through management of the programme and administrative adjustments. As set out in the Programme and Budget, the programmes to which the funds will be directed include: doubling the training capacity of the OPCW Associate Programme; OPCW official language versions of the information packages provided to National Authorities (NAs); regional meetings of NAs and specialised workshops; a medical course to take place in Iran; national protection courses to be held in Togo and Uzbekistan; support for international co-operation programmes such as internship support, research projects and equipment exchange; training courses for NA personnel; and training and other support from the Assistance Co-ordination and Assessment Team (ACAT). Once earmarked for the ICA programmes, the Conference directed that the funding not be redirected to other needs.

Incorporated into the budgetary negotiations, and another source of debate, was the allocation of Article VI industry inspections within the 2003 Programme and Budget. The proposal by the Secretariat was for a marked increase in inspections of DOC/PSF sites with a corresponding decrease in inspections of Schedule 1, 2 and 3 facilities. During the course of negotiations, the Chair issued a compromise proposal, setting the number of DOC/PSF inspections at 63, rather than the 93 initially proposed by the Secretariat, but this failed to garner agreement. The programme of work finally adopted budgets for 132 inspections for 2003, the same total as for 2002. This includes 16 Schedule 1 inspections, 38 Schedule 2 inspections, 18 Schedule 3 inspections and 60 DOC/PSF inspections for 2003, and compares with the 2002 allocation of 18 Schedule 1 inspections, 40 Schedule 2 inspections, 42 Schedule 3 inspections and 32 DOC/PSF inspections. However, the Conference's decision notes that the distribution of inspections does not prejudge the distribution for future *Programme* and *Budgets* or alter the priorities set out in the Convention.

Several other significant financial decisions were adopted by the Conference. The Director-General was authorised to withhold the distribution of the prospective cash surplus for 2001, arising from late payment of Article IV and V reimbursements, pending further consideration of the matter at the eighth session of the Conference. Further on the matter of Article IV and V costs, and in addition to calling on states parties to immediately pay outstanding invoices under Articles IV and V, the Conference directed the Council to address the issue of Article IV and V costs with a view to taking appropriate decisions, if necessary, by June 2003. The Council was also directed to take provisional decisions in this regard, with implementation to

be carried out by the Secretariat, pending approval at the eighth session of the Conference. The Council was able to take action in respect of Article IV and V costs at its thirty-first session.

The Conference also decided that transfers of funds from the Working Capital Fund for the purpose of financing budgetary appropriations in 2002 and 2003 shall, as an exceptional measure, be reimbursed to the Fund as soon as possible, but not later than the end of the financial periods of 2003 and 2004 respectively. The Director-General is to report to the eighth session of the Conference on details concerning transfers to and from the Fund.

In what hopefully indicates more secure financial times ahead, the Conference recognised that operational activities of the Organization will increase in the coming years as more chemical weapons destruction facilities (CWDFs) come on-line, and affirmed its readiness to ensure adequate availability of resources. At the same time, the Conference considered that steps needed to be taken to develop and implement more cost-effective and transparent procedures. Along these lines, the Conference requested the Director-General to present various proposals to the Council at its thirty-second session in March next year relating to optimisation of verification activities under Articles IV and V and the more substantial use of monitoring equipment at chemical weapons storage and destruction facilities to reduce inspection costs in 2003 and The Conference also noted the desirability of increasing the efficiency of Article VI industry verification activities, in particular in relation to the duration of inspections, the number of inspectors for each inspection and other related issues. Finally, the Conference noted the OPCW's Medium-Term Plan for 2004–2006.

Scale of Assessments The scale of assessments to be paid by states parties for 2003 was the subject of some debate in the Committee of the Whole. The Conference ultimately adopted a scale of assessments for 2003 that sees the USA (22 per cent), Japan (19.5 per cent), Germany (9.8 per cent), France (6.5 per cent), the UK (5.5 per cent) and Italy (5.1 per cent) remain the largest contributors. All other states parties' assessments were under 5 per cent.

However, the Conference noted the observations of Brazil concerning the methodology used to calculate states parties' assessments. Brazil's assessed contribution for 2003 was EUR 1,529,357. The Conference's report also addressed the financial situation of Argentina, which at the time of the Conference was awaiting a decision of the UN General Assembly on a possible reduction of Argentina's assessed UN contribution. In the event of such a reduction, Argentina considered that this should be reflected in Argentina's assessed contribution to the OPCW and accordingly expressed its reservation on its assessed OPCW contribution in the 2003 approved scale.

Fostering of International Co-operation for Peaceful Purposes in the Field of Chemical Activities There remains no resolution of the contentious issues regarding the fostering of international co-operation for peaceful purposes in the field of chemical activities. The Conference noted statements made on this issue by Mexico, Iran and India, with Mexico stating at the Conference that it had put

forward a draft proposal which has the support of some developing states parties — however, the suggestion has yet to secure consensus. With no proposal before the Conference from the Council on implementation of Article XI, the issue was again referred back to the Council for consultations to continue, with a view to a proposal being forwarded to the Conference for its eighth session.

Universality This year, the Conference received a note by Belgium on behalf of the EU and a letter from South Africa on the issue of universality. The Belgian note, dated 1 November 2001, detailed that démarches had been made to 18 signatory states and 12 non-signatory states and indicated that the EU was prepared to carry out further démarches whenever it is deemed productive. These were thought to be useful where there was no political objection to ratification or accession, but a perception by some states (especially small states) of the heavy financial and administrative burden of accession was an impediment. The South African letter circulated the decision of the African Union (AU) on the implementation and universality of the Convention.

The Conference noted the Director-General's report on the implementation of the recommendation of the Conference at its sixth session for ensuring universality. The report stated that only four additional ratifications had occurred since the last session of the Conference, leaving some ten per cent of all states as non-signatories. Owing to the OPCW's financial crisis, only three regional seminars or workshops had been conducted since the sixth session of the Conference. These outreach activities in Jamaica, the Sudan and Fiji had only been possible due to voluntary contributions by states parties. The report also noted the plans to develop a programme of action for Africa, building on the decision of the AU. The Director-General noted that contacts and consultations had continued over the period under review with more than half of the 47 states not party. According to the report, a majority of these states have not yet joined the Convention for reasons including a lack of awareness, human or financial resources, or because of administrative or bureaucratic delays. However, the report noted the role in some cases of the regional security context and national or regional conflicts and tensions.

The report suggested that future universality efforts should be supported by the expansion of bilateral, targeted, and resource-efficient efforts on the part of the Secretariat and states parties. Another suggestion was that universality efforts might also be pursued through co-operation with various international, regional and sub-regional organizations.

The Conference also adopted the Republic of Korea's traditional draft decision on ensuring universality. The decision, recognising that the security assurances in the Convention and international co-operation measures could aid progress to universality, this year also contained recognition that promotion of universal adherence to the Convention could contribute to the global anti-terrorist efforts. As a result of the adoption of the decision, the Director-General will again be required to submit a report on work undertaken by the Secretariat in the sphere of universality at the eighth session of the Conference.

Other business Towards the close of the session, the Director-General made a statement regarding a complaint filed by former Director-General Bustani to the ILO Administrative Tribunal. Mr. Bustani was reported to be contesting the decision of the Special Session of the Conference to terminate his term of office and is requesting compensation. The Chairman of the Conference and Director-General Pfirter were authorised to take the necessary administrative action and were requested to keep the Conference and Council informed of developments.

The Conference confirmed dates of 28 April–9 May 2003 for the First Review Conference. To allow for planning, the Conference also set dates for the regular sessions of the Conference until 2010 as follows: 20–24 October 2003; 15–19 November 2004; 7–11 November 2005; 6–10 November 2006; 5–9 November 2007; 7–18 April 2008 (Second Review Conference); 3–7 November 2008; 2–6 November 2009; and 1–5 November 2010.

Executive Council

The Executive Council met twice during the period under review, for its twenty-first meeting in October and for its thirty-first regular session in December.

Twenty-first meeting The twenty-first meeting of the Council opened on 3 October, with a number of items on the agenda left over from the thirtieth session of the Council and requiring decisions to be taken prior to the Conference. A number of decisions were able to be taken without much delay: the draft *Report of the Organisation for 2001* and the *Report of the Executive Council on the Performance of its Activities* were both approved on 3 October and referred to the Conference.

Also on 3 October, the Council adopted a decision on the combined plans for the destruction and verification of the CWPF (GB production and fill facility) at Rocky Mountain Arsenal. It also approved a decision recommending the Conference approve the conversion request by Russia for the soman production facility at OJSC Khimprom in Volgograd and adopted a decision on the combined plans for conversion and verification of the CWPF at ICI Valley in North Wales.

Three items were forwarded to the Conference for further consideration, one of which was the draft decisions on procedures for revising technical specifications for on-site inspection equipment and on procedures for revising the approved list of inspection equipment. The others, forwarded to the Conference without a decision, were items relating to proposed amendments to OPCW Financial Regulation 6.6, the draft programme and budget for 2003 and OPCW medium term plan, and a draft decision on withholding the distribution of the prospective cash surplus for 2001.

With no decision able to be reached on 3 October, the Council returned on 10 October (during the period of the Conference) to items relating to the Russian extension of destruction deadlines request and the plan for verification of destruction of CW at the Anniston chemical agent disposal facility in the United States. At that meeting, decisions were adopted without discussion approving the agreed detailed plan in relation to Anniston. The Council's

report noted that an explanatory note was submitted by the United States on the dates of destruction at Anniston which states that the United States will provide information annually on scheduled changes in its overall CW destruction programme, including information regarding changes at Anniston.

As outlined above, the Council also recommended that the Conference grant, in principle, an extension of Russia's obligation to meet the intermediate deadlines for the destruction of one per cent and twenty per cent of its Category 1 CW stockpiles, as contained in the Chairman's Proposal to the Council on 10 October.

One item left over, however, from the twenty-first meeting and not yet addressed, was the draft decision on the participation of designated laboratories in preparation or evaluation of samples on a rotational basis for OPCW proficiency tests.

The thirty-first session of the Council The thirty-first session of the Council in December was comparatively brief, the Council coming together for only four meetings during 10–12 December. The Council received reports from the Vice-Chairmen and co-ordinators on informal consultations during the intersessional period on: chemical weapons issues; chemical industry and other Article VI issues; administrative and financial issues; and legal, organizational and other issues.

The Director-General's statement to the Council noted that, after a difficult year, the OPCW was "very much on its feet" and back to carrying out a full programme of work, including in relation to Article VI industry inspections, of which 80 have now been conducted this year. His statement outlined his programme of visits in the last few months both to member states and the United Nations, emphasising the support and encouragement expressed by states parties. In terms of efforts towards universality, Africa, the Caribbean and South-East Asia were again stated to be the focus for The two main issues addressed by the Director-General were, however, tenure, which became a source of considerable debate, and the forthcoming Review Conference, both of which are discussed further below. The Director-General outlined three main objectives for the Review Conference: first, to produce a strong message of endorsement and commitment to the Convention; secondly, to assess thoroughly how it has been implemented since entry into force; and thirdly, to look into new challenges facing the Convention and the OPCW — in particular, international terrorism.

Fifteen states made statements in General Debate, including Nigeria on behalf of the African Group, and Spain and Switzerland as observers.

During the period between the thirtieth and thirty-first sessions of the Council, consultations or informal meetings were held on: the list of new inspection equipment and revised specifications for approved inspection equipment; the Verification Implementation Report; assistance and protection against CW; reports on the implementation of recommendations of the OIO, External Auditor and Provident Fund; low concentration limits for Schedule 2A and 2A* chemicals; the status of requests for the clarification of declarations; transfers of Schedule 3 chemicals; progress in destruction of CW and destruction

or conversion of CWPFs; and Article IV and V costs. Following the thirty-first session of the Council, consultations would also be held on sampling procedures.

Status of Implementation of the Convention The Council noted the 2001 Verification Implementation Report (VIR), as well as the Chairman's summary of consultations held on 26 November. The Chairman's summary reflected that states parties considered that, while a useful tool, the structure and the content of the VIR could be improved Restructuring of the VIR was already under consideration by the Secretariat. Proposals are for the VIR to be produced at an earlier stage in the year, the presentation of verification issues to be streamlined, and for states parties to have an opportunity to review and submit comments on the VIR after it has been issued — these would then be issued in a separate but associated document so that both can be considered formally by the Council. issuing of half-yearly VIRs would also be abolished.

Another lengthy report before the Council was on the *Status of Implementation of Articles X and XI of the Convention*. The Council considered the report and requested the Secretariat to issue an updated Annex 1 to the report representing the situation in relation to declarations of national protection programmes as of 31 December, and any other additional information. Currently covering the period from 1 August 2001 to 31 July 2002, the report stated that only 16 states parties had provided the required annual information on their national programmes related to protective purposes. By 31 July, 28 states parties had made these declarations, as required under Article X, para 4, of which two states parties had declared they had no programmes for protection against CW.

The report also detailed the activities of the Secretariat under Article X, para 5, in terms of providing advice to states parties on developing and improving their protective capacity against CW. In addition to the Protection Network and a workshop and several courses, the Secretariat noted that requests had been made under Article X, para 5 by states parties, including Armenia, Bosnia and Herzegovina, Iran, Togo and Uzbekistan, but had been unable to be answered because of financial constraints. The report also detailed steps taken by the OPCW in terms of its obligation under Article X to co-ordinate and deliver effective means of protection in the event of a request for assistance.

Four states parties were reported to have contributed to the Voluntary Fund for Assistance between 1 August 2001 and 31 July 2002, with the balance standing at the end of July this year at just over EUR 1 million. To date, this fund has not been utilised. Finally, under the Article X heading, no offers of assistance under subparagraphs 7(b) or 7(c) of Article X were made during the reporting period.

The Article X and XI implementation report also detailed the activities carried out under Article XI, specific programmes for which include the Associate Programme, the Conference Support Programme, the Internship Support Programme, the Equipment Exchange Programme, a programme which supports research projects, the Laboratory Assistance Programme, and an information service. During the period under review, the Secretariat also invited states parties to give views on a new programme to implement Article XI by creating a database and acting

as a clearinghouse for information relating to technical know-how, equipment and trade possibilities between states parties and industry. In terms of implementation support, the report outlined National Authority-related activities, technical assistance visits, the OPCW roster of lecturers established to assist with implementation support projects and the Ethics Project, which aims to raise awareness of the OPCW objectives among chemists, chemical engineers and life scientists.

One other report under the agenda item dealing with Status of Implementation was noted by the Council, on National Implementation Measures (discussed further below in the section on Legal Issues). The Council expressed its disappointment that only 44 per cent of states parties had responded to the legislation questionnaire on penal enforcement, urging states parties who had not done so to respond to the questionnaire and stressing the importance of all member states taking the legislative and administrative steps necessary to implement obligations under the Convention. The Secretariat was requested to continue pursuing responses and to assist states parties when needed.

Destruction issues Under this heading, and as a result of the Conference's decision on the matter, the Council was tasked to establish a specific date for the one per cent deadline for Russian destruction of its Category 1 CW stockpiles.

The Council welcomed the commissioning on December 10 of the CWDF at Gorny, noting that monitoring of destruction activities by OPCW inspectors was scheduled to start on December 16. In accordance with the Conference's decision, the Chairman reported on a visit to the Gorny facility which took place during 18-20 November. Experts from Austria, China, Finland, France, India, Italy, Japan, Mexico, the Netherlands, the Republic of Korea, the United Kingdom and the United States, as well as the Chairman of the Council and a member of the Secretariat, took part in the visit. The previous week, from 11–15 November, the Secretariat had conducted the final engineering review of the Gorny CWDF. In addition to the activities at Gorny, briefings on technical and background issues were provided to the delegation and meetings were held with the Deputy Minister of Foreign Affairs of the Russian Federation and the Director-General of the Russian Munitions Agency, amongst others.

The Chairman's report stated that "tremendous progress" had taken place since the previous Council visit in 2000. Many parts of the facility, including the lewisite processing line which was completed in August, were reported to be ready for destruction operations. However, other portions were not yet completed and, on the basis of the information provided, the team was not able to estimate how much time would be required to complete the Gorny facility. In terms of personnel, 500 staff have been trained and, once the facility is fully operational, it is planned that staff numbers will increase to 2000, so as to conduct operations 24 hours a day with up to six shifts of workers. The conclusion of the team, based on the destruction capacity of the Gorny facility, was that it was doubtful that the destruction of one per cent (approximately 400 metric tons) of the Russian Category 1 CW stockpile could be

achieved by 29 April 2003. The potential for using both reactors in the mustard processing area to increase throughput was noted, but considered unlikely in the first few months of operation of the plant. The group was informed that the date of 29 April 2003 was considered a 'target' date by Russia, rather than an obligation. No specific date had been provided by the Russian authorities as to when destruction operations would actually begin.

The Russian Federation also provided, as required by the Conference, an update on Gorny and the status of its destruction programme. The information provided on Gorny outlined the inauguration of the facility by the State Commission and the Executive Council visit in November, stating that a report would be submitted on the results of that visit. The Gorny facility was stated to have "the capacity to destroy 400 tonnes of CA within the deadlines already declared". Russia stated that, with Germany as a key partner, they were bringing up to date the detailed plan for construction of the CWDF at Kambarka. The Kambarka facility is scheduled for completion by the end of 2004 – if this goes ahead, Russia stated that "in 2007 the facilities at Gorny and Kambarka will be able to destroy all stockpiles of CA kept in those arsenals". The report stated that completion of subsequent stages of CW destruction depended greatly on construction of a full-scale facility at Schuchye, which depended on the immediate renewal of US financial assistance — further construction delays were stated to risk disruption of the Schuchye work schedules as well as timely completion of the destruction of CW stockpiles. Accordingly, Russia stated that it would have to seek alternative ways to speed up CW destruction.

Taking up the issue of the one per cent deadline extension request, the Council stated that it believed that a further update on the Gorny facility would be required in order for it to set a date for the one per cent deadline. The Council considered that it would be appropriate to revisit the issue once the facility had commenced destruction operations and achieved "a level of destruction activity that is sustainable for sufficient time to demonstrate capacity to destroy one per cent of the stockpile". At the Council's request, Russia and the Secretariat agreed to provide an update by the end of February 2003, with member states to be advised as soon as the Gorny facility reached a full, sustainable level of destruction activity. The Council "expressed its desire to establish a specific date for the extended one per cent deadline as soon as possible", noting that it would be willing, once the necessary information is available, to convene a special meeting of the Council with a view to taking a decision on the matter but that, in any event, the issue would be revisited at its thirty-second session in March.

On other destruction matters, the Council adopted the one draft decision before it on a combined plan for destruction and verification of a CWPF (storage of chemical weapons production equipment) in Yugoslavia.

Facility Agreements Of the two facility agreements before the Council at its thirty-first session, one draft decision in respect of a Swedish Schedule 2 plant site was approved. The other, relating to a Schedule 1 protective purposes facility in Belgium, was deferred until the next session of the Council.

Chemical Industry issues Following a report on progress achieved in consultations by the co-ordinator for chemical industry and other Article VI issues, the Council approved a decision on understandings regarding declarations under Article VI and Part VII and VIII of the Verification Annex for recommendation to the Conference. This issue had been left over from the twenty-first meeting of the Council. The decision provides that, for declaration purposes, the production of a Schedule 2 or 3 chemical is understood to include all steps in the production of a chemical in any units within the same plant through chemical reaction, including any associated processes in which the chemical is not converted into another chemical. Declarations are required for all plant sites that comprise one or more plant(s) which produce, process, or consume a Schedule 2 chemical or produce a Schedule 3 chemical above the relevant declaration threshold quantity and in a concentration above the relevant low concentration limit. For declaration purposes, concentration of a declarable Schedule 2 or Schedule 3 chemical may be measured directly or indirectly, while "transient intermediates" are defined and are stated not to fall under the declaration requirements. The decision also requests states parties to take any necessary measures in accordance with Article VII, paragraph 1, for implementation as soon as possible, and not later than 1 January 2005.

Technical issues As requested by the Council at its twenty-ninth session, the Director-General presented a report on cost-effective means identified for including Chemical Abstracts Service (CAS) numbers for new validated data. The report stated that the least expensive option was to submit a computer-readable request to CAS, containing all the compounds contained in the OPCW Central Analytical Database (OCAD). The Secretariat, having contacted the CAS to explore a possible agreement to cover regular checks for allocated CAS numbers on a cost-free basis, and the right to distribute these numbers as part of the OCAD, is currently awaiting a response from the CAS.

A summary of the thirteenth meeting of the Validation Group for the updating of the OCAD, which met during 9–10 July, was issued in November. The group evaluated new analytical data for possible inclusion in OCAD, as well as modifying naming rules and reviewing the evaluation criteria — a document on the evaluation criteria will be finalised at the Validation Group's next meeting. The Group decided to re-evaluate four mass spectra in OCAD and a postponed mass spectrum during its next meeting. As a result of the meeting, the Executive Council had a list of new validated data for inclusion in OCAD before it at its thirty-first session, which was then adopted.

The Council was also able to take a decision on procedures for revising technical specifications of approved equipment, this issue having been forwarded to it by the Conference in October with a view to having the then draft decision approved and provisionally applied. The much-awaited decision provides that the Director-General shall develop technical specifications for all items of approved equipment to be procured and acquired for the OPCW — these specifications shall be in accordance with general and specific operational requirements. The technical specifications for approved equipment, whether

procured or acquired, shall be such that the equipment is commercially available to states parties. Technical specifications must outline the required characteristics and capabilities of the item and the benefits of the revised specifications from a technical point of view. The decision, which will be forwarded for approval by the Conference at its eighth session, also provides for the distribution of the proposed list of revisions for review by states parties, with both the proposed technical specifications and results of the review to be submitted to the Council for approval. Informal consultations will be held in order to discuss items not approved. Finally, the decision states that the entire process shall be completed in an expeditious manner.

Financial issues The Council noted reports on the income and expenditure situation of the OPCW, the most recent being for the period ending 31 October. The October report reflected that 97.7 per cent of the assessments to states parties in 2002 had now been collected, with 91 of the 147 states parties having fully paid and nine having partially paid. Twenty-seven states have been in arrears in the payment of their financial contributions to the OPCW for the preceding two full years.

Of the EUR 3 million budgeted for Art IV and V reimbursements for 2002, EUR 1,664,107 has been invoiced, of which EUR 468,506 had been collected at 31 October. This represents a collection rate of just over 28 per cent for 2002. In terms of the figures for Article IV and V reimbursements since 1997, a total of EUR 30 million was budgeted, while almost EUR 17.5 million has actually been invoiced. Some EUR 16 million has been collected since 1997, which reflects a collection rate of just over 92 per cent of the amount invoiced. However, it also means that the OPCW has received only 53.3 per cent of the amount budgeted for Art IV and V reimbursements since 1997. During the Council session, the United States announced that it had initiated payment of an additional EUR 492,000 in Article IV and V reimbursements, and was reviewing other invoices.

At the thirty-first session of the Council, the Republic of Korea announced that it was making a voluntary contribution of US\$30,000 towards ICA programmes for 2003, while Italy announced that on 22 November it made a voluntary contribution of EUR 104,000. In December, the OPCW announced that the recent US\$2 million contribution by the United States will be used to support programmes to: ensure the complete conduction of approved inspections; provide information technology to support verification planning, analysis and reporting; fund expertise and outreach activities to support states parties in effective implementation of the Convention and develop national measures to help combat chemical terrorism; and enhance management and planning expertise. Zealand and Norway have also been recent donors of voluntary contributions.

The Council received an oral report on an informal consultation on the situation of the OPCW Provident Fund and developments since July 2002. The Council requested that it be informed of the final outcome of discussions between the Provident Fund Management Board and the former administrator of the Fund, as well as any recommendations or evaluations.

Reports were also received on the implementation of the recommendations of the Office of Internal Oversight (OIO) and the External Auditor for the first half of 2002. The Council decided that the report in respect of the OIO recommendations, together with the OIO report for 2002, should be discussed during future informal consultations. The Secretariat's report on the implementation of the recommendations of the External Auditor had been discussed during informal consultations, the Council being informed in an oral report that no substantive issues relating to this item had been raised.

In terms of substantive financial issues, the Council's report of its thirty-first session addressed the issue of Article IV and V costs. The language for the report put forward by the facilitator of this issue was stated to reflect only those areas in respect of Article IV and V costs which were able to be agreed. The report language, as adopted by the Council, noted that a variety of options, including advance payments, expedited reimbursements and provision of a sum of working capital to the OPCW, had been identified by the Secretariat as possible means to ensure efficiency in handling Article IV and V reimbursements. The Council urged the Secretariat and relevant states parties to maintain close contact so that appropriately-documented invoices could be submitted through the year, thus avoiding prospective discrepancies and delays. The Council decided to review progress in terms of Article IV and V payments before the eighth session of the Conference. The decision of the Conference regarding transfers from the working capital fund was noted and recognised as likely to improve the prospect of income under Articles IV and V being more fully used in financing programme delivery in 2002 and The Council also noted the need for realistic projections of income under Articles IV and V in terms of minimising the risk of "fictitious income".

Privileges and immunities agreements The Council, following the decisions of the Conference, concluded agreements on the privileges and immunities of the OPCW with Finland, Argentina and Spain.

Review Conference The Chairman of the open-ended working group on preparations for the review conference, Amb. Davérède of Argentina, reported to the Council on work carried out by the group since the thirtieth session of the Council. The group has now held 21 meetings — since the Conference, the eight meetings held have been devoted to substantive matters, including: general issues related to the review conference; developments in science and technology; chemical industry issues; chemical weapons issues; verification in general; international co-operation issues; assistance and protection issues; the provisional agenda of the Review Conference; and the working group's programme of work for the beginning of 2003. During the period under review, the group received a background paper from the Secretariat on International Co-operation Programmes and six informal discussion papers by the United States, as well as an informal proposal from Croatia.

For the first time, the Council had before it a draft provisional agenda for the First Review Conference, produced by the Chairman of the working group as a result of the meetings held since the Conference met in October. The Council considered this draft provisional agenda, which was stated by the Chairman of the working group to follow the sequential order of the Articles of the Convention as well as reflecting the clusters of issues which had been considered by the working group. However, no decision on an agenda was reached — the Council decided to consider it further at its next session in March 2003.

The current work plan for the working group is for a series of meetings between 20 January and 13 March, including discussion on a Chairman's paper specifying a proposal for the general structure of the final Conference document(s), chemical industry issues, CW verification issues and other verification issues, national implementation measures and implementation support, ICA issues, confidentiality issues, the functioning of the OPCW and the report of the working group to the Council.

Tenure Under the agenda item "Any Other Business", the Council considered a note by the Director-General on the Tenure Policy of the OPCW. The background to this issue was the decision in July 1999 of the fourth session of the Conference that the OPCW would be a non-career organization with the maximum length of service of staff members being seven years. The Conference requested the Council to set the effective starting date for that seven year period at its next regular session after the fourth session of the Council — so far, however, no such date has been set.

The Director-General's note set out the legal, financial and operational implications of the tenure policy. It stated that, until such time as the Executive Council takes a definitive decision on tenure, the Director-General intended to apply an interim solution, unless the Council decided otherwise. The interim solution would involve granting initial contracts for three years, as is current practice, with extensions granted if the Director-General considers them to be in the best interests of the OPCW. While in principle the length of service will be limited to seven years, in certain cases contract renewals might be offered exceeding seven years, based on performance and conduct. It was stated that the interim solution would be applied flexibly, transparently and in the best interests of the OPCW, and would be based on the financial resources available. It was reported that due regard would also be paid to the importance of recruiting staff on as wide a geographical basis as possible.

The tenure issue resulted in considerable debate, the Council (not rejecting the Director-General's note) ultimately deciding to consider the issue of tenure urgently during the intersessional period with a view to taking a decision on the effective starting date for the seven-year period at its next regular session. Secretariat staff were subsequently briefed on the developments.

Abandoned Chemical Weapons In General Debate in the Council, the Japanese delegation noted the presentation it gave at the OPCW in November, outlining the activities related to the ACW project in China since 1999 and project plans for the future. The presentation had covered excavation of sites, construction of access roads and studies of destruction technologies and environmental standards, as well as selection of a destruction plant site to be agreed with China. Japan also discussed the timeline for ACW destruction and noted the co-operation of the Chinese government.

Actions by Member States

Thailand deposited its instrument of ratification with the UN Secretary-General on 10 December — after entry into force for Thailand on 9 January 2003, it will become the 148th state party to the Convention. Entry into force occurred in October for the two other most recent members of the OPCW, Saint Vincent and the Grenadines and Samoa, both of which had deposited their instruments of ratification in September. The number of states that have signed but not yet ratified the Convention now stands at 26.

Secretariat

Declaration Processing As at 30 November, five of the 147 states parties were yet to submit their initial declarations: Mozambique, Nauru, Uganda and the newly ratifying states parties Saint Vincent and the Grenadines and Samoa. Ten states had submitted incomplete initial declarations: Colombia, Côte d'Ivoire, Kiribati, Nepal, Seychelles, Suriname, Turkmenistan, United Republic of Tanzania and Yemen, having failed to submit Article VI initial declarations; and Senegal, having yet to submit its initial declaration under Article III.

Sixty-two states parties have submitted annual declarations of past activities (ADPAs) for 2001, with 36 having submitted declarations for anticipated activities in 2003. In October, Morocco cancelled its ADPA for 2001 and pledged to submit a new declaration.

In November, another (unidentified) state party notified discovery of chemical weapons under Article IV, paragraph 9 of the Convention and stated that it intended to submit a detailed declaration of those CW once it completes the inventory and analysis.

Inspections and Verification By 22 November, 1,309 inspections had been completed, or were ongoing, at 567 sites in 51 states parties and one non-state party since entry into force in 1997. The breakdown of inspections was as follows: 305 to CWDFs, 262 to CWPFs, 184 to CWSFs, 20 to ACW sites, 41 to OCW sites, 4 to destruction of hazardous chemicals sites, 1 to an emergency destruction of chemical weapons site, 102 to Schedule 1 facilities, 196 to Schedule 2 facilities, 98 to Schedule 3 facilities, 95 to DOC sites and 1 other. OPCW inspectors had spent a total of 74,629 days on mission. During 2002, 191 inspections at 139 sites have been, or are being, carried out.

As reported in the Director-General's opening statement to the Council at its thirty-first session, the financial situation of the Organization having improved, Article VI inspections were able to be carried out as previously planned in the fourth quarter of the year. Some 40 Article VI inspections have been carried out since the beginning of September, raising the total for the year to around 80.

Destruction/Conversion Three out of four possessor states were reported by the Director-General at the thirty-first session of the Council to have been making "every possible effort" to accelerate Category 1 CW destruction. While the US campaign was said to continue at a good pace, India had completed destruction of 36 per cent of declared Category 1 CW stocks as at 1 December

and the traditionally unnamed state party had concluded its destruction campaign for the year in November, completing the Phase 2 requirement. During General Debate at the Council's December session, the unnamed state party noted that, as of 16 September, it had destroyed 21 per cent of its CW stockpiles and expressed its confidence that it will be able to meet subsequent CWC deadlines. The Director-General reported to the Council that the Secretariat had been informed that destruction activities in Russia's Gorny facility would start around December 16, at which stage an inspection team would be sent.

As of 1 December, the OPCW had overseen the destruction of 6,989 metric tons, out of a declared total of 69,869 metric tons of chemical agents. In terms of the destruction of munitions or containers, the OPCW reported destruction of 1,869,800 items out of a declared total of 8,624,587 munitions or containers. This destruction included Category 1 unitary and binary munitions and containers, Category 2 and 3 items and 5,372 OTCs, but excluded 258,548 M21 OPA-filled canisters whose destruction was reported separately in interim reports (this reflected a change in reporting practice of the OPCW). As was reported in the last Bulletin, of the declared CWPFs, 28 had been certified destroyed and nine converted for peaceful purposes. Thirteen facilities await destruction, while 12 are to be converted. Four CWDFs were in operation during October and November.

Implementation of Article X The Sixth Annual Assistance Co-ordination Workshop was held in Geneva during 4–7 November and was attended by 73 participants from 36 states parties and 3 international organizations. In addition to reviewing the OPCW implementation of Article X for 2002 and discussing plans for 2003, the workshop clarified the forms of assistance states parties have offered in the case of need. The participants also observed a one-day Swiss exercise, CAPITO 02, involving a simulated terrorist attack using nerve agents.

Implementation support The OPCW hosted the fourth annual meeting of National Authorities in The Hague during 4-6 October. Over 80 National Authorities registered to attend the meeting, which directly preceded the seventh session of the Conference. Focusing on national implementation of the Convention, National Authorities from Brazil, Slovakia and the Sudan (who had hosted events in 2002) reported on steps taken in their countries and regions. Sustained implementation support was agreed by many to be necessary to assist them improve their performance. During the course of the meeting, there were a number of bilateral consultations between National Authorities and the Secre-tariat. In addition, there was discussion on possible new measures to ensure effective national enforcement and an emphasis on strengthening regional consultations. Panama and the Czech Republic offered to host regional meetings of National Authorities in 2003, with Singapore offering to host the first National Authority regional meeting in Asia.

The second basic course for National Authorities, which had the participation of staff members from 30 National Authorities, concluded on 8 November. Over the five days of the course, participants learned about the provisions of

the Convention, the functioning of the OPCW and steps required to establish a National Authority. They also took part in table-top exercises and scenarios relating to chemical industry declarations, assistance in case of threat or use of CW, trade issues and old and abandoned CW.

18 November saw the beginning of Assistance and Protection Week at the OPCW. With this year's theme as "Civilian Protection", the week started with the annual meeting of the Protection Network on 18–19 November, attended by 22 experts from 17 states parties, followed by a workshop-exhibition on civilian protection during 20–21 November. Presentations given included the Dutch system of crisis and disaster management for protection against CW, Finnish environmental control systems for civil protection and Canadian industrial capability to support the mission of protection against chemical weapons. Companies and research institutions from eight countries exhibited technology for civilian protection during the week.

Implementation of Article XI The third Associate Programme, which started on 29 July, concluded on 3 October. The course included a training period at the University of Surrey and three weeks of industrial training at chemical plants in Belgium, Switzerland, Italy and the Netherlands. The UK and Canada provided financial support for the training at the University of Surrey.

On 28–29 November, there was a technical meeting in Madrid of National Authorities on practical aspects of the transfers regime in terms of current implementation of the Convention. Discussions were held on the import and export provisions of the Convention, transit of chemicals, free ports and customs. Thirty-five member states, as well as representatives of the free ports of Barcelona and Rotterdam and the World Customs Organization, attended the meeting, organized by the National Authority of Spain and the OPCW.

Two invitations for participation in Regional Meetings of National Authorities have now been issued. One is for the Fourth Regional Meeting of National Authorities in Latin America and the Caribbean, to take place during 27-28 February 2003 in Panama City. The other is for the Second Regional Meeting of National Authorities in Eastern Europe, which will be held in Prague during 30 June–2 July 2003.

Proficiency Testing A note on the evaluation of the results of the Eleventh OPCW Proficiency Test, conducted during 18 April-19 July, was released in late November. The note states that, of a total of 19 nominated laboratories, only 13 ultimately participated, three having withdrawn from participation during the test period (Australia, Brazil and Oman) and three laboratories not receiving the samples for testing (Iran, Russia, and Ukraine). Despite the reported efforts by DSTL in the United Kingdom, this was the first time that samples could not be delivered to all test participants within a month after dispatch of the samples. Causes for the delay included the lack of necessary import permits for the test samples, as a result of which the Secretariat recommended that all test participants inform their customs offices of the anticipated delivery. It was also reported that, during the period set for participants to comment on the test results, the comments submitted by one

laboratory resulted in a score of "C" being amended to an "A". Eleven of the thirteen participating laboratories met the adopted criteria and qualified for scoring, those which did not being from Turkey and Romania. Of those eleven, nine identified all the spiked chemicals and reported them adequately; the two which did not were from India.

The twelfth Proficiency Test was scheduled to take place in October under the newly adopted evaluation criteria — no results have yet been released.

Legal Issues The Office of the Legal Adviser submitted a report to the thirty-first session of the Council on National Implementation Measures, updating the report to the thirtieth session of the Council to incorporate responses received to the penal enforcement questionnaire.

As of 29 November, 65 states (44 per cent of states parties) had responded to the questionnaire. Of those 65, it was reported that 83 percent can prosecute violators of the Article 1 of the Convention. In terms of the General Purpose Criterion, 77 percent can prosecute violations involving any toxic chemical or precursor, including unscheduled ones. Under the export/import controls rubric, between 68 and 69 per cent can prosecute and punish violators of Schedule 1, 2 and 3 restrictions. While 38 per cent require a Schedule 3 end-user certificate by law, another 38 per cent enforce this requirement by policy. Sixty-three per cent of respondents reported that failure to report declarable activities was punishable and 71 per cent reported that their law is applicable extraterritorially to their nationals. Encouragingly, 78 per cent reported that there are no legal obstacles which would prevent co-operation or the provision of legal assistance to another state party. However, two of these added that specific criteria would have to be met before assistance could be provided.

A detailed analysis of the questionnaire responses, as well as any implementing legislation submitted by states parties, will be submitted to the thirty-second session of the Council.

Official visits The Director-General visited the United Nations in New York twice during its fifty-seventh session; first to address the First Committee on 23 October and then to make a statement to the General Assembly on 21 November.

The Director-General has also made a number of official bilateral visits during the period under review. The first such visit was on 30–31 October, when the Director-General visited the United Kingdom. The Director-General and representatives also visited China during 25–29 November, during which Mr Pfirter met with various officials from the Department of Disarmament of the Ministry of Foreign Affairs and the Commission on Economy and Trade. Mr Pfirter also gave a speech to the Chinese Association on Disarmament and received a briefing on Japanese ACW in China, amongst other things. The trip to China was followed by a visit to France on 3 December, where he met with officials from the Ministries of Defence, of Foreign Affairs and of Industry.

The Chairman of the US House of Representatives Subcommittee on National Security, Veterans Affairs and International Relations, Christopher Shays, and staff members visited OPCW headquarters on 20–21 November. Meeting with the Director-General, Representative Shays received briefings on the status of the Convention, destruction programmes and the OPCW's activities in relation to monitoring transfers of chemicals and non-proliferation. Discussions were also held on the threat of chemical terrorism.

On 5 December, the Director-General met with Dr Abdukurim El-Eryany, the former Prime Minister of Yemen, and now Political Adviser to the President, during his visit to the OPCW.

Outreach Activities The period under review has been a relatively busy one in terms of outreach activities of the OPCW, with OPCW representatives making trips to Brussels on 3 December and London on 10 December in order to meet with states not party and signatory states. Those states with which meetings have taken place include, in Brussels: Andorra, Angola, Chad, Haiti, Kyrgyzstan, Rwanda, Sao Tome and Principe, and the Solomon Islands; and in London: Antigua and Barbuda, Bahamas, Barbados, the Dominican Republic, Saint Kitts and Nevis and Tonga. Saint Vincent and the Grenadines also attended the meeting in London, as a newly ratified state party to the Convention.

In terms of outreach events for 2003, a regional seminar in the Caribbean is planned for early 2003. The Caribbean region is one in which there remain a considerable number of states not party to the Convention; the seminar would be a follow-up to the regional event to promote universal adherence to the Convention held in Jamaica in 2001.

A universality workshop has been proposed for mid-March in Thailand, which would focus on states not party in ASEAN and neighbouring regions. Building on the Khartoum workshop this year, and leading up to the African Union Ministerial meeting in mid-2003, it is likely that the African region will also be a focus of outreach activities by the OPCW. Discussions have been held with African delegations since September this year on developing a Programme of Action for Africa. A regional course in Uzbekistan may also be held later in 2003.

Staffing As outlined previously, the contracts of the Deputy Director-General and certain D-2 grade staff members were temporarily extended by the Director-General to 25 November. It has not been announced that any of those contracts has not subsequently been renewed.

The last personnel figures released for the Secretariat were as at 22 November. They reflect that the actual personnel strength of the Organization is 503, in respect of which 446 were fixed term staff. Of these, 313 are in the professional and higher category, and 13 in the general service category.

Subsidiary Bodies

Scientific Advisory Board In November, the Scientific Advisory Board (SAB) produced a report on its fifth session, which had been held during 26–27 September. The majority of the SAB's fifth session was devoted to preparing an interim report for the First Review Conference; this was presented to the Director-General and, through him, to the states parties for comments and observations. The SAB's report contained sections on Schedules of Chemicals, chemical synthesis and the production of chemical

compounds, sampling and chemical analysis on-site, chemical analysis off-site, destruction of CW and its verification, chemistry education and outreach and the technical capabilities of the Secretariat. The SAB is due to reconvene during 4 and 5 February, during which it will finalise its report.

Future work

With the Conference now over and a difficult year for the OPCW drawing to a close, member states and the Secretariat are focussing efforts on the forthcoming Review

Conference, due to start on 28 April. While preparations are well underway, much work remains to be done. At the next session of the Council during 18–21 March 2003, a draft provisional agenda for the Review Conference will once again be discussed and, hopefully, agreed upon. The other issue on which attention will be focussed will be the status of the Gorny destruction facility and the Russian destruction programme in general, with a view to setting a date for destruction of one per cent of Russian CW stocks.

This review was written by Fiona Tregonning, the HSP researcher in The Hague.

Report from Geneva

Review no 18

The Biological and Toxin Weapons Convention Review Conference

As reported in CBW Conventions Bulletin no 54 (December 2001), the Fifth Review Conference of the Biological and Toxin Weapons Convention (BWC) opened in Geneva from 19 November to 7 December 2001. Despite being close to agreement of a Final Declaration on the final day it became clear that there was no alternative other than to adjourn the Review Conference for a year until 11 to 22 November 2002. As the President of the Conference, Ambassador Tóth, noted at his Press Conference following the adjournment, the Review Conference had been quite close to finishing its work "both in terms of the volume of the elements which were consolidated and in terms of the understandings which had been reached." He added that "the draft Final Declaration was 95 per cent ready" although "there seemed to be a serious absence of understanding concerning the issue of the Ad Hoc Group where the differences between positions appeared to be irreconcilable", at least in the time remaining at the Review Conference.

During the past twelve months there has been relatively little sign of action by the states parties to the BWC. Most notable were the publication by the European Union on 15 April (see News Chronology, 15 April) of a list of concrete measures adopted by Foreign Ministers, the launch by the United Kingdom Foreign Secretary on 29 April of a green paper on strengthening the BWC (see News Chronology, 29 April), the adoption of a political declaration at a summit meeting by the heads of state and government of the European Union and Latin American and Caribbean countries (see News Chronology, 17 May) in which 33 states other than the EU participated and the Lima Commitment agreed by the Andean Community in June (see News Chronology, 17 June). All of these commitments to and support for the strengthening of the BWC were countered by the continued indications from the United States of a continued failure to recognize the significant contributions that a strengthened BWC regime could make to countering the threat from biological weapons whether from states or from sub-state actors (see News Chronology, 6 May, 26 August and 2 September).

The scene for the resumption of the Fifth Review Conference of the BWC was set at the United Nations General Assembly in the First Committee by the introduction by Ambassador Tibor Tóth on 17 October of the draft resolution A/C.1/57/L.22 requesting the Secretary-General to continue to render the necessary assistance to implement the decisions and recommendations of the Review Conferences, of the Special Conference of September 1994 and to support the resumed Fifth Review Conference. This resolution was adopted by the First Committee on 22 October and by the General Assembly on 22 November, both times without a vote.

Ambassador Tóth in his introduction to the resolution (available at http://www.reachingcriticalwill.org) pointed out that during the past year or so:

a new realism has been emerging about deliberate disease. ... The anthrax incidents, against the tragic background of 9/11, clearly demonstrated all the potential consequences for any society, if notwithstanding the norm, prevention or deterrence, the genie of misuse of biotechnology or bio-defence gets out of the bottle.

He went on to note that there is now a much wider public awareness of the threat:

- 1. The destructive potential of deliberate disease, as a weapon, or as a weapon of terror, is second to none: minuscule quantities of biological agents, used in an effective way, could cause massive destruction of life, widespread terror and critical disruption of basic societal activities.
- 2. How stealthy and treacherous biological agents are. Once prevention fails and these weapons are used, it is difficult to ascertain timely the exact scope of their use, to identify victims, to find the perpetrator, and to spot the place or the infrastructure where the substances were developed and produced.
- 3. The challenge is not just hype, existing merely in fiction. Deliberate disease is a real and present danger.

He then said that:

as a result of serious setbacks encountered in the last 18 months, there is a **new realism** emerging **about the BWC regime** as well: a less ambitious, but still meaningful role to be assigned to the regime. [emphasis in original]

Although this potential new role is different from building in a holistic way an all-encompassing compliance regime, he considered that it is becoming more and more evident that even in a more realistic role, the BWC regime:

can provide a unique framework for measures to benchmark and enhance implementation, and to decrease the likelihood of deliberate, accidental or naturally occurring diseases occurring and taking a high toll. It can be done through successive steps, through measures, which would not necessarily be legally binding, and through efforts undertaken both nationally and internationally. ... this is not a silver bullet function for the BWC regime, but a task to work together synergistically with other tools. But to reach the critical mass of decision for such a complementary role, some **basic question(s)** will have to be answered:

- 1. Beyond norm setting, is there any real-life, functional requirement for the BWC regime?
- 2. Could all the other containment and mitigation means, such as export-controls, non-proliferation, defence, civilian defence, preparedness, vaccination, disease control, individual or collectively, handle the whole spectrum of the threat without any margin of error, thus making complementary tools, like the BWC regime, redundant?
- 3. Is there a premium on preventive measures, such identifying and rectifying implementation deficiencies, compared to those measures, which are to mitigate the consequences of deliberate or accidental disease?"

He emphasised that if there was the slightest doubt that notwithstanding all the resolve, efforts and investments in the other mitigation means, there still might be:

a future margin of error, [then] writing off the BWC regime or declaring it redundant is an unaffordable luxury. ... compared to other means, the potential contribution of the BWC regime is relatively **cost effective**, both politically and in terms of resources. Politically, it could be cost effective because it can provide timely warning about implementation deficiencies early enough thus problems could be rectified or addressed in a preventive way, insider or outside the BWC regime. As for the resource allocation these measures are cost effective as well, because they have a combined price tag, which is several orders of magnitude lower than the cost and resource implications of other ... means, like those, which are to mitigate the consequences of deliberate or accidental disease.

He therefore urged that the present challenges should be turned into an opportunity and that the Fifth Review Conference to be reconvened on 11 November, would provide a chance to unfold in a realistic and incremental manner the unused potentials of the BWC regime. Since the summer round of his negotiations, he said there had been

a widening support for focusing in the resumed review conference specifically on the follow-up and wrap up its work swiftly. The **follow-up** mechanism would enable States Parties to meet annually and consider measures to strengthen the BWC. Such annual meetings could be supplemented by experts meetings for enhancing the effectiveness of the measures forwarded by consensus. Both the annual meetings of States Parties and the expert meetings will have to concentrate on a relatively limited number of issues to ensure that a focused and result-oriented work is taking place in the limited time available annually for those meetings. ... compared to all

previous review conferences such a follow-up mechanism would represent a qualitatively new product: an agreement on both the **ways and the means** of enhancing the implementation of measures to strengthen the BWC.... The emerging new realism about the threat and the BWC regime's role should be based on what is a **shared aspiration** for all of us: joining efforts in countering deliberate disease. Once that goal is taken seriously, we cannot afford being bogged down on the methodological differences of how to attain that goal. Let us concentrate on what we can agree now, let us do it, and as a result of measurable progress, let us create new ground for further joint action."

The Press Release issued by the United Nations on 6 November noted that:

The Review Conferences are especially important in the context of rapid progress being made in the bio-sciences, progress which as well as delivering important benefits also makes it potentially easier to develop biological weapons.

The Press Release recalled that at the opening session of the Review Conference from 22 November to 7 December 2001, the difficult atmosphere following the collapse of the Protocol negotiations in August 2001 was further intensified by the (still unsolved) anthrax incidents in the United States in September 2001, and accusations that some states parties were not complying with their obligations under the Convention. After considerable debate, delegations had focused their attention in the opening session on three main issues:

- (1) The Ad Hoc Group and the completion of its work. There were serious disagreements among delegations on whether the Ad Hoc Group should attempt to continue with its work on a protocol, and whether to retain or terminate the mandate of the Group.
- (2) The issue of compliance with the Convention, and cases of alleged non-compliance, and how the Conference should deal with these.
- (3) What kind of follow-up work might be undertaken to strengthen the Convention after the conclusion of the Review Conference, in the absence of a protocol.

However, by 7 December 2001, states parties had not been able to overcome their differences on these issues and no agreement on a Final Declaration was achieved. Consequently it was decided to adjourn the session and resume it one year later. The Press Release went on to say that over the past year, delegations had been working on possible solutions that would allow them to reach an agreement concerning future work to strengthen the Convention. Under the continuing presidency of Ambassador Tóth, the resumed session of the Conference was likely to focus primarily on the specific question of follow-up work, although the other main issues remain to be formally resolved. It was noted that:

The question of follow-up is crucial, as without agreement on this it is likely that nothing will be done by States Parties collectively to strengthen or even maintain the Convention until at least the next Review Conference, due in 2006.

Opening Plenary Session, 11 November

The Fifth Review Conference resumed in Geneva on 11 November with Ambassador Tibor Tóth of Hungary continuing as President. 94 states parties participated — three

more than at the initial session in 2001 (Bosnia-Herzogovina, Georgia, Ghana, Holy See, Morocco, Qatar, the Former Yugoslav Republic of Macedonia, and Uruguay participated in November 2002 whilst Armenia, Dominican Republic, Liechtenstein, Luxembourg and Singapore did not). One fewer signatory state participated than at the initial session (Madagascar participated whilst the United Arab Emirates did not and Morocco participated as a state party). Israel, which is neither a state party nor a signatory again participated as an observer.

Ambassador Tóth made some opening remarks in which he welcomed the delegations back to Geneva for the continuation and conclusion of the Review Conference. He particularly welcomed the delegations of the two new states parties, Morocco and the Holy See, who have brought the total number of states parties to 146.

Ambassador Tóth reminded delegations that this was a somewhat unusual situation, as the Review Conference had been suspended in difficult circumstances almost a year ago, and was now resuming to complete its work. He then clarified the stage that had been reached before outlining the way in which he proposed that they should proceed to complete the Review Conference. In doing this, he reminded delegations that this was still the same Review Conference, and that the agenda, which had been adopted the previous November, remained valid. During the initial three week session, most of this agenda had been addressed. He went on to say that unless the Conference determined otherwise, he did not intend to return to the completed agenda items. Consequently, this left agenda items 15 (Report of the Drafting Committee) and 16 (Preparation and adoption of the final document(s)) still to be completed and he went on to outline his suggestions for a programme of work to deal with these items.

He said that he proposed to deal with these items in the plenary, and to focus first on agenda item 16, as this related to the consolidation of the final product of the Conference, which was what he believed was of most concern to all delegations. Insofar as the programme itself was concerned, he proposed that because of the unusual and uncertain situation, maximum flexibility should be retained. He would therefore outline suggestions for the opening day's programme with the subsequent meeting schedule to be determined later, according to need.

Ambassador Tóth then presented his proposal for the final product of this Conference which was circulated as document BWC/CONF.V/CRP.3. He said that this was the result of his sustained efforts over the past year to bridge the formidable differences among delegations on the outcome of the Conference. He had consulted widely, in three sets of consultations held in Geneva in the spring, summer and autumn respectively, and again during the week prior to the resumed Review Conference. He had met delegations bilaterally, and in group settings. He said that all the possible options for securing a successful outcome to the Conference had been explored.

The proposal in CRP.3, which was in the form of a draft decision establishing follow-up meetings over the next three years, reflected the conclusion that he had reached that this was the only outcome which could realistically hope to be achieved that would ensure a continued multilateral approach to the implementation and strengthening of the

Convention in a way that involved all states parties. The draft decision called for a one-week annual meeting of states parties each year until 2006, with each such meeting to be preceded by a two-week meeting of experts. Five topics were set out for consideration by these meetings, with a timetable for which topic would be considered in which year. The five topics in CRP.3 are:

- i. The adoption of necessary, national measures to implement the prohibitions set forth in the Convention, including the enactment of penal legislation;
- ii. National mechanisms to establish and maintain the security and oversight of pathogenic microorganisms and toxins;
- iii. Enhancing international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease;
- iv. Strengthening and broadening national and international institutional efforts and existing mechanisms for the surveillance, detection, diagnosis and combating of infectious diseases affecting humans, animal, and plants;
- v. The content, promulgation, and adoption of codes of conduct for scientists.

Items i and ii would be addressed in 2003, iii and iv in 2004 and v in 2005. The structure of the framework was therefore clear, although considerable flexibility had been left to states parties to decide how the topics would be developed. In addition, flexibility would also be maintained by the consensus rule, which would protect the interests of all, and by the fact that the whole process will be reviewed in 2006. Ambassador Tóth said that he believed that the proposal struck the right balance between certainty and flexibility. No state party would be forced into anything it did not expect or does not want by this process; similarly the process would ensure that a forum exists for states parties to continue to explore many and varied ways of addressing the growing challenges facing the Convention.

Ambassador Tóth asked delegations when considering this proposal to remember that they should not pretend that the political differences between delegations are not serious. It was necessary to acknowledge this fact, and work with it to make what progress was possible. The alternative would be to let these differences dictate the fact that there would be no work or attention given to the Convention, in a multilateral context, collectively by states parties, until at least 2006. Such a result, in his judgment, would be

a betrayal of the legitimate expectations of the world community that we will fight together against the threat of biological weapons, and work collectively and multilaterally to ensure that the threat is diminished.

Ambassador Tóth pointed out that his proposal was not a traditional Review Conference product. Rather, it was a qualitatively different step into the future, dealing only with what was strictly necessary for states parties to be able move forward with protecting, maintaining and enhancing the Convention. He was also aware that the proposal was not likely to fully satisfy many, or even any, delegation. He was sure that everyone would be able to think of things that could or should be added. However, he recognised that given the situation, there was no other way forward. It was necessary to reach an agreement, and work together to strengthen the Convention.

He said that he did not intend to have any debate on the proposal now. Rather, he asked delegations to take it away, consider it, discuss it with capitals, with regional groups, with other colleagues. He proposed that unless advised otherwise, the General Committee would meet on Tuesday afternoon to determine the next steps then. The plenary meeting accordingly was closed at 10.22 am.

Subsequent developments

Ambassador Tóth in a press conference at 12 noon on 11 November noted that in December 2001 there had been an extremely significant division of ideas that had forced suspension of the Fifth Review Conference. Since then, a series of efforts had been made during consultations in spring, summer and autumn to try to bridge the gaps in negotiations on various issues. There had been setbacks as well and at the opening plenary he had initiated a "rescue operation" — as the Conference would not focus on reaching agreement on a Final Declaration, as had occurred at previous Review Conferences, but would instead use the limited time available to attempt to achieve consensus on the proposals in CRP. 3 that would allow ongoing work on a series of topics — such as biosecurity and assistance to countries responding to man-made diseases — leading up to the Sixth Review Conference in 2006.

At the same Press Conference, the Under-Secretary-General for Disarmament Affairs, Jayantha Dhanapala, in a brief statement, said the proposal before the Conference represented a modest achievement and proved that the Biological Weapons Convention was a viable treaty that could be further developed. The proposal would set an agenda for future work, and he believed the paper would be adopted by consensus. Mr. Dhanapala noted that the Secretary-General had stated a year ago that implementation of the Biological Weapons Convention needed greater priority from the international community and states parties, especially considering recent developments related to terrorism. Consequently, Mr. Dhanapala urged states parties to the Convention to adopt the proposal.

In subsequent discussion at the Press Conference, Ambassador Tóth noted that it was true that the new proposal did not include some measures of importance to developing countries related to cooperation in implementation of the Convention included nor did it include measures of importance to developed countries such as those related to compliance. Consequently, the approach made in the proposals in CRP.3 was "selective" in that it only focused on the five stated items. It was a "dilemma" of the Review Conference that it could not take action at the moment on compliance measures related to the Convention, and vet it needed to face the question of whether it should attempt to make progress in this area, despite lack of an overall agreement on the matter. Some delegations held the view that some work could be done now while others maintained that nothing could be done until consensus was reached and an agreement on a compliance regime was in place.

He went on to note that even if there was no Final Declaration from the Conference, a programme for significant ongoing work as proposed in CRP.3 would still be valuable. If this proposal was agreed by the Conference it would be important that the United States and other

countries be engaged in a "pro-active way". Ambassador Tóth stressed that the new "product" on the table would require a new approach. Thus far, there had not been any opposition from national delegations to this proposed approach. This was positive, and the US, for its part, had not indicated to him that it could not go along with this proposal. However, it was also clear that without proactive involvement of national capitals in the new process, the process could become an "empty shell".

The General Committee planned for the afternoon of 12 November was cancelled to allow for further group discussions of the proposals. The General Committee eventually met on the afternoon of 14 November and in a later plenary session that day, the Review Conference agreed the proposals as set out in CRP.3 and the draft final report. In this plenary session, Slovakia speaking on behalf of the Eastern Group proposed Ambassador Tibor Tóth as Chairman for the meeting of the states parties in 2003 which was agreed. The Fifth Review Conference formally concluded with a short plenary session on the morning of 15 November which agreed the financial estimates for the meetings in 2003 to 2005 and also agreed some further tidying up amendments to the final report.

Final Outcome

The Fifth Review Conference concluded with the adoption of a final report setting out a fresh approach to combat the deliberate use of disease as a weapon. Under this, the states parties are to meet annually in the lead-up to the next Review Conference in 2006. In preparation for each annual meeting, it was agreed to hold a two-week meeting of experts.

These meetings of states parties will discuss and promote common understanding and effective action on a range of issues pertinent to strengthening the Convention. Each meeting will focus on specific elements to strengthen the Convention. In 2003, there will be consultations on national measures to implement the prohibitions of the Convention, and on national measures to ensure the security of pathogenic micro-organisms and toxins. In 2004, the focus of the process will shift to enhancing international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological weapons or suspicious outbreaks of disease, and to strengthening national and international efforts against infectious diseases. The 2005 meetings will address codes of conduct for scientists.

The Press Release by Ambassador Tóth on 15 November described this new process as being part of a multi-pronged approach by the international community to deal with the threat posed by biological weapons. It went on to note that international resolve to deal with the immediate threat has been demonstrated by the recent unanimous decision of the United Nations Security Council. The process adopted by the Review Conference to strengthen the Biological Weapons Convention demonstrates the continued commitment of states parties to combating the threat of biological weapons over the longer term.

Following the agreement on the proposals in CRP.3 in the plenary meeting late on Thursday 14 November, the Group of the Non-Aligned Movement and Other States in a statement (BWC/CONF.V/15) said that they had been deeply disappointed at the inability that has been demonstrated in the endeavours of the states parties to successfully undertake initiatives to strengthen the implementation of the Convention. While standing at the verge of success, the draft Protocol that was negotiated over so many years was snatched away from us. While standing at the verge of success, we were prevented from achieving a successful conclusion of the BWC Review Conference at our meeting in 2001. The NAM and Other States are disappointed at the limited nature of the decision that we have just taken. We are disappointed that we have again foregone the opportunity to strengthen the Convention and that limited work, which at best only has the potential of enhancing the implementation of the Convention, is all that could be achieved despite our best endeavours. The Group noted that the language of the decision included ambiguities and that only a practical approach from states parties would ensure that the required work was done. The Group went on to note that states parties were sovereign and that at any time they could together decide upon any further work that may be required. It was the Group's understanding that the time set aside to reach a decision over the final report had been extremely limited and that during the next Review Conference in 2006 discussions over further action would take place. Furthermore, the Group believed that the Biological Weapons Convention represented a composite whole, and while it was possible to address related issues separately, it was necessary for all of the interlinked elements to be dealt with.

The Group of Non-Aligned Movement and Other States also indicated that the Review Conference had succeeded in preserving multilateralism as the only sustainable vehicle for preventing the use of disease as instruments of terror and war. The Group called upon all states parties to work in a constructive fashion and concluded by saying that the time for division should now be past and states parties should unite around the Convention.

The Western Group in its statement (BWC/CONF.V/16) late on Thursday welcomed the adoption of this decision and noted that it provided for a qualitatively different outcome to that found in the final products of previous Review Conferences. In addition, the Western Group felt that the decision carefully balanced the views of all states parties; was clear and self-explanatory; and strengthened the effective implementation of the BWC by establishing a framework for an ongoing multilateral process in the lead-up to the Sixth Review Conference.

A short statement was then made by the Republic of Korea, who took the opportunity to announce that on 8 October 2002 they had withdrawn their reservation to the 1925 Geneva Protocol.

At the final plenary meeting on the morning of 15 November, Ambassador Tóth in his concluding remarks noted that a process had been agreed that allows the BWC to continue to be strengthened. This proposal had resulted from sustained efforts over the past year to bridge the formidable differences among delegations on the outcome of the Conference. He went on to say that although this result was not everything delegations hoped for, he did not want to dwell on the past. He pointed out that the agreement on follow-up meetings over the next three years did allow for a continued multilateral approach to the implementation

and strengthening of the Convention that involves all states parties. It offered a future; it offered hope for renewed efforts to build this vital barrier against a type of weapon which the Convention itself so aptly describes as "repugnant to the conscience of mankind". He continued by saying that it was now time to look forward. He believed that with some innovative thinking and diplomatic skill there was a real opportunity to make this new process work. Although States Parties should not raise their expectations too high for these meetings, since ultimately it is the decision of the Sixth Review Conference in 2006 to determine how to proceed with the strengthening of the Convention, he urged all states parties not to set their sights too low.

He then went on to say that states parties simply have to seize the opportunity and make some realistic and concrete proposals for moving the Convention forward. It was now the responsibility of each and every state party to make these meetings work and to identify ways to strengthen the Convention. Five topics have been identified for consideration by the annual meetings and a timetable has been agreed for when each topic will be considered. The framework for our future work was therefore clear. While there remained considerable flexibility to decide how the topics would be developed, there could be no excuse for not being prepared for the expert or annual meetings. He noted that there was only a modest amount of time available: consequently, it was necessary to make every minute count. Preparation for those meetings should begin now. He suspected that many non-governmental organizations would not only make their own proposals available for consideration, but would also be watching closely what the states parties discuss and decide. He encouraged all delegations to be open to the ideas that others may have, and to draw on all available resources in pursuing our common goal.

He concluded by saying that as Chairman of the 2003 meetings, he would be pushing hard to ensure that this process achieves concrete benefits, and genuinely contributes to strengthening the Convention in a practical way. He then thanked all delegations for showing the flexibility and vision that has allowed us to conclude our work with this modest measure of success.

Other Activities

There were three non-governmental activities during the resumed Review Conference. The first, on 11 November was the launch at 1300 of the Bioweapons Prevention Project (BWPP). Chandré Gould chaired the launch and launched the project, which had been established by eight NGOs (BASIC, Centre for Conflict Resolution, Bradford Department of Peace Studies, FAS, Geneva Forum, Harvard Sussex Program, INES and VERTIC) to reinforce the norm against using disease as a weapon. It aims to achieve this by monitoring government's implementation of their legal and political obligations and other developments relating to biological weapons. It will track policies and activities related to the core obligations of the BWC as well as reporting on relevant developments in the biotechnology industry and advances in science and technology. BWPP will publish its findings to increase openness and transparency in the *Bioweapons Monitor* and on its website at http://www.bwpp.org. BWPP will build a global network of civil society organizations concerned with the threat of biological weapons to assist BWPP in its monitoring activities and to raise the general awareness of biological weapons issues around the world. Chandré Gould added that the BWPP was not an advocacy NGO and would not make political statements.

The opening address at the launch was given by Jayantha Dhanapala, the United Nations Under Secretary-General for Disarmament Affairs who was followed by two talks showing from different perspectives, one from South Africa and one from the United States, why the BWPP is required to promote openness and transparency. Finally, a presentation was made by Angela Woodward of an ongoing VERTIC project on national implementing legislation for the BWC. In his opening address (available at http://disarmament.un.org/speech/11Nov2002.htm), Jayantha Dhanapala said that the BWPP is a very timely and significant initiative. He went on to say that:

despite political changes and the fast-paced scientific and technological advancements in the field of biotechnology since the Convention entered into force, efforts to rectify such a shortfall have not met with the support of all States Parties to the Convention. Last year, the international community witnessed (with frustration) lost opportunities to strengthen the BWC. ... The lack of a mechanism to monitor the implementation of the BWC provisions other than the possibility to review the Convention at five-year intervals, is a lacuna that today more than ever must be addressed. The launching of the BioWeapons Prevention Project could make a significant contribution towards that end since, achieving the objectives of the BWC — the prohibition of the development, production and stockpiling of bacteriological (biological) weapons and their elimination — cannot be done solely by the actions of Governments, as indispensably it requires the committed participation of civil society.

He concluded by saying that it was therefore very timely that the BioWeapons Prevention Project had been launched on the first day of the resumed session of the Fifth Review Conference of the BWC. He noted that:

States Parties participating in the resumed session have a challenge before them of showing their commitment to strengthening the Convention by producing a positive outcome. NGOs, such as the BioWeapons Prevention Project, have a stake in this outcome and, even more so, in the follow-up to the Review Conference.

In the final presentation of the launch, Angela Woodward outlined the ongoing VERTIC project to survey national implementation measures for the BWC and provided copies of the questionnaire (also available at http://www.vertic.org) that have been sent to the states parties seeking information on these national measures. Preliminary findings presented at the BWPP launch were that so far information had been collected on national laws prohibiting biological weapons in 65 states parties. Thus far eleven states parties (Belgium, Bulgaria, Canada, Germany, Ireland, Italy, Japan, Peru, Russian Federation, Switzerland and the United Kingdom) had responded to the VERTIC questionnaire. Analysis of the information from 65 states parties shows that some 16 states parties have adopted comprehensive legislation to enforce the BWC, 28 states parties have criminal code prohibitions prohibiting some or all activities listed in Article I and 26 states parties have adopted legislation on health, terrorism, or war material that prohibits activities listed in Article I. The final report of this project will be published in February 2003.

The second NGO activity was on 12 November at 1400 when at a Department of Peace Studies of the University of Bradford seminar, Nicholas Sims of the London School of Economics and Graham Pearson of the University of Bradford presented Review Conference Papers No. 8 "Return to Geneva: Uncertainties and Options" and No. 9 "The Resumed BTWC Fifth Review Conference: Maximizing the Benefits from the Final Declaration." (available at http://www.brad.ac.uk/acad/sbtwc). introducing these, Nicholas Sims noted that at the time that they were prepared, it seemed likely that the United States would resist a consensus on any outcome other than simply fixing the date for the Sixth Review Conference. It was thought likely too, that if US policy were to change at all it would continue to become tougher as it had done during 2001 and 2002; and that states parties well-disposed towards the BWC would therefore need to organize themselves to get round the obstacle presented by this US intransigence. Consequently, he said that it had been decided to bring into the public domain some of the questioning and thinking which was informing the unofficial debate about what to do if US intransigence prevailed right up to 11 November 2002. In addition, it was decided to make this analysis widely available by posting it on the Bradford website and sending copies directly to the Ambassadors in Geneva of the states parties. In the light of the developments on 11 November and the tabling of CRP.3, the Bradford briefing would not as usual introduce the papers in detail but would instead address the position of 12 November.

Review Conference Paper No. 8 set out the recent commitments of many states parties in various forums, the Madrid commitment and others, to strengthening the Convention. It argued that it was reasonable to examine how far states parties have lived up to these commitments. CRP.3 fell far short of the strengthening to which States Parties seemed to have committed themselves during the past year. The proponents of CRP.3 would call it **realism**: some would call it **resignation** — resigned to a very modest outcome as better than none at all. Review Conference Paper No. 8 goes on to analyse the question of voting. It was predictable that, with the tradition of consensus so long established and as firmly embedded, there would be great reluctance to have recourse to voting. And so it has turned out. But at least no one could claim that the option wasn't there. States parties have chosen not to use it.

Review Conference Paper No. 9 was offered in the belief that for the Review Conference **not** to adopt a Final Declaration would send the wrong messages, the wrong signals, about the seriousness with which States Parties regard the threat of biological and toxin weapons, or at least about their ability to agree on how to counter the threat. The failure to pursue the completion of a Final Declaration was greatly regretted. It was disappointing that so much detailed work done by this Review Conference in November and December 2001 had been left unfinished.

Nicholas Sims went on to say that the explicit statement by the President of the Conference in his press conference on 11 November that the new approach left the Final Declarations of 1980, 1986, 1991 and 1996 in place and intact was an important confirmation. This should be taken as an encouragement to think ahead and plan ahead to a resumption of the review process proper in 2006, when once again the **operation** of the Convention, in the language of Article XII, can be reviewed in the round, in relation to the **purposes** of the Convention. And at that point it is to be hoped that the cumulative process of steering the overall evolution and the detailed, extended understanding of the treaty regime flowing from the Convention will be resumed and expressed in the carefully crafted text of the Final Declaration, building systematically upon the foundations laid by the earlier Review Conferences.

The contribution to be made by the annual meetings of experts and of states parties is acknowledged and welcomed in the five areas listed in CRP.3 if they do indeed "promote common understanding and effective action" as is intended. The potential value of the work of 2003, 2004 and 2005 is not under-estimated but at best it covers only certain, limited aspects of the treaty regime. The Sixth Review Conference will have a wider, more comprehensive purview, as governed by Article XII. It cannot be limited, as the meetings are to be.

Nicholas Sims recalled that in his press conference of 11 November 2002, Ambassador Tibor Tóth also said that states parties "need to regain confidence that they can do things together" and he spoke of the new approach as productive of "concrete actions with results" if the meetings of 2003–05 are well prepared — and even of more action than the past Final Declarations have produced. However, it should be noted that the inadequacy of follow-up has not been a fault inherent in the cumulative process of successive Final Declarations. It has far more to do with the chronic institutional deficit from which the Convention suffers. And now, so far from remedying that deficit, the Fifth Review Conference looks like adding, to the BWC's lack of a systematic supporting organisation, the lack of a declaration recording the politically-binding commitments adopted by the states parties.

It was, therefore, disappointing that, this time, states parties have chosen to set their sights so low. The review process needs to get back on course. Then 2001–2002 can come to be seen as a low point, from which the Convention had recovered by 2006. An **agenda for recovery** is urgently needed if that goal is to be achieved. The new approach alone may not be enough. It is claimed that the new approach is focussed where the old approach was wide-spectrum. There is a danger that instead of more sharply focused treatment of issues there may be fragmentation, unless states parties **also** prepare comprehensively for the Sixth Review Conference in 2006. Even more work will be required to get the Convention back on track over the coming years.

In considering the five topics in CRP.3 it was noted that each of these brought benefits for both compliance and cooperation — or for security and development. Many of the topics had received widespread support in the original statements and papers from states parties made to the November–December 2001 session of the Review Conference as had been noted in Review Conference Paper No.7 Return to Geneva: A Comprehensive List of Measures. In looking to the new process, Bradford said that it would

initiate a new, Second Series, of Briefing Papers to assist the states parties in preparing for the annual expert and states parties meetings. It was also noted that work was continuing to improve the http://www.opbw.org website by the addition of as much official documentation relating to the Convention in as many languages as possible.

The third activity took place on Wednesday 13 November when the International Committee of the Red Cross (ICRC) held a seminar on their international appeal "Biotechnology, Weapons and Humanity". This appeal had been launched on 25 September and read:

Alarmed by the potential hostile uses of biotechnology, the International Committee of the Red Cross (ICRC) appeals to:

- all political and military authorities to strengthen their commitment to the international humanitarian law norms which prohibit the hostile uses of biological agents, and to work together to subject potentially dangerous biotechnology to effective controls.
- the scientific and medical communities, industry and civil society in general to ensure that potentially dangerous biological knowledge and agents be subject to effective controls.

It goes on appeal in particular to all political and military authorities:

- To become parties to the 1925 Geneva Protocol and the 1972 Biological Weapons Convention, if they have not already done so, to encourage States which are not parties to become parties, and to lift reservations on use to the 1925 Geneva Protocol,
- To resume with determination efforts to ensure faithful implementation of these treaties and develop appropriate mechanisms to maintain their relevance in the face of scientific developments,
- To adopt stringent national legislation, where it does not yet exist, for implementation of the 1925 Geneva Protocol and the 1972 Biological Weapons Convention, and to enact effective controls on biological agents with potential for abuse.
- To ensure that any person who commits acts prohibited by the above instruments is prosecuted,
- To undertake actions to ensure that the legal norms prohibiting biological warfare are known and respected by members of armed forces,
- To encourage the development of effective codes of conduct by scientific and medical associations and by industry to govern activities and biological agents with potential for abuse, and
- To enhance international cooperation, including through the development of greater international capacity to monitor and respond to outbreaks of infectious disease.

The appeal concludes by urging:

States to adopt at a high political level an international declaration on "Biotechnology, Weapons and Humanity" containing a renewed commitment to existing norms and specific commitments to future preventive action.

The ICRC seminar outlined the increased threat from biological weapons proliferation and from the potential that technological advances might be misused such as the mousepox experiments and the synthesis of polio virus as well as the potential for novel biological agents. It then went on to address the appeal — and who this is addressed to: all

political and military authorities, and to the scientific and medical communities and to the biotechnology and pharmaceutical industries — as well as the desirability of the adoption at a high political level of an international Declaration. Further information is available at http://www.icrc.org.

Further statements

Following the agreement at the resumed Fifth Review Conference of the decision in CRP.3, there were various press releases in support from the United Nations Secretary-General and from the three BWC depositary states — the United Kingdom, the United States and the Russian Federation.

The UN Secretary-General in a statement on 15 November welcomed the positive outcome of the resumed session of the Fifth Review Conference and said that:

These agreed steps constitute an encouraging development in the process of strengthening the Biological Weapons Convention.

The United Kingdom Foreign Secretary, Jack Straw, in a statement on 14 November said:

I warmly welcome the successful outcome of the 5th Review Conference. ... With the positive outcome to the Review Conference, and a detailed programme of work in prospect, we are at a new beginning.

The United States Assistant Secretary of State for Arms Control, Stephen Rademaker, who had led the US delegation at the resumed Review Conference, in a statement in Geneva on 14 November said that:

The United States is very pleased by the outcome here today. We believe that the decision that has just been adopted unanimously by the conference represents a constructive and realistic work program for the States Parties to the [BWC] over the next three years.

The Ministry of Foreign Affairs of the Russian Federation in a statement on 19 November said that the compromise decision was backed by the Russian Federation and that they intend to actively participate in the work of these forums. It goes on to say that:

In so doing together with like-minded partners we will try to achieve the resumption of multilateral negotiations to work out legally binding measures for the verification of the observance of the Convention.

The Second Week

Following the formal completion of the Fifth Review Conference on Friday 15 November 2002, the opportunity was taken to hold informal consultations about the new approach during the week of 18 to 22 November which ended in an informal meeting on 22 November followed by a Press Conference by Ambassador Tibor Tóth. During the week, Ambassador Tóth had held about 36 meetings with delegations and had addressed organizational and procedural issues relating to the future annual expert and states parties meetings. The indications emerging were that

the expert meeting should be separate from the meeting of the states parties — and not back to back. The depositaries had been exploring options for dates but had encountered problems because of the commitments already of the facilities to other meetings. Some consideration had been given to dates for the expert meeting in March, but this appeared to be too soon for adequate preparation and a later date of perhaps the last week in August and the first week in September appeared to be acceptable. As for the meeting of the states parties, there appeared to be a consensus building around the week of 10 to 14 November 2003. On other procedural issues, consideration is being given to adoption of the rules of procedure of the Fifth Review Conference, mutatis mutandis, as this would take care of such details as participation, NGO involvement and so on. Insofar as the consideration of the two topics are concerned in the expert groups, the feeling appeared to be that flexibility was desirable and both topics should be considered in parallel rather than sequentially as this could make best use of the limited time available. It was clear that Ambassador Tóth as the Chairman of the meetings in 2003 would continue to liaise with the states parties in order to enable the process to move ahead in the early part of 2003.

Reflections

The decision agreed by the resumed Fifth Review Conference represents a modest step forward which found consensus support by all states parties — and, as such, was better than the indications (outlined in Bradford Review Conference Paper No. 8) earlier in the year which suggested that agreement might not be forthcoming even on annual meetings prior to the Sixth Review Conference in 2006. It is regrettable that the opportunity was missed to adopt a Final Declaration as the reaffirmations and extended understandings provided by such Final Declarations do significantly contribute to the strengthening of the norm and regime totally prohibiting biological weapons. Certainly the international situation regarding the Biological and Toxin Weapons Convention was not one in which there was no urgency to strengthen the norm and regime and thereby send a clear message to states parties and to sub-state actors that these weapons are totally prohibited. Care needs to be taken, as Robert Gates, former Director of the Central Intelligence Agency has written about arms control, that sight is not lost of the forest — the effective strengthening of the BWC regime — and that tiny shrubs are not mistaken

As Ambassador Tóth made clear in Geneva in November 2002, the success of the new approach depends on the States Parties regaining "confidence that they can do things together" and that if the meetings of 2003–05 are well prepared then the new approach can produce "concrete actions with results". Otherwise, the new approach could be "an empty shell". The onus is thus clearly on all states parties to be proactive and to prepare effectively for the annual meetings of experts and of states parties.

This review was written by Graham S. Pearson, HSP Advisory Board.

August through October 2002

What follows is taken from issue 58 of the Harvard Sussex Program CBW Chronicle, which provides a fuller coverage of events during the period under report here and also identifies the sources of information used for each record. All such sources are held in hard copy in the Sussex Harvard Information Bank, which is open to visitors by prior arrangement. For access to the Chronicle, or to the electronic CBW Events Database compiled from it, please apply to Julian Perry Robinson.

- **1 August** At UN Headquarters, UN Secretary-General Kofi Annan transmits a report prepared by the *Policy Working Group on the United Nations and Terrorism* to the Security Council and General Assembly. The Secretary-General established the Group in October 2001. The report concludes with 31 recommendations, one of which recommends the "development of the technical capabilities of the [IAEA], the [OPCW] and the [WHO] to provide assistance to States in the event of the threat or use of weapons of mass destruction, other weapons and technologies should be encouraged."
- 1 August Iraqi Foreign Minister Naji Sibri, in a letter transmitted to the UN security Council proposes "a round of technical talks between Iraqi experts and the Chairman and experts of [UN-MOVIC] ... to review what was accomplished in disarmament issues during the period May 1991 until December 1998". A spokesman for UN Secretary-General Koffi Annan subsequently states that the letter is at odds with Paragraph 7 of Security Council resolution 1284, which provides that Iraq must first agree to re-admit the weapons inspectors. The UK and the US dismiss the proposal. The Russian Foreign Ministry states that "Moscow believes that the Iraqi proposal is an important step toward solving this problem by political and diplomatic means". The French Foreign Ministry states that "... dialogue between the United Nations and the Iraqi authorities will continue so that Baghdad allows a return of the inspectors". Annan discusses the proposal with the Security Council on 5 Aug. On 6 Aug he replies to Sibri, saying that the Security Council will only entertain the holding of discussions on practical arrangements for weapons inspections. [see also 4-5 Jul]
- **2 August** President Bush signs the FY2002 Supplemental Appropriations (for Further Recovery From and Response To Terrorist Attacks on the United States) Bill (HR 4775) into law (PL 107-206).

Section 304 states that funds "appropriated to the Department of Defense for fiscal year 2002 for operation and maintenance under [chemdemil] may be used to pay for additional costs of international inspectors" under Articles IV and V of the CWC.

Sections 2001-2015 comprise the American Servicemembers' Protection Act 2002. Notwithstanding that provisions under the Act may be waived by the President "national interest" grounds, the new law authorizes, *inter alia*, the use of military force to liberate any US citizen (or any citizen of a US-allied state), being prosecuted by the International Criminal Court in the Hague. The so-called 'Hague invasion clause' is said to have caused consternation among US allies, particularly the Netherlands. [see also 14 May and 1 Jul]

6 August South Korea withdraws its reservation to the 1925 Geneva Protocol. It acceded to the Protocol on 4 January 1989. The reservation had stated: "The said Protocol is only binding on the Government of the Republic of Korea as regards those States which have signed and ratified the Protocol or have acceded thereto. The said Protocol shall cease to be binding on the Government of the Republic of Korea in regard to any enemy State whose armed forces, or the armed forces of whose Allies, fail to respect the prohibitions laid down in the Protocol."

- **7 August** President Bush signs a one-month waiver on "national security grounds" to the US Senate's requirement that the President certify annually Russia's compliance with its BWC and CWC obligations, prior to the release of Cooperative Threat Reduction funds. The waiver, accepted by the Senate on 31 July as an amendment to the FY 2003 Defense Authorization legislation proposed by Senator Richard Lugar will expire on 1 October. The US Administration maintains that Russia has not fully disclosed all its previous chemical weapons activities [see 8 Apr]. The waiver will enable the Department of Defense to resume funding the construction of the chemdemil facility at Shchuchye. Russian Foreign Minister Igor Ivanov says that Russia welcomes the development.
- 7-8 August In the US, the first regional Science and Technology Conference on Homeland Security and Force Protection is in progress at Fort Leonard Wood. There are approximately 550 participants including business representatives, government programme managers, and academics. The primary objectives of the conference are: to educate university and industry researchers regarding government agency funding opportunities; encourage contracting opportunities for private businesses in Missouri and other states in the region; accelerate the use of advanced technologies to help the Department of Defense meet threats to homeland security and force protection; and leverage the resources at Fort Leonard Wood to increase industry, university, and government interaction in meeting homeland security and force protection needs. As part of her presentation, Deputy Assistant to the Secretary of Defense for Chemical and Biological Defense Anna Johnson-Winegar details the US Department of Defense Chemical and Biological Defense Program budget request for FY2003. The general breakdown of the said request is as follows: Research, Development, Test and Evaluation -\$932.9 million; Procurement — \$435.7 million; and Military Construction — \$5 million.
- **8 August** In Moscow, chairman of the State Commission for Chemical Disarmament Sergei Kiriyenko issues a statement, which says in absence of substantial help from the US, Russia is now looking to fund its own chemdemil operations. Whilst referring to alternative options, he omits to spell out what such options may be. He points out that the US had pledged \$180 million for 2002-03, but that no funds have yet been received by Russia. Head of the Federal Department of Safe Storage and the Liquidation of Chemical Arsenals General Valery Kapashin, supports Kiriyenko's claim in announcing that Russia would build new facilities for the safe storage and destruction of the weapons. [see 25 Jul]
- **8 August** In Tirana, the Swiss and Albanian Army Chiefs of Staff describe cooperation between the two countries under the *Partnership for Peace* initiative as "very fruitful". The statement is made following a meeting between Swiss Army Chief of Staff Hans-Ulrich Scherrer and his Albanian counterpart Pellumb Qazimi. Scherrer praises the transformations taking place within the Albanian armed forces. As part of its assistance, the Swiss Ministry of Defence has to date met 90 per cent of the cost of disposing of the Albanian Army's chemical and toxic-waste trans-

portation vehicles. Experts estimate that Swiss investment in the Vetoxa project — under which Albania's accumulation of chemical waste is being destroyed — amounts to approximately \$1.5 million. [see 5 Jul 99]

- 8 August A Ghent University team is proposing to regenerate a stretch of Belgian coastline where First World War canisters of mustard gas lie buried into a nature reserve, according to the London *Independent*. The canisters comprised part of around 35,000 tons of explosives dumped at the Belgian resort of Knokke in 1919. Experts have previously concluded that the munitions should not be disturbed on grounds of safety. The proposal involves constructing a dam and burying the munitions in a horseshoe-shaped mass, rising to six metres above the sea. The resulting island would have dykes on one side and sandy slopes on the other, making it ideal for seals and nesting birds. Belgian Minister for Tourism Renaat Landuyt says: "This is a very attractive and creative project, which should increase the environmental value of the Belgian coast".
- 8 August A US Labor Department tribunal awards a whistleblower, who raised safety and environmental concerning Dugway Proving Ground, \$1.5 million in damages. David Hall—an employee at Dugway Proving Ground from 1987 to 1997—brought the case against the US Army for harassment and for having forced him to take early retirement, following his allegations of improper handling and disposal of hazardous waste at the facility. Hall alleged *inter alia* that the Army may have contaminated drinking water through its practice of dumping chemicals down drains, and that it possibly issued M-40 silicone rubber gas masks (as used during the Gulf War) which absorbed rather than blocked chemicals. Hall says that the tribunal's decision clears him "of all the character assassination that the Army had done for years". The Army says it will appeal the verdict.
- **10–14 August** In the US, the 52nd (and quinquennial) Pugwash Conference on Science and World Affairs: *Science, Sustainability, Security* is in session at the University of California San Diego [see also 1–7 Aug 97]. The central theme of the conference is the need for sustained international cooperation to meet the threat and address the causes of international terrorism. In this regard it is building, amongst other things, on the work of the Pugwash Study Group on the Implementation of the CBW Conventions. [see also 15–16 Jun]
- 11 August In Iraq, Director-General of the National Monitoring Department General Hossam Mohammad Amin, denies that a facility at al-Dura, south of Baghdad is producing biological weapons. UNSCOM inspectors had previously decommissioned the facility in 1996. Amin's comments are made during a press conference after national and international journalists were given a tour of the facility. He says that recent reports in the US media regarding the facility are designed with the intent of justifying a US military strike on Baghdad. Prior to the facility's closure the "site was a factory which produced vaccines against foot and mouth disease and was built by a French firm (in the 1970s) to serve Iraq and the region", says Amin.
- 12 August In Iraq, Information Minister Mohammed Saeed Sahhaf says during an interview on the Qatar-based Al Jazeera television channel: "Inspections have finished in Iraq... The work within the UN concerning [prohibited weapons] in Iraq, this work has been achieved... They say that it hasn't been achieved. They claim something remains. This talk can be responded to and disproved." US Defense Secretary Donald Rumsfeld says in response: "They agreed to have inspectors. They threw the inspectors out. The inspectors are still out, now for a period of years. And they're still not allowed back in. What else can one say? They're in violation of the UN resolutions."

- 12 August In the US, a release of agent VX is reported to have occurred during operations to decommission the US Army's chemdemil facility on Johnston Atoll. The alarm was raised on the incinerated, smouldering, chemical waste passing through a discharge airlock on its way to on the open-air cooling pad. Three workers who were closest in proximity to the area are being tested for chemical agent exposure. The Army subsequently says that the amount of VX released was 45 times the permitted level. The workers, it says, did not exhibit symptoms of exposure. No other workers were tested in spite of the waste having been apparently left smouldering in the open air for over 15 minutes. The Army announces that it will refrain from any further activity on the Atoll pending an investigation of the incident. The investigation will include analysis of the operational steps such as calibration of monitoring devices, examining the air flow from the incinerator into the airlock and conducting an overall review of standing operating procedures. This incident follows the Army's the facility in Tooele ceasing operations — yet to recommence — after three workers were exposed to agent sarin [see 15 Jul].
- 12 August In Washington, the Monterey Institute hosts a *Workshop on Guidelines for the Publication of Scientific Research Potentially Related to Biological and Toxin Warfare.* On one hand participants include scientists, journal editors and grant administrators, and on the other, intelligence and security officials. The two sides are unable to reach a consensus on how exactly sensitive information from scientific research should be handled, however, broad guidelines for the development of future progress on the matter are identified. Most participants agree that any restrictions on scientific publications should be limited only where the findings could be used maliciously, but that any controls must not be so onerous as to encourage circumvention or cause scientists to abandon key areas of research. Participants identify significant problems with the US Administration's proposed regulatory system.
- 13 August In Russia, the State Commission for Chemical Disarmament commences its assessment of the Gorny chemdemil facility, prior to its being brought into commission. It is also to make a decision on when to launch the facility's first section. The assessment is due to be completed by 20 August. According to the Saratov Governor Dimitri Ayatskov, the facility is unlikely to be commissioned in full before the end of the year because the lewisite processing section is not yet completed. "Among the most pressing unsolved problems is processing of recreated substances that remain after the destruction of poisonous substances", he says. Three days later Chairman of the State Commission for Chemical Disarmament Sergei Kiriyenko says that the commissioning of the plant is being delayed because of the need to meet safety, ecological and public health requirements. Kiryenko contradicts Ayatskov in saying that construction of the facility's first line — on which the destruction of lewisite is to be carried out, has been completed — and that the second line for destroying mustard gas is yet to be completed. Ayatskov responds: "It is very important that Kiriyenko devotes primary attention to the safety of [the facility's] staff and local residents." [see 25 Jull
- 13 August In the US, at a public meeting hosted by the Alabama Department of Environmental Management, the US Army announces that it is to incinerate gelled-sarin filled rockets at a rate of nine per hour at its Anniston chemdemil facility. It had previously submitted an application for a permit to incinerate rockets a rate of 34 per hour. US Army official Tim Garrett says that the higher rate of 34 per hour is based on the results of an engineering study, but that this is not a realistic goal. He says: "At this point, it's our position that it's unlikely we would proceed past nine". Alabama environmental regulations require that a fur-

nace used for this method of incineration should meet the same standards as furnaces used for incinerating liquid agent from rockets. The US Army believes that abandoning the higher rate will help it to comply with the aforementioned regulations. [see also 18 Jul]

14 August In Japan, a Japanese research team announces their having seen a film in Pyongyang containing *inter alia a* confession by a captured US pilot, who admits to US use of germ warfare in China and North Korea during the Korean War. The 20-minute film — a copy of which has been made by the researchers — apparently shot by staff at the North Korean national film studio in 1952 — is also said to depict the dropping of infected spiders and flies from US warplanes. The research team visited Pyongyang and north-eastern China from 26 July to 5 August.

14 August In Washington, unidentified intelligence analysts are said, by the *Washington Times*, to have detected signs that Iraq may be using lorries to move materiel from a suspected biological weapons facility at the Taji complex, outside Baghdad. Whilst admitting that the driving of lorries in and out of a facility can be subject to different interpretations, they believe the activity is an effort by Iraq to disperse the material in anticipation of possible US military strikes. Another official, however, dismisses the activity of the Iraq lorries as "meaning little".

Rejecting the allegations several days later, Iraqi Minister for Trade Muhammad Mahdi Salih says: "Currently, the warehouse contains sugar. The warehouse contains three compartments: one for sugar and the other two for infant milk, foodstuffs and milk... During [a tour of the facility, organized by the Ministry of Information for national and international journalists], we highlighted the countries that produced the milk, which are the Sultanate of Oman, Tunisia, Yemen, Vietnam and Indonesia. The warehouse contains different kinds of milk, as well as sugar from India and Egypt." He adds: "Since August 4, 2,500 tons of milk and foodstuffs for children have been transported from this warehouse... The Americans saw the operation by satellite and confirmed having seen 64 trucks. In fact, since August 4, 187 trucks, and not 64, have taken goods to Iraqi provinces".

15 August The London Al-Hayat quotes sources from the Supreme Council for the Islamic Revolution in Iraq claiming to have obtained an Iraqi military document indicating that on 25 March Iraq commenced preparations to use chemical weapons during the next conflict against the US and/or Iran. The document is said to presuppose that the US and Iran will use chemical weapons against Iraqi forces, and authorizes reconnaissance units to locate targets with a view to delivering "crushing blows to the (forces') concentrations by using chemical weapons so as to inflict the heaviest losses." Council sources are said to have reached the conclusion that the detailed nature of the instructions "does not leave any element of the field operation unexplained" and "indicates that there is a clear plan to give chemical weapons a very effective role."

15 August In Russia, three weeks of naval exercises in the Caspian Sea — the focus of which is effective responses to acts of international terrorism (including bioterrorism) — have drawn to a close. In total around 10,000 personnel, 90 ships and support craft, and 30 aircraft participated in the exercises. Russian Defence Minister Sergey Ivanov said earlier that these were the first large-scale exercises to take place in the Caspian Sea. "The nature of the existing threats in the Caspian is obvious to the naked eye. Russia has always played a leading role in the region and it will continue doing so. Our intentions are not aggressive. We have no covert intentions, but use all existing opportunities in the interests of all Caspian states... But we are not that naïve to ignore certain processes under way in the Caspian region. If these processes gain strength, Russia must use all opportunities

to stop them and to crack down with all its might on the terrorists and those who dislike the current situation in the Caspian," said Ivanov. He added, that the strategic location of the area was selected for good reason, bearing in mind the proximity of both Afghanistan and Georgia.

15 August The Israeli Health Ministry announces that Israel has commenced vaccinating about 1,500 health workers against smallpox. Ministry spokesperson Ido Hadari stresses that the vaccinations are a preliminary measure, involving those who in an emergency would be charged with administering the vaccine to others. According to Hadari, the vaccinations began early last month. Around 700 people have been vaccinated thus far, with around a further 800 scheduled to receive the vaccination. "If in the future, Israel will decide to vaccinate people, they will be the ones to do the vaccination, so it's wise to know that they are already vaccinated," says Hadari. A few days later, the Israeli security cabinet announces its decision to vaccinate 15,000 security and emergency response personnel. An aide to Prime Minister Ariel Sharon, Raanan Gissin, is unable to say when this particular vaccination programme will commence.

16 August In Colombia, the Office of the Prosecutor issues warrants for the arrest of the individuals comprising the Revolutionary Armed Forces of Colombia (FARC) leadership, for *inter alia* "using illegal warfare methods in utilizing chemical weapons". The move follows the conducting by US Department of Defense pathologists of biopsies on four officers of the Colombian National Police who were killed following a FARC attack on a police station in the village of San Adolfo [see 2 Sep 01]. A concentration of cyanide greater than 5 mg per litre had been discovered in one of the tissue samples taken (a concentration greater than 3 mg is considered lethal). Due, however, to negative results on the other samples and because of the length of time between the deaths and the examinations, the pathologists were unable to confirm the definite use of chemical agents.

17 August In Washington, *The New York Times* runs an article on a "covert" programme under which the US provided Iraq with "critical battle planning assistance" during the Iran-Iraq War. The said assistance is claimed to have been given at a time when the US intelligence agencies "knew that Iraqi commanders would employ chemical weapons" against Iranian forces. The revelation is based on accounts given by senior Defense Intelligence Agency (DIA) officials — most of whom agreed to speak on the condition that they not be identified — with direct knowledge of the programme. The accounts were given in response to a reporter's questions concerning the nature of gas warfare on both sides during the 1981 to 1988 conflict.

A spokesperson for US Secretary of State Colin Powell declines to discuss the programme, but says that the DIA officers' description of the program is "dead wrong". Frank Carlucci says: "My understanding is that what was provided [to Iraq] was general order of battle information, not operational intelligence... I certainly have no knowledge of US participation in preparing battle and strike packages... and doubt strongly that that occurred... I did agree that Iraq should not lose the war, but I certainly had no foreknowledge of their use of chemical weapons". The article says that in total more than 60 officers of the DIA are said to have been secretly providing detailed information to Iraq on Iranian deployments, tactical planning for battles, plans for airstrikes and bomb-damage assessments. The CIA — whilst not directly involved in the programme — is said to have independently provided Iraq with satellite photography of the war front. Senior defense intelligence officer at the time Walter Lang refused to discuss classified information, but says that both DIA and CIA officials "were desperate to make sure that Iraq did not lose [the war]. The use of gas on the battlefield by the Iraqis was not a matter of deep strategic concern".

- 18 August In the US, news channel CNN broadcasts videotape footage depicting the apparent testing of poison gas on dogs, which it claims proves al Qaeda's involvement with chemical weapons. The footage is said to have come to light after a CNN reporter retrieved 64 videotapes from a location in Afghanistan where approximately 250 other al Qaeda tapes had been archived. The earliest tapes date back to the late 1980s; the most recent of which includes news broadcasts of the collapse of the World Trade Center. Other tapes in the collection apparently include video training-manuals as well as al Qaeda promotional material. A spokesperson for the US State Department subsequently says that the tapes "appear to be indicative of the lethal threat posed by the al Qaeda network," although he is unable to vouch for their authenticity. Later, CNN admits to having paid around \$30,000 for the tapes, insisting, however, that the money had only been "paid to go-betweens who had access to the tapes" and not to "anyone connected to Osama bin Laden or al Qaeda".
- 19 August In Russia, Chairman of the Russian State Commission for Chemical Disarmament Sergei Kiriyenko says that chemdemil operations at the Gorny facility will not commence this year. "Because Russia must destroy 1% of all her chemical weapons by April 29, 2003, besides a lewisite, we also need a mustard gas disposal line. The first line will be completed and accepted within the pre-set time but actual work will begin only when the other line also becomes operational. This is planned for the beginning of December 2002." The Russian Ministry of Natural Resources and the Ministry of Health are also requesting between two to four weeks to complete necessary inspections of the plant. [see 13 Aug 02]
- **19 August** Iran is to provide three of the Libyan Army's ballistic missiles divisions with ballistic missiles and chemical weapons training, under a \$13.5 billion contract entered into in June this year, according to the Berlin *Die Welt*. The newspaper attributes its information to western intelligence sources in running the article. The story is subsequently incorrectly translated by certain media, as referring to a contract under which Iran agreed to supply Libya with "ballistic missiles and chemical warheads" in addition to "training".
- 19 August USA Today reports a US—Russian dispute over a genetically engineered strain of vaccine resistant anthrax, currently kept at the Obolensk facility in Russia. Obolensk scientists first published the existence of the strain in 1997. Russian officials are said to have failed to fulfill two contracts in which they agreed to provide a sample of the strain and data on its makeup, in exchange for sizeable US grants to study its vaccine resistance. Russia is basing its refusal on regulations preventing the export of dangerous pathogens [see 8 Aug 01]. The said regulations were passed under US pressure to tighten its laws in order to prevent the possible proliferation of bioweapons technology. The article concludes, that this "previously unreported tug of war over the anthrax represents a significant snag in a new era of security cooperation between Washington and Moscow" [see 28 May].
- **20 August** A Kurdish militant group Ansar al Islam has been manufacturing ricin at a camp in north-eastern Iraq, according to *The Wall Street Journal*, attributing an unnamed 'US official'. The newspaper says that the operation is "small and unsophisticated". At least one man and several farm animals are said have been killed following exposure to the poison. Ansar al Islam is a radical Islamic group, whose followers in northern Iraq are not under the control of Saddam Hussein. Muhammad Hasan Muhammad, a leading figure in Ansar al Islam, subsequently says that the allegations that his group is using ricin are "false accusations that are being spread by our enemies."

- 21 August In Russia, an official ceremony marks the long-awaited opening of the Russian chemdemil facility at Gorny. The ceremony is attended by representatives of the UK, Canada, Finland, Germany, Italy, Sweden, the Netherlands, US, EU and the OPCW; reflecting the significant role played by they have played with regard to the construction of the facility. Following the official opening the Russian Foreign Ministry declares that the facility will commence operations in December "with all necessary reliability and safety requirements being observed." Chairman of the Russian State Commission for Chemical Disarmament Sergei Kiriyenko, says that a lack of US funding might delay construction of the chemdemil facilities at Shchuchye and Kambarka. The US, he says, has not said when it will resume funding. [see 13 and 19 Aug]
- **21 August** The German Ministry of Defence has ordered of a million doses of smallpox vaccine, according to *Der Spiegel*. The vaccine is to be delivered in two 500,000-dose consignments: one in November and one in February 2003. The Ministry insists that there is no connection between the delivery date of the first consignment and any US planned invasion of Iraq. The article concludes that given that the German Bundeswehr comprises around 338,000 soldiers and civilian support personnel number approximately 140,000, a mass civilian vaccination programme is not envisaged.
- 21–22 August In Moscow, officials from the Russian and Iranian foreign ministries meet to discuss matters relating to international security, disarmament, non-proliferation, and export controls. A Russian Foreign Ministry report subsequently describes the talks as having focused on, amongst others, "the implementation of the [CWC], and international negotiations on strengthening the [BWC]". Russian diplomatic sources say "the positions of Russia and Iran on the majority of strategic stability issues, including non-proliferation and arms control, are close or similar". The said sources note the "constructive nature" of the talks but point out that "certain differences in the positions of Russia and Iran on a number of issues relating to export regimes" emerged during the talks.
- 22 August In the UK, the Pensions Appeals Tribunal in Leeds rejects the UK Ministry of Defence's application for leave to appeal its earlier decision in the Shaun Rusling 'Gulf War Syndrome' case [see 23 May] to the High Court. The Tribunal had earlier ruled that his condition was attributable to the claimant's service with the Ministry. Chairman of the Tribunal Harcourt Concannon says in summing up that he is not satisfied "that a reasonably arguable case has been made by the Secretary of State". A Ministry of Defence spokesperson subsequently says that the Government would be seeking further legal advice and that the Ministry still reserves the right to make a direct appeal to the High Court.
- 23 August In Moscow, Head of the Russian Munitions Agency's chemical and biological weapons department Alexander Gorbovsky, says that chemical weapons captured by the Soviet Union and buried in the Baltic Sea at the end of the Second World War are best left undisturbed. "Because the shells remained in a corrosive environment of saltwater, their hulls became so rusty that they must not be moved now... The process of decomposition and the very slow dissolution of the poisonous substances is proceeding naturally. The slower it is the safer it will be for the environment. The poison is mixed with the water and is gradually neutralized", says Gorbovsky. "The chemical munitions", he continues, "are at a depth of about 100 metres, they are buried in the sea-bed slime and if poisonous substances, mostly yperite, go out of the shells, they react with the sea water, hydrolysis takes place in 10 hours and a low-toxicity stock emerges, which is not a chemical weapon by definition." Applying a formula whereby full decomposition of the chemical

agents takes 100 years, Gorbovsky states: "Given that 50 years are gone, we have to wait another 50 years. Half of the term is over, but we see no danger."

23 August In the US, during an interview on US news channel *CNN*, the UN's chief weapons inspector, Hans Blix, says — regarding Iraq's possible possession of weapons of mass destruction: "There are open questions in all dossiers certainly, but the greatest number are in the biological sector".

23 August The Cuban government declares that it is willing to help the US authorities in their investigations to find the best way to tackle the West Nile Virus. The statement from the Cuban authorities reads, as reported in *Pravda*, "The Cuban government wants to offer to the US health authorities and other countries in our hemisphere all scientific aid in the investigation and efforts necessary to confront this danger to public health".

The *Pravda* report also states that there have been no cases of West Nile Fever registered in Cuba to date, but the authorities admit that "this would be a strong possibility, given that the virus is transported by migrating birds". [see also 15 May]

26 August In Tokyo, US Under Secretary for Arms Control and International Security John Bolton, speaks at the Tokyo America Center on The US Position on the Biological Weapons Convention: Combating the BW Threat. Referring to the status of the BWC Protocol negotiations, he says: "The United States rejected the draft protocol for three reasons: first, it was based on a traditional arms control approach that will not work on biological weapons; second, it would have compromised national security and confidential business information; and third, it would have been used by proliferators to undermine other effective international export control regimes ... Detecting violations [of the BWC] is nearly impossible; proving a violation is impossible. Traditional arms control measures are based on detecting violations and then taking action — military or diplomatic — to restore compliance. Traditional arms control measures are not effective against biology. Using them, we could prove neither non-compliance nor compliance ... We carefully studied the draft Protocol and found it to be a least common denominator compromise that, in our view, was worse than nothing ... Several nations came to the United States privately and thanked us for rejecting the Protocol, which in their view was seriously flawed but for them was untouchable for political reasons ... The time for 'better than nothing' proposals is over." The following day — prior to leaving for South Korea for discussions primarily relating to North Korea - Bolton says that a solution could not work on a principle of one nation, one vote. "As long as you treat every country exactly the same, equally capable of culpability, equally capable of violating its obligations, of course you're not going to get an effective result," he says.

26 August In India, *The Hindustan Times* reports that several subsidiaries of the Delhi-base Indian company NEC Engineers Pvt Ltd, sold technology and equipment to Iraq for use in its missile and chemical weapons programme, between 1998 and 1999. The Indian authorities are said to be investigating the matter and the US has issued a nation-wide customs alert. The said company denies the allegation, claiming that the exports were made under the UN's 'oil for food' programme. The Indian authorities say that one of the two Persian Gulf-based firms implicated in the scandal is "based in Iraq and handles liaison work with Iraqi government departments". Furthermore, they say "it is suspected that rocket propellants and missile technology are being produced at (the caustic/chlorine plant in) Falluja."

A month later UK Prime Minister presents to the UK House of Commons a dossier *Iraq's Weapons of Mass Destruction: The Assessment of the British Government.* With regard to Iraq's ballistic missiles capability, the dossier states: "A new plant at al-Mamoun for indigenously producing ammonium perchlorate,

which is a key ingredient in the production of solid propellant rocket motors, has also been constructed. This has been provided illicitly by NEC Engineers Private Limited, an Indian chemical engineering firm with extensive links in Iraq, including to other suspect facilities such as the Fallujah 2 chlorine plant. After an extensive investigation, the Indian authorities have recently suspended its export licence, although other individuals and companies are still illicitly procuring for Iraq." The company's general manager C Ahuja's gives the following response to the allegation in the UK dossier: "We don't make chemicals".

26 August US Vice-President Dick Cheney gives a speech, at a meeting of the Veterans of Foreign Wars in Nashville, focusing to a large extent on the merits of the US launching a unilateral 'pre-emptive' attack on Iraq. Regarding the efficacy of the work of international weapons inspectors, he says: "During the spring of 1995, the inspectors were actually on the verge of declaring that Saddam's programs to develop chemical weapons and longer-range ballistic missiles had been fully accounted for and shut down. Then Saddam's son-in-law suddenly defected and began sharing information. Within days the inspectors were led to an Iraqi chicken farm. Hidden there were boxes of documents and lots of evidence regarding Irag's most secret weapons programs. That should serve as a reminder to all that we often learned more as the result of defections than we learned from the inspection regime itself... A return of inspectors would provide no assurance whatsoever of his compliance with UN resolutions. On the contrary, there is a great danger that it would provide false comfort that Saddam was somehow 'back in his box'." On the merits of invading Iraq, more generally, he says: "Simply stated, there is no doubt that Saddam Hussein now has weapons of mass destruction. There is no doubt he is amassing them to use against our friends, against our allies, and against us... Regime change in Iraq would bring about a number of benefits to the region... In other times the world saw how the United States defeated fierce enemies, then helped rebuild their countries, forming strong bonds between our peoples and our governments. Today in Afghanistan, the world is seeing that America acts not to conquer but to liberate, and remains in friendship to help the people build a future of stability, self-determination, and peace.

27 August A Tokyo district court rules against the Japanese Government on the question of whether the Japanese Imperial Army (JIA) used biological weapons in China during the 1937-1945 Sino-Japanese War. In this regard, the court accepts as "reasonable" evidence that criminal acts were perpetrated at Unit 731 [see 24 Sep 01]. The Japanese Government has never officially acknowledged the JIA's use of biological weapons in China. An official government apology is not forthcoming. The judge rejects claims for financial compensation from the group of 180 — mostly Chinese — claimants. Each was claiming around \$85,000 on their relatives' behalf for the acts perpetrated by the JIA during the said period. The court held, that under international law individuals are not — and were not during the period in question — entitled to seek compensation from a state for damages suffered during war. The Japan-China Peace and Friendship Treaty 1978, the court said, settled Japan's responsibility for its wartime actions. On leaving the court - after five years of making their case — the claimants said that whilst they find the quilty verdict against the Japanese Government a positive development, they will almost certainly appeal on the issue of compensation. The Japanese Government's official position is that the San Francisco Treaty of Peace 1951 — officially ending the war in the Pacific — settled war reparations. The following day, a Chinese Foreign Ministry spokesperson says that Japan should acknowledge and take responsibility for its wartime atrocities in China. [see also 15 Nov 00]

27 August In Taipei, a statement issued by the Taiwanese Ministry of Foreign Affairs expresses Taiwan's desire to become a party to the CWC, and that in the meantime Taiwan will endeavour to act according to all provisions enunciated thereunder. Whilst noting that Taiwan is not a member of the United Nations, the statement points out that since entry into force of the CWC, Taiwan has fully complied with its provisions. The statement urges states parties to the CWC to treat Taiwan fairly and with parity through allowing it to participate in CWC-related activities. This, it is said, will "ensure global economic and technological development.

27 August The US Department of Defense announces the initiation of The Biological Defense Homeland Security Program. The aim of the programme is to enhance early detection of incidents involving the use of biological agents in urban areas, with a view to reducing casualties, minimizing disruption to infrastructures, and supporting consequence management efforts. The Department hopes thereby to determine which monitoring and reporting systems can most expeditiously identify outbreaks of disease. Four cities (so far including Washington and Albuquerque) are to receive the experimental surveillance systems comprising two components: environmental monitors — to sample the air for biological agents; and software for the collection data from pharmacies, hospitals and doctors' offices. Data collected using the software, will then be sent to a central system to be searched for unusual symptoms, e.g., an increase in sales of medication for influenza during the summer would most probably require investigating. The two-year programme will cost around \$300 million.

27 August Tn Utah, the daily Deseret News reports on the numerous forthcoming public consultation exercises *via-à-vis* Dugway Proving Ground's draft environmental impact statement (completed on 16 August 2001). The facility hopes to complete the final assessment as soon as possible. The draft assessment proposes a seven-year plan, which would see a substantial increase in the facility's chemical and biological defence testing activities. For example, under the said plan, counter-terrorism training would increase from a minimal activity to a substantial mission component, covering all aspects of response to terrorism incidents involving suspected chemical and biological material.

27 August In New Mexico, Nuclear Watch of New Mexico issues a press release announcing its filing of a federal lawsuit to block the construction — due to commence next month — of the BSL-3 facility at the Los Alamos National Laboratory. The group claims that hitherto conducted environmental, health and safety impact assessments are deficient and inaccurate. [see 4 Mar]

28 August In Iraq, reporters are given a guided a tour of the Falluja-3 plant, 65 miles west of Baghdad. The facility — destroyed by US warplanes in 1991 and 1998 and rebuilt on each occasion — is suspected by the US of being involved in the manufacture of chemical and biological weapons [see 22 Jan 01]. "The plant is producing domestic insecticides and agricultural pesticides and it has nothing to do with weapons of mass destruction", explains plant manager Haidar Hassan to reporters. Director-General of the National Monitoring Department General Hossam Mohammad Amin adds: "[UNSCOM] inspected this site 250 times, at a rate of once a week. The site was also under a permanent surveillance system from 1994, with five cameras and four sensors linked to UNSCOM headquarters in Baghdad". [see also 11 Aug]

28 August In Russia, having been greeted by Russian officials at the airport serving the Kirov 200 facility, a visiting US delegation headed by Senator Richard Lugar is informed that permission for their entry to the facility has been refused. The delegation arrived in Russia approximately a week ago, with a view to

meeting top Russian officials and to visiting various weapons facilities and laboratories receiving US financial assistance under the Cooperative Threat Reduction Program [see also 9 Aug]. The visit to the Kirov 200 facility was the only item on the delegation's itinerary that the Russian authorities had previously left unconfirmed. Lugar had said beforehand that he was particularly interested in Kirov 200 because "no westerner has previously been admitted to [it]". Lugar also acknowledges that he was unsuccessful during his visit in resolving a five-year dispute with Russia over a genetically modified strain of *B. anthracis* [see 19 Aug].

28 August The UK Government responds to the Foreign Affairs Committee's report on the Foreign Policy Aspects of the War on Terrorism. Responding to the Committee's recommendation that the Government continue its efforts to persuade the United States to agree to an effective verification regime for the BWC, the Secretary of State says: "The Government continues to believe that Investigations of alleged use of biological and toxin weapons, suspect facilities, or cases of unusual outbreaks of disease believed to be violations of the Convention, would be key elements in an effective compliance regime. The Government, moreover, will continue to work with all States Parties, including the United States, to find ways and means of strengthening the Biological and Toxin Weapons Convention and combating the threat posed by BW proliferation." [see 20 Jun]

28 August In Richmond, Kentucky, speaking at a reception hosted by the Kentucky Environmental Foundation, Senator M McConnell says that it is "virtually 100 percent" certain that an alternative to incineration will be used for the chemdemil of approximately 500 tons of chemical weapons stored at the Blue Grass Army Depot. He says that a decision as to the method to be employed could come by the year's end. [see also 30 May]

29 August In Budapest, during talks on the current status of Hungary's armed forces, NATO promises "incentives and support" to enable Hungary to implement a comprehensive defence review programme, which is to include the development of a chemical and biological weapons defence programme. The talks take place between Deputy Commander of the European Armed Forces of NATO General Dieter Stoekmann, and Hungarian Defence Minister Ferenc Juhasz. [see also 11 Jun].

29–30 August At UN Headquarters, the UNMOVIC college of commissioners reconvenes [see 29 May] for its tenth plenary session.

30 August In Russia, the head of the Munitions Agency's chemical and biological weapons department Alexander Gorbovsky says that Russia's lewisite will be destroyed by alkaline hydrolosis so as to obtain "an arsenic substance and other materials that could be used in radio electronic industry". He says that Russia's yperite stockpile "can be decomposed by hydrolysis but that will result in products forbidden by the [CWC] ... That is why we developed the technology in the yperite destruction by ethanolamine reaction and as a result we will receive a complicate amine substance that is not featured in the convention ... The received organic amines cannot be used by the industry and will be burned in special conditions". [see also 23 Aug]

30 August In Berlin, German Defense Minister Peter Struck says that were the US to unilaterally attack Iraq, Germany would withdraw its specialist nuclear, chemical and biological warfare response unit from Kuwait. Any such attack by the US, he says, would fall outside the mandate issued by the Bundestag last year, which permitted the unit's dispatch as Germany's contribution to fight international terrorism. The said unit consists of 6 Fuchs tanks and 52 soldiers, and is designed to detect and destroy nuclear, chemical or biological weapons. "According to our

present knowledge there is no concrete threat for us here in Europe emanating from Saddam Hussein", says Struck.

- **30 August** US President George Bush provides Congress with a 'Condition 9' certification, in accordance with of the 'Resolution of Advice and Consent to Ratification of the CWC' [see 24 Apr 97]. The certification states: "The legitimate commercial activities and interests of chemical, biotechnology, and pharmaceutical firms in the United States are not being harmed significantly by the limitations of the Convention on access to, and production of, those chemicals and toxins listed in Schedule 1 of the Annex on Chemicals". [see also 13 Jan 00]
- **2 September** In Moscow, Russian Munitions Agency Director-General Zinoviy Pak declares that further to Russian chemdemil obligations, Russian chemical weapons can be transported safely. "In contrast to chemical armaments of the United States, our chemical warfare agents do not have explosives in their makeup. It is safer to transport such chemical weapons than to transport them together with explosives," he says. [see also 30 Aug]
- 2 September In Geneva, members of the BWC Western Group gather to discuss strategy for the forthcoming resumption of the 5th BWC Review Conference. Speaking notes for a US presentation are subsequently leaked. The notes set out the US stance as follows: "The US does not/not support follow-on meetings between November 2002 and 2006 Review Conferences... [If] the RevCon is very short, the US would not 'name names'. We would do so in a longer RevCon... [On] the termination of the Ad Hoc Group, the US position remains unchanged. We seek the end of the Ad Hoc Group and its mandate. The US will make our position on the Ad Hoc Group clear. If the RevCon is very short, we would not explicitly address the issue. We would do so in a longer RevCon... [The] US prefers a very short RevCon, if any... US definition of a 'very short RevCon' is one with the sole purpose and outcome of agreeing to hold a RevCon in 2006... A prolonged [RevCon] will quickly degenerate into a heated battle." [see also 26 Aug]
- **2–13 September** In Beijing, the third UNMOVIC advanced training course is under way [see 12–22 Nov 01]. This particular course is focusing on the development of practical inspection skills, *vis-à-vis* chemical weapons.
- **3 September** In Johannesburg, whilst attending the two-week long World Summit for Sustainable Development, UN Secretary-General Kofi Annan and Iraqi Deputy Prime Minister Tariq Aziz meet to discuss the return of weapons inspectors. Following the discussion, Annan says: "At this stage I cannot say they've taken a decision to allow inspectors." [see also 4–5 Jul]
- **3 September** The UN Secretary-General transmits to the Security Council the tenth quarterly report of the Executive Chairman of UNMOVIC, in accordance with Security Council resolution 1284. The report covers the activities of UNMOVIC from the period 1 June to 31 August. [see 31 May]
- **3–13 September** At UN Headquarters, representatives of the 78 states parties to the International Criminal Court convene for the first session of the Assembly of States Parties.
- **4 September** In Moscow, Russian Munitions Agency Director-General Zinoviy Pak pledges that Russian chemdmil budget allocations for 2003 will not be reduced. The next day, he says: "Despite the fact that Russia has been annually increasing budget allocations for disposing of its stocks of chemical weapons, which are 5.6 billion roubles in 2002, the country's financial potential will not enable us to fully scrap our war gases by 2012 alone." The US, he says, has already spent around \$15 billion to

dispose of only 18 per cent of its chemical weapons. [see also 2 Sep]

- 4 September The US Department of State delivers to Congress a report on the US-supported programme to eradicate coca in Colombia. The report, commissioned by the Bureau for International Narcotics and Law Enforcement, must be submitted in accordance with the Kenneth M Ludden Foreign Operations. Export Financing, and Related Programs Appropriations Act 2002. The Act requires confirmation that no unreasonable health or safety risks to humans or the environment result from the implementation of the programme. The report, says in relation to the chemical used in the spraying of the coca plantations, that studies have shown "the risk of eye irritation is low to persons not handling or mixing the concentrated glyphosate formulation". It further states that "in addition... an alternative glyphosate product with lower potential for acute toxicity [is] available for use in Colombia... the Department [of State] plans to switch to it for use in Colombia as soon as it can be manufactures, purchased, and delivered." [see also 27 Jul 01 and 5 Oct 01]
- **5 September** Australian Defence Minister Robert Hill unveils a 300-member Incidence Response Regiment designed to counter terrorists who attack Australian global interests with nuclear, chemical or biological weapons. \$66 million have been allocated to develop the regiment and to recruit scientists with expertise in nuclear, chemical and biological weaponry. "Their training means that they will be able to conduct high-risk searches with detection equipment and dogs, disarm and dispose of a device, decontaminate victims and the exposed area and analyze the hazardous material on site," says Hill.
- **5 September** In China, a team of Chinese and Japanese chemical weapons experts commence searching for chemical weapons at a site in the north-eastern Heilongjiang province. It is the latest Sino–Japanese initiative to locate and remove chemical weapons abandoned by the Japanese Imperial Army following the end of the Sino-Japanese War in 1945. Over the next three weeks the team will uncover 467 shells including 193 chemical shells, as well as four barrels of chemical toxicant (net weight of 306.5 kgs) and 154 toxic canisters. 1.8 tons of soil is also decontaminated.

Two weeks later, a Sino-Japanese team of archaeologists and weapons experts who have been excavating sites in the Heilongjiang province for the past six months, report finding fragments of pottery biological bombs at the Anda site. The team says that the racks are the same as those found at Unit 731 itself. The Anda site was constructed in 1941, being one of several sites built to support the work undertaken at Unit 731. Researcher Jin Chengmin believes this to be the first direct evidence of Unit 731 having carried out biological weapons field tests on people during the Sino-Japanese War.

- **5–6 September** In Stockholm, the seventh Monterey Nonproliferation Strategy Group symposium takes place at the Stockholm International Peace Research Institute. Under the name *Preventing Mass-Destruction Terrorism and Weapons Proliferation*, the symposium is attended by scholars, government officials as well as IGO and NGO representatives; all participating in their personal capacities. US Assistant Secretary for Nonproliferation John Wolf, says: "[M]y country has long been at the forefront of advocacy for many [arms limitation] treaties, and in most cases still is. But at the same time, we need to be aware that there are a host of issues call it defiance of the norms and treaties that pose real risks to the international community, and these problems are growing."
- **6 September** In Azerbaijan, an explosion occurs in Xankandi at a laboratory after two barrels containing chemical agents burst into flames outside the facility. One of the facility's employees is

reported dead and two are suffering from fourth-degree [sic] burns. The facility — reportedly housing containers of nerve gas and asphyxiating gas — was apparently commissioned two years ago for research activities. An official at the Nagorny Karabakh chemical and biological armed forces defence unit, says that "there was no fallout damaging the environment, ecology or human health." In addition to seeing dark yellow and blue smoke rising from the facility following the explosion, witnesses also report pungent smells emanating therefrom.

- 6 September In the US Congress, the General Accounting Office transmits to a House subcommittee its report Export Controls: Department of Commerce Controls Over Transfers of Technology to Foreign Nationals Need Improvement. In the US companies may be required to obtain a license from the Department of Commerce (DoC) before exporting dual-use technologies to certain countries and/or making domestic transfers to the citizens of such countries. In relation to domestic transfers, DoC may require companies employing foreign nationals who work with dual-use technologies to obtain 'deemed' export licenses. The report states: "[DoC's] deemed export licensing system does not provide adequate assurance that US national security interests are properly protected. Key vulnerabilities in the licensing process could help countries of concern advance their military capabilities by obtaining sensitive dual-use technology... We recommend that the Secretary of Commerce work with [Immigration and Naturalization Servicel to use all existing US government data in its efforts to identify all foreign nationals potentially subject to deemed export licensing requirements. We also recommend that the Secretary of Commerce — in consultation with the Secretaries of Defense, State, and Energy — establish a risk-based program to monitor compliance with deemed export license conditions."
- 8 September In Baghdad, former UNSCOM Chief Inspector Scott Ritter addresses the Iraqi National Assembly. He calls on Iraq to allow the return of weapons inspectors so as to frustrate the efforts of "those who promote the politics of fear to distort reality". "Because of September 11", he says, "we [the US public] are ... more easily prone to the exploitation by those with agendas other than legitimate self-defence who play upon these fears". He continues: "During nearly seven years of continuous inspection activity by the United Nations, [Iraq] had been certified as being disarmed 90 to 95 per cent level [sic]... The unaccounted-for material in itself does not constitute a viable weapons capability". He promotes the concept of an "honest broker" to monitor weapons inspectors and Iraqi compliance with them. The entity would be "an independent objective outsider... from outside the United Nations framework, composed of a nation or a group of nations who embrace the framework of international
- **9 September** In Astana, during Kazakh–Uzbek cooperation and friendship talks between Kazakh President Nursultan Nazarbayev and Uzbek President Islam Karimov, it is "agreed that the rehabilitation of Vozrozhdeniye Island ... should be carried out, taking into consideration the interests of all [affected] states".
- **9 September** In London, the International Institute for Strategic Studies releases a 'strategic dossier' on Iraq's possible nuclear, chemical and biological weapons capabilities. The dossier entitled *Iraq's Weapons of Mass Destruction: A Net Assessment* comprises a compendium of information currently in the public domain, i.e., with regard to Iraq's chemical and biological weapons programme, it is heavily reliant on information emanating from the accounts of UNSCOM inspectors.
- **9 September** Israeli authorities have approved publication of *The Spies: Israel's Counter Espionage War*, three years after the

manuscrpit had been submitted, according to the *Boston Globe*. The book — written by Yossi Melman and Eitan Haber — contains a chapter dedicated to the case of the former Deputy Director of the Ness Ziona Institute, Marcus Klingberg [see 3 Sep 98]. The chapter reportedly contains hitherto unknown facts surrounding the case. 15 per cent of the book has been censored.

- **10 September** At UN Headquarters, the Executive Chairman of UNMOVIC Hans Blix, says that satellite photos show that Iraq has been carrying out construction work at sites previously bombed in 1998, "but this is not the same as saying there are weapons of mass destruction." His comments are made following a meeting with the Security Council to discuss UNMOVIC's 10th quarterly report [see 3 Sep].
- 10 September In the US Congress, the General Accounting Office transmits to congressional requesters its report on Chemical Weapons: Lessons Learned Program Generally Effective but could be Improved and Expanded. With regard to the chemdemil operations at Johnston Atoll, Tooele, Anniston, Umatilla and Pine Bluff, the Lessons Learned Program was designed as a learning curve in relation to engineering and technical processes on one hand; and management, quality assurance, emergency response, and public outreach on the other. The report states: "The program's full potential has not been realized. The program needs guidance to help senior managers make decisions that allow them to weigh the potential impact of not implementing lessons learned. This guidance would be a set of procedures, including safety and risk analyses, to be followed before deciding to counter a lesson learned. Without such guidance, decision makers, in at least one case, chose lower cost over safety and schedule, ultimately at the expense of all three ... The Lessons Learned Program has shared thousands of lessons among the five incineration sites through the different phases of construction, testing, and destruction of chemical agents. However, as the Chem-Demil Program evolved through the 1990s, and as the components using alternative technologies were added, the scope of the Lessons Learned Program did not expand to share lessons with the new components ... The Lessons Learned Program lacks procedures to validate the effectiveness of implemented lessons. The lack of a validation step partially defeats the purpose of the lessons learned process, which relies on the confirmed effectiveness of solutions emerging from knowledge and experience ... There is no overarching coordination or sharing of information across all the components of the Chem-Demil Program, which grew and evolved over time without policies or procedures to ensure that knowledge would be captured and communicated fully. As a result, fragmented or duplicative efforts continue today, and the Assembled Chemical Weapons Assessment Program in particular lacks access to important data maintained by the Chemical Stockpile Disposal Project and the Alternative Technologies and Approaches Project." The report concludes by listing a number of recommendations that the Secretary of Defense should direct the Secretary of the Army to do in order to remedy the above. [see also 8 May 00]
- **10 September** The US Administration has not yet prepared a new National Intelligence Estimate on Iraq's nuclear, chemical and biological weapons capacities, according to unidentified senior intelligence officials quoted in the *Washington Times*. It should comprise an agreed assessment by the Pentagon, State Department, Central Intelligence Agency and other government entities and any significant dissenting views. The last NIE was issued two years ago.
- **10–13 September** At OPCW Headquarters, the Executive Council reconvenes [see 25–28 Jun] for its thirtieth regular session. It is unable to agree on a budget for 2003 or on Russian requests to extend deadlines for its chemdemil operations [see also 4 Sep]. The Council does, however, finalize facility agree-

ments for undertaking inspections at US chemdemil facilities in Tooele and Anniston. US Ambassador to the Council Ralph Earle says: "[The US] has initiated a required notification process to the United States Congress, with an eye to making a substantial voluntary contribution to the Organization during the current calendar year. I cannot, indeed I must not, predict what action the Congress will take on the Administration's request, but the US Delegation will keep the members of the Council apprised of developments." [see *Progress in The Hague* above]

10–14 September In Zadar, Croatia, the first OPCW exercise on delivery of assistance (ASSISTEX 1) is launched. The exercise is undertaken in accordance with Article 10 of the CWC and conducted jointly by the OPCW and the Croatian Government. The primary objective of ASSISTEX 1 is to evaluate the response capabilities of the OPCW in responding to a chemical weapons attack on a state party to the CWC. Around 15 member states partake in the exercise, which is based on a scenario of a terrorist attack on an airport. [see *Progress in The Haque* above]

12 September At UN Headquarters, President George Bush addresses the General Assembly. Of Iraq, he says: "Are Security Council resolutions to be honored and enforced, or cast aside without consequence? Will the United Nations serve the purpose of its founding, or will it be irrelevant? ... We will work with the UN Security Council for the necessary resolutions... Security Council resolutions will be enforced... or action will be unavoidable. And a regime that has lost its legitimacy will also lose its power." UN Secretary-General Kofi Annan, in his address says: "[W]hen States decide to use force to deal with broader threats [than selfdefence in accordance with Article 51 of the UN Charter] to international peace and security, there is no substitute for the unique legitimacy provided by the United Nations." UK Foreign Secretary Jack Straw subsequently says during a press conference: "There's no questions of unilateral action and that's been made clear today by President Bush". The White House makes public A Decade of Deception and Defiance, which it describes as a "background paper" for Bush's address. The paper touches on and summarizes Irag's past possession and use of chemical and biological weapons.

13 September In Moscow, the State Duma issues a statement to the effect that Russia may be forced to suspend its participation in the CWC unless the deadline by which it must destroy its chemical weapons thereunder is extended. The statement is issued following investigations undertaken by the Russian Defence Committee and the International Affairs Committee. The statement, which emphasizes the importance of foreign assistance for Russia's chemdemil operations, is forward on to the OPCW. Three days later the Kremlin announces that it is four years behind schedule in decommissioning its chemical weapons stockpile. It also states that part of the reason why only two out of six chemdemil facilities are under construction is due to the insufficient funding of 4.7 per cent of the required sum over the past five years. [see 10–13 Sep]

16 September In Seoul, a report presented by the South Korean Ministry of Defence to the country's National Assembly states that North Korea has a stockpile of between 2,500 to 5,000 tons of chemical weapons. Furthermore, the report asserts that the North has the capacity to produce around a ton of biological weapons and around 4,500 tons of chemical weapons per annum

16 September In Berlin, US Under-Secretary for Arms Control and International Security John Bolton delivers a lecture at the Aspen Institute on the US *vis-à-vis* the International Criminal Court (ICC), during *The Transatlantic Discussion on How to Treat Treaties*. Bolton says: "The ICC is an organization whose precepts go against fundamental American notions of sover-

eignty, checks and balances, and national independence... In order to protect our citizens, we are in the process of negotiating bilateral agreements with the largest possible number of states.... Requiring the United States to be bound by this treaty, with its unaccountable Prosecutor, is clearly inconsistent with American standards of constitutionalism [sic]... The supposed 'independence' of the Prosecutor and the Court from 'political' pressures (such as the Security Council) is more a source of concern than an element of protection... Continental European constitutional structures do not, by and large... thoroughly separate judicial from executive powers, just as their parliamentary systems do not so thoroughly separate executive from legislative powers. [That] may help to explain why Europeans appear to be more comfortable with the ICC's structure... The Statute of Rome substantially minimized the Security Council's role in ICC affairs... In requiring an affirmative Council vote to stop a case, the Statute shifts the balance of authority from the Council to the ICC... This attempted marginalization of the Security Council is a fundamental new problem created by the ICC that will have a tangible and highly detrimental impact on the conduct of US foreign policy... The ICC's authority is far too attenuated to make the slightest bit of difference either to the war criminals or to the outside world... Why should anyone imagine that bewigged [sic] judges in the Hague will succeed where cold steel has failed?... One alternative to the ICC is the kind of Truth and Reconciliation Commission created in South Africa [that is] radically different from the ICC, which operates through vindication, punishment, and retribution... Signatories of the Statute of Rome have created an ICC to their liking, and they should live with it. The United States did not agree to be bound, and must not be held to its terms."

16 September Iraqi Minister for Foreign Affairs, Naji Sibri, transmits a letter to UN Secretary-General Kofi Annan that states: "I am pleased to inform you of the decision of the Government of the Republic of Iraq to allow the return of the United Nations weapons inspectors to Iraq without conditions.... The Government of the Republic of Iraq is ready to discuss the practical arrangement necessary for the immediate resumption of inspections". Annan says that on receiving the letter from him the Security Council "will have to decide what they do next", adding that UNMOVIC were "ready to do their work". He adds that Iraq has agreed to "immediate discussions" to evaluate the logistics for the inspections to recommence. [see also 15 Aug and 12 Sep]

18 September Switzerland announces its intention to provide Russia with financial support to help it expedite its chemdemil programme. The announcement is made following a meeting between Chairman of the Russian State Commission for Chemical Disarmament Sergei Kiriyenko and Swiss Foreign Minister Joseph Deiss *et al.* The payment of the said contribution by Switzerland, which Kiriyenko says could amount to "tens of millions of dollars", is contingent on the consent of the Swiss Parliament. [see 13 Sep]

18 September St Vincent and the Grenadines ratifies the CWC, thereby reducing to 28 the number of those states that have signed but not yet ratified the Convention. On 18 October it will become the 146th state party to the Convention.

18 September US Secretary of Defense Donald Rumsfeld alludes to a US plan to deter Iraqi officers from using chemical or biological weapons in any future conflict between the US and Iraq. Speaking before one of many recent House Armed Services Committee hearings on Iraqi weapons of mass destruction, Rumsfeld says: "Even if Saddam Hussein were to issue an order for the use chemical or biological weapons that does not mean his orders would necessarily be carried out. [Saddam Hussein] has maintained power by instilling fear in his subordinates. If he

is on the verge of losing power, he may also lose his ability to impose that fear — and, thus, the blind obedience of those around him. Wise Iraqis will not obey orders to use WMD."

19 September The US National Research Council publishes a report on Countering Agricultural Terrorism. The report concludes that the US cannot rapidly detect and identify many pests and pathogens and would not be able to respond quickly to a large-scale bioterrorist attack on its agriculture sector, thus overwhelming its current laboratory and field resources. It adds, that whilst such an attack would be highly unlikely to result in famine or malnutrition, it could harm people, disrupt the economy, and cause widespread public concern and confusion. Committee Chairman Harley Moon says: "Biological agents that could be used to harm crops or livestock are widely available and pose a major threat to US agriculture... Part of the plan to defend against agricultural bioterrorism should be to enhance our basic understanding of the biology of pests and pathogens so we can develop new tools for surveillance and new ways to control an outbreak." The preliminary findings of the Committee were passed by the Office of Homeland Security Department of Agriculture earlier this year. An appendix of the material that the National Academies decided to remove from the report is not available for distribution to the general public.

19 September In Washington, The Stimson Center releases its report Compliance Through Science: US Pharmaceutical Experts on a Strengthened Bioweapons Nonproliferation. The report describes as "tepid" and "lacking in substance and force", US proposals to strengthen the BWC, i.e. ad hoc inspections where compliance issues arise; and the strengthening by states parties of various domestic laws, practices and capabilities. It promotes the support of additional technical research and field-testing to formulate inspections, tactics, and strategies, in place of the US proposal for inspections. It also criticizes the US's second proposal, in that it would lead to some states parties adopting ineffective rules and laws. The report says that a modification of the US proposal to include minimum global standards, including noncompliance penalties would be preferable. In addition, it advocates a phased implementation of universal standards, working at the institutional, national and international levels.

20 September Singapore becomes the first Asian country to sign the US Customs Service Container Security Initiative. The Initiative allows US customs officers to check shipping containers for hidden cargo that could be used to support a nuclear, chemical or biological weapons terrorist attack on US soil. [see also 25–26 Jun]

20 September In the US Congress, the General Accounting Office releases its report on Anthrax Vaccine: GAO's Survey of Guard and Reserve Pilots and Aircrew. The report states: "According to our survey, 37 percent of guard and reserve personnel received one or more anthrax vaccine shots ... between September 1998 and September 2000 [of which] an estimated 84 percent ... reported having side effects or reactions. This rate is more than double the level cited in the vaccine product insert. Further, about 24 percent of all events were classified as systemic — a level more than a hundred times higher than that estimated in the product insert ... On the basis of our survey, each anthrax shot generated more than four reported events, and each respondent had received close to four shots of anthrax vaccine. Thus, the average respondent had reported experiencing about 17 reactions or events thought to be attributable to the vaccine ... The reaction rates from our survey were also consistent with the results of two earlier DOD studies [Hawaii and Korea] of the anthrax vaccine ... Both the Hawaii and Korea studies found that women experienced a reaction rate substantially higher than men did — in some instances double or more. Our survey did not include a sufficient number of women to address this issue ... The rates disclosed in the survey and the DOD studies are each significantly higher than those stated in the vaccine product insert until recently. Such marked variances from the product insert data suggest the possibility of change in the composition of the vaccine from the vaccine originally approved in 1970.

20 September President Bush transmits the *US National Security Strategy* to Congress. The Strategy sets out, *inter alia*, the Administration's recent re-interpretation of international law pertaining to anticipatory self-defence [see 1 Jun]. It states: "For centuries, international law recognized that nations need not suffer an attack before they can lawfully take action to defend themselves against forces that present an imminent danger of attack ... We must adapt the concept of imminent threat to the capabilities and objectives of today's adversaries ... The United States will not use force in all cases to pre-empt emerging threats, nor should nations use pre-emption as a pretext for aggression. Yet in an age where the enemies of civilization openly and actively seek the world's most destructive technologies, the United States cannot remain idle while dangers gather."

20 September OPCW Director-General Rogelio Pfirter, who is visiting the US, says that he seeks to restore the OPCW's credibility, balance its budget and move the scope of its activities beyond disarmament. "The OPCW has recently endured a taste of fire ... It is now ready to face ahead and deal with the challenges of the future, including a fivefold increase in the verification of the destruction of chemical weapons," says Pfirter during his visit to the US. "Indeed, we need a cultural change ... That change requires ... a spirit of unity and solidarity and a sense of mission inside the secretariat itself", he adds. Pfirter says that since taking office he has sought to "re-establish a simple budget-funded structure", emphasizing the need for transparency, by opening the doors and the books of the organization to "reassure" Member States. He says that the Organization's financial situation is "very serious" owing to a "lack of trust" and questions over the justification for some expenditures, and since its budget has been frozen for two years, it now needs a 10 per cent increase to be back in order. By increasing its 2003 budget to \$68 million from a current level of \$61 million, and by reforming certain accounting practices, the OPCW would be able to balance its budget, says Pfirter. To deal with rising verification costs, he says that the OPCW is seeking to move towards more "technologically-based" and cost-effective inspections.

20 September The US Army announces its decision to delay the start of its chemdemil incineration operations at the Anniston Army Depot, from late October to the New Year. The State Department of Environmental Management had asked for a such delay on 12 Sep, on the grounds that the incineration as planned was not in accordance with state guidelines. [see also 13 Aug]

20 September In the US, *Business Week* reports a letter written in 1995 stating that between 1 October 1984 and 13 October 1993 the Centers for Disease Control and Prevention had supplied Iraqi scientists with a number of biological agent samples including *Yersinia pestis*, West Nile Encephalitis virus, *Rickettsia rickettsi* and Dengue virus. The letter was written by the then-Director of the CDC David Satcher to Senator Donald Riegle in connection with a congressional inquiry [see 9 Feb 94 and 25 May 94]. The letter, which lists all biological agents provided by the CDC to Iraq, states: "Most of the materials were non-infectious diagnostic reagents for detecting evidence of infections to mosquito-borne viruses".

21 September The London *Times* reports the existence of a top-secret 23-page Iraqi military order that instructs local Iraqi military commanders to use chemical weapons in the event that Iraq should face imminent defeat in any future Gulf war. The

order — said to have been distributed in March — delineates five military zones within Iraq and reportedly lists circumstances under which commanders of the zones should use their own judgment *vis-à-vis* the efficacy of employing chemical weapons. Furthermore, it is said to refer to radio-coded messages to signify use of chemical weapons. The article says that senior members of the Supreme Council for Islamic Revolution in Iraq are reported to have handed the document to US officials last month during their visit to the White House. A US statement released following the revelation reads: "We [the US] are studying the contents very carefully to see what it tells us about Saddam's military contingency planning".

23 September At OPCW Headquarters, in a statement regarding the US and the EU's reluctance to grant Russia a five-year extension to its chemdemil programme, OPCW Deputy Director-General John Gee says: "The principal problem at the moment lies in Russia ... there has been considerable delay. The Russians have destroyed some chemical weapons. But they have yet to destroy Category 1 chemical weapons, considered to be the most lethal ones." [see 13 Sep]

23 September In the US, the Centers for Disease Control and Prevention release a third revision of the Smallpox Response Plan and Guidelines (SRPG), which according to CDC Director Julie Gerberding, "are a part of an on-going process at CDC to help states prepare for a smallpox event." Federal officials say that the plan is not a new policy but simply a set of detailed recommendations for states on how to respond to a worst-case attack. New Mexico's state epidemiologist Mack Sewell says that achieving a high level of readiness "is a matter of time, attention and resources", all of which are uncertain at this point. The Smallpox Vaccination Clinic Guide the only major update to the SRPG, states that following a confirmed smallpox outbreak, rapid voluntary vaccination of a large population may be required so as to: supplement priority surveillance and containment control strategies in areas with smallpox cases; reduce the 'at-risk' population for possible additional intentional releases of smallpox; or, address heightened public or political concerns regarding access to voluntary vaccination. The Guide includes the following information: vaccine delivery and packaging logistics, i.e., distribution of 280 million doses of smallpox vaccines from the National Pharmaceutical Stockpile storage sites to states' field sites within 5-7 days; logistical considerations for large-scale, post-event smallpox vaccination clinics — a model of a vaccination clinic is included in the guide as well as a list of equipment and supplies: and, an example of a large-scale vaccination clinic with personnel estimates - the output goal of the example clinic model would be the administration of vaccine to 1 million persons over 10 days; and, logistics for administration of the smallpox vaccine.

23-24 September In Montreux, Switzerland, the International Committee of the Red Cross hosts a meeting of government and independent experts on Biotechnology, Weapons and Humanity. The focus is on potential threats arising from new scientific developments in biotechnology, as supposed to those arising from existing dangers. Following the conference, the ICRC launches an appeal for all political and military authorities; the scientific and medical communities; and, the biotechnology and pharmaceutical industries to "work together to subject potentially dangerous biotechnology to effective controls". The appeal calls for governments to affirm the principles and prohibitions enunciated under the 1925 Geneva Protocol and the BWC. It also calls on national authorities to ensure that the said prohibitions are understood and respected by members of their armed forces and to prosecute any violations thereof. The scientific community and biotech industry are urged to "adopt professional and industrial codes of conduct aimed at preventing the abuse of biological agents". [see Report from Geneva above]

24 September In the UK, during a recalled sitting of the House of Commons to debate the Iraq crisis, Prime Minister Tony Blair presents Irag's Weapons of Mass Destruction: The Assessment of the British Government, which is based primarily on the assessment of the Joint Intelligence Committee. The dossier states: "In mid-2001 the JIC assessed that Iraq retained some chemical warfare agents, precursors, production equipment and weapons from before the Gulf War. These stocks would enable Iraq to produce significant quantities of mustard gas within weeks and of nerve agent within months. The JIC concluded that intelligence on Iraqi former chemical and biological warfare facilities, their limited reconstruction and civil production pointed to a continuing research and development programme. These chemical and biological capabilities represented the most immediate threat from Iraqi weapons of mass destruction ... In the last six months the JIC has confirmed its earlier judgements on Iraqi chemical and biological warfare capabilities and assessed that Iraq has the means to deliver chemical and biological weapons ... Iraq can deliver chemical and biological agents using an extensive range of artillery shells, free-fall bombs, sprayers and ballistic missiles ... Iraq 's current military planning specifically envisages the use of chemical and biological weapons ... Iraq 's military forces are able to use chemical and biological weapons, with command, control and logistical arrangements in place ... The Iraqi military are able to deploy these weapons within 45 minutes of a decision to do so ... Iraq has learnt lessons from previous UN weapons inspections and is already taking steps to conceal and disperse sensitive equipment and documentation in advance of the return of inspectors". Russian Foreign Minister Igor Ivanov says, following Blair's address: "I believe that only specialists and experts can judge whether or not Iraq has weapons of mass destruction. We have therefore sought the fastest possible return to Iraq of inspectors ... It seems to us that it is not worth creating a great propaganda furore around this report". The French Government position on the dossier, is that it has not seen proof to back up the claims therein. A spokesperson for the German Government says: "What we read there does not differ from what the German government already knew". The Iragi Government denounces the dossier as being "full of lies" and that "the inspection team will be able in a short time to verify that such claims are baseless".

25 September In Sirjan, Iran, more than 30,000 units of the Ground Forces of the Islamic Revolutionary Guards Corps partake in a military exercise the object of which is to counter asymmetric military attacks. Responding to, and defending against, the use of biological warfare feature prominently in the exercise. The said exercise takes place on day two of four days of extensive 'Arusha (4)' military exercises.

25–27 September In Noginsk, Russia, military exercise: Bogorodsk 2002, is under way. The scenario of the exercise is the simulation of a terrorist attack on a chemical production facility, involving mass casualties, contamination, collapsed structures, evacuation, and a request for international assistance. The Russian Federation, 14 Euro-Atlantic Partnership Council states, the OPCW and the UN Office for the Coordination of Humanitarian Affairs have sent teams to participate in the exercise. It is intended, as far as possible, to build on relevant experiences that states of the Euro-Atlantic Partnership Council have previously amassed in the area. The general aim of Bogorodsk 2002 is to practice Euro-Atlantic Disaster Response Coordination Centre procedures and Euro-Atlantic Disaster Response Unit capabilities in order to improve Euro-Atlantic Partnership Council nations' ability to respond to a bioterrorist attack. A Russian Foreign Ministry statement declares the exercise as "a logi-

10 Years Ago

29 September 1992 In Baltimore, Maryland, Dr Edward Lacey, Acting Assistant Director, Bureau of Verification and Implementation, US Arms Control and Disarmament Agency, addresses a meeting of the Pharmaceutical Manufacturers Association on the subject of proposals to strengthen the Biological Weapons Convention and on VEREX in particular.

He says: "Many governments, especially in the West, have seized upon the fact that the 1972 BWC has no specific verification provisions; their thinking is that adding verification provisions might help detect or discourage clandestine biological weapons production. Thus at the last review conference, in addition to approving confidence building measures, many countries wanted to amend the BWC by adding more restrictive, intrusive measures. For reasons I will discuss presently, the US delegation opposed these measures...Our own analysis indicate that the BWC cannot be made more effective by adding verification measures known to us ... It should be noted that the United States opposes any measure that would limit our ability to pursue a biological defense program or unduly burden American industry. ... the United States opposes the adoption of ineffective verification provisions that could create a false sense of security with respect to compliance with the BWC and that could adversely effect legitimate defensive and commercial activities in this area".

cal step in the new relations between Russia and NATO", having regard to the agreement to cooperate in the fight against international terrorism reached at the Rome Summit (27 May to 2 Jun).

26 September In Bad Hofgastein, Austria, head of the European Commission's health security taskforce George Gouvras says that most EU member states do not have adequate vaccines or response strategies to cope with a mass bioterror attack involving the use of diseases such as smallpox. The statement is made during the Fifth European Health Forum (25 Sep to 28 Sep). Most governments, he says, rely on national stockpiles of "first generation" vaccines. "Despite the fact that these old vaccines do not meet current quality standards for the manufacture of vaccines, few Member States appear to be planning to buy second generation vaccine when it becomes available," says Gouvras. National smallpox response strategies, he adds, rely on 'ring-fencing' outbreaks (in line with guidelines set out by the World Health Organisation), but do not cater for the eventuality of responses requiring mass vaccination.

27 September At UN headquarters, the First Committee (Disarmament and International Security) of the 57th UN General Assembly begins its work, which is due to end on 1 November, by electing its officers and adopting a work programme and agenda. Ambassador Matia Mulumba Semakula Kiwanuka of Uganda had been elected as committee chairman on 17 July.

27 September In the US Congress, the General Accounting Office releases its report *Arms Control: Efforts to Strengthen the Biological Weapons Convention.* The purpose of the report is to: discuss experts' views on the strengths and limitations of existing international treaties on biological weapons treaties; analyze the BWC draft protocol and the reasons why the US rejected it; and, discuss proposals to strengthen the prohibition against biological weapons in the absence of the draft protocol. The report states: "Since the US rejection of the draft protocol in July 2001, the United States and the United Kingdom have proposed ways to strengthen the prohibition against the development of biological

weapons. Both proposals contain elements of the draft protocol, specifically (1) procedures for countries to request the investigation of possible violations of the BWC; (2) provisions for voluntary information exchanges, visits, and clarification of BWC concerns among states; (3) improvements to global infectious disease surveillance; and (4) requirements for countries to make it a criminal offense to violate the BWC. In addition, the US and British proposals would both establish standards for securing, accessing, and handling pathogens, areas that were not covered in the draft protocol. The proposals differ in whether each member country will implement the provisions voluntarily, as the United States would prefer, or whether a legally binding treaty will be adopted. Many other parties to the BWC, including the United Kingdom, would prefer the latter." The report continues: "The Center for Nonproliferation Studies at the Monterey Institute of International Studies proposes the development of international standards to account for specific pathogens and toxins that are stored, transferred, imported, or exported; a national register of laboratories that work with microbe collections and their genetically modified strains; and a licensing process to control the export of specific agents ... The Harvard Sussex Program on Chemical and Biological Weapons Armament and Arms Limitation proposes an agreement to make the production, acquisition, or use of biological and chemical weapons a crime under international law. This proposal would require each country to make violations of the BWC a criminal offense, investigate possible offenders on its territory, and prosecute or extradite alleged offenders... The International Weapons Control Center at Depaul University College of Law proposes an international biological terrorism agreement that combines elements of the above two proposals. It would (1) criminalize BWC violations, (2) establish biosecurity and biosafety regulations, (3) create an international system to license users of biological agents and equipment, and (4) require information sharing and cooperation among national and international law enforcement agencies."

27–29 September In the UK, a Wilton park symposium on *Preventing the Proliferation of Chemical and Biological Weapons* is under way at Wiston House.

30 September At UN Headquarters, during the general debate in the First Committee [see 27 Sep] of the General Assembly, Danish representative Erling Nielsen presents a statement on behalf of the EU, part of which reads: "The European Union attaches high priority to the strengthening of the [BWC] ... Member States of the EU have considered the issue of national compliance and legislative and regulatory implementation measures and support proposals to strengthen such measures ... The [EU] believes that such proposals could be agreed for a follow-up process to strengthen the BTWC when the Review Conference resumes in November of this year."

The following day, South Africa in its statement sets out a number of detailed proposals for the forthcoming resumed session of the 5th BWC Review Conference: "To this end, South Africa would support a proposal at the reconvened meeting of the Review Conference that would include: the rapid conclusion of the Review Conference's work with a focus to enhance the implementation of the Convention, also without raising divisive issues where it is known that agreement will not be possible; no reference to the BWC Ad Hoc Group and its draft Protocol in the final documents of the Review Conference; agreement to establish a Group or Groups of Experts to deal with a limited and nonexhaustive list of specific issues related to the Convention and to consider and reach agreement on proposals that could enhance the implementation of the Convention; annual meetings of the Group or Groups of Experts for a period of approximately four weeks in two separate periods (if there is still time available after the reconvened meeting of the Review Conference in November has completed its work, then the remaining time could be used by the newly-established Expert Group or Groups to begin an initial consideration of their work); annual meetings of the states parties for a limited duration of time (a few days) that would consider the work of the Group or Groups and decide upon further work once issues had been dealt with (the annual meeting should coincide with one of the periods of time that have been allocated for a meeting of the Expert Group or Groups); and, the possible strengthening of the UN Secretariat in the area of biological weapons so as to assist the states parties, especially from developing countries, in the abovementioned work."

Other states also make reference to the BWC and CWC. For example, Cuba states: "Some US government senior officials [see 6 May and 5 Jun] have addressed slandering accusations against Cuba, alleging that our country carries out a 'limited offensive research work and biological warfare development'. Once again, Cuba rejects with strong determination such lies." In its statement, the US announces: "The United States is making a voluntary contribution to the [OPCW] of some \$2 million. In addition, we have decided to upgrade our diplomatic representation at the OPCW in The Hague. We urge other members to join us in making such voluntary contributions to the OPCW, and in taking other steps to underscore international support for Director General Pfirter as he begins to revitalize this important institution of multilateral arms control." The US statement makes no reference to the forthcoming resumed session of the 5th BWC Review Conference.

- 30 September-1 October In Vienna, representatives of UN-MOVIC meet with an Iraqi delegation to discuss terms for the return of UN weapons inspectors to Iraq [see 16 Sep]. Following the discussions, Executive Chairman of UNMOVIC Hans Blix says: "The Iraqi representatives declared that Iraq accepts all rights of inspection provided for in all the relevant Security Council resolutions ... It was clarified that all sites are subject to immediate, unconditional and unrestricted access ... However, the memorandum of understanding of 1998 establishes special procedures for access to eight presidential sites". US State Department spokesman Richard Boucher declares that the US position is that "the inspectors should not go in until there is a resolution that gives them the authority and instructions of the Security Council". White House spokesman Ari Fleischer refers to a "oneway ticket" or a "single bullet" in a statement encouraging disaffected Iraqis to assassinate Saddam Hussein.
- **1 October** The London *Times* reports that as many as 14,000 military personnel assigned to the Joint Rapid Reaction Force (JRRF) have been vaccinated against anthrax. Since the vaccination programme was expanded [see 13 Jun], 46 per cent of the JRRF have received the vaccination.
- 1 October In the US House of Representatives, the National Security, Veterans' Affairs and International Relations Subcommittee of the Government Reform Committee conducts a hearing on Chemical and Biological Equipment: Preparing for the Toxic Battlefield. Testifying are officials from the Office of the Inspector-General of the Department of Defense and from the General Accounting Office. The GAO provides a report to the subcommittee which concludes as follows: "Although DOD has taken significant actions to improve the program and has increased its funding, serious problems still persist." However, based on visits to 287 units in 31 states and countries, the Inspector-General asserts that the "first-to-fight" units in the US and the Persian Gulf are adequately equipped and trained. He adds: "The problems that we have identified in those visits can be corrected. Some commands, such as the US Naval Forces, Central Command, have established vigorous programs to protect personnel from chemical and biological weapons."
- **1 October** Cuban work in the field of biological warfare is the topic of an article in the US magazine *Insight on the News* which

reports: "Recent outbreaks of West Nile virus that have killed more than 30 Americans and infected another 675 have been traced to birds that may have been infected at Cuban bioweapons labs" so says a magazine article posted on the web today. The magazine cites unnamed "defecting scientists" who report "experiments using animals as carriers of weaponized germ agents" [see also 15 May]. It is reported that US Undersecretary of State for Arms Control and International Security John Bolton was scheduled to deliver details of the Cuban programme to the Senate Foreign Relations Committee in June [see 5 Jun], but the testimony was suppressed by the intelligence bureaucracy, apparently partly driven by concerns that an open hearing on this issue would provide feedback to Cuba on "how much we know about its BW effort".

- 1 October USA Today reports that the construction of the chemical weapons destruction facility at Shchuch'ye in Russia could come to a halt if the US Department of Defense does not receive Congressional approval to release more funding under the Cooperative Threat Reduction (CTR) programme. The funds have been frozen for the past three years by a Congressional requirement [see 30 Oct 00] that the Secretary of Defense certifies that Russia has met a number of specific conditions related to its chemical weapons stockpile. The Department plans to begin cancelling contracts this month as, with the start today of FY 03, it has run out of funds and the temporary waiver of the general CTR conditions granted by Congress [see 7 Aug] expires today. Congress did approve \$50 million for chemdemil activities in Russia in the FY 02 National Defense Authorization Act, but the Defense Secretary has not yet been able to provide the certification necessary to unlock the funds, despite earlier Administration assurances [see 28 Jan]. Negotiations on the FY 03 National Defense Authorization Act, which includes the Administration's request [see 6 Mar] of \$134 million for Shchuch'ye, are ongoing. Differences between the House and Senate versions of the legislation include provisions allowing the President to waive both the general CTR conditions and the specific conditions relating to the Shchuch'ye funding.
- **2 October** US Secretary of Health and Human Services Tommy Thompson announces that the National Institute of Allergy and Infectious Diseases (NIAID) has awarded contracts for the development and production of a new anthrax vaccine to two biotechnology companies. The vaccine will be based on recombinant DNA technology developed at the US Army Medical Research Institute for Infectious Diseases (USAMRIID) at Fort Detrick. The contracts for the development and testing of the vaccine total \$22.5 million and have been awarded to VaxGen Inc based in California and Avecia based in the UK. If the testing proves successful, the vaccine will be submitted for approval to the Food and Drug Administration. In early 2003, NIAID will announce a new competition for one company to be chosen to manufacture and maintain a 25 million dose supply to add to the National Pharmaceutical Stockpile.
- **2–6 October** In Washington, the World Medical Association (WMA) holds the fifty-third session of its general assembly. A WMA press release describes the main topic of the assembly as a scientific session on *Responding to the Growing Threat of Terrorism and Biological Weapons*. The programme of the session, arranged by the American Medical Association, features, among others, DA Henderson, George Poste, David Heymann of the World Health Organization and the President of the 5th BWC Review Conference, Tibor Toth.
- **3 October** From Almaty, Kazakhstan, it is reported that the US Department of Defense has abruptly frozen funds allocated by Congress for the destruction of chemical weapons-related equipment. According to the report on Kazakh Commercial Television,

the Department has refused to invest in the project, without explaining the grounds for its decision.

3 October In Stockholm, the Stockholm International Peace Research Institute (SIPRI) holds a press conference to launch a policy paper on *Maintaining the Effectiveness of the Chemical Weapons Convention*.

4 October In the US, the Director of Central Intelligence, George Tenet, releases an intelligence community report on Iraq's Weapons of Mass Destruction Programs. Among the key judgements of the report are the following: "Iraq has continued its weapons of mass destruction (WMD) programs in defiance of UN resolutions and restrictions. Baghdad has chemical and biological weapons as well as missiles with ranges in excess of UN restrictions; if left unchecked, it probably will have a nuclear weapon during this decade. Baghdad hides large portions of Iraq's WMD efforts. Revelations after the Gulf war starkly demonstrate the extensive efforts undertaken by Iraq to deny information. Since inspections ended in 1998, Iraq has maintained its chemical weapons effort, energized its missile program, and invested more heavily in biological weapons; most analysts assess Iraq is reconstituting its nuclear weapons program. ... Baghdad has begun renewed production of chemical warfare agents, probably including mustard, sarin, cyclosarin, and VX. Its capability was reduced during the UNSCOM inspections and is probably more limited now than it was at the time of the Gulf war, although VX production and agent storage life probably have been improved. ... All key aspects—R&D, production, and weaponization—of Iraq's offensive BW program are active and most elements are larger and more advanced than they were before the Gulf war."

In its section on chemical weapons, the report states: "Iraq has the ability to produce chemical warfare (CW) agents within its chemical industry, although it probably depends on external sources for some precursors. Baghdad is expanding its infrastructure, under cover of civilian industries, that it could use to advance its CW agent production capability. ... Iraq probably has concealed precursors, production equipment, documentation, and other items necessary for continuing its CW effort. ... Baghdad continues to rebuild and expand dual-use infrastructure that it could divert quickly to CW production."

The section on biological weapons notes: "In addition to questions about activity at known facilities, there are compelling reasons to be concerned about BW activity at other sites and in mobile production units and laboratories. Baghdad has pursued a mobile BW research and production capability to better conceal its program. UNSCOM uncovered a document on Iraqi Military Industrial Commission letterhead indicating that Iraq was interested in developing mobile fermentation units, and an Iraqi scientist admitted to UN inspectors that Iraq was trying to move in the direction of mobile BW production. Iraq has now established large-scale, redundant, and concealed BW agent production capabilities based on mobile BW facilities."

4–06 October At OPCW headquarters, there is the fourth [see 11–13 May 01] annual meeting of CWC National Authorities [see *Progress in The Hague* above].

6 October In Karachi, three small chemical laboratories have been discovered inside which were found undisclosed quantities of cyanide and other toxic chemicals, according to the *Washington Times*. The newspaper states that the laboratories were found in safe houses used by the local Lashkar-i-Jhangvi group which has links with al-Qaeda. The newspaper reports arrests made during an earlier raid on a smugglers' village which had led Pakistani authorities to believe that al-Qaeda had moved much of its laboratory equipment from Afghanistan to other countries in the region with the help of gold smugglers.

7 October In Vienna, the sixth [see 18 Feb–22 Mar] month-long UNMOVIC general training course begins, opened by UNMOVIC Executive Chairman, Hans Blix. The course is attended by 54 trainees and advanced training takes place in Germany and Sweden, as well as Austria. The course is scheduled to finish on 8 November.

7 October In The Hague, Deputy Chief of the Russian State Commission for Chemical Disarmament Nikolai Bezborodov says: "If the [7th Session of the Conference of States Parties to the CWC] does not meet our request [to extend Russia's chemdemil deadline to 2012], Russia will have to suspend its membership in the convention" [see 13 Sep].

7–11 October In The Hague, states parties to the CWC reconvene [see 14 May 01] for the seventh session of the OPCW Conference of the States Parties [see *Progress in The Hague* above].

7 October In the UK, the Verification Research, Training and Information Centre (VERTIC) releases a report on Getting Verification Right: Proposals for Enhancing Implementation of the CWC. The executive summary of the report states: "Not only are existing chemical weapon stockpiles being destroyed at a much slower rate than required by the treaty, but verification has become skewed towards monitoring this process. This has been at the expense of verifying that illicit production of new chemical weapons is not occurring, including in the chemical industry. This imbalance needs to be addressed urgently. In addition, greater efficiency and innovation in verification is necessary if the financial costs are not to become unsustainable. States parties also need to begin to consider how compliance with the might be more holistically assessed." The executive summary also includes the following: "The OPCW should also seek to become more open and transparent, while maintaining confidentiality where strictly necessary to protect state security and commercial proprietary information. More meetings should be open to the public, consultative status should be granted to appropriate non-governmental organisations and information on the operations of the organisation should be made more widely available."

8 October In the US Senate, Joseph Biden introduces the *Iraqi Scientists Liberation Act of 2002* (S 3079) which would authorize offering immigrant visas and permanent residence to Iraqi scientists and their families in return for information on Iraq's weapons chemical, biological and nuclear weapons programmes, particularly in the four years since UNSCOM inspectors had to leave the country.

8–9 October In Volgagrad, Russia, there is an international symposium on *Decision Making Tools for Responding to Terrorist Use of Hazardous Substances: Minimizing Health Effects on Exposed Populations.* The symposium is organized by the International Science and Technology Center (ISTC), the Federal Directorate of Medical, Biological and Extreme Problems at the Russian Ministry of Health, the Research Institute of Hygiene, Toxicology and Occupational Pathology, the Volgograd Academy of Government Service and the Volgograd Chapter of the Russian Ecological Academy. Participating are more than 80 Russian experts, eight from the US and one each from Ukraine and the Czech Republic.

9 October In The Hague, the Sunshine Project holds a press conference at the International Press Center and later a briefing for delegates to the seventh session of the OPCW Conference of the States Parties. At both events, Project staff detail the claims made in an earlier press release that programmes operated by the US Joint Non-Lethal Weapons Directorate (JNLWD) violate the CWC and they call for CWC states parties to take action. The Sunshine Project is not among the NGOs whose par-

ticipation in the seventh session has been approved by the Conference of the States Parties.

9 October The UK Department of Health announces its decision to vaccinate key health workers against smallpox as soon as possible, and that it is to stockpile millions of doses of smallpox to serve the entire population. It emphasizes, however, that the decision to stockpile doses of the vaccine should not be interpreted as an indication of any increase in the threat of biological attack. Government Chief Medical Officer Liam Donaldson, says: "We believe we should have plans in place both to search and contain, with limited numbers of people being vaccinated around the source of the outbreak, but also we should have in place enough vaccine to vaccinate on a mass population basis if necessary." The Chairman of the House of Commons Science and Technology Committee says however: We should move as quickly as possible to inoculate the whole population". Details of the Government's plan have yet to be formulated, e.g., quantities of vaccine, and any deadline for achieving the stockpile. The next day the Department of Health issues a statement saying: "We are looking to increase the size of our stock, but no decision has been made yet on suppliers."

9 October The US Department of Defense releases 28 more [see 23 May] fact sheets on chemical and biological weapons tests conducted by the Deseret Test Center from 1962 to 1973 under the codename Project 112 (of which the Project SHAD tests were a part). In addition, the Subcommittee on Health of the House Veterans' Affairs Committee conducts a hearing on *Project 112 and Operation Shipboard Hazard and Defense*, while the Military Personnel Subcommittee of the Senate Armed Services Committee conducts a hearing on the Project SHAD tests the following day.

Speaking at a Pentagon news conference to announce the publication of the Project 112 fact sheets, Assistant Secretary of Defense for Health Affairs William Wikenwerder says: "It's ... important to understand the historical context during which these tests were performed. In 1961 the Kennedy Administration, led by Secretary McNamara, undertook a broad review of defense programs, numbering more than 150 different management initiatives. During this period, there were serious and legitimate concerns about the Soviet Union's chemical and biological warfare program. The operational tests, as part of this Project 112and 112 was merely the ordinal number of those 150 programs that were evaluated — 112 had to do with chemical and biological tests, and as a result of that, an initiative was established under the direction of some scientists at the Desert Test Center, and this program began at that time, in early 1962." Winkenwerder continues: "Here is what we know today about these operational tests. The department planned 134 tests under Project 112. Of these 134 tests we know that 62 were cancelled and were never conducted. We know that 46 tests did take place. That's what we know happened today. ... The information we have released in the past 13 months adds more detail to a public record that does exist. And it was created in 1977, when the Army released its report on the US Army activity and the US biological warfare program — and this is — this document is an unclassified document which I'm sure we can make available — and participated in open hearings before the Senate subcommittee on Health and Scientific Research."

Six of the fact sheets detail further tests, mainly at sea, under Project SHAD. The remainder refer to tests in various different climates on land within the US, principally at Fort Greely, Alaska but also in Hawaii, Maryland, Florida and Utah, and also in Canada and the UK. Chemical warfare agents used include sarin, soman, tabun, VX and BZ. Of the 28 reports released, 16 describe tests in which live chemical and biological agents were used, while simulants were used in the remaining 12. Winkenwerder says that "the purpose of these operational tests

was to test equipment, procedures, military tactics etc and to learn more about biological and chemical agents. The tests were not conducted to evaluate the effects of dangerous agents on people."

9 October In the US Senate, the Foreign Relations Committee conducts a hearing on the recently-launched G8 partnership against proliferation of weapons of mass destruction. Among the witnesses testifying are Undersecretary of State for Arms Control and International Security John Bolton and Deputy Undersecretary of Defense for Technology Security Policy and Counter-Proliferation Lisa Bronson. In his statement, Bolton says: "There are two other provisions still under consideration in the Congress which are very important to the Administration's ability to meet our non-proliferation goals. First, we are seeking in the Defense Authorization bill Congressional approval of authority for the President to waive the annual certification requirement for Cooperative Threat Reduction and Freedom Support Act Title V funding [see 8 Apr] which it is in the national security interest to do so. Second, we are seeking authority to waive the conditions for cooperation with Russia on construction of a chemical weapons destruction facility at Shchuch'ye [see 1 Oct]. We hope that both these provisions can be passed before the Congress leaves for the fall elections." Bronson adds: "We join Under Secretary Bolton in urging that the Congress approves the Administration's request for authority for the President to waive these conditions if he deems it is in the national interest." She also announces that: "The Administration has developed more stringent guidelines for cooperative research with Russia on dangerous pathogens in response to our continuing concerns over Russia's commitment to comply with the Biological Weapons Convention. These guidelines should be shared with other donor States if they decide to fund similar research."

10 October From Kazakhstan, it is reported that the US has ordered a large consignment of microherbicides from the Kazakh Genetics Institute which was formerly part of the USSR's biological weapons infrastructure. Kazakh Commercial Television reports that under the project, which is supervised by the US House of Representatives Committee on International Relations and the Drugs Enforcement Agency, the microherbicides will be used to destroy coca plantations in South America.

10 October In Uganda, a spokesman for the Uganda People's Defence Forces denies during a radio interview that the UPDF has used chemical weapons against rebels of the Lord's Resistance Army in the north of the country.

10 October In London, the UK Foreign and Commonwealth Office hosts a session of the HSP London CBW Seminar [see 30 Mar 01] at which the topic for discussion is *The Legacy of the Soviet Biological Warfare Programme: A Stalled and Unresolved Trilateral Process.* The main presentation is by Dr David Kelly.

10 October In the US House of Representatives, the Science Committee conducts a hearing on Conducting Research During the War on Terrorism: Balancing Openness and Security. Among the witnesses testifying before the Committee is Ronald Atlas. president of the American Society of Microbiology. In his statement, Atlas says: "The ASM urges a careful and prudent balancing of public concern about safety and security with the need to conduct legitimate research and diagnostic testing. Policies should not stifle research needed to develop countermeasures or it will become too difficult to pursue this research." He continues: "The ASM is seriously concerned about proposals that may adversely impact research and publication. The ASM seeks to achieve a proper balance between necessary security and vital scientific research and publications. It urges a careful and reasoned public debate of such issues. For this reason, the ASM formally requested that the National Academy of Sciences convene a meeting of scientific publishers and encourages an examination and discussion to strike a balance that will enable the free flow of scientific information without providing information that would be useful to bioterrorists. Achieving consensus within the scientific community and among scientific publishers of biological journals worldwide on appropriate practices is critical at this time. The Academy has agreed to hold such a meeting early in 2003. The meeting will focus on developing common policies regarding review and publication of manuscripts dealing with research that could present public safety issues, and identifying 'sensitive' information and policies to screen information in a manner that will not interfere with or jeopardize research."

- 11 October In Tokyo, Aum Shinrikyo member Seiichi Endo [see 12 Feb] is sentenced to death for his part in making the sarin used in the attacks in Matsumoto [see 28 Jun 94] and Tokyo [see 20 Mar 95]. Although Endo claimed that he did not know the sarin was to be used to harm people, the court's ruling states that "Endo was fully aware that sarin was to be used for killing an unspecified number of people in the confines of the Tokyo-bound subways to prevent police raids on the cult." Endo is among three Aum members accused of being the principal producers of the sarin. The other two, Tomomasa Nakagawa and Masami Tsuchiya, have not yet been sentenced. At least eight other former Aum members have also been sentenced to death but have all appealed their sentences.
- 11 October In Moscow, Chairman of the Russian State Commission for Chemical Disarmament Sergei Kiriyenko says the decision by the Conference of States Parties to the CWC to extend the first and second phases deadlines of the Russian chemdemil programme to 2007 [see 7-11 Oct], is very important "because it will save approximately \$700-800 million". "Russia has been given a credit of confidence, which it shall justify with concrete deeds: to start the conversion of enterprises, a decision on which has been made, and to destroy a certain amount of weapons for keeping with the timetable", says Kiriyenko. "[N]ow we have five years ahead of us to implement the first and second phases, after which we will discuss deferrals of the subsequent phases", he adds.
- 11 October Finland agrees to provide Russia with specialist equipment for its chemdemil operations at the Gorny facility. Russian Munitions Agency Director-General Zinoviy Pak points out that this commitment by Finland follows its previous provision [see 25 Oct 00] of similar equipment for the facility in Kambarka. Finland is estimated to have provided more than \$570,000 in relation to the Kambarka facility and will be providing an estimated \$410,000 plus, for the Gorny facility.
- 13 October The German Ministry of Health has just ordered eleven million doses of smallpox vaccine from Bavarian Nordic GmbH thereby increasing Germany's stockpile of smallpox vaccine to 35 million doses, so it is reported by *Die Welt*. The additional batch of vaccines is expected to be available as of spring 2003; the cost thereof is put at _26.8 million [see 8 Nov 01 and 29 May]. A spokeswoman for the Ministry of Health says: "Our aim is to eventually be in a position whereby we can immunize all 80 million Germans". Precautionary use of the vaccine is not envisaged, since the risk of a smallpox outbreak occurring in Germany is seen as negligible. Instead, Germany is looking at an emergency plan whereby medical and disaster personnel will be vaccinated in the event of such an outbreak.
- **14 October** In Beijing, the State Council promulgates new regulations on the export of biological agents, equipment and technologies. The *Regulations on Export Control of Dual-Use Biological Agents and Related Equipment and Technologies* will enter into force on 1 December. The regulations include a control list which incorporates a number of human, animal and plant patho-

- gens and certain dual-use biological equipment. On 18 October, the Ministry of Foreign Trade and Economic Cooperation, the State Economic and Trade Commission and the General Administration of Customs jointly promulgate the Measures on Export Control of Certain Chemicals and Related Equipment and Technologies which will enter into force on 19 November. The control list includes 10 chemicals and certain items of chemical equipment. Both sets of regulations include provisions whereby any exporter which "knows or should know" that certain chemical or biological agents, equipment or technologies will be used directly for the purposes of chemical or biological weapons or the production of chemical weapons precursors shall not export such items, whether or not they appear on either control list. A Ministry of Foreign Affairs spokesperson says: "The entering into force of the regulations, along with other existing regulations relating to export control, will establish a comprehensive non-proliferation and export control system covering all sensitive items in nuclear, biological, chemical and missile [see 25 Aug] field. This marks further improvement of legislation and export control by law, and thus has a significant bearing on fulfilling China's international non-proliferation obligations and normal development of foreign trade and economic cooperation activities."
- **14 October** In Tehran, the Iranian government and the OPCW Technical Secretariat co-host a course on medical aspects of defence against chemical weapons. It is the fourth such course and is attended by 20 physicians from different countries [see *Progress in The Hague* above].
- **16 October** In Krusevac, Yugoslavia, the president of the National Commission for the Implementation of the Convention on the Prohibition of Chemical Weapons, Prvoslav Davinic, says that destruction of chemical weapons production equipment currently stored at a warehouse in the town will begin in February or March 2003. The equipment had originally been used in a facility at Mostar in present-day Bosnia-Herzegovina. Davinic is accompanied by a team of US chemical weapons experts who inspected the equipment during their visits to Yugoslav chemical facilities. The US government will cover the costs of destroying the equipment which are estimated at between \$300,000 and \$400,000.
- **16 October** In Berlin, the newly-elected SPD/Green coalition government agrees a contract which, in its section on arms control, states that the government will do all it can to implement the CWC and to enable verification of the BWC.
- **16 October** In Algiers, the Algerian Council of Ministers, chaired by Prime Minister Ali Benflis, endorses a bill to criminalize violations of the CWC.
- 16 October In the US, the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices (ACIP) revises its earlier recommendation on the number of individuals that should be vaccinated against smallpox. The Committee recommends (by eight votes to one) that around 500,000 health care workers should receive the vaccine. It had previously recommended establishing regional hospitals that would handle all smallpox cases by vaccinating emergency workers and select staff, i.e., approximately 10,000 to 20,000 individuals. [see 19-20 Jun]. Committee members put the revised recommendation down to them having undertaken further study and having received additional feedback, as supposed to political pressure having been applied to them.
- 17 October In the UN General Assembly First Committee [see 30 Sep], Poland and Canada co-sponsor a resolution on the CWC. The draft emphasizes the necessity of universal adherence and call upon states that had not yet done so to become parties to the CWC without delay. It stresses that all possessors

of chemical weapons and production or development facilities, including previously declared possessor states, should be among the states parties and the importance of the OPCW in verifying compliance with the Convention, as well as in promoting the timely and efficient accomplishment of all its objectives. The resolution also urges all states parties to meet in full and on time their obligations and to support the OPCW in its implementation activities.

Hungary introduces a draft resolution on the BWC calling on the UN Secretary-General to continue rendering assistance to allow the implementation of previous Review Conference decisions and recommendations, and particularly to the resumption of the 5th BWC Review Conference in November. Introducing the draft, President of the Review Conference Tibor Toth says: "As a result of serious setbacks encountered in the last 18 months, there is a new realism emerging about the BWC regime as well: a less ambitious, but still meaningful role to be assigned to the regime. We should be candid with ourselves and with the outside world: this potential new role is different than building in a holistic way an all-encompassing compliance system. But it is becoming more and more evident that even in a more realistic role the BWC regime can provide a unique framework for measures to benchmark and enhance implementation, and to decrease the likelihood of deliberate, accidental or naturally occurring diseases occurring and taking a high toll. It can be done through successive steps, through measures, which would not necessarily be legally binding, and through efforts undertaken both nationally and internationally.'

With a view to the forthcoming Review Conference, Toth says: "The three rounds of informal presidential consultations I carried out in the spring, summer and autumn of this year revealed, hopefully not just to me, but to all the participants, that a forward-looking, modest, but meaningful agreement on the follow-up to the review conference is within reach. Since the summer round of these consultations there is a widening support for focusing in the resumed review conference specifically on the follow-up and wrap up its work swiftly. The follow-up mechanism would enable States Parties to meet annually and consider measures to strengthen the BWC. Such annual meetings could be supplemented by experts meetings for enhancing the effectiveness of the measures forwarded by consensus. Both the annual meetings of States Parties and the expert meetings will have to concentrate on a relatively limited number of issues to ensure that a focused and result-oriented work is taking place in the limited time available annually for those meetings. A programme of work for a couple of years ahead should outline how to carry forward the work in a way that by the beginning of the next review conference the mechanism indeed produces concrete and effective measures.'

The CWC and BWC resolutions are approved by the First Committee on 22 October without a vote. They are adopted by the General Assembly on 22 November, again without a vote.

18 October In the UN General Assembly First Committee, South Africa (on behalf of the Non-Aligned and Other states) introduces a draft resolution on the Geneva Protocol in the First Committee (Disarmament and International Security). The resolution renews previous calls to all states to strictly observe the principles and objectives of the Protocol, reaffirms the vital necessity of upholding the Protocol's provisions and calls upon those states that continue to maintain reservations to the Protocol to withdraw them. The resolution is approved by the Committee on 22 October with a vote of 140 in favour, none against and two abstentions (the US and Israel). On 22 November, the General Assembly votes in favour of the resolution with 164 votes in favour, none against and three abstentions (the US, Israel and Micronesia).

The US introduces a resolution on compliance with arms limitation, disarmament and non-proliferation agreements which

stresses that any violation of such agreements and obligations could adversely affect the security of states parties and create security risks for other states and urges all states parties to arms limitation and disarmament and non-proliferation agreements to implement and comply with the entirety of all provisions. The resolution calls upon all member states to give serious consideration to the implications that non-compliance by states parties has for international security and stability and also calls upon member states to support efforts aimed at the resolution of compliance questions by means consistent with such agreements and international law, with a view to encouraging strict observance by all states parties of the provisions of arms limitation and disarmament and non-proliferation agreements and maintaining or restoring the integrity of such agreements. The resolution is approved by the First Committee on 23 October without a vote, and is adopted by the General Assembly on 22 November, again without a vote.

The Netherlands introduces a resolution on national legislation on transfers of arms, military equipment and dual-use goods and technology. The resolution invites UN member states to enact or improve national legislation, regulations and procedures to exercise effective control over the transfer of arms, military equipment and dual use goods and technology, also taking into account commitments under international treaties. The resolution encourages member states to provide the information to the UN Secretary-General, who would be requested to make that accessible for them. The resolution is approved by the First Committee on 25 October with 160 votes in favour and none against and is adopted by the General Assembly on 22 November by 166 votes for and none against.

18 October The UNMOVIC college of commissioners holds a one-day special session at UN headquarters. Executive Chairman Hans Blix gives the Commissioners a report on the work of UNMOVIC since the last session of the College [see 29-30 Aug] and on the recent discussions with Iraq held in Vienna [see 30 Sep–1 Oct], as well as on recent developments with respect to the Security Council's deliberations on Iraq. The previous day, UN Secretary-General Kofi Annan appointed Bryan Wells as the UK commissioner, replacing Paul Schulte who has resigned his position. A replacement for the Finnish commissioner, Marjatta Rautio, who has also resigned, has not yet been appointed.

20 October Any UK troops sent to Iraq will be offered a new vaccine against plague, so the London *Sunday Times* reports. The vaccine has been developed at Porton Down [see 26 Aug 99] and trials are reported to be close to completion. The newspaper quotes an unidentified official as saying that licensing of the vaccine is "not far away" and that "it is a reasonable assumption that soldiers going to Iraq will be vaccinated." However, two days later the London *Times* reports that the vaccine will not be ready in time to be used by troops who may be involved in an invasion of Iraq.

21 October In New Delhi, the high court asks the government to confirm that NEC Engineering Ltd [see 26 Aug] was allowed to apply for a special export licence despite the fact that its original licence has been revoked after the government reportedly found evidence that the company had exported chemicals to Iraq for use in its chemical weapons programme. The company's senior advocate alleges that the government was acting under pressure from the US when it issued circulars stating that NEC "may be actively assisting in Iraqi missiles and chemical weapons programme by exporting and providing sensitive equipment, technologies and technical know-how."

22 October In the UK House of Commons, the Foreign Affairs Committee conducts a session on the Government's Green Paper on *Strengthening the Biological and Toxin Weapons Convention: Countering the Threat from Biological Weapons* [see 29

Apr]. Giving evidence are two Foreign and Commonwealth Office officials, Tim Dowse and Patrick Lamb, the head and deputy head respectively of the FCO Non-Proliferation Department. While answering Committee members' questions, Dowse says of the BWC Protocol that the UK had looked at it from the "point of view of the perceived benefit against the burden and the considered view of the British Government, across government to other departments who were involved in this, was that the balance came down on the side of benefit. It was certainly not everything that we would like to have seen. We would like to have seen a rather more intrusive inspection regime, for example. That had not been possible to achieve in the negotiations. We nevertheless concluded that the benefit outweighed the burden. The United States came to a different conclusion." He goes on to say: "We are not starry-eyed about international treaties as being the answer to our problems. They have to be combined with export controls. They have to be combined with strong political measures against proliferators. They have when necessary, as we have seen in the case of Iraq perhaps, to be combined with more direct means, but as part of the toolbox we have always felt that the treaty regimes underpinned by compliance measures do have a value. We would be foolish to discard them and where we can strengthen them we should do so."

22 October At UN headquarters, the NGO Committee on Disarmament, Peace and Security hosts a panel discussion on Reducing the Risk of Biological Weapons. Former US BWC negotiator Jim Leonard acts as moderator for the panel which consists of US Special Negotiator for Chemical and Biological Arms Control Issues Donald Mahley, UK Permanent Representative to the Conference on Disarmament David Broucher and Matthew Meselson, co-director of the Harvard Sussex Program. In his intervention, Mahley outlines US thinking on the forthcoming 5th BWC Review Conference as follows: "We see no problem with using the Convention Review Conference as a forum in which to compare notes, if you will, on what people have done. And to make recommendations in terms of what should happen, and also, quite frankly, to take care of one other international problem of what you do domestically. That is recognizing that states may not have in all cases a zeal about preventing biological weapons from existing somewhere on their territory. We think there is value in having a forum in which you can ask not only what is the nature of the legislative package that you have enacted, that says that these things are illegal and asks what are the enforcement mechanisms established domestically that allow you to go out and implement those objectives through the criminal law you

Broucher addresses US and UK differences in dealing with non-compliance: "As you also know, the UK, unlike the US, has not so far named other names. This is not because we disagree fundamentally with US concerns about non-compliance. We share them. But we think that naming names at a Review Conference suffers from some disadvantages. Firstly we think that regrettably the list of other countries which are not compliant, or may not be compliant, is longer than the list given by the US. We think we should either name all or none. Secondly, the need to protect sources often limits the information that can be made public, and without evidence, accusations of non-compliance at a review conference tend to lead only to sterile exchanges. Thirdly, I think Don Mahley has already made the point that any country with a basic knowledge of infectious diseases and a pharmaceutical industry is potentially capable of developing biological weapons in very short order." Regarding the 5th BWC Review Conference, Broucher says: "My hope is that the resumed Review Conference will agree on a procedure to take these ideas forward. It need not be a heavy or onerous undertaking. A series of annual meetings, prepared by experts, leading to the sixth Review Conference in 2006, would be sufficient. The resumed Review Conference should complete this work as quickly as possible without returning to the contentious issues that led to deadlock last year."

23 October At UN headquarters, during the ongoing fifty-seventh session of the General Assembly, OPCW Director-General Rogelio Pfirter addresses the First Committee (Disarmament and International Security) [see *Progress in The Hague* above].

24 October In the UK House of Commons, the Select Committee on Defence publishes the Government's response to the Committee's earlier report on Defence and Security in the UK [see 23 Jul]. The response includes: "The Government does not accept that there is 'a real threat of CBRN attack on a scale not previously planned for". The original report had commented: "Now there is a real threat of CBRN attack on a scale not previously planned for, the Government must provide the additional resources needed". In response to the Committee's call for the Government to provide more information to the public on the protective measures it has taken, the Government states: "The Department of Health has explained publicly that it holds strategic levels of a range of medical countermeasures for different biological and chemical incidents. However, we consider it inappropriate to give more detailed information on the types or levels of these countermeasures. Our policy on providing limited information on medical countermeasures is also in accord with the approach currently taken by our EU partners."

24 October In the US Congress, the General Accounting Office releases a report on Chemical Weapons: Organization for the Prohibition of Chemical Weapons Needs Comprehensive Plan to Correct Budgeting Weaknesses. It states: "[Because the OPCW's] budgets ... are based on the presumption that all member states will pay their assessments in full ... the budgets have recorded as income nearly \$1 million in unpaid assessments owed by 30 member states as of August 2002. In addition, the Secretariat has overestimated reimbursement income from inspections conducted in countries possessing chemical weapons and has not collected the inspection reimbursements in a timely manner. As of June 2002, member states with chemical weapons-related facilities owed the organization more than \$2 million from inspections completed over the past 2 years; the United States owed more than \$1.4 million. In addition, the budgets for 2000 through 2002 underestimated the organization's personnel expenses. These collective problems contributed to a budget deficit of more than \$2.8 million in 2000 and a potential budget deficit of more than \$5.2 million in 2002 ... Weak budgeting practices and budget deficits have affected the organization's ability to perform its primary inspection and international cooperation activities. As a result of these problems, the Secretariat completed 200 of the 293 inspections planned for 2001. For 2002, the Secretariat plans to reduce the number of inspections to compensate for the projected deficit ... The Secretariat has yet to develop a comprehensive plan that will remedy the organization's budgeting weaknesses. The Secretariat is creating a more accurate and timely invoicing process for inspection reimbursements. In developing its internal spending plans to implement the budget, the Secretariat has also begun to exclude the assessments of member states in arrears ... [The OPCW] has not developed a comprehensive plan to help improve its projections of income and expenses and has not implemented recommendations made by its external auditor and financial advisory body to develop more accurate and realistic budgets. In addition, the Deputy Director-General and representatives of other member states stated that it is crucial for the United States, as the top contributor to the organization, to continue to play a leadership role in helping the organization address its budget-planning weaknesses." The report recommends that "the Secretary of State work with the representatives of other member states and the newly appointed

Director-General to develop a comprehensive plan to improve the organization's budgeting process. In addition, we recommend that the Secretary of State annually report to Congress on the extent to which the organization is correcting its budgeting weaknesses and implementing the budget-related recommendations made by the organization's oversight bodies."

25 October In the US Congress, the General Accounting Office releases a report on Nonproliferation: Strategy Needed to Strengthen Multilateral Export Control Regimes. The report identifies several weaknesses in the activities of the Australia Group, the Missile Technology Control Regime, the Nuclear Suppliers Group, and the Wassenaar Arrangement. It points out that "not all regime members share complete and timely information on their export licensing decisions, including denials and approvals of exports". Indicative of this, it says, is the fact that the US did not report any of 27 export permission refusals to the Australia Group between 1996 and 2001, as required; and, about half of the members of the Wassenaar Arrangement did not submit their export denials on time. In addition, it notes "several factors" that complicate the regimes' goal of applying export controls consistently. In this regard it notes that it can takes some members up to a year to incorporate changes to control lists into their national laws or regulations, which could allow proliferators seeking sensitive items to exploit disparities in members' control lists. Furthermore, the report identifies "significant differences in how regime members implement agreed-upon controls, such as those for high performance computers". Lastly, "export controls cannot be applied consistently until countries joining the regimes have effective export control systems in place", according to the report. The US government, it says, claims that at least three countries Argentina, Belarus, and Russia — did not have effective control systems in place when they became members of certain of the aforementioned regimes. The report concludes by identifying a number of interrelated obstacles that the US government will have to tackle in striving to strengthen the effectiveness of the said regimes. The Secretary of State, the it says, "should work with other regime members to increase information sharing, improve the consistent adoption and implementation of export controls, and assess ways to overcome organizational obstacles to reaching decisions and enforcing members' compliance with their regime commitments". It is also recommended that the Secretary of State "report US denials of all export licenses for items controlled by a multilateral export control regime; and, establish criteria for assessing the effectiveness of the regimes".

25 October From Geneva, the World Health Organization (WHO) announces its recent inspection of the Russian State Research Centre of Virology and Biotechnology (Vector). The inspection team were "pleased to note" that the facility had addressed and complied with all previous WHO recommendations pertaining to safety procedures. Furthermore, the team were also "impressed" with the dedication and competence of the facility's staff, and "pleased" to note the renovation of the building where research into the *Variola* virus is undertaken. The conclusion reached by the inspection team was that the facility can safely continue its research work with the *Variola* virus, provided that it continues to strictly apply existing protocols.

26 October In Moscow, government special forces use a disabling chemical when storming the Dubrovka theatre to free hundreds of theatre-goers who had been taken hostage two days previously by an armed group demanding withdrawal of Russian troops from Chechnya. The group, of about 50 people, includes 20 women wrapped about in explosives primed for detonation. The chemical, a rapid-acting sedative referred to only as "special means" in the early official statements and as a "knockout gas" or "sleeping gas" in media accounts, had been disseminated through the ventilation system of the theatre. None of the explo-

sives is detonated. Next day the Russian Health Ministry states that 118 of the 763 hostages had died, a number that is later increased to 129, of whom all but five had been killed by the chemical. Most of the hostage-takers are killed, 41 of them reportedly shot while unconscious from the chemical. The producer of the musical ("Nord Ost") that had been playing, Georgy Vasilyev, tells reporters: "It was by this gas that people were saved and from this gas that people died".

The Moscow news agency Interfax quotes a hospitalized hostage thus: "When gas seeped into the theater after the terrorists killed the first hostages, I saw that one of the terrorists, who sat on the stage, jumped up and tried to put on a respirator. He made several convulsive moves, trying to pull the mask over his face, and fell." Interfax had also been told by the freed hostage that a woman, obviously a teacher, who sat not far from him, sprinkled water on napkins and pressed them on her pupil's mouths: "She kept the napkins that way until she lost consciousness, and she saved the children".

Moskovsky Komsomolets quotes a member of the special forces saying that their attack had begun only after the special means had been used: "The main thing was that we managed to liquidate the kamikaze women", recalling that they were unconscious and that the special forces had shot them "point blank. In the temple. I understand that this is cruel, but when there are two kilos of plastic explosives hanging on a person, we saw no other way of rendering them safe."

Kommersant reports that the gas is not standard issue to the special rapid-reaction Alpha- and Vympel-force detachments that had stormed the theatre. Rather it was a "modern international development in the counter-terrorism area" that had not previously been used. *Trud* reports that the Alpha and Vympel personnel had received protective injections the night previously. Former Defence Ministry official Viktor Baranets tells reporters: "most likely the agent they chose was the gas known as Kolokol-1, the most promising of all psychochemical agents developed by the Soviet special services".

Two days after the release of the hostages, while Russian authorities had still not disclosed the identity of the 'special means', Gazeta.ru states that the chemical used had been trimethylfentanyl, which is an opioid, attributing this information to "experts from the Moscow State University chemistry department". Narcotic antagonists such as naloxone were being used in the hospitals to treat surviving hostages. Western media initially speculate on the 'knockout gas' being a chemical such as the tranquillizer diazepam (Valium), the anticholinergic glycollate BZ or the oripavine etorphine; and there are also reports of the anaesthetic halothane having been a component of the chemical agent used. Halothane had been detected in samples from German hostages, but there is speculation that it originated, not in the 'knockout gas', but in subsequent therapeutic intervention. Russian Health Minister Yuriy Shevchenko later tells a news conference that the 'special means' had been "based on a derivative of fentanyl". The Washington Post suggests, on the advice of experts, that the derivative was carfentanil or possibly sufentanil. The Monterey Institute of International Studies Center for Nonproliferation Studies suggests remifentanyl. Analysis of traces of the agent present on the clothing of British hostages is under way at Porton Down.

Among foreign comment on the episode is the following statement to the UK House of Commons by junior Foreign Office minister Mike O'Brien: "Following inquiries by the United Kingdom and others, Russian authorities have announced that the gas used in ending the siege [...] was based on Fentanyl, an opium based narcotic. Fentanyl is not a chemical scheduled under the Chemical Weapons Convention. Non-scheduled chemicals are not in themselves prohibited under the Convention for use in law enforcement, including domestic riot control purposes. On 30 October, the Russian Health Minister, Mr Shevchenko, said "I

officially declare that chemical substances of the kind banned under international conventions on chemical weapons were not used."

27-28 October In Canjeurs, France, EURATOX 2002 — the first full-scale European civil protection exercise for responding to disasters involving the release of radioactive and toxic substances — is under way. Organized under the auspices of the European Commission, the exercise has a double objective: to test the rescue chains of command in the event of a major terrorist attack, and to implement the European civil protection mechanisms by requesting the assistance of member states through the intermediary of the information and monitoring centre in Brussels. The theme of the exercise is the treatment and evacuation of the victims following the explosion of a parcel containing radioactive substances during a major sporting event: 200 people are simulated on site; another 2000 victims are considered for care on a European basis. A further component of the exercise, simulates the explosion of a radioactive bomb in a cinema. Emergency response teams from Austria, Greece, Italy, Spain and Sweden have joined 800 French security personnel at the military base in southern France where the exercise is taking place. "Every country works with different material", says Natale Inzaghi, an Italian firefighter and one of 60 EU observers at the exercises. "It's a problem that we are trying to overcome here".

29 October In Riga, Estonia, naval commanders from countries bordering the Baltic Sea meet to discuss the problem of chemical weapons dumped there.

31 October In the UK, junior defence minister Lewis Moonie, responding to a written Parliamentary Question, tells the House of Commons: "In keeping with long-standing medical practice, immunisation against anthrax for the Armed Forces and other

Ministry of Defence personnel is voluntary and on the basis of informed consent. Up to and including September 2002, the period for which most recent figures are available, approximately 46 per cent of personnel offered immunisation against anthrax had accepted. Broken down by the categories requested this equates to (a) Royal Navy 28 per cent. (b) Army 78 per cent. (c) Royal Air Force 46 per cent. and (d) other Ministry of Defence Personnel 61 per cent. Thus far, immunisation against anthrax has been targeted at a small number of personnel in the most readily deployable units. As approximate proportions of their total strengths, excluding reserves, this equates to (a) Royal Navy, 0.7 per cent. (b) Army 0.4 per cent.; (c) Royal Air Force, 4.5 per cent.; and (d) other Ministry of Defence personnel 0.2 per cent".

31 October The US Department of Defense releases five more [see 9 Oct] fact sheets on four chemical and biological weapons vulnerability tests conducted in the 1960s under the auspices of Project 112. Two of the tests were conducted in the Panama Canal Zone and Hawaii, the third was conducted entirely in the Panama Canal Zone and the fourth was conducted in a tropical jungle environment in an unspecified location. Three of the tests (Yellow Leaf, Big Jack, Phase A and Big Jack, Phase B) used simulants, while one (Pin Point) used CS and the other (Red Oak, Phase I) used sarin. The fact sheet for the Pin Point test notes: "While the United States does not classify CS as a chemical warfare agent, Deseret Test Center managed Pin Point as a matter of convenience. Testing CS delivery methods was not part of a chemical-biological warfare agent assessment."

This Chronology was compiled by Daniel Feakes and Nicholas Dragffy from information supplied through HSP's network of correspondents and literature scanners.

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