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'NON-LETHAL' WEAPONS, THE CWC AND THE BWC

It is hard to think of any issue having as much potential for jeopardizing the long-term future of the Chemical and Biological Weapons Conventions as does the interest in creating special exemptions for so-called 'non-lethal' chemical weapons. The First CWC Review Conference earlier this year was opportunity to address the issue constructively. But, save in the national statements of New Zealand, Norway and Switzerland, the OPCW chose not to do so. In the programme of Review-Conference follow-up work that is now getting under way, there is no mention of disabling chemicals, not even tear gas, still less the so-called 'calmatives' and other such incapacitating agents in which interest is now rapidly reawakening.

The one emerging area of technology that today is most in need of strong and lasting arms control — biotechnology — is exactly where new disabling chemicals are coming from, furnishing potential weapons that are tempting some government agencies to depart from or to seek revision of the prohibitions of the CWC. Notions of incapacitating chemical weapons are not new; but, as investment mounts in emergent 'non lethal weapons' (NLW) technologies, it becomes increasingly urgent that the threat they pose to the CWC and BWC regime be recognised.

In the broadest perspective, as different kinds of technology have arisen, they have also been reflected in the means of war and violence. As new inventions or discoveries come along, they find all kinds of applications, including applications for hostile purposes. The rise of biotechnology, however, poses a special problem, as it will inevitably develop means for manipulating all of the life processes, including cognition, development, reproduction and heredity. Therein lie unprecedented and, in time, widely accessible possibilities for violence, coercion, repression or subjugation.

For example, not so long ago we did not know, but know now, that there are several thousand different kinds of what are called receptors in the human brain. A receptor is a protein molecule within or on the surface membrane of a cell which, when a certain kind of smaller molecule called a ligand binds to it, causes something to happen. Receptors and their ligands are part of the body's immensely complex chemical communication system. One group of receptors in our brains are the opioid receptors. The body manufactures ligands — enkephalins and endorphins — that bind with these receptors, variously alleviating pain, inducing sleep, or reducing anxiety. It turns out that these ligands can be imitated by some plant products, one of which is heroin. Also, certain synthetic chemical analogues of heroin bind to particular opioid receptors, causing diverse effects depending on the chemical,

including short-term memory impairment, breathing difficulty and flaccid paralysis. One of these chemicals is fentanyl, which was the basis for the 'knockout gas' used by Russian special forces to rescue several hundred hostages in the Moscow theatre siege of October 2002. The US Army Chemical Corps was studying fentanyl and related chemicals as candidate disabling weapons as early as May 1963.

There are innumerable other kinds of receptors in the brain, most of which we know almost nothing about. Of the few that have been investigated, we do know that some can mediate temporary blindness, for example, or can cause submissiveness, or extreme fear. Others affect memory or motivation. As time goes on, we will learn how to do many kinds of things to people with chemicals that bind to brain receptors or interact specifically with other life processes. Many applications will be beneficial. It should be possible to conduct surgical operations with greater ease and safety with the newer anaesthetics that may be made possible by this kind of research. But, as with all major new technologies in the past, this, as well as other branches of biotechnology, will also have potential hostile applications. The challenge, then, is to promote the peaceful applications of the new technology while preventing its exploitation for hostile purposes. Fortunately, the Chemical and Biological Weapons Conventions provide a timely opportunity for protecting the peaceful uses while maintaining and strengthening the barriers to hostile ones.

How do the CWC and BWC keep abreast of technological innovation? They do so in the same way as they cope with the problem of 'dual use', through the 'general purpose criterion' set out in Article II.1(a) and Article VI.2 of the CWC and Article I of the BWC. Instead of prohibiting a particular chemical, or family of chemicals, the CWC prohibits all toxic chemicals except for the listed purposes that it does not prohibit. These listed purposes include "industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes; ... purposes directly related to

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protection against toxic chemicals ...; military purposes not connected with the use of chemical weapons and not dependent upon the toxic properties of chemicals as a method of warfare; law enforcement including domestic riot control purposes". Toxic is defined in the CWC as anything that is harmful, whether employed under conditions in which it is temporarily incapacitating or lethal. Some toxic substances that have been considered for use as disabling chemical weapons are even more toxic than the chemicals developed for lethal purposes, in the sense that extremely small amounts are sufficient to cause an effect. Lofentaniol, for example, which is a derivative of fentanyl, is far more toxic than nerve agent. It will cause anaesthesia at a dose of 0.025 micrograms per kilogram body weight, which is hundreds of times smaller than the estimated lethal dose of VX.

The BWC invokes a similar general purpose criterion, prohibiting in Article I "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". The inclusion not only of 'microbial agents' but also of 'toxins', captures such natural substances as those ligands and other naturally occurring bio-active molecules and their chemical analogues that can exert harmful effects on life processes. The two Conventions therefore are mutually reinforcing in their prohibition of toxicity as a weapon of war.

Provided the 'general purpose criterion' is implemented properly, it protects the Conventions against obsolescence due to technological advance in biochemistry and biotechnology. When new toxic chemicals are discovered, they automatically come under its purview.

Uniquely, the United States has declared a policy that, in effect, excludes certain chemicals from the 'general purpose criterion', and there is now interest in broadening the exclusion still further. During negotiation of the CWC, some members of the US delegation asserted that 'riot control agents' were not toxic chemicals in the sense of the CWC. This is the position espoused by influential US military lawyers today. And, since 1997, the US Weapons Review Program has been generating the opinion that 'calmative agents' such as the fentanyls are also exempt from the 'general purpose criterion' provided those chemicals are classifiable as 'riot control agents'. What is being lost sight of here are the grave risks inherent in *any* blanket exemption for *any* toxic chemical.

The first is the escalation hazard. In March 1965, during the Vietnam War, after newspaper stories had been published about US use of 'riot control agents', Secretary of State Dean Rusk in a prepared statement said: "We do not expect that gas will be used in ordinary military operations." And he did not. Subsequently, however, 25 different types of weapon disseminating the irritant agent CS, including heavy munitions ranging up to 155-mm artillery shell and 750-pound aircraft bombs, were used in Viet Nam. Ultimately more than 10 million pounds of CS were dispensed in these munitions. A post-war analysis of the operational use of CS declassified in 1979 could find no report of its use against non-combatants or to save civilians and concluded that "...the reduction in casualties has not been in enemy or noncombatant personnel but, rather, friendly troops, as a result of using CS to make other fires more effective." Thus the United States, whose military is under civilian control and

whose vital interests were not at stake in Viet Nam, came to use vast quantities of 'non-lethal' chemical weapons under the pressures of a wartime situation in a manner totally at variance with its initially announced policy.

In World War II, the United States, the Soviet Union and the major European belligerents had around 20,000 metric tons of irritant agents (CA, CN, DA, DC and DM) in their stockpiles but used none in combat. The line against all chemical weapons was understood, and the line held. During the Korean War, the United States had huge stockpiles of tear-gas munitions. They were never used except in non-combat situations, most notably on rioting detainees in prisoner-of-war camps. Again the line held. The United States did not progress to using lethal chemical weapons during the Vietnam War, despite its use of tactical CS weapons. However, in World War I, lethal chemical warfare began with the use of tear gas. In Manchuria, in Ethiopia and in the Yemen, lethal chemical warfare began with the use of tear gas. In the Iraq-Iran war, it began with tear gas, and half of all the chemical munitions later declared to UNSCOM by Saddam Hussein's Iraq were CS munitions, mainly mortar rounds and aircraft bombs. Every confirmed resort to lethal chemical warfare has started with tear gas. One major concern regarding any NLW exemption, then, is battlefield escalation – both escalation to other agents and escalation to unrestricted employment.

There is another kind of escalation, which is the fostering of the growth and influence of institutions that are dependent upon the development and weaponization of chemical agents. Such institutions and their associated bureaucracies and dependent communities inevitably become a source of pressure for doing more in this area, and for promoting the assimilation of chemical weapons into the structures and doctrine of state forces.

A further danger is that hostile resort to disabling chemicals may lead to a loss of confidence in the CWC regime. Imagine the effect on citizens of the world, and their governments, when they observe war on television and see men fighting in gas masks, see weapons discharging clouds of toxic smoke or sprays of gas. What then will they think of the Convention for the Prohibition of Chemical Weapons, or of the Organization mandated to implement it?

Exemption also risks providing cover for cheating. Inspectors may find a large quantity of toxic chemical munitions and, upon asking what they are for, may be told "law enforcement"; and that, pretty much, would be the end of it. Maybe the inspectors were told the truth, but it does not make compliance verification any easier, and it allows for argument about what is and is not a violation.

Finally, and the most serious difficulty of all, exemption blurs the simple line, *no poisons in war*. The simplicity and lack of ambiguity in this ancient dictum make it uniquely a focus for agreement. The importance of averting the hostile exploitation of biotechnology, with its immense potentials for both benefit and harm, is immeasurably more important than the marginal utility of "non-lethal" chemical weapons in military and paramilitary operations. Instead of logic-chopping arguments intended to relax the prohibitions of the CWC and the BWC, we must look to these international agreements as the basis of a clear and generally agreed firebreak against military use in war of all toxic weapons, existing and yet to be devised. □

Developments in the Organization for the Prohibition of Chemical Weapons

The period from early July through mid-September has been notably characterized by consultations on action plans for universality and the implementation of Article VII obligations as well as on the draft OPCW programme and budget for 2004. The thirty-fourth session of the Executive Council, which is taking place in The Hague during 23-26 September, will have on its agenda, *inter alia*, the preparation of a recommendation for the Conference of the States Parties concerning an action plan on the implementation of Article VII obligations, the extension of deadlines for the destruction of Category 1 chemical weapons stockpiles, and the conversion of chemical weapons production facilities to purposes not prohibited under the Convention. It has also been requested to consider draft decisions on facility agreements and to consider further the draft OPCW budget and programme for 2004 and a medium-term plan for 2005-2007. The Eighth Session of the Conference of the States Parties will take place 20-24 October.

The OPCW continues to see its membership grow. Sao Tome and Principe will become the 154th state party to the Chemical Weapons Convention on 9 October, subsequent to its accession on 9 September. Afghanistan will become the 155th state party to the Convention on 24 October subsequent to its accession on 24 September.

The Impending 34th Session of the Executive Council

The thirty-fourth session of the Executive Council was poised to take place as of this writing. Accordingly, the following is an overview of some of the major topics that are on the agenda for the Council meeting or of those topics for which documentation has already become available. The outcomes of this Executive Council session will be discussed in the December issue of the *Bulletin*, along with a review of a special session of the Executive Council to take place before the Council's thirty-fifth session, the Eighth Session of the Conference of the States Parties, and the thirty-fifth session of the Executive Council.

Implementation of Article VII Obligations Further to paragraph 7.83(h) of the Report of the First Review Conference, there were three informal consultations on an Article VII action plan in September in anticipation of the thirty-fourth session of the Executive Council. As noted above, the Council is scheduled to prepare a recommendation for the Conference of the States Parties on such a plan. Perhaps one of the most important issues in respect of implementing Article VII obligations is timing. The consensus so far appears to be that strict deadlines for implementation of Article VII obligations are unacceptable, rather, states parties should aim for 'target' dates and not be automatically penalized if they act in good faith but fail to meet a particular target, perhaps because of lack of capacity. On the other hand, sanctions have not been ruled out for those states parties that

are simply unwilling to implement their Article VII obligations for political reasons or otherwise. Nevertheless, there are significantly divergent views on reference to remedial measures and what they would consist of.

There also appears to be openness to the idea of working through regional groupings based on language or other commonalities (legal system, historical links), or other non-traditional arrangements in order to facilitate the implementation process. It is likely that more implementation support for states parties lacking capacity will be in the Executive Council's recommendation to the Conference of the States Parties.

As of this writing, a draft recommendation has been informally discussed but no final agreement has been reached. The facilitator working on the proposal will ask the Council for an extended mandate to allow him to continue his consultations after EC-34 and to enable the Council chairman to submit the proposal directly to the Eighth Session of the Conference.

OPCW Draft Programme and Budget 2004 In his opening statement to the thirty-third session of the Executive Council in June, the Director-General addressed six areas in the draft budget under consideration which were stated to be of concern to member states: International Co-operation and Assistance (ICA) funding; staff turnover costs; the increased budget for official travel (an almost 128 per cent increase over 2003); training costs; the ability to reactivate four frozen staff posts; and the appointment of consultants to the Organization.

The thirty-fourth session of the Executive Council has been requested to consider further the OPCW draft programme and budget, which totals €74,291,534 and represents an 8.36% increase over the agreed 2003 budget. According to an official OPCW document, this breaks down to a 3.06% increase for mandatory/statutory items, 2.92% for staff turnover costs resulting from the tenure decision, and 2.36% for new programme items. In an official OPCW document, the Director-General states that the current budget proposal remains his assessment of the financial requirements arising out of the aims and programme priorities set by states parties and as reflected in the Draft Medium Term Plan 2005-2007.

Further to a budget facilitation process that began in March, the Director-General acknowledges in an official document that there appears to be a general feeling that the proposed budget increase is too high, however, there is no clear consensus among states parties about how to best reduce the budget. Nevertheless, there is a prevailing view that reductions should not be made at the expense of full implementation of core activities in verification and international co-operation and assistance.

Accordingly, the Director-General has proposed, *inter alia*, managing the programme at a budgetary level that is a

full 1% below his initial proposal while delivering a full programme of core activities. He has also proposed an additional sum of €250,000 for ICA programmes from further savings in non-core activities.

Destruction Issues The Executive Council has been requested to consider and adopt draft decisions recommending that the Conference of the States Parties approve requests by the United States and a state party of withheld identity to grant extensions of their obligations to meet intermediate Phase 3 deadlines for the destruction of their Category 1 chemical weapons. The United States has submitted a national paper explaining the reasons for its request.

The Director-General will report to the Executive Council on progress made by the Russian Federation in the destruction of its Category 1 chemical weapons as required under the Convention.

Conversion of Chemical Weapons Production Facilities

The Executive Council will be receiving a note from the Secretariat regarding notification from the Russian Federation about changes to a former CWPF (lewisite production, second train), OJSC “Sibur-Neftekhim”, “Kaprolaktam” plant in Dzerzhinsk. The Secretariat is of the view that the status of the facility after the proposed changes are made would fulfil the requirements of paragraph 71 of Part V of the Verification Annex to the Convention.

Facility Agreements The Executive Council has been requested to consider a draft decision on, amongst others, a facility agreement with Albania for a CWSF.

Article VI Issues The Executive Council has been requested to take note of a Director-General note in respect of a planned increase in the Article VI inspection programme for 2003.

Financial Issues The thirty-fourth session of the Executive Council has been requested to examine the audited financial statements of the OPCW for 2002 and forward them with comments as appropriate to the Conference of the States Parties at its Eighth Session. The Council has also been requested to consider the Annual Report of the Office of Internal Oversight for the period 1 January – 31 December 2002 and to transmit it to the Conference of the States Parties at its Eight Session.

The Executive Council has been requested to consider the report on the status of implementation of the recommendations contained in the 2001 annual report of the Office of Internal Oversight.

The Executive Council has been requested to consider a note by the Director-General on the regularisation of contractual agreements concluded for periods of more than one year and to approve the related draft decision.

The Executive Council has also been requested to consider and recommend to the Conference of the States Parties at its Eighth Session proposed amendments to the OPCW Financial Regulations and to note a report by the Director-General on the use of the Working Capital Fund for submission to the Conference of the States Parties.

Other Business The Executive Council has been requested to consider the note by the Director-General on the request to reclassify two posts. The Executive Council has also been requested to consider and approve the draft Report of the Executive Council on the performance of its activities (as amended) and the draft report of the OPCW on the implementation of the Convention in 2002 for submission to the Conference of the States Parties at its Eighth Session.

The Executive Council has been requested to consider and approve a draft decision on adjustment of the Director-General’s salary to an annual gross base salary of US \$228,403 and net base salary of US \$151,810 (with dependants) or US \$135,005 (without dependants), effective 1 January 2003. Such an adjustment is in line with decisions by the Conference of the States Parties (C-II/DEC.4, dated 5 December 1997, and C-SS-1/DEC.4, dated 25 July 2002) and follows the appropriate annual decision by the General Assembly of the United Nations on remuneration for executive heads of specialised agencies in the United Nations system.

Member States

On 9 September, Sao Tome and Principe deposited its instrument of accession to the Chemical Weapons Convention with the United Nations. It will become the 154th state party with entry into force occurring on 9 October. On 24 September, Afghanistan acceded to the Convention. It will become the 155th state party to the Convention on 24 October. According to the OPCW, there remain 24 signatory states which have not yet ratified the Convention and 15 states which have not signed or acceded to the Convention.

Secretariat

Declaration Processing As at 31 August 2003, 146 member states had submitted initial declarations, with Guatemala, Mozambique, Nauru, Saint Vincent and the Grenadines, Thailand, Timor-Leste, and Tonga yet to do so. Nine states parties continue to have incomplete initial declarations. Fifty-nine states have submitted annual declarations of past activities for 2002, and 41 states parties have submitted annual declarations of anticipated activities for 2003.

Inspections and Verification As at 12 September 2003, 1,546 inspections at 655 sites had been completed, or were ongoing, in 57 states parties since entry into force. The breakdown of inspections is as follows: 360 at CWDFs, 293 at CWPFs, 211 at CWSFs, 21 to ACW sites, 46 to old chemical weapon sites, 7 to destruction of hazardous chemical weapon sites, 1 to an emergency destruction of chemical weapons site, 152 to DOC sites, 121 to Schedule 1 facilities, 226 to Schedule 2 plant sites, 107 to Schedule 3 plant sites and 1 other. During 2003, 218 inspections at 167 sites have been, or are being, carried out.

Destruction Official destruction figures reflect that, as at 31 August, 7,837 metric tons of chemical agents, out of a declared total of 69,883 metric tons, had been destroyed. Some 1,948,401 munitions/containers, out of a declared total of 8,625,219 had also been destroyed.

The number of CW destruction facilities in operation in August 2003 was seven: four in the US, one in a state party of withheld identity, one in India and one in the Russian Federation. In addition, one initial visit was conducted by the Secretariat at the Pine Bluff Chemical Agent Disposal Facility in the United States.

Implementation of Article X An Assistance and Protection Training Course was held in Revinge, Sweden 4-22 August. The course provided two types of training: planning and establishing a chemical support team in the fields of civilian protection and rescue operations in contaminated areas, and in appropriate responses and countermeasures in the event of a terrorist attack involving toxic chemicals.

An Assistance and Protection National Capacity Building Course was held in Kazakhstan 25-29 August. It was part of the "Planning Meeting for Central Asian Republics" which is, in turn, part of a three year Central Asian Project (2003-2005) for the development and improvement of national and regional response capacity against chemical weapons. Another such course is planned for 27-31 October and will take place in Tashkent, Uzbekistan.

In late March, an invitation was issued for participation in the Seventh Annual Workshop to co-ordinate assistance and protection under Article X. The workshop will be held in Stockholm 13-17 October.

In early August, an invitation was issued for participation in a Workshop and Exhibition on National Response Systems to Protect Against Chemical Emergencies. The workshop will take place in The Hague 19-20 November.

In late August, an invitation was issued for participation in a regional workshop on assistance and protection against chemical weapons, which will be held in Viña del Mar, Chile during 3-6 November.

Implementation of Article XI The fourth Associate Program Course concludes 3 October. The course provides qualified scientists and engineers from the developing world, or from countries whose economies are in transition, the skills and experience needed to implement the Chemical Weapons Convention, and at the same time exposes them to modern operations in the chemical industry.

Implementation Support The first regional meeting of National Authorities in Africa took place 27-29 August in Khartoum, the Sudan. A regional workshop for National Authorities in Central Asia on the practical implementation of the Convention took place in Tashkent, Uzbekistan 10-12 September.

An Advanced Course for personnel involved in national implementation of the Convention was held in The Hague during 28 July-1 August. It focused on the detailed and complex requirements for legislation, industry declarations and the inspections resulting from these declarations. National Authority courses also took place in Costa Rica, 10-11 July, and Colombia, 14-15 July.

The first regional meeting of National Authorities in Asia will take place in Singapore 29-31 October. Another regional workshop on implementation of the Convention is scheduled to take place 8-10 December in Saudi Arabia.

The Fifth Annual Meeting of National Authorities is

being held in The Hague 17-19 October.

Proficiency Testing, Sampling and Analysis An international workshop on the Analysis of Chemicals Related to the Convention, jointly organised by VERIFIN and the OPCW, took place 8-13 September in Helsinki, Finland. It was primarily intended for laboratories that are active or plan to become active in analyzing Convention-related chemicals and that participate or are intending to participate in OPCW proficiency testing.

In August, the Director-General released notes evaluating the results of the Thirteenth Official OPCW Proficiency Test, held during 2 April-11 July, and reporting the status of laboratories designated for the analysis of authentic samples. Twelve laboratories, representing 10 member states, were nominated to participate in the test, however, only seven laboratories actually did so. The Edgewood Chemical and Biological Forensic Analytical Center in the United States prepared the test samples and the Centre d'Etudes du Bouchet (CEB), Section Analyses Chimiques, in France, evaluated the results. All seven of the participating laboratories met the adopted criteria and qualified for scoring. Three of them identified all of the spiked chemicals and reported them with sufficient analytical data.

In respect of the status of laboratories, fifteen laboratories from fourteen member states have been designated. Of this number, four laboratories—from the Czech Republic, Poland, the Russian Federation, and Sweden—are temporarily suspended from receiving authentic samples should such samples be taken off-site by OPCW inspectors. The eleven designated laboratories that retain their status are laboratories in China, Finland, France, Germany, the Netherlands, the Republic of Korea, Singapore, Switzerland, the United Kingdom, and the United States (two).

The Fourteenth Proficiency Test is scheduled to begin 27 February 2004.

New Validated Data In early July, the Secretariat released the latest version of the OPCW Central Analytical Database (OCAD) on CD-ROM. It contains electronic version 4 (e-OCAD v.4) and scanned-hard-copy version 6 in portable data format (PDF-OCAD v.6). The electronic version contains mass spectrometry data (MS spectra). The scanned-hard-copy version contains mass spectra (MS), infrared spectra (IR), gas chromatography retention indices (GC(RI)), and nuclear magnetic resonance spectra (NMR). In August, the Secretariat released the most recent version of the Procedures for the Evaluation of Data to Be Included in the OPCW Central Analytical Database.

The Sixteenth Validation Group Meeting took place 26-27 August in The Hague. The Seventeenth Validation Group Meeting is scheduled to take place 9-10 December.

Financial Figures As of 31 July, 87.7 per cent of the assessed contributions for 2003 had been received. Seventy-seven states parties had fully paid their assessed contribution, and fourteen had partly paid. The amount outstanding was €7,824,900.

In regard to Article IV and V verification costs reimbursements for this calendar year, €3.9 million in reimbursements has been budgeted for. Based on the most

recent official information available, €1,968,399 has been invoiced. Of that, €206,481, or 10.5 per cent, has been collected.

Legal Issues The Office of the Legal Adviser, with the help of the Media and Public Affairs Branch, will soon be launching a completely new module for the public OPCW website. It will include information and documents in respect of national implementing legislation, co-operation and legal assistance, privileges and immunities agreements, facility agreements, administrative law aspects of the OPCW, the UN-OPCW Relationship Agreement, and an expanded list of legal publications.

The Secretariat will convene a meeting of the Network of Legal Experts in The Hague during 3-7 November. The Network will be similar to that created in 2000 in Latin America and the Caribbean, and will have the objective of increasing the OPCW's capacity to assist states in implementing their Article VII obligations by creating a framework for states parties to offer bilateral legal assistance.

Official Visits The Director-General visited Khartoum, the Sudan during the first regional meeting of National Authorities in Africa, which took place 27-29 August. During 10-12 September, the Director-General visited Tashkent, Uzbekistan where a regional workshop for National Authorities in Central Asia on the practical implementation of the Convention was being held. This was followed by visits to Barcelona and Madrid, Spain during 15-17 September.

On 4 July, the Speaker of the Parliament of Georgia visited the OPCW and met with the Director-General. On 27 August, the Deputy Leader of the Progressive Coalition Party of New Zealand paid an official visit to the OPCW and met with the new Deputy Director-General, Mr Brian Hawtin, and other OPCW officials. On 22 September, the South African Deputy President visited the OPCW and met with the Director-General.

Outreach Activities A Technical Meeting of National Authorities, jointly organised by the Government of Spain and the OPCW, was held 15-17 September in Barcelona. The meeting was intended to facilitate discussion about the implementation of the CWC in respect of free zones and free ports, including such issues as improving the monitoring and tracking of shipments of chemicals; the temporary transit and storage of chemicals; the role of intermediaries or brokers; ways and means to eliminate discrepancies caused by free areas and free ports from the import and export data provided to the OPCW; and the experience gained in narcotics controls. There were several presentations including the following: one by the OPCW on, *inter alia*, discrepancies in declarations by National Authorities; an overview of the World Customs Organization and a discussion of the role of the harmonized system for goods; the Spanish export control regime for defence materials and dual use goods and technologies; trade in chemical precursors and drugs in the European Union; and presentations by the Port of Rotterdam, the Uruguay Customs Authority, the Basel Convention, and the International Chemical Council Association. Several National Authorities and other national agencies discussed their experiences in implementing the Convention including controlling and monitoring goods shipped through free zones or ports. The meeting also included a trip to Barcelona Port

and the Free Zone Consortium.

Staffing The OPCW actual personnel strength as of 29 August 2003 was reported as 509. Of these, 447 staff members are on fixed-term contracts and 312 are P-level staff. It was also reported that five fixed-term staff members would be separating between 31 August and 1 November.

Subsidiary Bodies

The Advisory Body on Administrative and Financial Matters The final report of the Fourteenth Session of the Advisory Body on Administrative and Financial Matters was issued in June, the Fourteenth Session itself having taken place during 9-13 June. The ABAF elected Mr Hadi Farajvand as Chairman and Mr Dudley Lashmar as Vice-Chairman. *Inter alia*, the ABAF first reviewed the Budget status report 2003 as at April 2003. It noted with concern the low percentage of verification reimbursement payments under Articles IV and V of the Convention and noted that, despite substantial improvement in the Secretariat's invoicing system, the timeliness of payments by the member states concerned still needed to be addressed. The ABAF also noted that 28 member states have been in arrears with their financial contributions to the OPCW for more than two years.

The ABAF reviewed the OPCW Draft Programme and Budget 2004. The ABAF recommended that the Secretariat's programme and budget for 2005, which will be in results-based budgeting format, include an annual budget-implementation report containing budgeted versus actual expenditures by programme and subprogrammes, accompanied by a brief explanation of major variances; budgeted versus actual expenditures by object of expenditure, accompanied by a brief explanation of major variances; and an indication of the extent to which objectives had been achieved. The ABAF also recommended that the Secretariat submit to it at its Fifteenth Session a report on the Secretariat's plans for the use of the results-based budgeting format.

The ABAF noted that the proposed 2004 budget represented an additional increase of 8.36% over the 2003 budget with a 9% increase in the assessment on member states, with the adoption of the tenure policy, increases in various programs, subprogrammes, and recosting accounting for the bulk of this figure. The ABAF also noted that the allocation for consultants would be increased by 94% in 2004, however, it noted that in its interactions with programme managers most of them could not justify hiring consultants, therefore, it recommended that the provision in the 2004 budget be maintained at the 2003 level and that any increase for consultants beyond the 2003 level be matched by real savings. The ABAF noted that the allocation for official travel was being increased by 128% without full and careful justification in the budget. The ABAF also noted the proposal that the Director-General have the authority to adjust staffing table numbers to meet urgent operational requirements as long as he did not exceed a total of 507 posts and total appropriated staff costs were not exceeded. The ABAF recommended that the Secretariat present a full justification for this proposal before taking such actions.

Finally, the ABAF noted that the budget proposed for International Cooperation and Assistance in 2004 is less than the amount for 2003. It also recommended that the Secretariat

prepare a comprehensive report on the use of general temporary assistance contracts and it requested information on average overtime payments per person and under each programme in 2003 for its Fifteenth Session.

The Executive Council has been requested to consider this report at its thirty-fourth session.

The Scientific Advisory Board A meeting is scheduled for 12-14 November for government experts to review the findings submitted by the Scientific Advisory Board to the First Review Conference in a report entitled "Report of the Scientific Advisory Board on Developments in Science and Technology". The aims of the meeting are to review the SAB's findings and to prepare a report to the Executive Council so as to enable it to begin work on recommendations for the Conference of the States Parties, as requested by the First Review Conference.

Future Work: CSP-8

Universality Action Plan The matter of ensuring the universality of the Convention is on the agenda for the Eighth Session of the Conference of the States Parties. Further to this, the Conference will receive a note from the Director-General on the implementation of the recommendation of the Conference of the States Parties at its Seventh Session on ensuring the universality of the Convention.

Article VII Implementation Obligations The Conference of the States Parties is scheduled to consider a report on the status of national implementation measures at its Eighth Session. The report contains two annexes and a statistical analysis of the results. The first annex gives the status of submissions related to national implementation measures as at 11 September 2003 and details of any requests for assistance. The second is a survey of the contents of submissions under Article VII, Paragraph 5, of the Convention as at 11 September. It is an updated survey of the scope of national implementing legislation, as reported by states parties in their responses to the second legislation questionnaire on penal enforcement of the Convention or as derived from a reading of the legislation they have provided to the Secretariat.

The ILO Administrative Tribunal Decision: in re Bustani It is not clear at this point whether the ILO decision on the Bustani matter will be an item on the agenda of the Eighth Session of the Conference of the States Parties. However, the Conference will be receiving a note from the Chairman containing the decision from the ILO Administrative Tribunal in respect of a complaint brought by the former Director-General. The complaint was subsequent to his dismissal by the First Special Session of the Conference of the States Parties in April 2002.

The Tribunal reaffirmed that the "independence of international civil servants is an essential guarantee, not only for the civil servants themselves, but also for the proper functioning of international organisations". It stated that it would be an unacceptable violation of the principles on which international organisations' activities are founded if the Conference of the States Parties could terminate a Director-General's appointment in its 'unfettered discretion'. It further noted that such a measure could be justified in cases of grave misconduct but only in "full compliance with the principle of due process, following a procedure enabling the individual concerned to defend his or her case effectively before an independent and impartial body". The Tribunal stated that, here, the former Director-General had no procedural guarantee and had good grounds for "asserting that the premature termination of his appointment violated the terms of his contract of employment and contravened the general principles of the law of the international civil service".

The Conference of the States Parties' decision on 22 April 2002 was set aside and the OPCW was ordered to pay the amount he would have received in salaries and emoluments (excluding representation allowance) between the date of his dismissal and 12 May 2005 subject to a deduction for any sums paid upon cessation of his functions. The OPCW was also ordered to pay €50,000 in moral damages and €5,000 in costs.

This review was written by Scott Spence, the HSP Researcher in The Hague.

Forthcoming events

11-12 November, Moscow
Green Cross 5th National Dialogue Forum, *Russian Implementation of the CWC: Status and Perspectives as of Year End 2003*, details on www.greencross.ch

2-5 December, The Hague
Thirty-Fifth Session, OPCW Executive Council.
www.icrc.org/eng

18-20 November, Washington DC
Chemical and Biological Arms Control Institute (CBACI) 10th anniversary celebrations, including a conference, *Anticipating Challenges-The Global Security Agenda to 2015: Reviewing Lessons Learned and Looking to the Future*.

3-6 December, Bucharest, Romania
CBMTS Pharmaceutical I (rescheduled), details on www.asanltr.com

2-6 December, Geneva
28th International Conference of the Red Cross and Red Crescent, of which Workshop 5 is *Biotechnology, Weapons and Humanity*, details on

15-17 January, Wiston House Sussex
Wilton Park conference on *'Rogue States' and Regime Change: Lessons for the Future*, details on www.wiltonpark.org.uk

The Biological Weapons Convention New Process

Introduction

As reported in *Bulletin 58* (December 2002), the Fifth Review Conference of the Biological and Toxin Weapons Convention (BWC) resumed in Geneva during 11 to 22 November 2002 after having adjourned on 7 December 2001. At its resumption, its President, Ambassador Tóth, presented his proposal for the final product of the Conference, which was circulated as document BWC/CONF.V/CRP.3. (This and other such official BWC documentation is available at <http://www.opbw.org>.) 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, 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 he had reached that this was the only outcome that could realistically be expected to 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 being 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 Fifth Review Conference considered this proposal, which it became clear was non-negotiable, and agreed the decision recorded in its Final Document (BWC/CONF.V/17):

18. At its eighth plenary meeting on 14 November 2002, the Conference decided by consensus, as follows:

(a) To hold three annual meetings of the States Parties of one week duration each year commencing in 2003 until the Sixth Review Conference, to be held not later than the end of 2006, to discuss, and promote common understanding and effective action on:

- 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, animals, and plants;

v. The content, promulgation, and adoption of codes of conduct for scientists.

(b) All meetings, both of experts and of States Parties, will reach any conclusions or results by consensus.

(c) Each meeting of the States Parties will be prepared by a two week meeting of experts. The topics for consideration at each annual meeting of the States Parties will be as follows: items i and ii will be considered in 2003, items iii and iv in 2004, item v in 2005. The first meeting will be chaired by a representative of the Eastern Group, the second by a representative of the Group of Non-Aligned and Other States, and the third by a representative of the Western Group.

(d) The meetings of experts will prepare factual reports describing their work.

(e) The Sixth Review Conference will consider the work of these meetings and decide on further work.

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 for 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 existed 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 his 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 allow these differences to dictate a situation in which 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 remarked 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 to enable states parties to 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.

During the resumed Fifth Review Conference it was proposed and agreed that Ambassador Tibor Tóth should chair the 2003 meetings.

Preparations for the Meeting of Experts, 2003

During the spring of 2003, Ambassador Tóth consulted with states parties and met with the groups of states. This led to an informal consultation in Geneva on 23 May with representatives of states parties at which Ambassador Tóth set out his ideas as to how the meetings of 2003 might proceed. It was recalled that the mandate of the meetings in 2003 is to “discuss and promote common understanding and effective action” on:

- 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;

It was also noted that the meetings were not intended to produce any binding obligations or recommendations.

In order to structure the discussion to make good use of the time available, Ambassador Tóth proposed dividing each of the discussion topics into five thematic subtopics so as to focus discussions but not restrict them. Thus, for national measures to implement the prohibitions in the Convention, the thematic subtopics would be:

- Legal, regulatory & administrative
- Prohibitions
- Control
- Practical implementation
- Criminalization and law enforcement

For the second topic, national measures to establish and maintain the security and oversight of pathogenic microorganisms and toxins, the thematic subtopics would be:

- Legal, regulatory & administrative
- Facilities and equipment
- Personnel and handling
- Transport
- Accountability, licensing & accreditation.

In the initial proposal, the two topics would have both been discussed throughout the two week Meeting of Experts with topic (i) being discussed in the morning and topic (ii) in the afternoon. However, states parties made it clear that from the point of view of the participation of national experts, it would be preferable to discuss topic i during the first week and topic (ii) during the second week. This approach was adopted and followed.

In addition, Ambassador Tóth proposed that inputs should be made by states parties in English and in electronic format so as to facilitate the turnaround time for distributing papers to delegations. He proposed that states parties might provide input papers at least 3 or 4 weeks in advance of the meeting. The papers might provide either an overview of national approaches to implementing the prohibitions and of national measures for security and oversight, or approach the issues from a thematic perspective based on national experience. He also proposed that presentations be made by states parties on clearly defined specific issues from a thematic perspective.

Recognising that Inter-Governmental Organizations (IGOs) such as the WHO, FAO, OIE and others had relevant expertise, Ambassador Tóth also proposed to seek their involvement in the Meeting of Experts and to invite them to make presentations.

On 10 June, Ambassador Tóth wrote to all states parties formally to request their input for the Meeting of Experts. He invited states parties to prepare two kinds of input: input papers (to be submitted in advance) and presentations (to be made at the meeting). In addition, states parties were asked to submit a list, along with a brief description, of any national implementing legislation they might already have enacted. The subtopics identified were the same as those identified at the informal consultation on 23 May, and the proposed schedule of work attached to his letter showed state party and IGO presentations followed by structured debate each morning and afternoon, followed each afternoon by compilations.

Subsequently, more detailed schedules for both topic i and topic ii were prepared and circulated by the Secretariat. These broke down the thematic subtopics into two, three or four elements and listed several subelements within each element. In respect of topic i, the thematic subtopic that had previously been “Controls” subsequently became “Restrictions”. The first four thematic subtopics for topic i were divided into four elements and the fifth one subdivided into three elements. As far as topic ii was concerned, a detailed structure initially subdivided the first three thematic subtopics into four elements, the fourth into three and the fifth into two. A later revised structure in early July for topic ii divided the first four thematic subtopics into two elements and the fifth had a single element.

This structure was carried forward into the annotated provisional agenda for the Meeting of Experts (BWC/MSP.2003/MX/3). The 13 pages setting out the thematic subtopics and the elements and subelements for both topics i and ii were described thus: “The following notes correlate to the provisional programme of work, and are provided as a background guide for delegations, without prejudice to national positions, to legal interpretations, or to the substantive work of the Meeting of Experts.”

Other Preparations

In parallel with the consultations carried out by Ambassador Tóth, several other activities were taken forward during the first six months of 2003 in order to assist states parties in preparing for the Meeting of Experts and the subsequent Meeting of States Parties. These included the following: a meeting entitled “Biotechnology, biological weapons and

bioterrorism” organised by IFRI (L’Institut français des relations internationales) in cooperation with the Ministry of Foreign Affairs, the Ministry of Defence and the Commission of Atomic Energy held in Paris on 9 April (BWC/MSP.2003/MX/WP.17); a meeting entitled “Managing the threat from biological weapons: Science, society and secrecy” organised by the Foreign & Commonwealth Office, the University of Bradford and the University of Nottingham held in London on 28 July (BWC/MSP.2003/MX/WP.34); a NATO Advanced Research Workshop (ARW) entitled “Preparedness against bioterrorism and re-emerging diseases — regional capabilities, needs and expectations in Central and Eastern European countries” held in Warsaw during 15 to 18 January (BWC/MSP.2003/MX/WP.33); and a NATO ARW entitled “Maximizing the security and improving oversight of pathogenic microorganisms and toxins” held in Bled, Slovenia on 19 to 21 June (Bradford Briefing Paper (Second Series) No 5 available at <http://www.brad.ac.uk/acad/sbtwc>).

Meeting of Experts, 18 to 29 August 2003: Opening Plenary Session

The Meeting of Experts began on Monday 18 August in a plenary session where Ambassador Tóth welcomed the representatives and experts from so many states parties and urged everyone to work together in a focussed way to make the most of the experts who were at the meeting. Providing experts were 83 states parties, as follows: Afghanistan, Albania, Algeria, Argentina, Australia, Austria, Bahrain, Bangladesh, Belgium, Benin, Bhutan, Bosnia and Herzegovina, Brazil, Bulgaria, Canada, Chile, China, Colombia, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Estonia, Ethiopia, Finland, France, Germany, Ghana, Greece, Guatemala, Holy See, Hungary, Iceland, India, Indonesia, Iran (Islamic Republic of), Ireland, Italy, Japan, Jordan, Kenya, Kuwait, Latvia, Lebanon, Libyan Arab Jamahiriya, Malaysia, Malta, Mexico, Monaco, Mongolia, Morocco, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Peru, Philippines, Poland, Qatar, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Senegal, Serbia and Montenegro, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Thailand, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Venezuela, Viet Nam and Yemen. This was only slightly less than the number of states parties which had participated at the Fifth Review Conference and considerably larger than the number of states parties which had participated in the Ad Hoc Group sessions. Over 400 individuals participated which was more than at the Fifth Review Conference and included over 100 legal and scientific experts.

Two signatory states participated: Egypt and Madagascar. One non-signatory state, Israel, was granted observer status. The Convention now has 150 states parties and 16 other signatory states (BWC/MSP.2003/MX/INF.1 dated 14 August 2003) as Antigua & Barbuda, Mali, Palau and Timor Leste (East Timor) have recently acceded. Serbia & Montenegro has replaced Yugoslavia (Former Republic of).

The plenary session adopted the provisional agenda (MX/1) and the provisional programme of work (MX/2), and then considered the rules of procedure. It was proposed and agreed that the rules of procedure of the Fifth Review Conference, as contained in BWC/CONF.V/17, should apply,

mutatis mutandis, although various rules, in particular those relating to subsidiary bodies and to office-holders, are not relevant to the Meeting of Experts and would not apply. The Meeting then considered requests for observer status by Israel, and by nine specialized agencies and inter-governmental organizations (FAO, ICGEB, ICRC, OECD, OPCW, Basel Convention, WHO, OIE and WTO), which were agreed. Ambassador Tóth then said that, as well as IGOs, there was interest on the part of non-governmental organizations (NGOs), which, together with the IGOs, would be making early-morning and lunch-time presentations; 15 NGOs including research institutes were attending the Meeting of Experts. He went on to say that a request had been received from a number of NGOs to make short statements, as had been done at both the Fourth and Fifth Review Conferences by setting aside some time and suspending the formal sessions in order to allow such statements to be made in informal session. He proposed that this same procedure be followed during the Meeting of Experts on the afternoon of Tuesday 19th August from 3 to 4 pm. This was agreed.

A short presentation was then made of the information contained on the second version of the CD-ROM which the Secretariat had compiled of information from states parties on national implementing legislation. The first version had been a preliminary version largely drawn from publicly available information; the information on the second version of the CD-ROM was from 78 states parties — 32 from the NAM, 18 from the Eastern Group and 27 from the WEOG.

Before the plenary session closed there were a few statements made by various delegations. The United Kingdom took the floor first to make a short statement about the death of Dr David Kelly: a eulogy for an admired and respected world expert in the field. Ambassador Tóth then said that he believed a minute’s silence would be appropriate, and all present — between 200 and 300 individuals from about 80 countries — stood in memory of David Kelly.

China then took the floor to note that the security challenges faced by the international community have multiplied and non-traditional security threats, such as terrorism, proliferation of weapons of mass destruction, and transnational crimes, are intertwined with traditional threats. This requires a new security concept featuring mutual trust, mutual benefit, equality and coordination. The important role of the Biological and Toxin Weapons Convention was recognised. With the rapid development of biotechnology and escalation of bioterrorism threats, China believed that it has become all the more imperative and important to discuss, within a multilateral framework, concrete measures to strengthen the effectiveness of the Convention. This Meeting of Experts was the first substantial effort of the international community to strengthen the Convention after the end of the negotiation of the Protocol and it is therefore of great significance. Through the exchange of views and discussions during the multilateral forum, China considered that states parties will formulate or improve their national implementation systems, taking into consideration both their specific national situation and the good experience of others, hence jointly furthering the effective implementation of the Convention.

Cuba then spoke about the importance of showing flexibility in following the proposed programme of work as there were some 115 subtopics to be addressed in the two week period — and some would require more time than others

while some would require less time. Cuba also noted that a final report was due to emerge from this meeting of experts which Cuba expected to be a factual document reflecting the discussions. Cuba wished to know how the Chairman intended to consider the final report. Would there be time to consider, review and adopt the final report?

Brazil then spoke emphasising the importance of multilateral cooperation under the Convention. Brazil considered that the Convention must be verifiable and recognized the importance of multilateral initiatives leading to consensus. Brazil also emphasised the importance of all of the Articles of the Convention, and in particular of Article X. Brazil concluded by noting that its ideas on the way forward were set out in a Working Paper (BWC/MSP.2003/MX/WP.20).

Argentina then spoke about the importance of strengthening the non-proliferation regime and in particular of the regime preventing biological weapons. It would be important to focus on methods that would be sufficiently flexible to accommodate changes in biotechnology.

Ambassador Tóth responded to the query raised by Cuba saying that he agreed that some subtopics would require more time and some would require less time. However, he asked that states parties respect the daily allocation of work as it reflects the availability of experts in Geneva. As to the report, he envisaged this being as procedural and straightforward as realistically possible. He considered that the meeting needed to focus on substantive work during the next two weeks.

The public plenary session then closed with the Meeting of Experts starting to address the first topic in private working session.

IGO Activities

A number of specialized agencies and inter-governmental organizations made presentations either at 0900 hrs prior to the morning session commencing at 1000 hrs of the Meeting of Experts or at 1300 or at 1400 hrs prior to the afternoon session commencing at 1500 hrs of the Meeting of Experts. The 16 presentations were as follows:

- Monday 18 August, 1400 hrs: Ambassador Curtis Ward and Ahmed Seif El-Dawla, *United Nations Security Council Counter-Terrorism Committee*, The Role of the UN Counter-Terrorism Committee in Combating Terrorism.
- Tuesday 19 August, 0900 hrs: Georgios Gouvras, European Commission Health Security Task Force, Commission Communication on Health Security.
- Tuesday 19 August, 1400 hrs: Ralf Trapp and Mtshana Ncube, Organization for the Prohibition of Chemical Weapons, Experiences with National Implementation.
- Wednesday 20 August, 0900 hrs: Ralf Trapp and Mtshana Ncube, Organization for the Prohibition of Chemical Weapons, Outcome of the First Review Conference of the CWC and the Action Plan on National Implementation.
- Friday 22 August, 1400 hrs: Frank Spicka, Interpol, The Role of Interpol in the Fight Against Biological

Weapons and Bioterrorism.

- Monday 25 August, 0900 hrs: Gretchen Stanton Hempel, World Trade Organization, The WTO and the Sanitary and Phytosanitary Measures Agreement.
- Monday 25 August, 1400 hrs: Brad Kay, Nicoletta Previsani, Ottorino Cosivi, World Health Organization, WHO Perspectives on Biosecurity.
- Tuesday 26 August, 0900 hrs: David Nowell. Food and Agriculture Organization, Potential FAO Role in BWC Implementation.
- Tuesday 26 August, 1300 hrs: Piet van der Meer, United Nations Environment Program, Biosafety Capacity Building and Needs Assessment.
- Tuesday 26 August, 1400 hrs: Louis Réchaussat and Toolika Rastogi, Organization for Economic Cooperation and Development, Good Laboratory Practice and Taxonomy of Microorganisms.
- Wednesday 27 August, 0900 hrs: Brad Kay, Nicoletta Previsani, Ottorino Cosivi, World Health Organization, The WHO Laboratory Biosafety Manual 3rd Edition, and Harmonizing Model Regulations on the Transport of Dangerous Goods.
- Wednesday 27 August, 1300 hrs: Robin Coupland and John Borrie, International Committee of the Red Cross, The ICRC's Biotechnology, Weapons and Humanity Project and the International Appeal.
- Wednesday 27 August, 1400hrs: Michael Woodford, World Organization for Animal Health (OIE), The Role of the OIE in the Fight Against Bioterrorism.
- Thursday 28 August, 1400 hrs: Ibrahaim Shafii, Secretariat of the Basel Convention, The Basel Convention and the Control Mechanism Related to Security and Oversight of Pathogenic Microorganisms and Toxins.
- Friday 29 August, 1400 hrs: Decio Ripandelli, International Centre for Genetic Engineering and Biotechnology, ICGEB and the Safe Handling of Pathogens.

These presentations were made in Salle XXIV close to the room in which the Meeting of Experts was being held. Nevertheless, the number of participants who attended these presentations varied considerably, ranging from as few as just over 20 for the early morning (0900 hrs) presentations to around 100 for some of the lunchtime presentations. Numbers fell off in the second week to about 20 to 55.

NGO Activities

In the early afternoon of Tuesday 19 August, the Meeting went into informal session in order to hear short statements (6-8 minutes) from representatives of NGOs. The following spoke:

- Angela Woodward, VERTIC
- Graham S Pearson, Department of Peace Studies, University of Bradford
- Nicholas A Sims, Department of International Relations, London School of Economics and Political Science
- Elisa Harris, Centre for International Security Studies Maryland, University of Maryland
- Jean Pascal Zanders, BioWeapons Prevention Project
- Marie Isabelle Chevrier, Federation of American Scientists
- Jean Pascal Zanders, Stockholm International Peace Research Institute

As at the Fourth and Fifth Review Conferences, the NGO speakers spoke from seats in the room whilst their statements were distributed to all those present. There were over 200 people present in the room during the NGO statements, which received simultaneous translation into the six official UN languages.

Presentations, in Salle XXV, were also made by a number of NGOs after the morning sessions of the Meeting of Experts had concluded, at 1300 hrs. There were five such presentations, as follows:

- Monday 18 August, 1300 hrs: Graham S. Pearson, Department of Peace Studies, University of Bradford and Nicholas A. Sims, Department of International Relations, London School of Economics and Political Science, Maximizing the Benefits of the Inter Review Conference Process.
- Tuesday 19 August, 1300 hrs: Elisa Harris, Center for International Security Studies Maryland, Controlling Dangerous Pathogens Project.
- Wednesday 20 August, 1300 hrs: Angela Woodward, Jill Dekker-Bellamy and Barbara Hatch Rosenberg, BioWeapons Prevention Project, The Status of National Laws to Enforce the BWC, EU Regulations Regarding Mid-range Threat Agents, and The Many Aspects of Pathogen Security.
- Thursday 21 August, 1300 hrs: Helmut Bachmeyer and Thomas Cueni, European Biosafety Association and Interpharma, Swiss Best Practices & Industry Guidelines.
- Monday 25 August, 1300 hrs: Gigi Kwik, Center for Civilian Biodefense Strategies, Self-governance Models for Scientists.

Sandwiches were provided for the first three of these presentations, which were attended by 80 to 100 people.

Outcome of the Meeting of Experts

The Meeting of Experts met in private working sessions during the period 18 to 29 August. In accordance with the programme of work, the first week was devoted to the consideration of necessary national measures to implement the prohibitions set out in the Convention, including the

enactment of penal legislation. The second week (25 to 29 August) was devoted to consideration of national mechanisms to establish and maintain the security and pathogenic microorganisms and toxins.

During the first week, the Meeting of Experts heard national overview statements from 16 states parties on Monday 18 August and in subsequent sessions heard a total of 37 thematic presentations and held a structured general discussion on, *inter alia*, the subtopics of Legal, Regulatory and Administrative (including civil legislation; penal legislation; regulations; and guidelines); Prohibitions (including direct implementation; war materials; development, production, possession and use; and complementary legislation); Restrictions (including classification; operational frameworks; intangible technologies; and sanctions); Practical Implementation and Enforcement (including national infrastructure; international cooperation; education and training; and experts); and Criminalization and Law Enforcement (including information sharing; enforcement; and international agreements).

In the second week, the Meeting of Experts heard national overview statements from 14 states parties on Monday 25 August and in subsequent sessions heard a total of about 30 thematic presentations by states parties and held a structured general discussion on, *inter alia*, the subtopics of Legal, Regulatory and Administrative (including national and international models and standards; and risk assessment, programme design and consequence management); Facilities (including facility planning and management; and storage, containment, custody and disposal of dangerous pathogens); Personnel (including personnel issues for pathogen management; and training and continued education in pathogen security); Transport and Transfer (including issues of transport and transfer of dangerous pathogens; and type of recipient facility); and Oversight and Enforcement (including issues of licensing, accreditation and authorization).

Despite the substantial number of statements, presentations and discussions during the two week Meeting of Experts, the daily sessions generally finished early. However, the overall schedule of IGO presentations at 0900 hrs, morning sessions from 1000 to 1300 hrs, lunchtime presentations by NGOs at 1300hrs and by IGOs at 1400 hrs, and then afternoon sessions from 1500 to 1800 hrs meant that each day's work was quite intensive. In contrast to the proceedings of the Review Conference, there were no Bureau meetings to schedule.

66 Working Papers were submitted by 24 states parties with the numbers submitted by individual states parties ranging from one to nine: Argentina (23), Australia (38, 39, 48, 49, 50, 56), Austria (53), Brazil (20), Bulgaria (58), Canada (26, 27, 28, 29), China (9, 25), Finland (57), France (17, 18, 19), Germany (12, 13, 21, 22, 24, 35, 36, 37, 59), Iran (51, 54, 55), Japan (10, 11), Korea, Republic of (16), Malaysia (52), Mexico (60), Netherlands (14), Poland (33, 44), Russian Federation (1, 31, 32), South Africa (30), Sweden (15), Thailand (61), Ukraine (40, 41, 42, 43), United Kingdom (7, 8, 34, 45, 63, 64, 65, 66), USA (2, 3, 4, 5, 6) and one 130 page long Working Paper (62) by twelve of the EU states (Austria, Belgium, Finland, France, Germany, Ireland, Italy, the Netherlands, Portugal, Spain, Sweden and the United Kingdom).

Towards the end of the Meeting of Experts, it became

known that the NAM had nominated South Africa to be the Chair of the 2004 Meeting of the states parties and the preceding Meeting of Experts.

At the final public plenary session on the afternoon of Friday 29 August, Ambassador Tóth said that agreement had been reached in the morning informally on the report of the Meeting of Experts and he now proposed to take formal action on this. The draft report was then considered and agreed. It consists of a four page factual report (BWC/MSP.2003/MX/4) to which two annexes would be attached: Annex I, listing the documents of the Meeting of Experts including the 66 working papers; and Annex II, containing, in the languages of submission, all the presentations, statements and contributions to the discussion that were provided in writing. As a strictly informal courtesy to delegations, those parts of Annex II that are not in English are accompanied where possible by an informal transcript of the English interpretation.

Ambassador Tóth then made some concluding remarks. He started by noting that the Meeting of Experts had begun a new process that had had a difficult birth among some of the most bitter divisions the states parties have known in the 30-year history of the Biological and Toxin Weapons Convention. He recalled that during his informal consultations earlier in the year he had made it clear to states parties that the success or failure of the new process would depend on them and on the contributions that they were prepared to make. There was a genuine risk that the process could become just an empty exercise, devoid of substance, filling in time until the next Review Conference.

He was therefore very pleased that this Meeting of Experts had been a marked success. He considered that this was a mark of the deep conviction of all states parties as to the importance of the Convention that they had been able to focus on practical actions that will genuinely strengthen the barriers against the development, acquisition and use of biological weapons. He felt that all delegations would agree that the atmosphere and the nature of the discussions has been overwhelmingly collegial and cooperative.

Ambassador Tóth said that the main achievement had been the substantive and thorough exchange that had taken place and the vast amount of useful, practical information that had been shared. He noted the participation of delegations from 83 states parties and applauded states parties for making a significant investment in the future of the Convention by sending experts from capitals. He considered that the wide array of highly qualified participants had engaged in a technical exchange of immense proportions with over 90 presentations being made during the two weeks. He said that, based on feedback from many delegations, it was evident that a great deal of useful, practical and directly applicable information will be taken back to capitals and used directly in strengthening national implementation, both on the legislative side and on the security and oversight side. He was sure that as a direct result of this meeting a number of national implementing measures will be strengthened based on information shared at this meeting.

He went on to say that it was clear that this Meeting of Experts had stimulated some new thinking among states parties. For example, the concept of biosecurity as an overlapping but distinct concept to biosafety had been widely discussed, and it was likely that many delegations would be

encouraging their governments to review policy in this area further. Another example was the concept of complementary legislation, which has a role in strengthening the national legislative net covering biological weapons, as was discussed and clarified during the Meeting of Experts.

He then went on to say that a number of core themes had emerged. States parties from East and West, from North and South, had reiterated many of the same elements as being central requirements for effective national implementation of the prohibitions in the Convention and for effective security and oversight of pathogenic microorganisms and toxins. However, Ambassador Tóth said that he would not attempt to enumerate these common themes now. Rather, over the coming weeks, he would be carefully reviewing all the information provided during the Meeting in order to distill and focus on these key elements for the Meeting of the States Parties in November.

He also noted that various offers of assistance had been made by states parties to other states parties, bilaterally or regionally, in regard to national implementation. Such offers had not come only from the big developed States but also from the smaller States, from different regions. He considered that this important field should be further explored at the November Meeting of States Parties.

Ambassador Tóth said that the November meeting would provide states parties with an opportunity to build on the positive start that has been made by the Meeting of Experts and perhaps to look at how a more direct focus might be put on some key areas of implementation. However, the Meeting of the States Parties would depend on whatever the states parties want it to be. Ambassador Tóth would be consulting widely over the coming weeks and he invited all delegations with ideas to contact him. He very much hoped that the collegial, constructive and practical approach taken at the Meeting of Experts would continue at the Meeting of States Parties.

Reflections

The Meeting of Experts has made a promising start to the new process. It is, however, evident that considerable caution has been taken in regard to trying to identify the *common understanding and effective action* required by the mandate agreed at the Fifth Review Conference. Although some of the information provided to delegations had suggested non-controversial language for common understanding and effective action based primarily on that of the Final Declarations of previous Review Conferences, and other ideas had recalled the practice followed in the previous meetings of experts (VEREX), which led effectively to Chairman's findings, there was little sign of a willingness to make this step forward in preparation for the November meeting. Although the initial Collation of Contributions prepared during the first week had included a half page or page summary of discussions, it became clear that this was not welcomed by a few States parties, and oral summaries were made in the second week.

Given the difficulties encountered at the Fifth Review Conference in 2001 and 2002 (see *Bulletins* 54, December 2001, and 58, December 2002), it seems probable that the judgement was made by the states parties engaged in the Meeting of Experts that it was more important to focus at the

Meeting of Experts on the technical issues and to have a successful meeting in this respect and to leave the question of how best to address the mandate requirement to identify *common understanding and effective action* to the Meeting of States Parties in November 2003. Consequently, there was a distinct and disappointing lack of ambition when considered from the point of view of those who are keen to see progress made towards the recovery and strengthening of the Biological and Toxin Weapons Convention through a

return to the cumulative development of extended understandings leading to effective action at the Sixth Review Conference in 2006.

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

News Chronology

May through July 2003

May The US Counterproliferation Program Review Committee (CPRC) releases its annual *Report on Activities and Programs for Countering Proliferation and NBC Terrorism*. The Committee states that “the development of capabilities to counter WMD terrorist threats is receiving attention throughout [the Department of Defense, the Department of Energy and the intelligence community]”. It says that “an integrated counterproliferation strategy is required, with each component building on the strength of others”. This strategy, it says, “must include nonproliferation efforts to prevent countries from acquiring WMD weapons, counterproliferation programs to deter or interdict the use of WMD weapons, and finally consequence management efforts to respond to the use of WMD”. The CPRC is responsible for making recommendations regarding interdepartmental – specifically Department of Defense, the Department of Energy, the Joint Chiefs of Staff and the intelligence community – activities and programmes to address deficiencies in capabilities for countering WMD proliferation and their means of delivery.

1 May In The Hague, during the ongoing CWC Review Conference [see 28 Apr], NGOs are able to express their views on the CWC at an Open Forum hosted at the Peace Palace by the OPCW Technical Secretariat, whose 240 attendees include OPCW delegates and Director-General Rogelio Pfirter. The keynote address is made by retired Ambassador Adolf von Wagner of Germany, who had chaired the decisive final year of the CWC negotiation. Also making presentations are: Sergey Baronovsky, President of Green Cross Russia, on the subject of ‘Chemical Weapons Destruction in the Russian Federation’; Paul Walker of Global Green, on ‘Chemical Weapons Destruction in the United States’; Nicholas Sims from the London School of Economics, on ‘Status of Implementing Legislation’; René van Sloten from the International Council of Chemical Associations, on ‘Article VI: Activities not Prohibited’; and both Christopher Murphy of the International Union of Pure and Applied Chemistry and Graham Pearson, a Visiting Fellow of the Department of Peace Studies at Bradford University, who discuss the ‘Impact of Scientific Developments’. A panel discussion follows on ‘The Chemical Weapons Ban and the Use of Incapacitants in Warfare and Law Enforcement’, a controversial subject largely neglected by the Review Conference itself. The panel comprises: Robin Coupland of the International Committee of the Red Cross; Daniel Feakes of the Harvard Sussex Program; and Malcolm Dando of the Bradford University Department of Peace Studies. Ambassador von Wagner’s keynote address had been devoted to the topic of this panel.

1 May The UK journal *Nature* publishes the complete genetic sequence of the Ames-strain anthrax bacterium, the

result of four years of research by a team led by Timothy Read at the Institute for Genetic Research, Rockville, Maryland.

1 May In Langley, Virginia, there is a ceremony to mark the opening of the Terrorist Threat Integration Center. Comprising counter-terrorism analysts and agents from the Central Intelligence Agency and the Federal Bureau of Investigation, the Center will act as the hub for analysing terrorism-related intelligence. It will operate from the Central Intelligence Agency’s headquarters until May next year, at which time it will be relocated.

1 May Off the coast of California, US President Bush alights from a fighter jet onto the aircraft carrier USS Abraham Lincoln to declare an end to “major combat operations in Iraq”. His only comment on the reason for going to war is: “We have begun the search for hidden chemical and biological weapons, and already know of hundreds of sites that will be investigated”.

3 May In Mumbai, India, police seize a quantity of cyanide from two military training centres during an operation to arrest six members of the Students Islamic Movement of India, which is suspected of having carried out a recent bombing. Additional Commissioner of Police Rakesh Maria later says that the prime conspirator in the bombings, Saquib Nachan, had looked into contaminating reservoirs around Mumbai with cyanide, stabbing people with knives dipped in the chemical, and mixing it with certain acids before releasing it into the atmosphere.

5 May Timor-Leste deposits its instrument of accession to the BWC with the USA, thereby becoming the 150th party to the Convention.

5 May In Baghdad, US troops arrest Iraqi microbiologist Huda Salih Mahdi Ammash. Ammash – dubbed “Mrs Anthrax” by the media – is believed by western intelligence to have masterminded the reconstitution of Iraq’s biological warfare programme after the 1991 Gulf War. During the 1980s Ammash was awarded a masters of science degree in microbiology from Texas Women’s University at Denton and a doctorate in microbiology from the University of Missouri-Columbia.

5 May In Moscow, Zinoviy Pak, deputy chairman of the Russian State Commission for Chemical Disarmament, tells reporters that the construction of the chemical weapons destruction facility at Kambarka has already begun, with German financial assistance. Germany has stated its readiness to allocate •32 million this year for the construction of the chemdemil facility which will destroy the more than 6,000 tons of lewisite stored at Kambarka. Pak says: “The construction of the facility in

Kambarka will be completed by 2005. Another two years are needed for the full elimination of the lewisite stock in Kambarka. The experience gained in Gornyy, Saratov region, where the technology for safe elimination of chemical warfare has been used in practice for the first time in the world, will be applied to destroy these war gases.”

5 May In Prague, Czech police receive a telephone call – the first of many – from an extortionist claiming to have planted two ampoules of cyanide in the kitchen of a Prague maternity clinic. The individual threatens to contaminate more hospitals unless he is paid 300 million crowns (\$11.2 million) within the next ten days. The money is subsequently dropped from a helicopter – as directed by the extortionist – but is not retrieved. Three weeks later, Czech Interior Minister Stanislav Gross says that a 30-year old man has been arrested and charged with extortion. Police spokeswoman Blanka Kosinova says that the placement of the ampoules was such that “nobody was in any danger”.

5 May In Bonn, Erhard Geissler launches his book *Anthrax und das Versagen der Geheimdienste* (Anthrax and the Failure of Intelligence Services), at the Bonn International Center for Conversion.

5 May In the UK, the War Pensions Appeal Tribunal makes public a ruling made in December – overturning an earlier decision by the War Pensions Agency – that Alex Izzet, 33, had been “vaccinated with a concoction of drugs prior to planned deployment in the Gulf War”, and that “the concoction caused osteoporosis”. Parliamentary Under-Secretary of State for Defence Lewis Moonie says following the hearing: “There is no medical evidence whatsoever to support [the existence of Gulf War Syndrome]. The tribunal finding accepted that we could not prove that the ill-health was not due to the injections. That is a very, very different thing”. Moonie says, however, that the Government will not be contesting the tribunal’s decision.

5 May US Defense Secretary Donald Rumsfeld says: “I never believed we’d just stumble over weapons of mass destruction in [Iraq] ... We’re going to find what we find as a result of talking to people, I believe, not simply by going to some site and hoping to discover it”. Rumsfeld, making his comments during a Fox News television interview adds: “We’re going to have to find people not at the very senior level who are vulnerable, obviously, if they’re in custody. But it will be people down below who had been involved in one way or another”.

5 May The US Department of Health and Human Services releases \$100 million – in addition to the \$1.1 billion for FY 2002 and the \$1.3 billion for FY 2003 – for states to prepare for a possible smallpox attack and to strengthen public health infrastructure. US Secretary for Health and Human Services Tommy Thompson says: “We continue to make unprecedented investments in our public health infrastructure. This commitment better prepares America for any public health emergency, whether it is a smallpox attack or an emerging disease like SARS”.

5 May The US Department of Defense’s *Draft Programmatic Environmental Impact Assessment* of the Army’s Chemical and Biological Defense Program is announced in the *Federal Register*. The draft document analyses the potential environmental impact associated with the programme’s activities and is intended to “update and expand the current programmatic documentation, providing information on and analysis of the changes that have occurred in the biological defense program over the last decade”. It is borne out of recognition that “although

numerous environmental documents have been prepared analyzing the potential consequences of various [elements of the program], no single document covers the program as a whole”. The public consultation period for the document expires in forty-five days.

5 May The US *Aerospace Daily* reports that during the Iraq conflict the US Air Force used a modified wind-corrected munitions dispenser that functions as a traditional munitions dispenser, but fires non-exploding rods instead of explosive munitions. According to Colonel James Knox of the Air Armament Center, Florida, the CBU-107 Passive Attack Weapon is filled with 3,700 non-explosive penetration rods and is designed for use against unshielded targets where explosive fills are not needed or are undesirable, such as chemical and biological weapons targets.

6 May In Bunia, Democratic Republic of Congo, militiamen from the Hema and Lendu tribes are reported – during the ongoing civil war – to be using *inter alia* “poisoned arrows”, according to the London *Independent*. Within a week, more than 430 people will have died in this particular clash.

7 May Timor-Leste deposits its instrument of accession to the CWC with the UN Secretary General. In thirty days Timor-Leste will become the 152nd party to the Convention.

7 May The UK Foreign Affairs Committee releases a follow-up to its report on *The Biological Weapons Green Paper* [see 11 Dec 02] and the Government’s response thereto [see 25 Feb 03]. Addressing the contents of a written ministerial statement issued by Foreign Secretary Jack Straw on 10 December 2002, it states: “In its Response, the Government reiterated its position that [the inability to agree to a verification protocol in 2001] ‘was one of the major losses when the Protocol negotiations ended in failure ... Nothing has changed since then regarding the international acceptability of the Protocol’ ... We were surprised, therefore, that in his December statement the Secretary of State announced ‘a successful outcome to the recent 5th Review Conference’ ... In so far as the Review Conference did not produce agreement on a protocol, we regard it as a failure, not as a success.” In addition, the report states: “It is unclear to the Committee why the Government believes it is better to have no verification protocol to the BTWC at all than one agreed by at least a sizeable number of BTWC States Parties even if those States Parties do not include the USA. After all, in other important international agreements, for example the Land Mines Convention and the International Criminal Court (ICC), the Government has given its strong support to their implementation notwithstanding US opposition ... We recommend that the Government sets out fully in its response to this Report why the Government believes that no verification protocol to the BTWC is better than having one in place agreed by a significant number of States Parties to the Convention.”

7 May US Under-Secretary of Defense for Intelligence Stephen Cambone announces that on 19 April Kurdish forces discovered what could be a mobile biological weapons laboratory at a checkpoint near Tallkayf in northern Iraq. Cambone says: “There are common elements between what we had in the statement from the defector that was used in the Secretary of State’s presentation [see 5 Feb]; for example, the external superstructure and its dimensions; the equipment, such as the fermenter on board, the gas cylinders to supply clean air for production; and significantly, a system to capture and compress exhaust gases to eliminate any signature of the production. The fermenters are used for growing cultures. And the recovery

systems make air filtration unnecessary to prevent – and prevent [sic] the release of signs indicating the fermentation process. Interestingly enough, the gas recovery systems really are not necessary for, and not normally used for legitimate biological processes ... US and UK technical experts have concluded that the unit does not appear to perform any function beyond what a defector said it was for, which was the production of biological agents ... On the smoking gun, I mean, the – I don't know. I mean, what we have here is what we were – the Secretary of State talked about, along with other things, in his presentation to the United Nations.

Two days later US forces uncover what they believe to be a second mobile biological-weapons laboratory at the al-Kindi Rocket and Missile Research and Development Center. According to Major General David Petraeus – speaking four days after the discovery – the second trailer contains a 5,000 pounds-per-square-inch compressor, a 2,000-litre reaction vessel, a small feed tank, a 3,000-liter water tank and a water cooler. "It had a manufacture date of 2003 and a serial number of 2", says Petraeus, adding that the plate from the first trailer had a date of 2002 and a serial number of '1'. He says that "several welds were not finished, and shipping plugs were still in place", and that a water pump, forward air compressor, canvas cover and some of the piping had been looted.

8 May In the US House of Representatives, the International Relations Subcommittee on International Terrorism, Nonproliferation and Human Rights joins with the Subcommittee on Europe to hold a hearing into *US Cooperative Threat Reduction and Nonproliferation Programs*. Among those testifying is US Assistant Secretary for the State Department's Bureau of Nonproliferation John Wolf. The hearing reconvenes six days later.

9 May In The Hague, the First Review Conference of the Chemical Weapons Convention concludes [see 28 April] at around midnight, culminating in the adoption by States Parties of a political declaration comprising 23 paragraphs, and a document comprising 134 paragraphs, reviewing the operation of the convention. [For details see Bulletin 60, pp15-19]

9 May US Deputy Secretary of Defense Paul Wolfowitz says that "for reasons that have a lot to do with the US government bureaucracy we settled on the one issue that everyone could agree on which was weapons of mass destruction as the core reason" for invading Iraq. Making his comments in an interview for *Vanity Fair*, Wolfowitz says: "[T]here have always been three fundamental concerns. One is weapons of mass destruction, the second is support for terrorism, the third is the criminal treatment of the Iraqi people. Actually I guess you could say there's a fourth overriding one which is the connection between the first two ... The third one by itself, as I think I said earlier, is a reason to help the Iraqis but it's not a reason to put American kids' lives at risk, certainly not on the scale we did it. That second issue about links to terrorism is the one about which there's the most disagreement within the bureaucracy, even though I think everyone agrees that we killed 100 or so of an al Qaeda group in northern Iraq in this recent go-around, that we've arrested that al Qaeda guy in Baghdad who was connected to this guy Zarqawi whom Powell spoke about in his UN presentation."

11 May The *Washington Post* reports that the 75th Exploitation Task Force – the group directing US efforts to uncover Iraqi weapons of mass destruction – is to wind down its efforts as of next month. Army Colonel Robert Smith, who leads the site assessment teams from the Defense Threat Reduction

Agency, said that task force leaders no longer "think we're going to find chemical rounds sitting next to a gun. That's what we came here for, but we're past that". The article states that only two of 19 strongly suspect sites remain to be searched, whilst 45 of 68 have been identified as "non-WMD sites". So far none of the facilities searched have yielded any positive results. The search for Iraqi weapons of mass destruction, the article says, will continue under a new Iraq Survey Group, which the Bush administration says will be larger. The next day US National Security Adviser Condoleezza Rice says that the new team will be "more expert" at following the paper trail and other intelligence.

12 May In Gorny, Russia, the lewisite line at the chemdemil facility is undergoing tests "using a neutral medium, without pumping in war gases", according to a spokesman for the regional information and analysis centre on safe storage and destruction of chemical weapons. The lewisite line is scheduled to begin operations in June.

12 May In Iraq, Dr Rihab Rashid Taha [see 31 Jan 95] – the microbiologist dubbed 'Dr Germ' by the media – turns herself over to US forces after days of negotiating her surrender, according to US Central Command headquarters in Qatar. US forces had been attempting to capture Taha and her husband, Iraqi Oil Minister General Amir Mohammed Rashid since entering Iraq, staging an unsuccessful raid on their Baghdad home in April.

12 May The US Department of Homeland Security announces that its Bureau of Customs and Border Protection has, since last October, been pursuing a research project – costing \$2 million – to train dogs to sniff out trace amounts of the components of chemical weapons, including sarin and cyanide. The intention is to deploy the so-called 'chemical detector dogs' to airports, harbours, government buildings and other potential terrorist targets, where they will work alongside police dogs that have been trained to detect narcotics, explosives and human remains. The commissioner of customs and border protection, Robert Bonner, says that dogs provide "portability, and they also allow you to detect chemical weapons before they are released".

12 May In the US, five months after President Bush launched the smallpox vaccination programme [see 13 Dec 02], the *Washington Post* reports that only 35,000 healthcare workers have volunteered to have the vaccine, rather than the initial target of 500,000. The newspaper says that the vaccination campaign is now "at a virtual standstill for lack of volunteers" and that local public health officials are now acknowledging that they may have to rely on vaccinating workers after an outbreak begins. The lack of a specific smallpox threat and the apparent success of the invasion of Iraq are cited by the newspaper as reasons for reluctance on the part of healthcare workers to get vaccinated.

12 May In Boston, Massachusetts, there is the first of a series of *BioSecurity 2003 Workshops* convened by the Harvard Medical School, the Harvard School of Public Health and Harvard Medical International. The series is intended to convey practical information about solutions to immediate problems facing those responsible for preparedness and response at regional and local levels. The first workshop is entitled "Preparation and response to civilian disasters stemming from biological, chemical, or nuclear events". Later workshops, between now and late July, are scheduled for Washington DC, Boston and Los Angeles.

12 May In Seattle, simulated terrorist attacks take place as part of a five-day exercise – dubbed TOPOFF-2 [see 20-30 May 00] – with a view to testing US and Canadian preparedness

for a terrorist attack. The exercise continues the next day in Chicago, where the scenario involves a biological attack involving the release of airborne pneumonic plague. The exercise is being funded by the US Department of Homeland Security at a cost of \$16 million. Participating are 8,500 people from 100 federal, state and local agencies, the American Red Cross and the Canadian government.

13 May In Blackpool, UK, Bob Elder, chairman of the police constables' central committee, alludes – during the annual Police Federation conference – to the possibility of the police having to open fire on members of the public to maintain order in the event of a terrorist 'dirty bomb' or biological attack in the UK. He says that so few officers have been trained to deal with a chemical, biological, nuclear or radiological strike that the police would have to resort to "very unsavoury but necessary" crowd control. Elder says: "This is not about creating mass hysteria. This is about the opposite. The public has a right to know. The natural reaction from the public caught up in such an incident will be to get as far away from the scene as possible. This could of course only extend the problem." Later, however, a Home Office spokesman says: "Police have the right to detain people if they present a risk to the public ... There are no circumstances in which police could operate some kind of shoot to kill policy under the law."

13 May In the US House of Representatives, the Committee on International Relations conducts a hearing on *Cooperative Threat Reduction Programs in Russia – Part II*. Testifying are: Vice President for Russia/NIS Programs at the Nuclear Threat Initiative Laura Holgate; Executive Director of the Russian-American Nuclear Security Advisory Council Kenneth Luongo; Associate Director and Research Professor at the Monterey Center for Nonproliferation Studies James Moltz; and, Associate and Deputy Director of the Nonproliferation Project at the Carnegie Endowment for International Peace.

13-14 May In Ettlingen, Germany, the Fraunhofer Institut für Chemische Technologie hosts the *2nd European Symposium on Non-Lethal Weapons* [see 25-26 Sep 01] organized by the European Working Group on Non-Lethal Weapons. The symposium is entitled *Non-Lethal Capabilities Facing Emerging Threats* and addresses the use of NLW in military operations other than war, military operations in urban terrain, counter-terrorism, and for the controlling of riots. John Alexander [see 24-28 Jan 94 and 5-6 Dec 00] presents a paper on "Less Lethal Weapons in the War on Terror", which, among other things, describes the PepperBall System developed by a company in California to disseminate powders of Oleoresin Capsicum (Agent OC) or of its synthetic congener pelargonic acid vanillylamide, otherwise known as PAVA, VP or nonivamide. He says that the 'knockout gas' used in the Moscow theatre siege [see 26 Oct 02] is known in Russia as M99. He portrays the Chemical Weapons Convention as a deplorable obstacle in the way of chemical NLW. Other papers presented include one by James Garner and David Lyon of the US Army Research Laboratory entitled "Proof-of-Principle for an 81mm Non-Lethal Mortar Cartridge" that conveys no information about the intended payload of the cartridge; one by V.Khrupkin and V.Savostyanov of the Russian Ministry of Defence on "Medical and Legal Aspects of Application of the Gas Weapon of Self Defence", which analyses the extent of wounding caused by a CS gun; and one by J.Neutz and W.Eckl of the host Fraunhofer Institut on a "Dispenser for Irritating Agents", which assesses a handheld dispenser – comprising a gas generator – for the dispersal of irritant spray.

13-14 May In Washington, a conference on *At the Crossroads:*

Counterproliferation and the New National Security Strategy is convened by the Center for Counterproliferation Research of the US National Defense University. In the keynote address, US Deputy Defense Secretary Paul Wolfowitz says: "As we look to the future, it is clear that the chem-bio defense mission is not going to go away. We must ensure sufficient forces to undertake the mission at home and abroad ... To ensure that we have the chem-bio defense forces early in crises when they may be needed most, we need to consider whether some forces in capability should be shifted from the Reserve [forces] to the active component."

14 May A Vietnamese military spokesman announces that, during March, 38 crates – weighing between 100 and 200 kilograms – bearing the initials 'CS' were discovered by rural workers in Ngoc Hoi district. He says that the army had seized the crates and had "taken measures to protect the environment and the health of local inhabitants". An unidentified chemical weapons expert at the Vietnamese Ministry of Defence says that the chemical in the crates is a toxic defoliating-agent used by US forces during the Vietnam War.

14 May UK Foreign Secretary Jack Straw says – on the BBC's *Today* Programme – that "literal finds" proving the Iraqi regime possessed chemical and biological weapons were "not crucially important". "We did not go to war on a contingent basis", he says.

15 May A Tokyo district court rejects claims for compensation by five Chinese nationals from Heilongjiang Province for damage caused to their health between 1950 and 1987 from chemical munitions abandoned by Japan at the end of the Second World War. Judge Takashi Saito held that the abandoned munitions had adversely affected the claimants' health, however he stated that it was difficult for Japan to recover the munitions before 1987, because, whilst Japan and China had signed a bilateral peace and friendship treaty in 1978, China had not asked Japan to dispose of the munitions until 1990. It is the first legal ruling to determine the extent of the Japanese government's responsibility for the approximately 700,000 chemical munitions abandoned in China after the War. The claimants intend to appeal the decision.

15 May German Federal Interior Minister Otto Schilly announces – during a conference of Germany's interior ministers in Erfurt – that the federal government intends to pass legislation enabling deployment of the Bundeswehr in the event of a chemical, biological or nuclear terrorist attack on Germany. Interior Minister for Nord-Rhein Westphalia Fritz Behrens adds that, since the constitution already provides for such deployment, an amendment thereof would not be required.

15 May In the US House of Representatives, the Energy and Commerce Committee unanimously approves the Project Bioshield [see 28 Jan] Act 2003. The Act gives the National Institutes of Health (NIH) new authority to bypass traditional procedures when awarding urgently needed research and development grants and contracts. It also gives the Food and Drug Administration (FDA) the ability to authorize widespread use of experimental drugs in case of a bioterrorist attack or other emergency. The committee sets funding for the Project at \$5.6 billion over the next ten years. "We're trying to give as much as we can without surrendering the balance of power", says committee chairman Billy Tauzin after the vote. The committee turned down the proposal of shielding drug manufacturers from liability where their products are made available during a national emergency.

Meanwhile, the House Select Committee on Homeland

Security conducts a hearing into *Countering the Bioterrorism Threat*. Among the eight individuals testifying is Director of the National Institute of Allergy and Infectious Diseases at the Department of Health and Human Services Anthony Fauci.

15 May US Under-Secretary for Policy at the Defense Department Douglas Feith says, during a House International Relations Committee hearing: "I am confident that we will eventually be able to piece together a fairly complete account of Iraq's WMD programs, but the process will take months and perhaps years". Also appearing before the Committee are Under-Secretary of State for Economic, Business, and Agricultural Affairs Alan Larson; and Director of the US Department of Defense's Office of Reconstruction and Humanitarian Assistance for Iraq Jay Garner.

15 May In Washington, the National Council of Iran – the political wing of the Iranian opposition group calling itself the Mujaheddin-e Khalq Organization (MKO) – claims that informants from within the Iranian government have stated that Iran is producing a variety of biological agents to bolster its biological weapons arsenal. Council representative Soona Samsami says: "In June 2001, a plan called Comprehensive National Microbial Defense Plan was adopted by the Supreme National Security Council chaired by Khatami. A senior cleric, Hassan Rowhani, the SNSC secretary, personally pursued the implementation of this plan and reported directly to Khamenei, the supreme leader ... On the basis of the plan, the biological weapons capacity of the regime must be increased three-fold in the next two years. The biological weapons activities are centred around the following elements: Anthrax, produced at the Revolutionary Guard Imam Hussein University in Tehran; next, aflatoxin, also produced at the Imam Hussein University; production of microbial bombs using anthrax; production of microbial bombs using smallpox virus; production of microbial bombs using typhoid fever; production of microbial bombs using high dosage of aflatoxin; production of microbial bombs using plague microbes; production of microbial bombs using chloromicrobes." Five days later Iranian Foreign Ministry spokesman Hamid Reza Asefi responds to the accusation thus: "The charges by the MKO [which] was at the service of the regime of Saddam Husayn are too worthless for us to be worried about."

15-16 May In Southampton, UK, there is a workshop on *Domestic Management of Terrorist Attacks in the UK* hosted by the University of Southampton and the University of St Andrews.

16 May *The Namibian* cites Namibian Police Commissioner Vilho Hifindaka as saying that an investigation is underway into the deaths of up to 200 Namibian Swapo prisoners who died in South African detention centres between 1981 and 1988. Wouter Basson had been charged with supplying muscle relaxants to the South African Defense Force for use in killing the prisoners, however, he was acquitted of all charges against him [see 11 Apr 02]. Hifindaka stresses that what is being investigated are the circumstances in which many Namibians are claimed to have been killed before Independence, who killed them and who helped in that regard.

19 May Tokyo High Court upholds the decision of the Tokyo District Court to sentence Masato Yokoyama to death [see 30 Sep 99] for his part in the 1995 sarin attack on the Tokyo underground [see 20 Mar 95]. A former engineer, Yokoyama was one of the five Aum Shinrikyo members responsible for releasing the agent in the underground network. Three of the others have also received the death penalty in district court rulings. All are planning to appeal to the High Court. Only one of

the five – Ikuo Hayashi – received life imprisonment. Yokoyama urged the court to commute the death penalty on the grounds that his mind was under the control of Shoko Asahara, and that there had been no fatalities on the line on which he had released the agent. He also expressed remorse for his actions. Yokoyama intends to appeal the decision.

19 May The US House Subcommittee on National Security, Emerging Threats, and International Relations Committee on Government Reform holds a hearing into the *Issues Associated with Anthrax Testing at the Wallingford Facility*. In his testimony, US Postal Service Vice-President Thomas Day says "the information available at the time was simply inadequate". Keith Rhodes of the US General Accounting Office (GAO) recommends "full and immediate disclosure of test results to workers regardless of whether the information is requested by a worker". Rhodes was one of the authors of a recently released GAO report which said that postal and health officials failed to inform workers for nine months that nearly three million spores of anthrax were found under a Wallingford sorting machine in December 2001.

20 May The UK House of Commons Quadripartite Committee – comprising the Defence, Foreign Affairs, International Development and Trade and Industry Committees – releases its report on *The Government's Proposals for Secondary Legislation under the Export Control Act*. The Department of Trade and Industry is proposing to introduce two orders under the Act: The Export of Goods, Transfer of Technology and Provision of Technical Assistance Order, and the Trade in Controlled Goods (Control) Order. It has also published a draft order to enforce an arms embargo against a particular destination: The [Embargoed Destination] (Sanctions) Control Order. The Export of Goods, Transfer of Technology and Provision of Technical Assistance Order introduces export controls vis-à-vis the electronic transfer abroad from the UK of military technology; and extraterritorial controls on the transfer by any means of technology related to weapons of mass destruction (WMD) and on the provision of technical assistance relating thereto. The Committee states: "The provisions relating to weapons of mass destruction technology and technical assistance apply not only to transfers and assistance provided from the UK, but also to transfers and assistance by any UK person or legal entity anywhere in the world. It would be illegal under the Order for a person to communicate technology by any means without first obtaining a licence if he knows, or has been informed by the Government, that it is or may be intended for use outside the EU in connection with the development of WMD or missiles capable of their delivery ... We conclude that it would be a missed opportunity if the Government failed to regulate all UK citizens and companies who are involved in trafficking and brokering activities abroad which, if conducted in the UK, would not be granted a licence ... It would be thoroughly desirable to criminalise the activities of a British citizen supplying small arms to rebel forces in an area of conflict, or medium-range missiles to a rogue state. Such activities are precisely those that need to be controlled. Under current Government proposals, they will not be. We recommend that the Government should seek to extend extraterritorial control to all trafficking and brokering which, if conducted in the UK, would not be granted a licence ... We conclude that there are a number of areas [...] in which enough international consensus exists to make extraterritorial jurisdiction in such cases both reasonable and enforceable ... We recommend that the Government should consider licensing transfers of technology by reference to the status of the recipient of the technology rather than merely by reference to their location."

20 May The US *Pine Bluff Commercial* reports that the US Army plans to use hydrolysis [see also 27 Feb] to neutralize quantities of methylphosphonyl diflouride (DF) and diisopropylaminoethyl methyl phosphonite (QL) (precursors used to produce the nerve agents GB and VX) at the Pine Bluff Arsenal chemdemil facility. The facility currently stores 50,000 canisters of DF and 300 55-gallon drums of DF and QL, of which 293 contain QL, according to Binary Project Manager for Nonstockpile Chemical Material Larry Friedman. The process will involve mixing the precursors with warm water to a concentration of less than 1,000 parts per million, after which the solution will be taken to an off-site disposal facility where it will be further diluted. According to Friedman, the current destruction schedule calls for the precursors to be destroyed by late 2005.

20-22 May In Prague, the *International Chemical Weapons Demilitarisation Conference* takes place, hosted by Dstl, ICF Consulting and SAIC. As before [see 21-23 May 02], the aim of the conference is to facilitate in promoting co-operation between governments, organizations, industry and the research community, so as to address and provide potential technical and practical solutions to the key problems associated with chemdemil. Topics discussed include: non-stockpile – recovery, identification and disposal; facilitating demilitarization – citizen involvement, public health and environmental protection, and the role of NGOs; major and complex contamination issues; and, specific regional problems.

22 May In the UK, the Medical Research Council's Military Health Research Advisory Group concludes in its *MRC Review of Research into UK Gulf Veterans' Illnesses* that "there is no evidence from UK or international research for a single syndrome related specifically to service in the Gulf". The Review says: "Thorough medical examinations and physical, psychological and psychiatric testing of ill [Gulf veterans] detected no obvious major abnormalities. Minor differences found in some tests [...] were not enough to account for the scale of illnesses seen ... The only common Gulf conflict-related experiences seem to involve ill veterans' perception of their health ... Gulf veterans do have an increased risk of post-traumatic stress disorder but it only affects around three per cent of them, which is not enough to explain all Gulf veterans' illnesses. Depression and alcohol are much more important health risk factors". Following publication of the Review, Parliamentary Under-Secretary of State for Defence and Minister for Veterans' Affairs Lewis Moonie says: "This review shows there is no case to justify a separate Gulf War Syndrome". The Medical Research Council is a government agency; the review of scientific evidence resulted from a call for advice from the government.

22 May The *New York Times* reports unidentified officials as saying that the US Central Intelligence Agency has commenced a review as to the accuracy of its pre-war intelligence assessments pertaining to Iraq. According to the said sources, the Director of Central Intelligence, George Tenet, has instructed a team of retired CIA officers to analyse classified intelligence reports on Iraq that were circulated within government before the war. According to one "senior intelligence official", the review was initially prompted by a request made in October by the Defense Secretary Donald Rumsfeld to Tenet. At the time some Pentagon officials are said to have become irritated by the CIA's unwillingness to point conclusively to Iraqi links to al-Qa'idah. Rumsfeld's original concept for the review is said to have grown from a belief that if the USA went to war with Iraq, the intelligence community should study the intelligence reports it produced before the war and see how they compared with the reality discovered on the ground after the war. The review will be

conducted in light of the conclusion of the war and the failure of coalition forces to find conclusive evidence of Iraqi links to al-Qa'idah or Iraqi possession of weapons of mass destruction.

22 May In Cambridge, Massachusetts, the current series of Cambridge CBW Colloquia, convened jointly by the MIT Security Studies Program, the Harvard Sussex Program and the Harvard University Belfer Center for Science and International Affairs, comes to an end with a presentation by HSP Co-Director Julian Perry Robinson on "'Non lethal' warfare and the norm against hostile exploitation of disease". The speakers at earlier sessions of the series had been Paul Schulte of the UK Ministry of Defence on "The uncertainly horrifying prospect of BW: international risks, responses and dilemmas" (20 March), Harvard University Professor Emeritus Thomas Schelling on "The legacy of Hiroshima" (27 March), Acting Deputy Assistant Secretary of State Donald Mahley on "Biological weapons in the international system: future prospects" (3 April), Robert Mikulak, the Director, Office of Chemical and Biological Weapons, State Department Bureau of Arms Control, on "The future of the chemical weapons ban" (17 April), Brian Balmer, Senior Lecturer in Science Policy, University College London, on "Making threats: the history of the British biological weapons programme" (24 April) and Elisa Harris, a research fellow of the University of Maryland Center for International and Strategic Studies, on "Controlling pathogens: prospects for export controls on biological agents" (1 May).

23 May Palestinian security official Hani al-Hassan says that three weeks ago the offices of the Palestinian Authority President Yasser Arafat received a letter containing powder, analyses of which indicated the presence of anthrax. "The presidential security services submitted the letter to control measures, as usual, before opening it and discovered that it contained powder ... At first, we did not know what the nature of the powder was, and some time passed before we could analyze it in a safe place ... The stamps on the letter showed that it came from an Asian country ... [The Palestinian Authority is] unable to investigate the original source of the letter because of the situation in which it finds itself".

23 May The Berlin *Tagesspiegel* runs an interview with UNMOVIC Executive Chairman Hans Blix on the question of Iraqi weapons of mass destruction before the war. Blix says: "I am obviously very interested in the question of whether or not there were weapons of mass destruction – and I am beginning to suspect there possibly were none ... The main justification for the war was weapons of mass destruction, and it may turn out that in this respect the war was not justified ... The fact that [Saddam Hussein's chief scientific adviser, Amer al-Saadi surrendered [see 12 Apr] and said there were no weapons of mass destruction has led me to ask myself whether there were actually any ... I don't see why he would still be afraid of the regime. Other leading figures have said the same."

23 May US Under-Secretary of State for Arms Control and International Security John Bolton says that Iraqi "intellectual capacity" for manufacturing unconventional weapons was sufficient justification for the invasion of Iraq. Speaking at a US National Defense University Foundation, he says that since the Gulf War "the most important thing that was not destroyed [by international weapons inspectors] was the intellectual capacity in Iraq to recreate systems of weapons of mass destruction".

23 May The US Institute of Medicine of the US National Academies of Sciences releases its third report on the *Review of the Centers for Disease Control and Prevention's Smallpox Vaccination Program Implementation* [see 16 Jan]. The report

states: “[In] reiteration of its previous recommendations, the committee recommends CDC facilitate the efforts of states that wish to pause to evaluate the process and outcomes of their vaccination efforts to date, and plan for next steps before deciding whether and when to begin vaccination of new personnel ... First, a pause is needed to evaluate the vaccination program’s processes and outcomes to date, and thus ensure that expanded vaccination continues to be as safe as possible for both vaccinees and their contacts ... Second, a pause would allow time for CDC and the states to modify vaccination plans, data systems, and materials in response to changing circumstances (i.e., a new population of potential vaccinees) ... Third, vaccination is not a goal in itself, but a component of overall smallpox preparedness. Therefore, a pause is needed to re-evaluate the vaccination program’s implications for and integration into overall smallpox preparedness nationally and locally (i.e., to determine what level of pre-event vaccination is needed, and what personnel should be vaccinated to play specified roles in smallpox response).”

25 May From London, the Saudi-owned weekly *al-Majalla* quotes Abu Mohammed al-Ablaj as saying that al-Qa’idah has not ruled out “the use of Sarin gas and the poisoning of drinking water in American and Western cities”. Al-Ablaj, who describes himself as the commander of al-Qa’idah’s ‘Mujahideen training centre’, commenced sending *al-Majalla* e-mails about al-Qaidah’s supposed activities earlier this month.

27 May US Defense Secretary Donald Rumsfeld says that it is “possible that [Iraq] decided that [it] would destroy [its weapons of mass destruction] prior to a conflict”. Rumsfeld makes the comment in response to a question following his speech to the Council on Foreign Relations in New York.

28 May In Geneva, the World Health Assembly adopts – on the last day of the ten-day 56th World Health Assembly – a resolution authorizing the World Health Organization to verify disease outbreaks from all available official and unofficial sources, and, when necessary to determine the severity of an outbreak through on-the-spot investigations. Member states note that “national and international experiences with SARS contribute lessons that can improve preparedness for responding to, and mitigating the public health, economic, and social consequences of the next emerging infectious disease, the next influenza pandemic, and the possible use of a biological agent to cause harm.”

28 May In the UK, four servicemen who received vaccinations prior to the US-UK invasion of Iraq are suffering symptoms similar to those experienced by some troops deployed to the Persian Gulf for the 1991 Gulf War, so it is reported. Two days later, newspapers report that the four men are planning to sue the Ministry of Defence. The four each received multiple vaccinations on a single day, despite assurances earlier in the year from defence ministers, including the Secretary of State, that “a key lesson learned from the [1991] Gulf conflict was the importance of ensuring that members of the armed forces should not undergo in a short time a series of different vaccinations.” The soldiers’ lawyer describes their symptoms as breathing problems, skin complaints, aching joints, chronic fatigue and depression. He says: “I have personally dealt with in excess of 400 Gulf war one veterans. The symptoms that these individuals are experiencing are identical to those of the individuals I represent in relation to the first Gulf conflict.” In response to the claims, the Ministry of Defence said that routine inoculations could all be given in one day if the soldier required them. It also said that problems were “very individual” and that it has introduced a screening programme at King’s College London

for returning service personnel.

28 May At UN headquarters, the UNMOVIC College of Commissioners convenes for its thirteenth plenary session [see 24-25 Feb]. As on previous occasions, there are observers from the OPCW and the IAEA.

28 May The US Central Intelligence Agency and the Defense Intelligence Agency release an assessment on *Iraqi Mobile Biological Warfare Agent Production Plants* [see 7 May]. The report states: “The trailers probably are part of a two or possibly three-trailer unit. Both trailers we have found probably are designed to produce BW agent in unconcentrated [*sic*] liquid slurry. The missing trailer or trailers from one complete unit would be equipped for growth media preparation and postharvest processing and, we would expect, have equipment such as mixing tanks, centrifuges, and spray dryers”. As to suggestions that the trailers could have been used for *inter alia* the chemical production of hydrogen for artillery weather balloons, the report states: “Some of the features of the trailer – a gas collection system and the presence of caustic – are consistent with both bioproduction and hydrogen production ... The plant’s design possibly could be used to produce hydrogen using a chemical reaction, but it would be inefficient. The capacity of this trailer is larger than typical units for hydrogen production for weather balloons. Compact, transportable hydrogen generation systems are commercially available, safe, and reliable.”

The next day White House spokesman Ari Fleischer says: “[W]e have found the bio trucks that can be used only for the purpose of producing biological weapons. That’s proof-perfect that the intelligence in that regard was right on target.” A day later President Bush says: “We found the weapons of mass destruction. We found biological laboratories ... Up till now, we have found two such laboratories. In time, we will find more such weapons. And to those who claim that we have not found banned weapons or banned equipment for its manufacture, I reply that they are wrong. We found them.”

29 May Tonga deposits its instrument of accession to the CWC with the Secretary-General of the United Nation. In thirty days Tonga will become the 153rd party to the Convention.

29 May In Brussels, three days ahead of the fourth round of negotiations between the EU and Iran on a trade and cooperation agreement, spokeswoman for the European Commission’s external relations, Emma Udwin says: “We know that Iran adheres to the nuclear non-proliferation treaty and treaties on chemical and biological weapons”.

29 May In London, BBC defence correspondent Andrew Gilligan states on the BBC’s *Today* radio programme that a senior official in charge of compiling the UK Government’s dossier on Iraqi weapons of mass destruction [see 24 Sep 02] has informed him that the government ordered the dossier to be “sexed up” a week before its publication. Gilligan says: “What we’ve been told by one of the senior officials in charge of drawing up that dossier was that, actually the government probably knew that that 45 minute figure was wrong, even before it decided to put it in ... What this person says is that a week before the publication date of the dossier, it was actually rather a bland production ... It didn’t say very much more than was public knowledge already and Downing Street, our source says, ordered a week before publication, ordered it to be ‘sexed up’, to be made more exciting and ordered more facts to be, to be discovered ... Our source says that the dossier, as it was finally published, made the intelligence services unhappy, because, to quote the source [...] there was unhappiness because it didn’t reflect the considered view they were putting forward – that’s a quote from our source

– and essentially, the 45 minute point was, was probably the most important thing that was added ... And the reason it hadn't been in the original draft was that it was, it only came from one source and most of the other claims were from two, and the intelligence agencies say they don't really believe it was necessarily true because they thought the person making the claim had actually made a mistake – had got mixed up." In a statement to the BBC, the Prime Minister's Director of Communications Alastair Campbell responds to the report thus: "Not one word of the dossier was not entirely the work of the intelligence agencies". Gilligan reiterates his claims following Campbell's statement, further adding that his source had told him that "it is about 30% likely there was a chemical weapons programme in the six months before the war and considerably more likely that there was a biological weapons programme."

29 May The Voice of America runs an interview with the Iraqi scientist, Khalid Francis Thomas, who says that Iraq ceased the production of nerve agents post-1991. Thomas, who in 1990 became a supervisor in charge of the biological evaluation laboratory and quality control analysis in Iraq's VX nerve agent programme, says that in 1991 orders were given for the laboratory to abandon VX testing and instead switch to analysis of pesticides and herbicides. At the time the order was given, Thomas was responsible for testing VX nerve agent on cats. "If there is anything happening in this field, I will know about it", says Thomas.

29 May In Stanford, USA, at the annual Center for International Security and Cooperation 'Drell Lecture', Vice-President for Biological Programs at the Nuclear Threat Initiative Margaret Hamburg gives a presentation on *Bioterrorism: A Challenge to Science and Security*.

30 May In St Petersburg, where world leaders have gathered for the city's 300th anniversary, Canadian Prime Minister Jean Chrétien announces the first phase of its anticipated \$1 billion contribution to the destruction of weapons of mass destruction in Russia under the G8 Global Partnership. The Prime Minister says: "I am very pleased to announce today that Canada will be helping Russia destroy its stockpile of approximately 40,000 metric tonnes of chemical weapons. We will be funding construction projects at the Shchuch'ye chemical weapons site where up to two million artillery shells, filled with nerve agents will be destroyed." The Canadian contribution to the chemdemil plant at Shchuch'ye will be C\$30 million.

30 May UN Secretary-General Kofi Annan submits to the Security Council the thirteenth quarterly report [see also 28 Feb] of the Executive Chairman of UNMOVIC, in accordance with Security Council resolution 1284. Covering the activities of UNMOVIC for the period 1 March 2003 to 31 May 2003 the report states: ...

"3. On 18 March 2003, UNMOVIC suspended its inspection activities following the decision of the Secretary-General to withdraw all United Nations staff from Iraq. The armed action started on 19 March 2003, and the Coalition has organized units to identify any Iraqi weapons of mass destruction and other proscribed items and to engage in the task of disarming Iraq, which was formerly pursued by UNMOVIC and the International Atomic Energy Agency (IAEA) ...

5. The findings and experience of the relevant units established by the Coalition have not been made available to the Commission except through public media reports. Nor have those units or the Coalition requested any information or assistance from the Commission ...

8. In the period during which it performed inspection and monitoring in Iraq, UNMOVIC did not find evidence of the continuation or resumption of programmes of weapons of mass

destruction or significant quantities of proscribed items from before the adoption of resolution 687 (1991).

9. Inspections uncovered a small number of undeclared empty chemical warheads which appear to have been produced prior to 1990. Those and a few other proscribed items were destroyed ...

11. Inspections and declarations and documents submitted by Iraq, not least during the period under review, contributed to a better understanding of previous weapons programmes. However, the long list of proscribed items unaccounted for and as such resulting in unresolved disarmament issues was not shortened either by the inspections or by Iraqi declarations and documentation. From the end of January 2003, the Iraqi side, which until then had been cooperative in terms of process but not equally cooperative in terms of subsistence [*sic*] devoted much effort to providing explanations and proposing methods of inquiry into such issues as the production and destruction of anthrax, VX and long-range missiles. Despite those efforts, little progress was made in the solution of outstanding issues during the time of UNMOVIC operations in Iraq.

12. For example, as described in the present report, extensive excavations undertaken by the Iraqi side and witnessed by inspectors showed that a large number of R-400 bombs declared to have contained biological agents and to have been unilaterally destroyed in 1991 were in fact destroyed. While it was valuable in suggesting the credibility of some information provided earlier, the operation could not verify the total quantities of biological agents destroyed, still less the total quantities produced."

30 May The US Department of Defense announces that by 7 June it will have deployed a new team of weapons inspectors to Iraq: the Iraq Survey Group (ISG) will replace the 75th Exploitation Force [see 11 May]. According to Keith Dayton, who is to head the ISG, the new team represents "a significant expansion of the effort in the hunt for weapons of mass destruction". Comprising between 1,300 and 1,400 personnel, he says that the ISG will take a different approach to the 75th Exploitation Force, by "going to places where the intelligence community's analytic powers tell us that there is a much more probable likelihood of finding something or finding people who know something about what was there".

31 May In Tbilisi, police seize two boxes containing isotopes of caesium and strontium, together with a quantity of unidentified toxic agent – possibly mustard gas – from the boot of a taxi after a routine search. The police believe the vehicle was en route to Adzhara, an autonomous republic on the Turkish border. They say that the taxi driver was unaware of the contents of the containers. Two suspects are being held in custody following the incident.

31 May In Krakow, Poland, US President Bush announces the creation of the Proliferation Security Initiative, the purpose of which is to establish cooperation between states to interdict shipments of weapons of mass destruction and missile-related equipment and technologies via land, air and sea. Initially, eleven states – including the USA, UK, Australia, France, Germany, Italy, the Netherlands, Poland, Portugal and Spain – will participate in the Initiative.

31 May The London *Guardian* runs a report claiming that UK Foreign Secretary Jack Straw and US Secretary of State Colin Powell discussed their "serious doubts" about the reliability of the intelligence relating to Iraqi weapons of mass destruction, during a private meeting the night before Powell made his speech to the UN Security Council [see 5 Feb]. The report states that an unnamed official of a NATO member state has described a

document known as the “Waldorf transcripts” – after the New York hotel where Powell was staying – as “extremely useful”. The transcripts are said to describe Powell as saying that he had all but “moved in” with US intelligence to prepare his briefings for the UN Security Council. Powell is said to have told Straw that he had come away from the meetings “apprehensive” about what he called, at best, circumstantial evidence highly tilted in favour of assessments drawn from them, rather than any actual raw intelligence. Powell is also said to have told Straw that he hoped the facts, when they came out, would not “explode in their faces”. The next day Straw denies ever having had a private meeting with Powell on 4 February.

June The UK Intelligence and Security Committee states in its annual report – with regard to weapons of mass destruction: “We are concerned that Ministers are not fully briefed on counter-proliferation work but we have been told that the new official committee structure will ensure the closer involvement of Ministers. We would welcome this. However, we believe that there is a need for greater clarity as to the ministerial responsibility for cross-departmental co-ordination of counter-proliferation policy and work.”

June In California, at Stanford University, the Center for International Security and Cooperation publishes a report on the *Effectiveness of Nuclear Weapons against Buried Biological Agents*. The report describes the results of some calculations on the effectiveness of penetrating nuclear weapons with a yield one and ten kilotons against targets containing biological agents. Amongst others, it estimates the aboveground effects of the nuclear explosions to include intense local radioactivity and significant fallout, air blast, and seismic effects for kilometres. It concludes, however, that it is likely that casualties from those effects would be less than the casualties that would result from the dispersal of large quantities of bio-agents.

1 June The London *Mail on Sunday* runs an article by BBC defence correspondent Andrew Gilligan in which Gilligan elaborates on what he had said on the BBC *Today* programme [see 29 May] about Downing Street having tampered with intelligence material ultimately used in the government’s dossier on Iraq’s weapons of mass destruction [see 24 Sep 02]. Gilligan writes: “We’d discussed the famous Blair dossier on Iraq’s weapons at our previous meeting, a few months before it was published last September. ‘It’s really not very exciting, you know,’ he’d told me. So what, I asked him now, had changed? ‘Nothing changed,’ he said. ‘Until the week before, it was just like I told you. It was transformed the week before publication to make it sexier’ ... ‘The classic,’ he said ‘was the statement that WMD were ready for use in 45 minutes. One source said it took 45 minutes to launch a missile and that misinterpreted to mean that WMD could be deployed in 45 minutes. There was no evidence that they had loaded conventional missiles with WMD, or could do so anything like that quickly’. I asked him how this transformation happened. The answer was a single word ‘Campbell.’ What? [Alastair] Campbell made it up? ‘No, it was real information. But it was included against our wishes because it wasn’t reliable.’”

1-3 June In Evian, France, during the G8 Summit, leaders discuss *inter alia* progress made with respect to assisting Russia meet its threat reduction goals under the G8 Global Partnership Against the Spread of Weapons of Mass Destruction [see 26-27 Jun 02]. On the second day, in addition to an action plan and an annual report on the Global Partnership, the leaders – largely at the behest of the UK and USA – make the following declaration: “Last year, at Kananaskis [see 26-27 Jun 02], we endorsed a set of Principles to prevent the spread of WMD and materials of

mass destruction to terrorists and those that harbour them. Since then, events in the world have underscored the relevance of those Principles and the urgency of implementing them ... North Korea’s uranium enrichment and plutonium production programs and its failure to comply with its IAEA safeguards agreement undermine the non-proliferation regime and are a clear breach of North Korea’s international obligations. We strongly urge North Korea to visibly, verifiably and irreversibly dismantle any nuclear weapons programs, a fundamental step to facilitate a comprehensive and peaceful solution ... We will not ignore the proliferation implications of Iran’s advanced nuclear program. We stress the importance of Iran’s full compliance with its obligation under the NPT. We urge Iran to sign and implement an IAEA Additional Protocol without delay or conditions. We offer our strongest support to comprehensive IAEA examination of this country’s nuclear program ... We call on all States to establish effective procedures and machinery to control the transfer of materials, technology and expertise which may contribute to the development, production or use of WMD and their means of delivery. We likewise call on all States to establish and implement effective national standards for secure storage and handling of such materials with a view to effectively prevent proliferation and eliminate the risk that terrorists gain access to them. We agree, individually and collectively, to give support to this end where it is most needed.”

2 June In Brussels, the European Commission submits a communication to the Council of the European Union and the European Parliament on *Cooperation in the European Union on Preparedness and Response to Biological and Chemical Agent Attacks (Health Security)*. The 38-page communication summarizes the steps that have been taken by EU health ministers and the Commission to strengthen health defences against deliberate releases of biological and chemical agents and their coordination efforts at EU level.

2 June The *Washington Post* reports a 7 May White House document referring to an Iraqi scientist as saying that in recent years Iraq had decentralized its chemical and biological weapons programmes by placing production equipment within commercial facilities to avoid detection. The document is said to describe Iraq as having “carefully embedded its [weapons of mass destruction] infrastructure in dual-use facilities” with chemical weapons production “on demand” or “just in time”. It is also said to state that the trailer seized in northern Iraq [see 7 May] represented “physical evidence of such an approach”. Details of the document come only days after Defense Secretary Donald Rumsfeld referred to “speculation” that Iraq had arranged a weapons programme so that it “could do what in business you would call ‘just-in-time delivery’”.

2 June The US General Accounting Office states that the Department of Defense’s (DoD) “conclusion, based on the findings of epidemiological studies – that there was no significant difference between rates of illness for exposed versus not exposed troops [to hazardous substances during the 1991 Gulf War] – is not valid.” The findings come in the form of a report on *Gulf War Illnesses: Preliminary Assessment of DoD Plume Modelling for US Troops’ Exposure to Chemical Agents*, submitted to the US House Subcommittee on National Security, Emerging Threats, and International Relations Committee on Government Reform, which is conducting a hearing on *Following Toxic Clouds: Science and Assumptions in Plume Modeling*. The report states: “In general, modeling is never precise enough to draw definitive conclusions, and DoD did not have accurate information on source term (such as the quantity and purity – concentration – of the agent) and meteorological conditions (such

as the wind and weather patterns), essential to valid modeling. In particular, the models DoD selected were not fully developed and validated for long-range environmental fallout; the source term assumptions were not accurate; the plume height was underestimated; the modeling only considered the effects on health of a single bombing; field-testing at Dugway Proving Ground did not realistically simulate the actual bombing conditions; and divergence in results among models. ... In the epidemiological studies, the results of DoD's flawed modeling served as a key criterion for determining the exposure classification – exposed versus not exposed to chemical agents – of the troops. Such misclassification is a serious problem that can have two types of effects: First, if misclassification affects both comparison groups equally (nondifferential classification – equally in the exposed and unexposed groups), it may water down the results so that important associations are missed. Second, if misclassification affects one group more than the other (differential misclassification), it may introduce bias that obscures important associations or creates false associations. Consequently, the misclassification in the studies resulted in confounding – that is, distorting – the results, making the conclusion invalid."

2-5 June In Paris, the Australia Group convenes for its annual plenary session. The Group agrees to add a further fourteen pathogens to its Biological Control List. In addition, the Group agrees to: "[E]ndorse a cooperative programme of action for more effectively engaging countries in the Asia-Pacific region on CBW-related export control issues; approve a practical guide for compliance and enforcement officers to help them more efficiently detect, identify and prevent illegitimate transfers of items controlled by the Group; and, new procedures for improving transparency and enhancing information sharing among members".

3 June In Moscow, UK Ambassador Sir Roderic Lyne holds a working meeting with the director-general of the Russian Munitions Agency, Viktor Kholstov, at which Ambassador Lyne says that the UK plans to significantly increase its financial assistance for chemdemil in Russia from 2004. Under an earlier agreement [see 30 Oct 00], the UK had allocated £12 million from 1 April 2001 until 31 March 2004 for chemdemil projects, mainly at the Shchuch'ye chemical weapons destruction facility.

3 June The UK Foreign and Commonwealth Office (FCO) responds by memorandum to the House of Commons Foreign Affairs Committee on questions posed by the Committee on 1 May further to its hearing into *The Foreign Policy Aspects of the War Against Terrorism*. In response to the Committee wishing "to receive a note on the outcome of the First Review Conference of the CWC", the FCO responds: "The final, agreed documents of the Conference fully meet UK objectives. Indeed, agreement by consensus on final documents is itself an achievement: comparable Treaties – [the NPT and BWC] – have not always been able to achieve such an outcome at their Review Conferences. Core CWC obligations have been reaffirmed, and States Parties currently deficient in meeting all CWC obligations are pressed to act to remedy this. A work programme, including key UK technical concerns, has been established for practical improvements across the range of CWC implementation measures". In response to the Committee's question on the status of non-lethal chemical incapacitants under the CWC and the UK's policy vis-à-vis their use the FCO states: "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 [in the Moscow theatre siege][see 26 Oct 02]'. It is too early to say whether amendments to the Convention are going to be necessary, although the UK would not exclude that possibility at some stage if a consensus were to emerge that amending the CWC would be the best approach. For the present the UK is not seeking any amendments. The UK has declared to the OPCW that it possesses the riot control agents CS, CR and PAVA. (CR is held only for counter-terrorist purposes in support of law enforcement.) Any UK activities in this area will conform to the provisions of the CWC."

3-5 June In Darwin, there is an Association of South-East Asian Nations (ASEAN) workshop on managing the consequences of a major terrorist attack. The workshop brings together foreign affairs and defence officials and experts in emergency response, civil defence and law enforcement, from seventeen Asia-Pacific countries. The United Nations and the Asian Disaster Preparedness Center are also represented. Participants identify regional capabilities in urban search and rescue, the management of structural collapse and capacities to respond to chemical, biological and radiological attacks.

4 June The Japanese Ministry of the Environment announces a 400 million yen aid package to assist residents of Kamisu, in the district of Ibraki, in paying for the treatment of illnesses which the residents claim are linked to chemical munitions abandoned by the Japanese government at the end of the Second World War. The government, however, has yet to acknowledge the link between the illnesses and the said munitions. The move comes on the heels of a Tokyo district court rejecting claims for compensation by five Chinese nationals from Heilongjiang Province for damage caused to their health between 1950 and 1987 from chemical munitions abandoned by Japan at the end of the Second World War [see 15 May].

4 June In Belgium, police announce the arrest of an Iraqi man in the western town of Deinze in connection with the recent posting of ten letters containing chemicals to, amongst others, the Belgian prime minister's office, three embassies (including those of the UK and USA), a court trying al-Qa'idah suspects, an airport and a port authority. Twenty people, including postal workers and police officers, were briefly admitted to hospital after having been exposed to the agent. According to the Belgian Ministry of Health the brownish-yellow powder contained adamsite and hydrazine. The Ministry's spokeswoman, Anne-Francoise Gailly says that the letters didn't contain enough toxic agent to be life threatening, but caused irritation to the eyes and skin, and adversely affected breathing.

4 June The US Central Intelligence Agency states – in its report *Terrorist CBRN: Materials and Effects (U)* – that "Al-Qa'ida's end goal is the use of CBRN to cause mass casualties". The report further states: "[Nevertheless] most attacks by the group – and especially by associated extremists – probably will be small scale, incorporating relatively crude delivery means and easily produced or obtained chemicals, toxins, or radiological substances ... Spray devices disseminating biological warfare (BW) agents have the highest potential impact. Both 11 September attack leader Mohammad Atta and Zacharias Moussaoui expressed interest in crop dusters, raising our concern that al-Qa'ida has considered using aircraft to disseminate BW agents ... Analysis of an al-Qa'ida document recovered in Afghanistan in summer 2002 indicates the group has crude procedures for making mustard agent, sarin, and VX." The report goes on to summarize those agents and CBRN

devices that the Agency believes are available to al-Qa'ida and other terrorist groups.

4 June The US General Accounting Office submits a report to the Chairman of the Senate Committee on Finance on the *Capitol Hill Anthrax Incident: EPA's Cleanup Was Successful; Opportunities Exist to Enhance Contract Oversight*. The report concludes thus: "Despite the success of the cleanup, our review identified certain inconsistencies in [the Environmental Protection Agency (EPA)'s] contractor cost oversight that may affect its quality. First, regarding tracking contract costs, because few regions use the cost-tracking system for technical as well as removal contracts, EPA does not have readily accessible, consistent contracting data on its cleanup sites. One result of this lack is that the agency was unable to readily respond to your questions about the costs of this cleanup, including the categories of expenditures – how much was spent on personnel, travel, equipment, and so on. In addition, EPA has less assurance that it is providing effective, consistent oversight of its contracts. Second, because EPA has not ensured that all of its regions document the reviews of contractor invoices conducted by cognizant on-site officials, the agency's ability to ensure that contractors' charges are accurate and reasonable is lessened. Finally, on-scene coordinators face many competing demands; therefore, their reviews of costs may be less timely than those that can be provided by a specialist working on site to support the on-scene coordinators' cost reviews. Such administrative support could provide EPA with better assurance that its payments to contractors are appropriately reviewed and adjusted on a routine basis. It could also be readily called upon to conduct these cost reviews during large and complex emergency cleanups, such as those that may stem from terrorism."

4 June US Under-Secretary of State for Arms Control and International Security John Bolton – during a House International Relations Committee hearing on *Non-Proliferation Policy After Iraq* – says that "ever since the temporary lifting of sanctions on Libya, [Libya has] pursued the full range of WMD capabilities in a very aggressive fashion". On Cuba and biological weapons Bolton says: "We do think they have a limited research and development capability, but one of the things that's very troubling is the way in which Cuban leaders and technicians do meet with representatives of states like Iran, that also seek or have BW capabilities. And one has to wonder what's going on there. And that's why we have a - we keep a close eye on that situation."

5 June Russian Ministry of Foreign Affairs spokesman Alexander Yakovenko – whilst noting "with satisfaction news of the approval by both Houses of the US Congress of the full amount [i.e. \$450 million] of funds" – states that the USA "continues the policy of setting forth additional unjustified conditions pertaining to the expansion of its assistance to the Russian [chemdemil] projects." Yakovenko continues: "Particularly disquieting is the fact that the list of these conditions is not decreasing, but on the contrary increasing. Here is but one example: in 2004 there is to be 'suspended' an amount of 100 million dollars of the financing of the [chemdemil facility] in Shchuchye until Russia or some 'third' country allocates for this project 50 million dollars, even though previously the American side had more than once favourably noted the considerable buildup of the financial participation of Russia in dealing with [Global Partnership] problems, in the first place in the destruction of Russia's stockpiles of chemical weapons. ... The American decisions are creating some additional difficulties for us, as what is involved here are not only the plans for the construction of the facility in Shchuchye, but also our cooperation with other G8 countries to which we have offered individual projects. The US

is essentially inducing partners to work only on the project in Shchuchye, leaving without adequate financing the other important projects in this field."

5 June At UN headquarters, UNMOVIC Executive Chairman Hans Blix presents the thirteenth UNMOVIC quarterly report to the Security Council [see 30 May], expanding in places on information set out therein. Blix says: "While we are all aware of the large amounts of proscribed items, which still remain unaccounted for, we should perhaps take note of the fact that for many years neither UNSCOM nor UNMOVIC made significant finds of weapons. The lack of finds could be because the items were unilaterally destroyed by the Iraqi authorities or else because they were effectively concealed by them. I trust that in the new environment in Iraq, in which there is full access and cooperation, and in which knowledgeable witnesses should no longer be inhibited to reveal what they know, it should be possible to establish the truth we all want to know ... Let me further make some brief comments on mobile facilities, as there is currently much media attention devoted to this issue. Even before UNMOVIC began its inspections in November 2002, the Commission had received information about such facilities and our inspectors were looking for sites where such mobile units could be hooked up for support services. Upon our request, the Iraqi side presented some information about mobile systems they possessed. As you can see from our report, neither the information presented nor pictures given to us by the Iraqi side, match the description that has recently been made available to us, as well as to the media, by the United States. At UNMOVIC we cannot, of course, make a proper evaluation of the depicted vehicles on the basis of published material alone ... In resolution 1483 (2003), the Security Council declared its intention to revisit the mandate of UNMOVIC. The Council will be aware that UNMOVIC remains ready to resume work in Iraq as an independent verifier or to conduct long-term monitoring, should the Council so decide. In paragraph 16 of the introduction and in Chapter VIII of the report there are some comments on UNMOVIC's readiness to resume work in the field." After addressing the Council, Blix tells reporters: "I do not want to question the integrity or the professionalism of the inspectors [of the coalition, but] anybody that functions under an occupation, about a few foreign states, cannot have the same credibility internationally as international inspectors would be."

5-8 June In the UK, at Wilton Park, there is the 55th Rose-Roth Seminar organized by the NATO Parliamentary Assembly where participants are discussing the use of weapons of mass destruction by terrorists and the national and international responses available thereto. Those making presentations include Senior Advisor to the Proliferation and Arms Control Secretariat of the British Ministry of Defence and the Non-Proliferation Department of the Foreign and Commonwealth Office David Kelly: *Is Bioterrorism the Legacy of the Soviet Biological Weapons Programme?*; and, Chairman of the Governing Board of the Stockholm International Peace Research Institute Rolf Ekeus: *International Non-Proliferation Policies*.

6 June In the US Senate, the Armed Services Committee conducts a closed hearing on *The Iraq Survey Group and Weapons of Mass Destruction*. Testifying are Under Secretary of Defense for Intelligence Stephen Cambone and Director of the Defense Intelligence Agency Vice Admiral Lowell Jacoby.

6 June In the US House of Representatives, the Select Homeland Security Committee conducts a hearing on *Bioterrorism Countermeasures*. Testifying are: Deputy Director of the US National Institute of Allergy and Infectious Diseases John

Lamontagne; Chief Science Officer for Parasitic Diseases of the National Center for Infectious Diseases at the US Centers for Disease Control and Prevention Ali Khan; and Associate Director for Terrorism Preparedness and Emergency Response at the US Centers for Disease Control and Prevention Joe Henderson.

6 June A US Defense Department report compiled in September 2002 and now leaked to the media determined that “there is no reliable information on whether Iraq is producing and stockpiling chemical weapons, or whether Iraq has – or will – establish its chemical warfare agent production facilities”. The leaked Defence Intelligence Agency (DIA) report titled *Iraq: Key Weapons Facilities – An Operational Support Study* says, with regard to biological weapons, that “Iraq is assessed to possess biological agent stockpiles that may be weaponized and ready for use ... The size of those stockpiles is uncertain and is subject to debate. The nature and condition of those stockpiles also are unknown”. Research Fellow at the US Institute of Peace Jonathan Tucker says: “The DIA report suggests that before the Iraq War, the US intelligence community did not have hard evidence that Saddam Hussein possessed large stocks of chemical and biological warfare agents that posed an imminent threat to US national security.” The next day, DIA Director Admiral Lowell Jacoby responds to news of the leak thus: “[The report] talks about the fact that at the time, in September 2002, we could not specifically pin down individual facilities operating as part of the weapons of mass destruction programs, specifically the chemical warfare portion ... It is not, in any way, intended to portray the fact that we had doubts that such a program existed ... was active, or ... was part of the Iraqi WMD infrastructure”.

9 June In Russia, the State Committee on Chemical Disarmament (SCCD) approves a request from the State Commission for Chemical Disarmament to triple – from 100 million roubles to 300 million roubles – the amount available to the Commission for its 2003 chemdemil programme. Deputy Chair of the State Duma Defence Committee and member of the SCCD Nikolai Bezborodov says: “When checking the funding plan for the [chemdemil] programme in 2003, the [SCCD] decided to increase the funds allocated.” He says that one billion roubles would be allocated this year for the construction of the Shchuchye chemdemil facility, almost 440 million roubles for construction of the Kambarka facility and 217 million roubles for the Maradykovskoye facility. [Note: \$1 US equates to approx. 30 roubles]

9 June The US Supreme Court fails to reach a decision, for lack of a tie-break vote, as to whether Vietnam veterans, who claim their ill health resulted from the use of Agent Orange, can reopen settled legal actions against Dow Chemical Inc. and Monsanto Inc. Under Supreme Court rules, however, the deadlock results in the affirmation of the earlier Circuit Court of Appeals ruling. This ruling stated that the said companies could not be sued by veterans whose cancer occurred prior to a 1984 settlement, thereby allowing two veterans – Daniel Stephenson and Joseph Isaccson – to pursue their claims for compensation. Under the 1984 settlement, Dow Chemical, Monsanto and several smaller companies established a \$180 million fund to compensate Vietnam veterans exposed to Agent Orange, its intention at the time being to settle all claims relating to the use of Agent Orange. The deadlock (4-4) of the Supreme Court occurred owing to the fact that Justice John Paul Stevens withdrew from proceedings without – in accordance with custom – offering a reason therefor, although the Associated Press suggests it relates to the death in 1996 of his only son, who was a Vietnam veteran.

10 June In Moscow, chairman of the State Commission for Chemical Disarmament Sergei Kiriyyenko warns that continued delays in US funding for Russia’s chemdemil programme may mean major changes to the second phase of the programme. The original plan had been to meet Russia’s CWC obligations by destroying 20 per cent of its chemical weapons stockpile at the Shchuch’ye chemical weapons destruction facility. However, the Commission is now considering using the facilities at Gornyy and Kambarka [see 5 May] to destroy the required amount of chemical weapons. Kiriyyenko says: “If the USA implements its commitments, our plans provide for assigning the Shchuchye facility the main role in destroying chemical weapons by 2007. But we are facing the risk that does not depend on us. The USA is conducting the policy of permanent postponement of conditions: funds are unblocked, but the authorization expires in a year. We are beginning new discussions.” Kiriyyenko continues: “Russia cannot risk non-compliance with its commitments even due to exterior reasons, that is why we are preparing the second variant – the use of the Kambarka facility. When it is commissioned, together with the Gornyy facility it will allow us to implement the second stage.”

10 June UN Secretary-General Kofi Annan announces that Dimitri Perricos will replace Hans Blix as Executive Chairman of UNMOVIC when Blix leaves the position at the end of the month. Perricos, from Greece, is a technical expert with previous inspection experience.

10 June In Cambridge, Massachusetts, a conference on *Bioterrorism Preparedness* for senior practitioners in New England – policy officials, managers and professionals – is convened jointly by the Harvard University Kennedy School of Government and MIT Lincoln Laboratory.

11 June The London *Guardian* runs an interview with UNMOVIC Executive Chairman Hans Blix in which Blix says: “[T]here are bastards [in Washington] who spread things around, of course, who planted nasty things in the media. Not that I cared very much ... It was like a mosquito bite in the evening that is there in the morning, an irritant.” Blix is referring to what he describes as a smear campaign against him by the US Administration during his time in office which he attributes to his having been appointed by the previous Clinton Administration.

12 June In Madrid, delegates from the eleven states participating in the Proliferation Security Initiative [see 31 May] convene to discuss adapting international law so as to permit the interdicting of shipments of weapons of mass destruction or their delivery systems not *per se* banned under international law.

13 June In New Zealand, Minister for Veterans’ Affairs George Hawkins announces that the government is conducting an investigation “to formally determine whether New Zealand units operated in areas subject to aerial spraying of herbicides” during the Vietnam War. Speaking to the Returned Servicemen’s Association, Hawkins adds that material already examined strongly indicates that they did, and some armed forces personnel “were exposed to spraying on at least one occasion”. The investigation follows on from the government-commissioned McLeod Report, which reviewed the health needs and concerns of children of Vietnam veterans.

13 June The London High Court dismisses an appeal by the UK Ministry of Defence against the decision of a war pensions appeal tribunal [see 22 Aug 02] to uphold an earlier decision [see 23 May 02] in the case of Shaun Rusling. In the earlier decision, the tribunal had concluded that Rusling’s ill health was

directly attributable to his service during the first Gulf War. In his summing-up, Justice Newman says: “[T]he court is not in a position to express any views on the merits of the dispute as to whether [...] Gulf War Syndrome is or is not a ‘single medical entity’. It has not done so by this judgment”. Nevertheless, Newman says the tribunal’s conclusion that Gulf War Syndrome “was capable of being an accepted disablement”, should stand and that “a claimant who bases his claim for entitlement on the condition will carry the onus of proving its existence on the balance of probabilities”. Armed Forces Minister Adam Ingram says after the ruling: “[T]he judgment was case-specific to Mr Rusling. The judge took pains to explain that he was not ruling on whether ‘Gulf War Syndrome’ exists”.

13 June The Colombian Supreme Administrative Court of Cundinamarca orders that the Colombian government suspend the aerial spraying of glyphosate herbicides over coca plantations until it complies with an environmental management plan relating thereto, and to conduct a series of studies into the protection of human health and the environment. Vice-President Francisco Santos Calderón says that the government will immediately appeal the decision to the State Council and will therefore not be suspending its spraying operations. The government is not legally bound to comply with the ruling whilst an appeal is in progress.

15 June In the UK, an unnamed biological weapons expert and member of a UK team asked to examine the mobile laboratories recently found in Iraq [see 7 May] is reported by the London *Observer* as saying that the laboratories “are not mobile germ warfare laboratories”. He says: “You could not use them for making biological weapons. They do not even look like them. They are exactly what the Iraqis said they were – facilities for the production of hydrogen gas to fill balloons.”

15-18 June In Jyväskylä Paviljonki, Finland, there is a symposium on *Nuclear, Chemical and Biological Threats: A Crisis Management Challenge*. It is the fifth in a series of nuclear, chemical and biological defence symposia that began in Finland in 1992.

16 June In Luxembourg, European Union foreign ministers reach agreement on a common strategy to prevent the proliferation of weapons of mass destruction, which as a last resort envisages the use of “coercive measures” with the UN Security Council playing a “central role”. The said strategy comes in the form of two documents released by the Political and Security Committee of the Council of the European Union six days ago. These documents are: *Basic Principles of an EU Strategy against Proliferation of Weapons of Mass Destruction* and *Action Plan for Implementation of the Basic Principles of an EU Strategy against Proliferation of Weapons of Mass Destruction*. The Basic Principles state *inter alia*: “An EU strategy against the proliferation of WMD needs to be based on a common assessment of global proliferation threats. The EU Situation Centre has prepared and will continuously update a threat assessment using all available sources; our intelligence services should keep this issue under review and remain engaged in the process ... To address the new threats, a broad approach is needed. Political and diplomatic preventative measures (multilateral treaties and export control regimes) and resort to the competent international organisations (IAEA, OPCW, etc) form the first line of defence. When these measures (including political dialogue and diplomatic pressure) have failed, coercive measures under Chapter VII of the UN Charter and international law (sanctions, selective or global, interceptions of shipments and, as appropriate, the use of force) could be envisioned. The UN Security Council should play a central role ... The EU is

committed to the multilateral system ... The EU will place particular emphasis on defining a policy reinforcing compliance with the multilateral treaty regime. In this context, the role of the UN Security Council, as the final arbiter on the consequences of non-compliance – as foreseen in multilateral regimes – needs to be effectively strengthened ... To ensure effective detectability [*sic*] of violations and thereby deter non-compliance we will make best use of existing verification mechanisms and systems. We will also support the establishment of additional international verification instruments and, if necessary, the use of non-routine inspections under international control beyond facilities declared under existing treaty regimes ... Proliferation of WMD is a global threat, which needs a global approach. However, as security in Europe is closely linked to security and stability in the Mediterranean, we should pay particular attention to the issue of proliferation in the Mediterranean area ... An [*sic*] common approach and co-operation with key partners such as the US and the Russian Federation is essential in order to effectively implement WMD non-proliferation regime, and constitute an important ground for reinforcing transatlantic relations.” On chemical weapons, the Action Plan states: “In order to more effectively address cases of suspected non-compliance with the [CWC] the EU should discuss activating the challenge inspection instrument.” On the BWC, the Action Plan states: “The [BWC] does not contain at present a verification mechanism. The EU must find ways to strengthen compliance. A group of experts to give advice on how this could be done could be established.”

16 June UNMOVIC Executive Chairman Hans Blix, interviewed by *Arms Control Today*, reviews the work of his Commission, occasionally conveying information about it not yet in the public domain and always speaking with the directness and candour that had characterized earlier interviews with, for example, the Madrid *El País* [see 9 Apr], the Berlin *Tagesspiegel* [see 23 May] and the London *Guardian* [see 11 Jun]. Asked whether the non-discovery thus far of any prohibited weapons in Iraq was because they had been destroyed immediately prior to the US-led invasion, he says: “This is not the only explanation we heard. One explanation is that they took things to Syria. Another one was that they dug it down so deep that they didn’t have time to dig it up. The third one would be that they have already given it to terrorists. And the fourth one is they destroyed it just before the US came or just before the inspectors came. Well, I see these explanations with increasing, accelerating interest and curiosity, but I’d like to see evidence of any one of them” He says that, if UNMOVIC had been allowed to continue its work in Iraq, the “most interesting avenue we would have pursued” would have been to interview the people Iraqi authorities had latterly identified as having been involved in the transport of missiles and in the destruction of VX and of anthrax agent. Regarding information furnished to UNMOVIC by national intelligence agencies, he says: “... we went to a lot of sites given to us by intelligence from around the world and only in three cases did we find anything and in none of these cases did it relate to weapons of mass destruction.” On the successfulness of UNMOVIC he says: “... we showed something that was not a forgone conclusion. Namely, that it was possible to create an international inspection mechanism that was effective, that worked under the Security Council, and that was independent of intelligence agencies but cooperated with them and had assistance from them. And I think that this is a valuable experience for the future because I think that there may yet be a need for international inspections.” To this end he advocates the compilation of a written record of both UNSCOM and UNMOVIC experiences, adding: “We have the handbook that we worked out and which was not made public but which was used [by our inspectors] and made available to our College of

Commissioners that might not be applicable in the same way to another situation because it was somewhat tailored to the [Security Council] resolutions, of course. Nevertheless, there is a lot to be learned, I think we can learn, for the future. We have tried to commit to paper some of these experiences.”

17 June In Asmara, Eritrea, the Sudanese National Democratic Alliance (a Sudanese opposition movement based in Eritrea) issues a press statement stating that the Sudanese government has recently used chemical weapons to quell a rebel attack in Dafur, western Sudan. It urges the international community to carry out an investigation into Sudanese weapons of mass destruction as has recently been done in Iraq. A week later, Sudanese Minister for External Relations Mustafa Thman Isma'il strongly refutes the allegation, saying it is no more than an attempt to draw the international community into the conflict.

17 June The UK House of Commons Foreign Affairs Committee commences its hearing into *The Decision to go to War in Iraq*. Testifying are former Secretary of State for International Development Clare Short and former Leader of the House of Commons Robin Cook. Over the next three weeks – up until the Committee publishes its report – the witnesses appearing before the Committee will include: Foreign Secretary Jack Straw; Downing Street's Director of Communications Alastair Campbell; and BBC defence correspondent Andrew Gilligan [see 29 May and 1 Jun].

17 June In London, MI5 Director-General Eliza Manningham-Buller says – in her first public speech since assuming office in October – that the UK is “faced with a realistic possibility of a form of unconventional attack that could include chemical, biological, radiological or nuclear (CBRN)”. Speaking at the Royal United Services Institute, she continues: “It is only a matter of time before a crude version of a CBRN is launched on a Western city, and it is only a matter of time before the crude version becomes more sophisticated.”

17 June The US House Intelligence Committee conducts the first of two closed hearings – the second will take place two days subsequently – into the assessment made by intelligence analysts into Iraq's weapons of mass destruction and its links to terrorist organizations. Days after the hearings, *The New York Times* reports unidentified congressional officials as saying that Christian Westermann, an analyst in the State Department's Bureau of Intelligence and Research, informed the Committee that he had been encouraged to tailor his intelligence assessments to conform with the administration's agenda. Westermann is said to have stated that, whilst pressure was applied to him, he never actually changed the wording of his assessments. According to the report, however, it is not clear whether Westermann is referring here to assessments he made vis-à-vis Iraq, or, as the US administration later claims, to Cuba.

18 June In the UK House of Commons, Prime Minister Tony Blair answers a question on the UK's position in relation to allegations of Syrian weapons of mass destruction thus: “We believe that the best way to pursue concerns [about Syrian weapons of mass destruction] is in dialogue with the Syrian Government, and that dialogue is of a frank and critical nature.”

19 June The UK government releases its draft *Civil Contingencies Bill* for consultation. Minister for the Cabinet Office Douglas Alexander, says: “The Government is committed to ensuring the best possible civil contingency framework exists in the UK. The draft Bill represents a single statutory framework

for civil protection for the UK. It sets out clear responsibilities from front line responders through the regions and to central government departments.” At the local level, a two-tier duty is intended to codify existing best practice for local responders, thus clarifying their roles and responsibilities within the area of civil protection, ensuring consistency and enhancing performance and communication.

19 June The US Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices (ACIP) approves a resolution stating that it would be “unwise to expand beyond its current smallpox vaccination recommendations because of the new and unanticipated safety concerns”. The said concerns relate to a series of unexpected heart complications that have occurred during the first phase of the vaccination programme [see 28 Mar]. It is not, however, discouraging states from halting the vaccination of those first responders currently being vaccinated, but cautions against scaling up the programme to include others, such as police and fire-fighters. The Centers for Disease Control and Prevention has yet to respond to the ACIP resolution, however, its spokesperson Von Roebuck says: “We're still moving forward”.

19 June The US Senate Intelligence Committee conducts a closed hearing into Iraqi weapons of mass destruction. Following the hearing, Committee Chairman Pat Roberts says that none of the intelligence analysts testifying had informed the Committee that the administration had pressured them into making a stronger case in their assessment of Iraqi weapons of mass destruction than had been merited. *The New York Times* subsequently reports unidentified congressional officials as saying that Christian Westermann, an analyst in the State Department's Bureau of Intelligence and Research, had told the Committee that he had first felt pressure from Under-Secretary of State for Arms Control and International Security John Bolton to alter his intelligence assessments after Bolton's assertion that Cuba had a biological weapons programme [see 6 May 02]. Westermann is said to have argued before the Committee that Bolton's assertions on Cuba were not supported by sufficient intelligence. Whether or not Westermann's comments were confined to matters pertaining to Cuba remains unclear [see also 17 Jun 03].

19 June In the USA, at a conference convened by the American College of Preventive Medicine, Patricia Meinhardt, an expert in water-borne diseases, says: “Health care providers may not be able to prevent the first cases of illnesses resulting from intentional acts of water terrorism, but they can play a critical role in minimizing the impact of such an event by practising medicine with a heightened level of suspicion that such an attack can occur.”

19-21 June In Bled, Slovenia, there is a NATO Advanced Research Workshop on *National Mechanisms to Establish and Maintain the Security and Oversight of Pathogenic Microorganisms and Toxins*, in the context of the first of the BWC new process experts' meetings. The workshop is co-hosted by Borut Bohanec from the Centre for Plant Biotechnology at the University of Ljubljana, and Graham Pearson from the Department of Peace Studies at the University of Bradford (UK). It is attended by 36 individuals from 16 states (comprising 6 established member states and 8 new member states of NATO, Brazil and South Africa). A number of IGOs are also represented. There is a general consensus that the meeting of experts should strive to “discuss and promote common understanding and effective action” and that the success of the annual meetings would be judged by whether or not there was “effective action”.

20 June US Under-Secretary of State for Arms Control and International Security John Bolton says, in London: "Since [...] sanctions were lifted [against Libya], Libya has been able to exploit the normalisation of the economy to be more aggressive in pursuing weapons of mass destruction. For example, Libyan agents are trying to acquire dual-use technology. That in itself is very worrying." [See also 4 Jun]

21 June US President George Bush says in his weekly radio address: "For more than a decade, Saddam Hussein went to great lengths to hide his weapons from the world. And in the regime's final days, documents and suspected weapons sites were looted and burned". It is the first time that Bush has cited looting to explain the inability of coalition forces in Iraq to uncover chemical or biological weapons sites.

23 June In New York, speaking at the Council on Foreign Relations, UNMOVIC Executive Chairman Hans Blix says with regard to US pre-war intelligence on Iraqi weapons of mass destruction: "It is somewhat puzzling that you can have 100 percent certainty about weapons of mass destruction's existence and zero certainty about where they are".

23-27 June In Bremen, Germany, at a meeting of the Commission of the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Commission), fifteen states agree to implement reporting procedures vis-à-vis conventional and chemical weapons that were dumped at sea from the 1950s to 1970s. National authorities in each state will be required to collect and collate data centrally on incidences of encounters with these substances and report them to the OSPAR Commission on a regular basis. The aims of the new procedures are: to facilitate discussion and promote informed decision taking with regard to management options for dumping sites; to assist in identifying the extent of areas around known dumping sites where dumped conventional and chemical munitions are resting; to facilitate in the identification of previously unknown or unrecorded dumping sites; and, to designate on navigational charts where there is a high-risk that conventional and chemical munitions are dumped on the seabed. Information submitted to the Commission will for the first time be made available to the public. The procedures are to be implemented from June next year.

25 June In Washington, following the first session of the EU-US summit, European Council President Costas Simitis, European Commission President Romano Prodi and US President George Bush issue a joint statement on the proliferation of weapons of mass destruction. The statement reads: "We will work together to strengthen the international system of treaties and regimes against the spread of WMD. This implies the development of new regimes, as appropriate, and reinforcement of existing regimes. We will pursue the goal of universal membership of relevant multilateral treaties and agreements ... We will support, when necessary, non-routine inspections ... We recognise that, if necessary, other measures in accordance with international law may be needed to combat proliferation ... We welcome the statement on non-proliferation by European Union Heads of State and Government at Thessaloniki and the G8 Declaration of the Non-Proliferation of Weapons of Mass Destruction ... We believe that national controls should include criminal penalties for the illegal export, transshipment or brokering of weapons of mass destruction, missile delivery systems, and materials or technology for use in WMD or missile programmes. We will work together with like-minded partners to tighten export controls, where necessary providing assistance to create and improve effective, enforceable national export control systems. We agree to introduce catch-

all provisions, where appropriate ... We will work together in the framework of the BTWC to strengthen national control over pathogenic micro-organisms and toxins and, in the framework of the CWC, to foster the elimination of all chemical weapons ... We will strengthen identification, control and interdiction of illegal shipments, including national criminal sanctions against those who contribute to illicit procurement efforts ... We emphasise the importance of cooperative threat reduction programmes with third countries."

26 June In New Mucklenneuk, South Africa, there is a workshop on *Chemical and Biological Weapons: A New Approach for a New Era*, hosted by the Institute for Strategic Studies and the Centre for Conflict Resolution. The workshop aims to inform the media, NGOs and government representatives about the CWC and BWC and the challenges they currently face. Particular emphasis is put on the implication of the Conventions on Africa and how they might be strengthened in this context.

26 June At UN headquarters, Chairman of the Security Council Monitoring Group Michael Chandler says that whilst there have been some notable successes in countering al-Qa'idah activities, nothing has come to the Group's notice to indicate links between al-Qa'idah and Iraq. He nevertheless cautions that this does not definitively mean there is no such link. Chandler's statement is made during a press conference where the five-member Group – established pursuant to Security Council resolution 1363 to monitor the implementation of resolutions 1267 and 1333 – is presenting its report, to be submitted to the Committee, for the period 19 January to 31 May. The report is officially released two weeks subsequently.

26 June The US Department of State issues a notice to the effect that it has imposed sanctions on five Chinese companies and one North Korean company pursuant to Section 3 of the *Iran Nonproliferation Act of 2000*. The said Act provides for the imposition of sanctions where a company has "the potential to make a material contribution to the development of [Iran's] missiles or WMD" by the export of equipment and technology controlled under multilateral export control lists. The Chinese companies affected are: Taian Foreign Trade General Corporation; Zibo Chemical Equipment Plant (also known as Chemet Global Ltd); Trading Company Ltd; and Liyan Yunlong Chemical Equipment Group Company. The North Korean company affected is Changgwang Sinyong Corporation.

26-27 June In Geneva, at the Palais des Nations, there is a chemdemil forum – hosted by the Swiss Department for Foreign Affairs and the Green Cross International – on *Minimising Risks to Implementation of the Global Partnership Initiative*. The purpose of the forum is threefold: to share lessons learned from both Russian and western perspectives over the past decade of joint chemdemil projects; to identify challenges to successful implementation of demilitarization projects; and, to elaborate on potential solutions to the said challenges.

27 June Malaysia is investing \$58 million in establishing a research facility by 2005 – the National Institute of Natural Products and Vaccinology – to enable it to conduct its own research into vaccines, according to Agence France-Presse. "Are we ready to face a bioterrorism attack in this country? The answer is 'no'", says Malaysian Minister for Health Chua Jui Meng.

27 June The US State Department's Bureau of Intelligence and Research (INR) reportedly disputes the Central Intelligence Agency's conclusion that the mobile laboratories uncovered in Iraq were used for making biological weapons [see 28 May]. An

INR memorandum, dated 2 June, had stated, according to an unidentified official, that it was premature to conclude that the trailers were evidence of a biological weapons programme.

30 June The US Assistant Secretary of Defense for Health Affairs, Dr William Winkenwerder Jr, announces completion of the Defense Department "investigation into the 1962-1973 Deseret Test Center operational chemical and biological warfare testing done under Project 112" [see 31 Oct 92]. The investigation, which had been initiated in August 2000, included what later came to be known as Project SHAD [see 9 Oct 92]. Ten new fact sheets are issued, bringing the total number to 56, and two previously issued ones are updated. This activity has been in response to complaints lodged by veterans involved in the tests who attribute to them their present ill health. The Defense Department states that the fact sheets "present health-related information on all chemical and biological tests done by the Deseret Test Center under Project 112". Its investigators are now reported as confirming that 134 operational tests had been planned, of which 50 were conducted and 84 cancelled. The tests were performed on the open sea in the North Atlantic, open water locations of the Pacific Ocean and near the Marshall Islands, Hawaii, Baker Island, Puerto Rico and the coast of California; and there were land-based tests in Alaska, Hawaii, Maryland, Florida, Utah, Georgia and in Panama, Canada and the United Kingdom. The investigators have identified 5,842 servicemembers as having been present in one or more of the tests.

Project 112 was one of about 150 projects that incoming US Defense Secretary Robert McNamara initiated in January 1961 with the aim of furnishing him with a detailed appraisal of US military capabilities at that time. According to a June 1962 publication by the US Army Chemical Corps Historical Office, DoD Project 112 had as its objective "the evaluation of the potentialities of chemical and biological weapons both for use as strategic weapons and for limited war application". Although the investigation fact-sheets focus on health aspects "without jeopardizing operational details that still have military significance", taken together, they constitute an unparalleled public record of a central feature of the old US offensive CBW programme.

1 July In Tajikistan, President Emomali Rahmanov abolishes the death penalty for women and reduces from fifteen to five the number of crimes for which the death penalty can be applied. Among the five remaining capital offences are crimes involving nuclear, biological or chemical weapons.

1 July In Geneva, the Geneva Forum hosts a seminar on *The BTWC Work Programme (2003-2005): What Does It Mean and What Can It Achieve?* Presentations are made by Trevor Findlay of VERTIC, Kathryn McLaughlin of the Landau Network – Centro Volta, Elisa Harris of the University of Maryland, Terence Taylor of the IISS and Jean-Pascal Zanders of the BWPP.

1 July In the UK, the current issue of the *Journal of the Royal Society of Medicine* carries an article on "influenza as a bioweapon" in the light of the ongoing work to sequence the genome of the 1918 Spanish flu virus. The authors of the article state: "Sequencing of the genome of the 1918 Spanish influenza virus is nearly complete; once it is published, unscrupulous scientists could presumably utilize candidate virulence sequences. Recently, the possibility of synthesizing an infectious agent [see 11 Jul 02] solely by following instructions from a written sequence has moved from theory to practice." They go on: "Taken together with the fact that influenza virus is readily

accessible and may be causing more deaths than previously suspected, the possibility for genetic engineering and aerosol transmission suggests an enormous potential for bioterrorism." Among the proposals put forward by the authors is that the World Health Organization and the Centers for Disease Control and Prevention should bring together experts in influenza, bioterrorism, health policy, international law and ethics to study the problem.

1 July UNMOVIC Deputy Executive Chairman Demetrius Perricos [see 10 Jun] becomes Acting Executive Chairman of the Commission following the retirement a day earlier of Hans Blix. Two days later, the Swedish Minister for Foreign Affairs Anna Lindh announces that Blix is to chair a new independent international commission on weapons of mass destruction. According to Lindh: "The purpose of the commission is to provide new impetus to the international efforts involved in disarmament and non-proliferation of weapons of mass destruction and missiles. The commission will be formed during the autumn of 2003 under the chairmanship of Hans Blix and plans call for their recommendations to be submitted in 2005."

1 July In the US, United Press International publishes the results of a two-month investigation into federal plans to substantially increase the number of laboratories undertaking biodefence work and the growth of local opposition to such plans. According to UPI, there are approximately 20 existing high-containment laboratories and proposals or plans to double that number through new construction and upgrades.

1 July In Spokane, Washington State, the trial begins of Kenneth Olsen [see 8 Apr] who is charged with plotting to use ricin to kill his wife. Investigators found about 3 grams of ricin powder in two test tubes and a jar in Olsen's locked file cabinet, enough to kill from 75 to as many as 7,500 people, depending on how it was delivered, Assistant US Attorney Stephanie Whitaker says. "The evidence will show Kenneth Olsen had no peaceful purpose in mind," Whitaker told jurors during opening arguments. "Kenneth Olsen produced and possessed ricin with every intent of using it to harm someone." Olsen has been jailed without bail since his arrest [see 19 Jun 02].

2 July In the UK House of Commons, Secretary of State for Defence Geoff Hoon is asked about the role of the Royal Navy and the Royal Air Force in the recently-established Proliferation Security Initiative [see 12 Jun]. Hoon responds that: "The initiative is at a very early stage, and no decisions have yet been taken on the involvement, if any, of armed forces. Any contributions by the armed forces of the UK would be consistent with their obligations under international law."

2 July In Torquay, UK, the annual conference of the British Medical Association backs a demand for measures to be put in place to deal with a chemical or bioterrorist attack. Doctors complain that they had little preparation and resources to tackle people suspected of being infected with SARS. The BMA's board of science is preparing a report on bioterrorism and how to deal with outbreaks of disease to be published next year.

2 July In the US, the Office of Management and Budget writes to the Senate Appropriations Subcommittee on Labor, Health and Human Services and Education outlining a plan which would take money from other projects, including AIDS research, and spend it instead on the procurement of a next generation anthrax vaccine. In its FY03 budget request [see 4 Feb 02], the Administration had requested \$233 million for the development of the vaccine but Congress denied the request. However, the

National Institute of Allergy and Infectious Diseases has now been told to make up the shortfall by cutting other programmes. The cuts will mean that 375 NIAID-funded researchers will lose the initial six months of their grants.

2 July In the US, *The New York Times* reports the previously undisclosed information that the defence contractor Science Applications International Corporation, with funding from the Defense Threat Reduction Agency, had begun to construct a mobile biological weapons production facility in 2000 following reports that Iraq might be developing such facilities. According to the newspaper, the trailer was to be used to train special forces in the detection and disarmament of such vehicles. The newspaper states that the trailer was indeed used from late 2002 for such purposes by Delta Force soldiers in training for the invasion of Iraq.

The New York Times additionally reports that the main SAIC employee working on the trailer project was Steven Hatfill, who has since been named as a "person of interest" by the FBI in its investigation into the anthrax episodes of late 2001. According to the newspaper, Hatfill continued working on the trailer even after being fired by SAIC in March 2002. The newspaper quotes a spokesman for US Special Operations Command as saying: "We are not growing anthrax or botulinum toxin. None of this equipment is functional. It looks like – it is – the real stuff, but it's non-functional."

3 July In Tirana, the Albanian parliament adopts a draft law on the prevention and development of the production and use of chemical weapons and their destruction.

3 July In the UK, Home Secretary David Blunkett announces that the UK and US will stage a joint counter-terrorism exercise in 2005. Blunkett also confirms that a postponed exercise simulating a chemical terrorist attack on the London Underground has been rescheduled for the autumn.

3 July In Canada, Minister of National Defence John McCallum announces the award of a C\$1.4 million contract to conduct an archival review to locate sites across the country where chemical or biological agents may have been disposed of or destroyed. A Department of National Defence spokesman says: "We're looking at the issue, an historical issue to ensure that our past activities aren't impacting human health or the public safety or the environment right now."

3 July In the US, President George Bush transmits to Congress a periodic report on the national emergency regarding proliferation of weapons of mass destruction originally declared by President Clinton in Executive Order 12938 [see 14 Nov 94] and extended every year since then. The report covers activities and expenditure during the period from 13 November 2002 until 14 May 2003. The report declares that "weapons of mass destruction in the hands of potential adversary states and terrorists are among the top threats to US security in the Post-Cold War world. In such hands, these weapons pose direct threats to the United States, its forces, friends and allies." On the CWC, the report notes that the US has hosted approximately one-third of OPCW inspections and two-thirds of total inspection days. On the BWC, the report states that: "The United States is actively engaged in preparing for the first annual meeting of States Parties in August 2003, preceded by a meeting of experts. ... [W]e are hopeful that the August 2003 meeting will result in encouraging national efforts that could contribute to reducing the BW threat." On specific countries, the report repeats claims from previous US government reports on CBW programmes in Iran, Syria, Libya and North Korea, a CW programme in Sudan,

a "limited, developmental, offensive biological warfare research and development effort" in Cuba and notes that "Operation Iraqi Freedom is underway to disarm Iraq's CBW program."

3 July In the US, an internal review of the assessments of Iraqi weapons of mass destruction programmes which the CIA provided to the Administration reveals that analysts lacked current data and instead relied on information from the early and mid-1990s, so it is reported. The four-person review panel, headed by former CIA deputy director Richard Kerr, found that the post-1998 evidence was largely circumstantial or "inferential". However, the panel also found that the judgement that Iraq continued to possess weapons of mass destruction appeared justified: "It would have been very hard to conclude those programs were not continuing, based on the reports being gathered in recent years about Iraqi purchases and other activities before the war." On links between the Iraqi regime and al-Qaeda, an unidentified CIA official is quoted as saying that "it was not at all clear there was any coordination or joint activities".

4 July From OPCW headquarters, the Technical Secretariat announces the release of the latest version of the OPCW Central Analytical Database on CD-ROM. The CD includes the fourth version of the electronic database containing mass spectrometry data and the sixth version of the scanned-hard-copy database containing mass spectrometry, infrared spectrometry, gas chromatography retention indices and nuclear magnetic resonance spectrometry data.

4 July In the UK, Secretary of State for Foreign and Commonwealth Affairs Jack Straw publishes his response to the report of the House of Commons Foreign Affairs Committee on *The Biological Weapons Green Paper* [see 6 May]. The response states that from "a practical and policy perspective it is now perhaps more important to focus on the new Biological Weapons Convention (BWC) follow-up work programme". As requested by the Committee, the response lists 48 countries which indicated at the 24th session of the Ad Hoc Group [see 25 Jul 01] that they supported the Chairman's composite text as the basis for concluding the Group's work. The Secretary of State's response includes the following: "The UK continues to support the principle of the need to strengthen the BWC through detailed implementation/verification arrangements, but as long as there is no prospect of the US Administration accepting the need for such a Protocol, the UK will not support its establishment; such a Protocol would be meaningless, create a false sense of security and impose an unfair burden on our industry and biodefence programmes which would not be borne elsewhere." It continues: "The Government's judgement remains, ... that it is not politically feasible to resurrect the Protocol given the strong opposition in Washington, as well as the continuing reluctance of many others to move forward without the US. For these reasons it would not be a productive use of time and effort to work for such an unlikely outcome. Expending effort here could well prejudice the chances of a successful outcome of the August Experts' meeting by provoking the US to reassess its policy, and by taking the pressure off other States Parties to meet their obligations to implement legislation and biosecurity."

7 July In Japan, a health ministry task force has recommended that smallpox, botulism, tularaemia and other illnesses should be added to a list of infectious diseases subject to special measures to cope with possible bioterrorist attacks. Diseases on the list require careful monitoring and may demand measures such as forced hospitalization and halting traffic in affected areas. The current law emphasizes the prevention of natural outbreaks, but the Health, Labour and Welfare Ministry

wants the diseases added to the list in the light of current concerns about bioterrorism. The Ministry plans to submit an amendment based on the task force's report to the Diet later in the year.

7 July In Thailand, the Thai Red Cross Society and the US Office of Anti-Terrorism Assistance jointly host the first US-sponsored medical training course outside of the US on dealing with weapons of mass destruction casualties. During the five-day course, more than 120 Thai medical personnel receive training in detection, identification and protection against WMD, hospital management and how to handle the victims.

7 July In the UK, the House of Commons Foreign Affairs Committee releases its report on *The Decision to go to War in Iraq* [see 17 Jun]. On the Iraq dossier released by the Government in 2002 [see 24 Sep 02], the Committee concludes that it was "probably as complete and accurate as the Joint Intelligence Committee could make it, consistent with protecting sources, but that it contained undue emphases for a document of its kind. We further conclude that the jury is still out on the accuracy of the September dossier until substantial evidence of Iraq's weapons of mass destruction, or of their destruction, is found." On Iraq's alleged chemical and biological weapons, the Committee concludes that "it is too soon to tell whether the Government's assertions on Iraq's chemical and biological weapons will be borne out" and recommends that the Government sets out whether it still believes its assertions were accurate, in the light of subsequent events. The Committee concludes that the claim that Iraq could deploy chemical and biological weapons in 45 minutes "did not warrant the prominence given to it in the dossier, because it was based on intelligence from a single, uncorroborated source." The Committee also concludes "that, in the absence of reliable evidence that intelligence personnel have either complained about or sought to distance themselves from the content of the dossier, allegations of politically inspired meddling cannot credibly be established."

7 July In the UK, the Ministry of Defence issues *Operations in Iraq: First Reflections*, its initial report on the lessons learned from the invasion of Iraq, in which the Ministry admits that there was "a lack of clear information" on whether Iraq was able to use weapons of mass destruction. The report states: "Although we knew much about the broad structure and disposition of Iraqi land and air forces, very little was known about how they planned to oppose the coalition or whether they had the will to fight. ... It was judged that the regime might use theatre ballistic missiles and possibly weapons of mass destruction if it could make the capabilities available for operational use." On the Iraq Survey Group [see 30 May], the report says: "Building on the knowledge we had of Iraqi programmes prior to the war, the exploitation of physical material recovered in theatre, and the interviewing of Iraqi scientists, technicians and other personnel, the Iraq Survey Group is working hard to identify and exploit all possible intelligence leads relating to WMD. A key objective is to increase our understanding of how the WMD programmes operated. The more we understand about the nature of these programmes and the full extent of the methods used by the Iraqi regime to conceal this activity from the world, the easier it will be to eliminate all remnants of WMD infrastructure and materials in Iraq. The UK will continue to provide all support possible to the search for, and destruction of, Iraqi WMD. The task of gathering and collating evidence from all sources is expected to be a long and complex task."

8 July In Maputo, Mozambique, OPCW Director-General

Rogelio Pflirter meets with foreign ministers of the African Union on the sidelines of the AU Ministerial Council meeting. The Director-General and the foreign ministers discuss aspects of cooperation between African countries under the CWC.

8 July The French health and research ministries release a report by a Professor Didier Raoult of the faculty of medicine at the University of Marseille, which criticizes France's preparations for responding to a biological weapons attack. The report – commissioned by the said ministries on 27 June – states that it is essential that high-level research be undertaken into post-attack spread of infection. The report states that "the country has shown in recent years a limited ability to deal with the problem of infectious diseases, which means it is one of the least prepared for the problem of a massive epidemic."

8 July In the UK House of Commons, Parliamentary Under Secretary of State and Minister for Veterans Ivor Caplin says that the Ministry of Defence has appealed against a decision of the Pension Appeals Tribunal [see 13 Jun] in the case of Shaun Rusling because "the overwhelming consensus of medical and scientific opinion is that the symptoms reported by some Gulf veterans do not constitute a discrete disorder."

8 July In the UK, the Crown Prosecution Service announces that there will be no criminal prosecutions relating to allegations made about experiments carried out on human volunteers at Porton Down from 1939 to 1989 [see 24 Mar 02]. In a press release, the Service says that it has "given thorough and careful consideration to all the evidence submitted in a number of sample cases and has decided that it is insufficient to prosecute in those cases. Inquiries continue in one further case." A press release from Wiltshire Constabulary, the force which had conducted the initial investigation codenamed Operation Antler [see 28 Feb 02], says that the Chief Constable has written to the more than 700 former Service personnel, or their next of kin, who have had contact with the investigation outlining the investigation and the result of the CPS decision. The Chief Constable's letter reportedly says that a crucial piece of evidence, the poster calling for volunteers to come to Porton Down to help find a cure for the common cold, had not been found. The CPS decision angers veterans groups, some of whose members might consider bringing civil actions. The chairman of the Porton Down Veterans Support Group, Ken Earl, says: "I am very disappointed but not entirely surprised. I am particularly disappointed for the veterans who have been treated so shabbily by a government which they served without question."

8 July In the UK, the Ministry of Defence issues a statement revealing that "an individual working in the MOD has come forward to volunteer that he met Andrew Gilligan of the BBC on May 22." The statement says that the Ministry does not know whether the individual is the single source quoted in Gilligan's earlier controversial reports [see 29 May and 1 Jun] alleging that the government's dossier on Iraq [see 24 Sep 02] was "sexed up" shortly before it was published. The statement goes on to describe the individual in some detail as "an expert of WMD who has advised ministers on WMD and whose contribution to the Dossier of September 2002 was to contribute towards drafts of historical accounts of UN inspections. He is not 'one of the senior officials in charge of drawing up the dossier'. He is not a member of the Intelligence Services or the Defence Intelligence Staff." The statement concludes that the Ministry intends, with the individual's consent, to give his name in confidence to the Chairman of the Parliamentary Intelligence and Security Committee should the Committee want to interview him as part of its inquiry. The MOD statement is widely reported

in the national press on the following day.

One day after the original MOD statement, Downing Street provides specific personal details allowing journalists to identify the individual whose name is subsequently confirmed by the MOD. Dr David Kelly, an adviser to the Ministry's Counter-Proliferation and Arms Control Secretariat is a former UNSCOM chief inspector and was heavily involved in the trilateral inspections in Russia. An unidentified MOD spokesman is quoted as saying: "He is the man who came forward to us. Whether or not he is the source Gilligan talks about, that is a matter for the BBC to confirm." The BBC, however, refuses to confirm or deny that Dr Kelly was the source for the story. During a private meeting, the House of Commons Foreign Affairs Committee, which has only recently published its report on *The Decision to go to War in Iraq* [see 7 Jul], decides to call Dr Kelly to give evidence before it.

8 July In the US, the Army decides not to construct a neutralization plant at the Anniston chemical weapons storage facility as a backup to the depot's incinerator as requested by local officials. The chemical weapons stored there will instead be destroyed solely by incineration. In denying the request, US Army Colonel Nancy Ray says that a neutralization facility would take five years to construct and staff and that such facilities have not been found to be safer than incinerators.

8 July In the US, the Partnership for Public Service, which describes itself as "a non-partisan, non-profit organization dedicated to revitalizing public service", publishes *Homeland Insecurity: Building the Expertise to Defend America from Bioterrorism*, a report that highlights a shortage of medical and scientific expertise in five key federal agencies – the Centers for Disease Control and Prevention, the National Institute of Allergy and Infectious Diseases, the Food and Drug Administration, the Animal and Plant Health Inspection Service and the Food Safety and Inspection Service. The report is based on a year-long series of interviews and data analysis by the Partnership for Public Service. According to the report: "Based on our interviews with officials from these agencies and other areas of biodefense research, we found that the federal employees responsible for our defenses against bioterrorist attacks constitute a 'civilian thin blue line' that is retreating both in terms of capacity and expertise." Partnership president Max Stier says at a press conference to launch the report: "We need a Manhattan Project-like commitment to our biodefense, seeking out and cultivating the best minds in science and medicine to ensure America's safety."

9 July In the US, Secretary of Defense Donald Rumsfeld testifies before the Senate Armed Services Committee. On the reasons for the invasion of Iraq, Rumsfeld says: "The coalition did not act in Iraq because we had discovered dramatic new evidence of Iraq's pursuit of weapons of mass destruction. We acted because we saw the evidence in a dramatic new light – through the prism of our experience on 9/11. On that day, we saw thousands of innocent men, women and children, killed by terrorists. And that experience changed our appreciation of our vulnerability – and the risks the US faces from terrorist states and terrorist networks armed with weapons of mass murder." On the search for Iraq's alleged weapons of mass destruction, Rumsfeld says: "We are still early in the process, and the task before us is sizable and complex. Major combat operation ended less than 10 weeks ago. The Iraqi regime had 12 years to conceal its programs – to move materials, hide documents, disperse equipment, develop mobile production facilities and sanitize known WMD sites – including four years with no UN weapons inspectors on the ground. Uncovering those programs will take time."

9 July In the US House of Representatives, Acting Assistant Secretary of State for International Narcotics and Law Enforcement Affairs Paul Simons testifies before the Committee on Government Reform. Simons testifies that overall coca cultivation in Colombia in 2002 declined by 15 per cent as "the direct result of the robust US-assisted aerial eradication program" [see 13 Jun]. Under that programme, over 122,000 hectares of coca were sprayed in 2002, a 45 per cent increase on 2001, and all coca and opium poppy in Colombia are due to be sprayed by the end of 2003.

9 July In Washington DC, at the National Press Club, the Arms Control Association convenes a press briefing on *Iraq's Weapons of Mass Destruction: Reassessing the Prewar Assessments* at which a former State Department intelligence official says that the Bush Administration misrepresented and hyped the threat from Iraq. Greg Thielmann, Director of the Office of Strategic, Proliferation and Military Affairs in the Department's Bureau of Intelligence and Research until September 2002, says that he believes "the Bush Administration did not provide an accurate picture to the American people of the military threat posed by Iraq. Some of the fault lies with the performance of the intelligence community, but most of it lies with the way senior officials misused the information they were provided." Thielmann continues, "This administration has had a faith-based intelligence attitude. It's top-down use of intelligence; 'we know the answers, give us the intelligence to support those answers.'" Thielmann also says that "Iraq's chemical and biological weapons programs, while illegal and potentially dangerous, were apparently directed at contingent rapid production capabilities rather than maintaining ready stockpiles."

9 July In the US, the next generation anthrax vaccine is about to enter four separate clinical trials, so it is reported. The trials are based on the recombinant protective antigen vaccine developed at the US Army Medical Research Institute of Infectious Diseases and the Defence Science and Technology Laboratories in the UK. Two trials are already underway, by VaxGen in California and by the National Institute of Allergy and Infectious Diseases, USAMRIID and the Joint Vaccine Acquisition Program in Maryland, which both use protective antigen grown in a non-virulent strain of *Bacillus anthracis*. Two further trials, one by the UK company Aveccia and one by US company Dynport, use a protective antigen grown in *E. coli*.

9-10 July In Brisbane, there is the second [see 12 Jun] meeting of the Proliferation Security Initiative. The meeting is opened by Australian Foreign Minister, Alexander Downer who says: "[T]he handful of maverick states seeking to acquire weapons of mass destruction and the missiles needed to deliver them are a real and growing menace. There are also deeply troubling indications of cooperation between states unwilling or unable to implement effective export controls or domestic laws against WMD development. Such states defy the non-proliferation disciplines most countries accept. Their behaviour undermines international security and causes deep concern to the broader international community." He also says: "Regrettably, the United Nations Security Council's record on defending nonproliferation standards is patchy at best. ... The Security Council must step up to the mark. The Council should leave no doubt that its actions will live up to the statement by its President on 31 January 1992 that the proliferation of all weapons of mass destruction constitutes a threat to international peace and security."

According to a chairman's statement summarizing the outcomes of the meeting, it "built on the results from the Madrid meeting and moved forward in translating the collective political

commitment of PSI members into practical measures.” In particular, the meeting “focused on defining actions necessary to collectively or individually interdict shipments of WMD or missiles and related items at sea, in the air or on land. Participants emphasised their willingness to take robust and creative steps now to prevent trafficking in such items, while reiterating that actions taken would be consistent with existing domestic and international legal frameworks.” Participants at the meeting agreed in principle to the concept of a series of interdiction training exercises, to take place as soon as practicable. Although consisting of only 11 states at the moment, the participants “aim to involve all countries that have the will and ability to take action to address this menace. It also will be crucial to involve countries that are key flag, coastal or transit states, and others that are used by proliferators in their WMD and missile trafficking efforts.”

The participants also agree to a further high-level meeting in September.

10 July From Palestine, the Ramallah *al-Ayyam* reports that Israeli soldiers violently suppressed a strike by female prisoners protesting against the increasing practice of open-ended solitary confinement in the Ramle prison. In one incident, Israeli soldiers reportedly forced open the mouth of one woman prisoner to make her inhale more tear gas.

10 July In Moscow, an adviser to the director-general of the Russian Munitions Agency says that “Russia never had and does not have biological weapons stockpiles. That is why any biological militarization or biological disarmament are out of the question.” Oleg Ignatyev is speaking during a workshop at the World Economy and International Relations Institute. Ignatyev also says “Russia did research on biological weapons. It spoke about it back in 1992. But no stockpiles of biological weapons have ever existed in Russia.”

10 July In the UK House of Commons, Minister of State for the Armed Forces Adam Ingram answers a question as to what political control provisions and ethical guidelines are in place for public sector bodies and their subcontractors who are testing and evaluating less-than-lethal weapons. Ingram replies: “All weapons procured by the Ministry of Defence are subject to legal review in accordance with Article 36 of the 1977 First Additional Protocol to the 1949 Geneva Conventions and all new weapons and means and methods of warfare are reviewed to confirm their acceptability relative to the United Kingdom’s obligations under the law of armed conflict. There are no exemptions for legal review for non-lethal or less-lethal weapons. The main ethical consideration in evaluating such weapons derives from the potential effects on personnel taking part in testing. All evaluations involving human volunteers are subject to ethical constraints, specified in the Guidelines of the Royal College of Physicians. All MOD trials need to be approved by a MOD ethics committee following these guidelines. Trials involving subcontractors are approved by a committee formed by that subcontractor.”

10 July From London, the BBC and Reuters report that unidentified “very senior sources” in the Government have revealed that weapons of mass destruction are “unlikely to be found” in Iraq. According to the reports, Government officials now believe that the Iraqi regime destroyed or hid its weapons of mass destruction before the US-UK invasion and that ongoing investigations in Iraq will turn up interviews with scientists and documentation. While the officials believe that it is still possible that the Iraq Survey Group will uncover some weapons, they are

preparing the ground for that not to be the case, according to the BBC. However, a Downing Street spokesman denies the reports: “The Prime Minister was also absolutely confident that we would find evidence not only of Saddam’s WMD programmes, but concrete evidence of the products of those programmes as well.”

10 July In the UK, OpenDemocracy.net publishes a wide-ranging interview with former UNSCOM and OPCW senior official Ron Manley in which he says that his assessment of Iraq’s chemical weapons programmes prior to the US-UK invasion was “the Iraqis could have some chemical weapons – indeed, I’m surprised that they have found absolutely nothing so far – but not militarily significant ones. ... I don’t know anybody who seriously believes that the Iraqis have had militarily significant CW capabilities since 1991.” Asked specifically whether the Iraqis had proximity fuzing, Manley replies: “We never found any evidence of proximity fuzing. I wasn’t there after 1995, of course, so I can’t say from direct experience what they did after that, but I haven’t seen any reports that they had acquired proximity fuzing technology.” With regard to the accuracy of intelligence reports, Manley says: “Part of the problem is that you can count on the fingers of two hands the number of people within the NATO alliance who actually have a real practical knowledge of these issues. It’s therefore highly probable that most of the people in the intelligence services these days do not have such knowledge. For example, I’m the youngest person in the United Kingdom, as far as I am aware, to have worked with bulk chemical agents, and I’m over 60.”

Asked about the claim in the UK Government dossier that Iraq had the technology to stabilize nerve agents, Manley answers: “I know what the dossier says and I agree that they understood the principles of stabilisation of chemical agents. I am not aware, however, that we have any evidence that they actually put this knowledge into practice. Before you can stabilise a nerve agent you have to make it more than 95% pure, and we have no evidence of any kind to suggest that Iraq could produce agent to that standard. ... Personally, I think the dossier may be referring to mustard gas. We know the Iraqis are capable of making mustard gas of a very good quality, and that they knew how to stabilise it. However, I would stress we sampled and analysed all of the mustard gas that we came across, and, to my knowledge, we never found any that had been stabilised. It doesn’t mean there wasn’t any.”

Asked whether the Iraqis used VX at Halabja, Manley replies: “No. There are many debates about what was used at Halabja. My own view is that the Iraqis used an agent called tabun, which is one of the first of the nerve agents to be produced, by the Germans in the 1930s. Tabun is difficult to make. One of the final steps involves the use of sodium cyanide, and it is hard to remove this to obtain pure tabun. The Iraqis never did that successfully. Their tabun was therefore heavily contaminated with cyanide.” Manley continues: “I know something about VX. The reason VX is not easy to produce is because the chemistry is incredibly difficult. I think the Iraqis never cracked the process to produce a good quality VX. Some, maybe, and it would, at best, probably have been no more than 50-60% pure and would have deteriorated very quickly. Even if they had made it by 1991 it would be absolutely useless by now.”

Manley is also asked about negotiations under former OPCW Director-General José Bustani aimed at getting Iraq to join the CWC, for which Bustani was criticized by the Bush Administration. Manley says: “A lot of people within the OPCW were ambivalent about Iraq joining. ... I’m not sure that even José Bustani was 100% sure whether he wanted them in or not. He could see the benefits, but he could also see the disadvantages.” Asked why the US pushed for Bustani’s

dismissal, Manley answers: "We created an organisation which was more effective than the member states were ready for. Some of them started getting worried about that. I doubt that you will ever find anybody to admit that but it's my personal view. In fairness the real problems for Bustani appeared to stem from the change of administration in the US at the end of 2000. ... It seems to me that the Bush administration is not really interested in multilateral arms control regimes. Perhaps they feel that the benefits are outweighed by the disadvantages – in other words, the impact on the US military programme and on their own bilateral negotiation process with other countries. A dynamic and intrusive OPCW may, in their view, not be compatible with this. So José Bustani had to go. They tried to change his approach – to get him to tone down, but you're not going to change José's approach to things when he thinks he's right."

Manley continues: "But only the American Administration knows what their real reasons were for removing Bustani. Personally I think Iraq was a pretext rather than the real reason. I accept that they didn't like what was happening between the OPCW and Iraq, and that was used as a reason to persuade the administration that maybe Bustani should go, but I think it's much deeper than that, they wanted a different kind of organisation."

Manley concludes his comments as follows: "My personal concern now is about the potential weakening of the verification regime. I think there is a tendency to try and cut back on the verification regime in some cases for the sake of costs but in others because it is more intrusive than some would like. I think the greatest thing about the OPCW has been its verification regime. It is vital to maintain it and even strengthen it further. Will it guarantee there are no chemical weapons? Of course not, but what it has done is to allow member states to get used to having international inspectors on their territory, visiting facilities and, although it's not perfect, it makes it much more difficult for countries not to comply."

11 July From Germany, work published today in *Science* by a team from the University of Göttingen suggests that another possible means for reducing the lethal hazard of fentanyl-based 'calmatives' may become available. The publication shows that the neurons in the rat brain responsible for the respiratory depression that is the proximal cause of much lethality in opioid overdoses also express at high level a particular class of serotonin receptor. An agonist drug that binds specifically to this class of receptor, the benzimidazole BIMU8, was found to block respiratory depression by fentanyl without interfering with its analgesic effect. Not yet known, however, is what else those receptors do besides stimulating respiration.

11 July In the UK House of Commons, Prime Minister Tony Blair is asked which official and which minister took the decision to "insert" the 45 minutes claim in the foreword and the executive summary of the government's Iraq dossier as well as into the draft of his speech to the House of Commons [see 24 Sep 02]. Blair replies: "The dossier, including the executive summary, was drafted by the chairman of the Joint Intelligence Committee and his staff, and they were responsible for including the 45 minutes intelligence. The foreword was prepared by my staff in Downing street in the normal way. It was signed off by me, but members of the JIC had the opportunity to comment on it. My speech to the House of Commons was written in the normal way and reflected what was in the September 2002 dossier which was being debated in the House on 24 September 2002."

14 July In Tokyo, prosecutors announce that they will seek the death penalty for Masami Tsuchiya, a former senior Aum Shinrikyo cult member. Tsuchiya is accused of murder, attempted murder and other crimes in relation to the sarin attacks in

Matsumoto and Tokyo. He is also charged in five other cases, including three incidents in which VX was used to kill or harm people. Tsuchiya has admitted to producing sarin and VX [see 26 Sep 96] but, in his defence, he says of the Tokyo attack "I have doubts about whether the sarin I produced was used" and of the Matsumoto attack "The liquid we dispersed did not contain sarin gas".

15 July In the UK House of Commons, the Foreign Affairs Committee reopens its inquiry into the decision to go to war in Iraq in order to hear evidence from Dr David Kelly, a senior adviser on biological weapons in the Ministry of Defence whose name had been leaked to the press by the Ministry [see 8 Jul] after he had voluntarily admitted to having met with BBC reporter Andrew Gilligan. Dr Kelly says that "my belief is that I am not the main source" as he did not say some of the remarks attributed to him by the reporter. Of the meeting, Dr Kelly says: "[I]t was an occasion on which I expected to get information about Iraq, about some of the personalities that he either had encountered or attempted to encounter, his experiences during the war itself and the experiences he had with Iraqi minders when he was acting as a journalist before the war." Dr Kelly goes on to say of Gilligan's account of the meeting: "It is not a factual record of my interaction with him, the character of it, which is actually difficult to discern from the account that is presented there. It is not one that I recognise as being conversations I had with him. There was one part of it which alerted me to that, which was the comment about the 30 per cent probability of Iraq actually possessing chemical weapons, that is the sort of thing I might have said to him." On Iraq's failure to use chemical or biological weapons during the invasion, Dr Kelly says: "Basically early on in the war the weather conditions were such that you could not possibly consider the use of chemical and biological weapons and later in the conflict command and control had collapsed to such a state that you still would not be able to use them." Later in the day, Dr Kelly also appears before the parliamentary Intelligence and Security Committee.

The Chairman of the Foreign Affairs Committee, Labour MP Donald Anderson, later writes to Secretary of State for Foreign and Commonwealth Affairs Jack Straw saying: "The Committee deliberated after hearing Dr Kelly's evidence, and asked me to write to you, expressing their view that it seems most unlikely that Dr Kelly was Andrew Gilligan's prime source for his allegations about the September dossier on Iraq. Colleagues have also asked me to pass on their view that Dr Kelly has been poorly treated by the Government since he wrote to his line manager, admitting that he had met Gilligan."

15 July In the US, a scheduled hearing on Syria's weapons of mass destruction programmes convened by the Middle East and Central Asia Subcommittee of the House of Representatives International Relations Committee is postponed, reportedly because of a dispute within the intelligence community over some of the claims in a statement due to be given by Undersecretary of State for Arms Control and International Security John Bolton. According to unidentified officials, Bolton was preparing to tell the Subcommittee that Syria's development of biological, chemical and nuclear weapons had progressed to such a point that they posed a threat to stability in the region. However, the CIA and other intelligence agencies reportedly said that assessment was exaggerated. The CIA's objections and comments on the draft statement apparently ran to 35 to 40 pages. According to unidentified sources cited in the Beirut *Al-Safir*, Bolton was to focus on programmes for manufacturing chemical weapons in Syria as well as programmes to build Scud-B and Scud-C missiles with chemical warheads. According to an unidentified "senior administration official" quoted in the

Jerusalem Post, "there were conflicting opinions within the intelligence community. Some agreed with Bolton and some didn't, and trying to reconcile the differences in a few hours was just not possible." However, an aide to Bolton said that the testimony was postponed because Bolton was called to a meeting at the White House and that the session had been rescheduled for September.

16 July In Geneva, the Administrative Tribunal of the International Labour Organization rules that the decision of the first special session of the CWC Conference of the States Parties to dismiss José Bustani [see 22 Apr 02] should be set aside. As Bustani is not seeking reinstatement, the Tribunal orders the OPCW to pay him material damages comparable to his salaries and emoluments between 22 April 2002 and 12 May 2005, moral damages of •50,000 and costs of •5,000. Bustani subsequently describes the ruling to the Associated Press as a "great relief", saying that he will donate his moral damages to the international cooperation programmes of the OPCW. In its ruling, the Tribunal reaffirms that "the independence of international civil servants is an essential guarantee, not only for the civil servants themselves, but also for the proper functioning of international organisations. In the case of heads of organisations, that independence is protected, *inter alia*, by the fact that they are appointed for a limited term of office." The ruling continues that to concede that the appointing authority (ie the Conference of the States Parties) can also terminate an appointment would constitute "an unacceptable violation of the principles on which international organisations' activities are founded ..., by rendering officials vulnerable to pressures and to political change."

16 July In the US House of Representatives, legislation to implement Project BioShield [see 3 Feb] is passed. The *Project BioShield Act of 2003* (HR 2122) [see 15 May] is passed by a vote of 421-2. President George Bush applauds the move, saying: "This legislation will help spur the development and availability of next-generation countermeasures against biological, chemical, nuclear and radiological weapons. I urge the Senate to act on this very important legislation." The plan is stalled in the Senate where it is yet to be decided whether the \$5.6 billion funding for the programme should be allocated in one lump sum or annually.

17 July In the UK, BBC reporter Andrew Gilligan testifies again [see 19 Jun] before the House of Commons Foreign Affairs Committee as part of its inquiry into *The Decision to go to War in Iraq*, this time in private. Gilligan's second appearance has been requested by the Committee to give the reporter an opportunity to identify the source of his earlier controversial reports [see 29 May and 1 Jun] and in the light of the evidence given by Dr Kelly [see 15 Jul]. However, Gilligan refuses to give any information whatsoever about his source, even refusing to confirm facts provided by Dr Kelly. After the session, the Committee issues a statement which includes the following: "In the view of the Committee this was an unsatisfactory session with a most unsatisfactory witness. Mr Gilligan clearly changed his ground in the course of the evidence: in particular, in relation to serious allegations concerning Mr Campbell, Director of Communications at Number 10, and any responsibility of Mr Campbell for the insertion of the '45 minute point' in the Dossier of September 24 2002. Potentially there is a grave danger of unfairness to Mr Campbell as a result. On this point the press and the public can make up their own minds when the full transcript is available which will be done as soon as Mr Gilligan has had an opportunity to correct it." The transcript is not in fact made public, as Gilligan later requests that it should not enter the public domain, reversing his position during the session.

17 July In Spokane, Washington, the US District Court accepts a jury's finding of a guilty verdict against Kenneth Olsen [see 1 Jul] on two charges brought by the US government: one count of possessing a biological weapon and one count of possessing a chemical weapon. In both cases the weapon was the substance ricin.

Olsen was first charged under Title 18, US Code Sections 175-78, the *Biological Weapons Anti-Terrorism Act*, the US BWC-implementing legislation commonly referred to as BWAT. His acts predated changes to BWAT, mandated by the USA Patriot Act 2001, which changed the nature of the affirmative defence therein. These changes provide that the possession of a biological material, variously defined within Title 18 US Code Section 178, is presumed to be for purposes of using, making or attempting to use or make or conspiring to use or make a biological weapon unless the defendant can prove that his possession was for prophylactic, protective, or bona fide research purposes or for other peaceful purposes. Accordingly, acts that date from 26 October 2001 forward are presumed to be in violation of the Act unless the defendant proves otherwise. Olsen's acts occurred during the summer 2001 and were prosecuted accordingly. His affirmative defence was that he possessed ricin as a by-product of his research into novel formulations for massage lotions.

Olsen was later charged under Title 18 US Code Section 229, the Chemical Weapons Statute. The statute criminalizes simple possession of a chemical weapon, the definitions of which map the text of the Chemical Weapons Convention. The legislative history for the statute indicates that the intent of Congress was to make acts in respect of Schedule 1 toxic chemicals under the Chemical Weapons Convention actionable. Because ricin is a Schedule 1 chemical, a criminal charge was entered against Olsen in April 2003 for simple possession of a chemical weapon.

Olsen's defence counsel argued that he could not be prosecuted simultaneously under the two different statutes for the same act. The Court dismissed this challenge. The trial began in late June and has now concluded with conviction on both counts.

Though an earlier defendant entered a guilty plea under the Chemical Weapons Statute, Olsen's conviction is the first under the Chemical Weapons Statute after a court hearing.

18 July In Indonesia, Radio 68H announces the "creation of a permanent national authority body to appraise the international Convention on Biological and Chemical Weapons", under the auspices of the Ministry of Trade and Research. The authority will take over from the temporary authority established within the Foreign Ministry.

18 July In Pakistan, the Islamabad News reports on the recent second chemical industry inspection by the OPCW in the country. The inspection occurred at the Nobel Wah (Private) Limited facility in June but the Foreign Ministry did not disclose the inspection as it believed that the first inspection in April, to the Fauji Jordan Fertiliser facility in Karachi, had received unnecessary media hype and created needless alarm.

18 July From Baghdad, the *Wall Street Journal* reports on an interview with Dr Shakir al-Akidy who led Iraq's attempt to weaponize ricin. According to Dr al-Akidy, Iraq never succeeded in extracting highly concentrated ricin. His team lacked the sophisticated equipment needed to refine the particles, although scientists working on anthrax and other agents appear to have had such equipment. After the failure of a desert field-test in 1990 with a ricin-filled 155mm artillery shell, the programme was reportedly closed down by Dr Ahmed Murthada, the head of

David Christopher Kelly, 1944-2003

We mourn the passing of David Kelly, a modest and good man, an internationally recognised British authority on biological weapons, and a valued friend of the Harvard Sussex Program. He died on 17 July 2003, aged 59. He was then Senior Adviser to the Directorate of Counter Proliferation and Arms Control of the UK Ministry of Defence and to the Counter Proliferation Department of the UK Foreign and Commonwealth Office.

He had become a member of the country's Scientific Civil Service in 1973 upon joining, as a molecular virologist, what is now the National Environment Research Council Centre for Ecology and Hydrology in Oxford. There he contributed much to the field of biological control applicable in agriculture, specifically the use of viruses to attack insect pests. In July 1984 he was recruited by the Ministry of Defence to work at what was then the Chemical Defence Establishment at Porton Down as head of microbiology. He directed the research into improved defensive measures against biological warfare that, during the 1991 Kuwait war, enhanced the protection of UK forces against possible Iraqi biological weapons. He also led the successful decontamination of Gruinard Island, which had been a proving ground for anthrax weapons during the second world war. In 1989 he first became involved as a technical expert in the interpretation of the disturbing data emanating from the Soviet Union, chiefly via defectors such as Vladimir Pasechnik, whom he interviewed early on, that pointed to covert Soviet violation of the 1972 Biological Weapons Convention. In 1990, an initially very private 'trilateral process' had been set in motion by the three co-depositaries of the Convention – the governments of the UK, the USA and the USSR — that sought to resolve the situation through on-site inspections in the three countries. These took place during 1991-94, and it was as a key participant that Dr Kelly began to acquire his experience and high reputation as a field inspector of possible biological-weapons activities. He recalled his work then in one of his very last publications, a chapter in the 2002 *VERTIC Verification Yearbook*. When, in 1991, UNSCOM began its work in Iraq, Dr Kelly led the first biological weapons inspection mission; and he led the last, seven years later, after 35 intervening

inspection visits to the country. This work brought about his merit promotion, in 1992, from Superintendent of the Defence Microbiology Division at Porton to Deputy Chief Scientific Officer; and in 1996 he was transferred from Porton to the Ministry of Defence. He had, in 1995, become Senior Adviser to UNSCOM on biological weapons, and when, much later, UNMOVIC replaced UNSCOM he served in the training of its inspectors. Among the tributes that have been paid to him recently is that of the head of the UK delegation at the opening of the BWC 'new process' in Geneva: few people in recent decades, the ambassador said, can have done more directly to address and deal with the scourge of biological weapons. This extraordinary "service in relation to foreign affairs" had been acknowledged in 1996 when, in the Honours system whereby the British Crown recognises outstanding public service, David Kelly became CMG, a Companion of the Order of St Michael and St George.

It was both through Pugwash and through the University of Sussex that David entered into the work of HSP, always with the concern that we be guided by a proper understanding of what biological armament could be, was and was not, and that we did not get things wrong. The activities and findings of UNSCOM provided a vehicle for this educational task that did not necessitate disclosure of classified information, for in Iraq a real-world case study was on display. It was from his UNSCOM experience that, from 1997 onwards, he entered so constructively into the workshops on chemical/biological warfare disarmament that HSP organises for Pugwash so as to bring together scientists from many countries to talk issues through as professionals, regardless of national or political rivalries. And it was from his experiences as an inspector that he spoke at our seminars in Sussex, London and Cambridge, Massachusetts. Perhaps above all else, we benefited from the time and friendship that he was always ready to give to our research students working on aspects of CBW arms control or technology governance.

Generous and public-spirited people are rare enough anyway; but David had rare knowledge as well. We are saddened and diminished by his death.

biological research at Salman Pak. When UNMOVIC inspectors returned to Iraq in 2002, Dr al-Akidy was called for an interview but refused to cooperate when told by Iraqi officials to take a government minder. Dr al-Akidy says that as Iraq's leading expert on ricin, he would have known of any active ricin production or any decision to share the research with terrorist groups, as alleged by the US and UK governments.

18 July In the US, the Bush Administration releases extracts from the October 2002 National Intelligence Estimate on *Iraq's Continuing Programs for Weapons of Mass Destruction*. This unorthodox action is designed to end the controversy over whether President Bush manipulated intelligence evidence to build support for the invasion of Iraq. The "key judgments" section of the NIE states that "since inspections ended in 1998, Iraq has maintained its chemical weapons effort, energized its missile program, and invested more heavily in biological weapons; in the view of most agencies, Baghdad is reconstituting its nuclear weapons program."

On chemical weapons, the estimate says: "We assess that Baghdad had begun renewed production of mustard, sarin, GF (cyclosarin) and VX; its capability probably is more limited now than it was at the time of the Gulf war, although VX production and agent storage life probably have been improved. An array of clandestine reporting reveals that Baghdad has procured covertly the types and quantities of chemicals and equipment sufficient to allow limited CW agent production hidden within Iraq's legitimate chemical industry. Although we have little specific information on Iraq's CW stockpile, Saddam probably has stocked at least 100 metric tons (MT) and possibly as much as 500 MT of CW agents – much of it added in the last year. The Iraqis have experience in manufacturing CW bombs, artillery rockets, and projectiles. We assess that they possess CW bulk fills for SRBM warheads, including for a limited number of covertly stored Scuds, possibly a few with extended ranges."

On biological weapons, the estimate says: "We judge that all key aspects – R&D, production and weaponization – of Iraq's offensive BW program are active and that most elements are larger and more advanced than they were before the Gulf war. We judge Iraq has some lethal and incapacitating BW agents and is capable of quickly producing and weaponizing a variety of such agents, including anthrax, for delivery by bombs, missiles, aerial sprayers and covert operatives. Chances are even that smallpox is part of Iraq's offensive BW program. Baghdad probably has developed genetically engineered BW agents. Baghdad has established a large-scale, redundant, and concealed BW agent production capability. Baghdad has mobile facilities for producing bacterial and toxin BW agents; these facilities can evade detection and are highly survivable. Within three to six months these units probably could produce an amount of agent equal to the total that Iraq produced in the years prior to the Gulf war."

On unmanned aerial vehicles, the report says "Iraq maintains ... several development programs, including for a UAV probably intended to deliver biological warfare agent." However, the report also includes a dissenting view from the US Air Force Director of Intelligence, Surveillance and Reconnaissance who "does not agree that Iraq is developing UAVs primarily intended to be delivery platforms for chemical and biological warfare (CBW) agents. The small size of Iraq's new UAV strongly suggests a primary role of reconnaissance, although CBW delivery is an inherent capability."

The NIE also states that the intelligence community has "low confidence in our ability to assess when Saddam would use WMD." It continues: "We judge that Saddam would be more likely to use chemical weapons than biological weapons on the battlefield."

18 July In Puerto Escondido, Mexico, police find information on making chemical weapons on the computer of ETA's suspected head in Mexico, Juan Carlos Artola Diaz. The discovery comes during raids across Mexico and Spain to crack down on the Basque separatist group. An official from Mexico's attorney-general's office is quoted as saying: "An e-mail sent by code contained data on making chemical weapons. That does not mean they had a laboratory here and were making them."

18 July In Spokane, Washington State, Kenneth Olsen [see 1 Jul and 17 Jul] is convicted of making and possessing ricin. Olsen's sentence will be passed in October, but each of the two counts against him carries a maximum penalty of life imprisonment and a \$250,000 fine.

19 July In Moscow, a cross-party group of Duma deputies has written to the Prosecutor-General, the Federal Security Service and presidential human rights ombudsman Oleg Miranov asking them to investigate complaints by the wife of former KGB officer Aleksei Pichugin that police have used psychotropic drugs on him. Pichugin has been charged with organizing the killing of two people.

19 July In the UK, the Government announces an investigation into the death of Dr David Kelly. In a statement, Secretary of State for Defence Geoff Hoon says: "The death of Dr David Kelly is shocking and tragic. Our thoughts and sympathies are with his family. It is only right that we do our utmost to establish the full circumstances surrounding this tragedy." The inquiry "into the circumstances surrounding the death of Dr Kelly" will be conducted by Lord Hutton, a former Lord Chief Justice of Northern Ireland. According to Hoon's statement, "the Government will provide Lord Hutton with the fullest cooperation and expects all other authorities and parties to do the same."

19 July In the UK House of Lords, the Science and Technology Committee publishes its report on *Fighting Infection*. Although the report does not directly address the threat of a bioterrorist attack on the UK, it does say "there is a risk that potentially significant events ... could be overlooked until an epidemic has taken hold. We note that the early detection of the anthrax outbreak in the US was due to general clinicians who became suspicious something untoward was occurring."

20 July In Iraq, the US has been urged by the International Committee of the Red Cross to clarify the status of some 30 Iraqi scientists and officials it has detained in its search for weapons of mass destruction, so it is reported. US military authorities have given no details of the whereabouts of the detainees and journalists have not been shown where they are being held. The German wife of Amer al-Saadi, who was the main liaison between the Iraqi regime and UNMOVIC prior to the invasion, says: "I don't want to aggravate the Americans or make them feel provoked, but I've had no official notification of why he is being held or what charges he's facing."

20 July The new Director-General of the World Health Organization, Jong Wook Lee from South Korea, has announced plans to establish a cadre of epidemiologists to investigate outbreaks of disease around the world, so it is reported. The WHO will train epidemiologists, primarily from developing countries, under a programme based on the US Epidemic Intelligence Service. The plan reflects the decision of the World Health Assembly [see 28 May] to give the WHO a greater role in investigating disease outbreaks.

20 July *New York Times* reporter Judith Miller reports that “chaos, disorganization, interagency feuds, disputes within and among various military units, and shortages of everything from gasoline to soap plagued the postwar search for evidence of Iraq’s supposed unconventional weapons.” During the invasion, Miller was an embedded journalist with the 75th Exploitation Task Force, one of four Mobile Exploitation Teams (METs) initially tasked with finding Iraq’s weapons of mass destruction. Miller quotes the commander of MET Bravo, Captain J Ryan Cutchin, as saying “because we arrived at sites so late, so often, we may never know what was there, and either walked, or was taken away by looters and Ba’athist elements under the guise of looting.” According to Miller, the teams focused on site searches rather than interviews with captured scientists, and they lacked expertise in the shape of former UNSCOM and UNMOVIC inspectors. Even before the invasion was completed, the number of METs has been reduced from four to two, lowering the number of personnel involved from 100 to less than 50.

21 July In Moscow, an unidentified source on the staff of the State Commission on Chemical Disarmament tells Interfax that 2003 funding for the safe storage and disposal of chemical weapons has been tripled to more than 300 million roubles. Nearly 70 million roubles will be allocated to upgrading security at the Leonidovka, Maradykovskiy and Pochev storage facilities. In addition, over 1 billion roubles will be allocated to the completion of the second phase of the chemical weapons destruction facility at Gorny, with a further 170 million roubles for the construction of the social infrastructure.

In Gorny, a spokesman for the chemical weapons destruction facility there says that tuning-up the facility’s thermal deactivation unit will begin on 1 August. Once the unit has successfully undergone testing, it should be ready to begin processing waste products from the destruction of mustard gas in October, according to the official.

21-23 July At the Massachusetts Institute of Technology, there is a course on *Combating Bioterrorism: The Organizational Response*.

22 July In Moscow, a court has ordered the city government to pay financial damages to a woman whose husband died when Russian special forces ended the siege in the Nord-Ost theatre using fentanyl-based ‘special means’ [see 26 Oct 02]. It is believed to be the first time that a court has made such an award. The city government must now pay \$200 to Tatiana Khazieva and the same amount to her daughter. In total, the family will receive \$50,000 in compensation.

22 July In Johannesburg, Wouter Basson, the former head of South Africa’s apartheid-era chemical and biological weapons programme, Project Coast, addresses a Press Club luncheon at which he says that the US and UK governments had been deceived into invading Iraq by defectors and intelligence services relying on single sources. Basson draws a comparison with his “vilification” by the Truth and Reconciliation Commission and its chairman, Archbishop Desmond Tutu, which he says is also based on claims which have long-since been discredited.

22 July In Washington, visiting South Korean Health and Welfare Minister Kim Hwa-joong and US Secretary for Health and Human Services Tommy Thompson agree to establish a joint working-level task force on biochemical weapons, so it is reported. The group is intended to promote health-related personnel exchanges and joint projects between the two countries.

23 July From Beirut, *An Nahar* reports that Lebanon has

told the UN Counter-Terrorism Committee that it has no weapons of mass destruction nor any factories that could produce chemical or biological weaponry.

23 July In Moscow, an unidentified source in the State Commission for Chemical Disarmament announces that preparations for the construction of a chemical weapons destruction facility at Kambarka will begin later in the year using an allocation of 440 million roubles from the adjusted state defence order. Construction of the facility itself is likely to begin in 2004.

23 July In Brussels, the European Commission adopts a proposal to create a European Centre for Disease Prevention and Control. In a press release, the Commission says: “The structure of the existing EU network on communicable diseases, managed by the Commission and based on ad hoc cooperation between Member States since 1991, is simply not efficient enough to protect the EU’s citizens sufficiently against threats to their health posed by communicable diseases, including the possibility of the deliberate release of infectious agents (‘bioterrorism’).” The core tasks of the proposed centre are listed as: epidemiological surveillance and laboratory networking; early warning and response; scientific opinions; technical assistance; preparedness against health emergencies; communicating on health threats; and providing a rapid and effective response to health threats. The centre will avoid duplication of national activities by having a small core staff and by networking the existing expertise and facilitating coordination. The proposed centre will also take over the operation of the existing EU network on communicable diseases and the work on monitoring and preparedness planning against bioterrorist attacks that has been pursued by the EU’s Health Security Task Force.

24 July In the US Senate, the Health, Education, Labor and Pensions Committee convenes a hearing to be updated on federal defences and capabilities to deal with a biological or chemical attack. Testifying are: Julie Gerberding, Director of the Centers for Disease Control and Prevention; Mark McClellan, Commissioner of Food and Drugs; and Elias Zerhouni, Director of the National Institutes of Health.

During her testimony, Gerberding says that only 38,000 civilian public health and healthcare professionals have received the smallpox vaccine out of a target of 450,000 in the first phase of the vaccination plan.

24 July In Washington, the US-China Economic and Security Review Commission convenes a hearing on *China’s Proliferation Practices and the Challenge of North Korea*. Among the witnesses testifying is Paula DeSutter, Assistant Secretary of State for Verification and Compliance. In her prepared statement she addresses China’s alleged chemical and biological weapons proliferation.

On chemical weapons, DeSutter says: “China’s maintenance of a chemical weapons program is a matter of serious concern to us. We are no less concerned about certain Chinese entities’ continued transfers overseas of dual-use chemical agents and technologies and equipment that can be used in chemical weapons programs. The United States believes that, despite being a State Party to the Chemical Weapons Convention (CWC), China has an advanced chemical weapons research and development program. Although China has declared that it does not possess chemical weapons, we believe that Beijing has not acknowledged the full extent of its CW program. We also believe that China possesses a moderate inventory of traditional CW agents. A number of facilities within China’s large chemical industry are capable of producing many dual-use chemicals.” DeSutter refers to “one ongoing initiative

at the Organization for the Prohibition of Chemical Weapons (OPCW) [which] would focus more attention on increasing the number of industrial inspections at facilities that produce chemicals not directly controlled under the Convention. This effort would help to alleviate some concern regarding activities within China's massive chemical industry. This proposal is being discussed by the Executive Council of the OPCW, and the US plans to follow up with Beijing on this proposal during the US-China Security Dialogue next week. My bureau is also actively pursuing a compliance dialogue with China."

On biological weapons, DeSutter says: "Similarly, the US believes that despite being a member of the Biological Weapons Convention (BWC), China maintains a BW program in violation of its BWC obligations. The United States believes that China's consistent claims that it has never researched, produced or possessed BW are simply not true—and that China still retains its BW program." She goes on: "We would like to begin a bilateral dialogue to help increase our confidence in China's BWC activities, consistent with Article V of the BWC (which provides that the Parties will consult one another and cooperate in solving any problems which may arise in relation to the objective of, or in the application of the provisions of, the Convention). Given the failure to enforce its stated nonproliferation goals with regard to missile technology, nuclear related items and its chemical weapons program, we must be concerned about the possibility of undetected proliferation of its dual-use items or actual elements of a BW program."

25 July The UN Department for Disarmament Affairs has received from 26 states parties to the Biological Weapons Convention the annual declarations that fell due on 15 April under the voluntary confidence-building measures agreed at the third BWC review conference [see 27 Sep 91]. Declarations have been received from: Argentina; Armenia; Belarus; Belize; Bulgaria; China; Cuba; Czech Republic; Estonia; Georgia; Germany; Italy; Japan; Lithuania; Netherlands; New Zealand; Norway; Poland; Romania; Russian Federation; Slovakia; Switzerland; Turkey; Ukraine; United States of America and Uzbekistan. The Department now distributes a compendium of the declarations to all states parties.

25 July In the US House of Representatives, former CIA director John Deutch tells the Permanent Committee on Intelligence that failure to find weapons of mass destruction in Iraq would represent "an intelligence failure ... of massive proportions." He says: "It means that ... leaders of the American public based [their] support for the most serious foreign policy judgments – the decision to go to war – on an incorrect intelligence judgment." Deutch also says that "it seems increasingly likely" that Iraq may not have continued its chemical and biological weapons programmes after the 1991 Gulf war.

26 July In Karbala, Iraq, US Marines reportedly fire tear gas at a demonstration by local Iraqis. The protestors are demonstrating against US troops coming too close to the shrine of Imam Husayn, one of the holiest sites of Shiite Islam. According to one report, one of the tear gas canisters fired by US troops hit the shrine itself.

26 July The London *Independent* reports former UN inspectors as saying that weapons of mass destruction have not been found in Iraq because the "wrong experts" are there. Unidentified former inspectors say that inadequate pay and possibly a disinclination by the US to allow experts associated with the UN to take any credit for weapons finds, were the cause of the problem. The newspaper reports that in February, former US biological weapons inspector Richard Spertzel, drew up a

list of 20 former UNSCOM inspectors but that only now have three of the UK experts on the list, Hamish Killip, Peter Hackett and Rod Godfrey, arrived in Iraq. One former inspector is quoted as saying: "They offered us all the same rate at first, and treated us as temporary middle-grade civil servants. They wanted to pay us half of what we were earning at the UN. I would rather work for nothing than accept those terms. There are people in Iraq who have biology and chemistry degrees. But this is not an easy job. It took us a year to get up to speed. So it doesn't surprise me if they haven't found anything."

28 July The US Department of Commerce announces that Hamilton Sundstrand Corporation of Connecticut has agreed to pay a \$171,500 civil penalty for violations of the Export Administration Regulations. The Department's Bureau of Industry and Security alleged that Sundstrand exported or re-exported centrifugal pumps to various end-users in China, Taiwan, Israel and Saudi Arabia, without obtaining the required export licences. The pumps are controlled for chemical and biological weapons reasons, as well as for anti-terrorist reasons.

28 July In the US, two Democratic senators reveal Department of Defense plans to establish an online futures trading market in which anonymous speculators could bet on forecasting terrorist attacks, assassinations and coups. The Policy Analysis Market, devised by the Defense Advanced Research Projects Agency (DARPA), would involve predicting the assassination of Palestinian president Yasser Arafat or a biological weapons attack on Israel, according to information on the project's website which is later removed. A day later and after intense criticism, the Department of Defence announces that the project is being closed down. It later emerges that John Poindexter, head of the DARPA office overseeing the project, will resign his position.

28 July In the US, the National Research Council publishes a report, *International Perspectives: The Future of Nonhuman Primate Resources*, which details an ongoing shortage of rhesus monkeys, the most widely-used model for studying diseases and aspects of human biology. The report includes the proceedings of an April 2002 workshop on the subject which heard that biodefence research will place increasing demands on nonhuman primate resources.

28 July In the US, the *Proceedings of the National Academy of Sciences* publishes research which suggests that 60 days of antibiotic therapy may not be enough to prevent anthrax infection. Although some people who did not complete the 60-day course following the anthrax episodes in the US in late 2001 did not develop anthrax, the researchers believe this was due to the low level of their initial exposure. In scenarios of higher exposure, the researchers suggest that antibiotics may have to be used for four months rather than 60 days.

29 July In Seoul, US Undersecretary of State for Arms Control and International Security John Bolton arrives to brief the Government on the recently-established Proliferation Security Initiative [see 31 May]. Bolton refuses to comment on whether he will ask South Korea to join the PSI. Later, Bolton refers to the ongoing multilateral talks with North Korea: "We have been clear in saying that we seek a peaceful solution to resolve the threat posed by Kim Jong-il, but that all options are on the table ... Postponing the elimination of Kim Jong-il's nuclear weapons programme will only allow him time to amass even more nuclear, chemical and biological weapons and to develop even longer range missiles."

29 July Syria now has at least 100 VX-tipped ballistic missiles aimed at central Israel, according to an unidentified senior Israeli defence source cited in *Jane's Foreign Report*. The source added that Syria has now achieved its aim of balancing Israel's nuclear arsenal. [See also 15 Jul]

30 July In Moscow, there is another round of the semi-annual US-Russia meetings on bilateral cooperation in chemical disarmament. The director-general of the Russian Munitions Agency, Viktor Kholstov, hosts a delegation from the US Defense Threat Reduction Agency to brief them on progress in implementing the Russian chemdemil programme. Kholstov reports that his Agency is currently focused on preparations for the start of the second phase of operations at the Gorny chemical weapons destruction facility [see 21 Jul].

30 July In the UK, the Department of Health announces that Aventis Pasteur MSD has been awarded a £45.2 million government contract for the supply of smallpox vaccine. In accordance with EU procurement regulations, three tenders were received by the Government and that from Aventis Pasteur MSD was "judged to best meet all the required criteria, including technical and scientific requirements as well as providing the best value for money." The order is in addition to the doses ordered from Powderject the previous year [see 15 May 02]. According to a statement from the Department: "Today's announcement ensures that the UK stockpile of vaccine is substantially increased and means that the UK will no longer need to rely on vaccine produced in the 1970s."

30 July US President Bush says, during a White House press conference: "We gathered a lot of intelligence. That intelligence was good, sound intelligence on which I made a decision. And in order to placate the critics and the cynics about intentions of the United States, we need to produce evidence. And I fully understand that. And I'm confident that our search will yield that which I strongly believe, that Saddam had a weapons program. I want to remind you, he actually used his weapons program on his own people at one point in time, which is pretty tangible evidence."

31 July In the UK House of Commons, the Foreign Affairs Committee publishes the third report in its inquiry into *The Foreign Policy Aspects of the War Against Terrorism*. In its report, the Committee repeats part of the reply it received [see 3 Jun] from the Government on the status of non-lethal chemical incapacitants under the CWC and recommends that "the Government inform us of any developments in its policy towards amending the status of incapacitants or calumny agents under the Chemical Weapons Convention." In the report, the members of the Committee welcome "the outcome of the May 2003 Chemical Weapons Conference on challenge inspection, and recommend that the Government in its response to this Report provide us with an update on progress in implementing the measures agreed at this Conference." The Committee also

recommends that "the Government set out in detail the lessons that can be learnt from the experience of UN weapons inspections in Iraq for the future monitoring and verification of suspected biological weapons programmes." On the BWC 'new process' [see also 7 May and 4 Jul], the Committee's report says: "We recommend that the Government do its utmost to ensure that international cooperation to combat the proliferation of biological weapons is reinvigorated at the August 2003 Biological Weapons Convention Review Conference."

31 July In the US Senate, the Armed Services Committee convenes a closed meeting for a briefing on the progress of the Iraq Survey Group [see 30 May]. Following the meeting and prior to a closed briefing before the Senate Select Committee on Intelligence, Iraq Survey Group head Major General Keith Dayton and CIA Head Analyst for Weapons of Mass Destruction in Iraq David Kay speak to the press. Kay says: "We are in the process of conducting a serious investigation designed to uncover the true state of Iraq's weapons of mass destruction program. We are making solid progress. It is going to take time. This was a program that over 25 years spent billions of dollars, 10,000 people, was actively shielded by a security and deception plan. So, it is not something that is easy to unwrap. But we are in the process." He goes on: "The American people should not be surprised by surprises. ... We are determined to take this apart, and every day, I must say, we are surprised by new advances that we're making." Kay denies a *Washington Post* article which claims that captured Iraqi scientists are still denying that Iraq had an active weapons of mass destruction programme. Of the sites currently being inspected, Kay says: "Almost every one of them is one that we did not know about until we were led to it by Iraqis or the documentation we have seized." Kay also says: "We have found new evidence of how they successfully misled inspections of the UN and hid stuff continuously from them. The active deception program is truly amazing once you get inside it. We have people who participated in deceiving UN inspectors now telling us how they did it."

However, Kay says that the results of the Iraq Survey Group's investigations will not be announced until all the evidence is assembled: "The fact that we're not coming out and telling you on a piecemeal basis is because in fact we have said we will not come forward with evidence until we satisfy three criteria: multiple Iraqis willing to talk and explain the program; documentary evidence and more than one document that explains what we're after; and physical evidence associated with the program. We do not want to go forward with partial information that we have to retract afterwards. We're building a solid case that will stand, and we welcome international scrutiny of that case after we have the evidence assembled."

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

HSP News

Fiona Tregonning, who took over from Pamela Mills as HSP Researcher in The Hague in July 2002, has now joined the litigation and arbitration group at the law firm Herbert Smith in London.

Scott Spence is the new HSP Researcher in The Hague. He graduated with a BA and JD from the University of Virginia, an MTS from Harvard University and, most recently, an LLM in Public International Law from Leiden University. He worked for two years in New York as an attorney at the law firm Freshfields Bruckhaus Deringer.

Richard Guthrie left HSP Sussex at the end of August to take up the position of CBW project leader at the Stockholm International Peace Research Institute (SIPRI). In addition to research and other duties within HSP, he was responsible for producing forty-one issues of the *Bulletin*, from No 20 (June 1993) to No 60 (June 2003).

Carolyn Sansbury, the HSP Sussex Administrator, is now taking on additional duties as Managing Editor of the *Bulletin*.

Caitriona McLeish and *Emmanuelle Tuerlings* successfully completed their doctoral dissertations, abstracts of which are posted on the HSP website. Both continue to work in the CBW technology-governance area, Emmanuelle in Uganda and Caitriona here at Sussex, and both continue their association with HSP. Caitriona is now a SPRU Research Fellow working in a project on Dual Use and Genomics funded by the UK Economic and Social Research Council.

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Nicholas Dragffy, Sussex Researcher
Daniel Feakes, Sussex Researcher
Sarah Hammond, Sussex Student Assistant
Kai Ilchmann, Sussex Student Assistant
Caitriona McLeish, Sussex Researcher
Matthew Meselson, Harvard Director
Anthony Randle, Sussex Archivist
Barbara Ring, Harvard Administrator
Julian Robinson, Sussex Director
Sandra Ropper, Harvard Archivist
Carolyn Sansbury, Sussex Administrator
Scott Spence, The Hague Researcher

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