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THE BIOLOGICAL AND TOXIN WEAPONS CONVENTION REVIEW PROCESS: WHAT MORE CAN IT CONTRIBUTE?

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Although the Review Conference process of the Biological and Toxin Weapons Convention (BTWC) may not appear to be the most exciting topic to address in the context of chemical and biological weapon (CBW) proliferation issues at this time, my aim is to demonstrate that it remains very important and that it can continue to contribute to our ongoing efforts to counter the potential use of biological weapons and to strengthen implementation of this Convention.

The BTWC is a vital instrument in international efforts to counter possible use of biological weapons. It reflects the international community's normative standard and constitutes the key international legal constraint in this area. If anything, it is more vital today than ever.

The BTWC is a success story – more or less depending on your perspective, perhaps, but a success story nonetheless. The BTWC is one of the key jumps in the evolution of arms control and disarmament in the 20th century. The question or issue for us in the early years of the 21st century and beyond, is how to sustain the norm which is reflected in the Convention. This has two aspects or dimensions. First, together and individually, we need to act in ways conducive to the BTWC retaining its normative authority. Secondly – and this is perhaps the more subtle and ambitious objective – is to ensure that the instrument continues to be able to respond to the evolving character of the biological threat.

Both of these imperatives are common to all normative arms control instruments – similar concerns or reflections in discussion have been seen, for example, for the NPT. If the drafters of the normative instrument have done their work well, they will have established principles and goals in such a way as to capture the essence of the specific arms control prohibition. If the essence has indeed been captured, then the parameters of obligation will have been set such as to leave room for essentially incidental change in the character of the threat.

The word incidental has been chosen with care. By this word I mean to say that the core of the Convention is not altered in its essentials by the evolving character of the threat. Practice probably will need adjustment to reflect the evolving threat, but the underlying principles and objectives of the Convention will not change. The richness of the Convention's principles and objectives is not diminished by changing or evolving threats; only practice must change to meet such.

But there is the rub. If reflection by the States Party on the character of the evolving threats does not lead to evolving

responses to those threats, then the first objective would be undermined, *ie* the normative authority of the BTWC. All of which brings us to the Review Conference process. The Review Conference process, an active, reflective and assertive Review Conference process is the necessary means to sustain the required equilibrium or balance between the normative/international legal authority of the BTWC and the world of changing threats. A Review is what that word suggests – a looking back process inducing a forward looking reflection also, rather, to use a different analogy, akin to the occasional personal financial reviews our financial advisers encourage us to subject ourselves to: look back, assess your present state and make adjustment for a more realistic, hopefully better future.

The BTWC has had an interesting history: both in its origins, its negotiation and its subsequent evolution. Indeed whilst its history is indeed interesting and informative, to reflect upon it must be serviceable if it is not to be just a self-indulgent examination of the past. The Review Conference process helps in this regard to keep us focussed on, first, the here and now and, secondly, on the needs or perceived needs of tomorrow.

The Review Conference process is vital if the Convention is to remain vital: literally alive to the changing demands or threats. The nature and character of BW threats are peculiarly present in our everyday world of scientific change: there are limited numbers of ways to make a nuclear weapon, regrettably there are all too many and all too changing ways of posing biological threats. The Review Conference process must keep our eyes on the underlying purposes of the

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Convention through reflection on the evolving character of the threat the BTWC is designed to remove or mitigate. So let us consider, to some degree at least:

- what the BTWC Review Conference process has done or achieved;
- what the Review Conference process can and should do;
- what the Review Conference process might do in 2006

What the BTWC Review Conference process has achieved

It is possible to look back on a 30-year history of implementation and five Review Conferences with some pride, noting the gradual increase in the number of States Party to the BTWC rejecting a weapon considered repugnant to humankind; the evolution of implementation of the Convention nationally and internationally; and its contribution to the moral, normative, and legal obstacles and prohibitions against biological weapons. This successful past can be noted at the same time as recognizing that there is a continuous need to ensure the BTWC remains relevant in the future in the face of changing pressures on it.

A less positive reading might suggest the BTWC Review Conference process has made a more modest contribution to efforts to prevent the development, production and possible use of biological weapons. Taking this view, it is possible to point to a history of suspected non-compliance with the BTWC throughout the Cold War and after, of proliferation of the capability to develop biological weapons, and the rise of concerns about the interest of States and Non-State actors in biological weapons.

The Convention, and its implementation, may not be high profile, it may not be headline grabbing except when something goes awry, and in some cases the Convention and the Review Conference process may not be innovative *per se*. However, the Review Conference process and the Convention itself are fundamental to the normative, moral and legal foundation of our individual, our national, and our collective, international, efforts to prevent the use of biological weapons by any one under any circumstances.

What the BTWC Review Process Can and Should Do

With the end of the protocol negotiations and the inevitable concern, frustration, and differences of opinion that accompanied the end of those negotiations, the Review Conference process has become more, not less, important. In the run up to the Sixth Review Conference in 2006 a few general reflections may help form a view on what could/should be done next year at the Review Conference:

- It would be irresponsible to put strengthening the implementation of the BTWC in the 'too hard' box as some argue has sometimes happened in the past.
- It would be irresponsible also to fail to take account of newer biological weapon threats, and not to do so would turn threats into existential problems.
- It would be wrong also to ignore the lessons learned from other areas of arms control over the last 15 years, whether from the trilateral process, UNSCOM, UNMOVIC or other developments related to biological, chemical, and nuclear weapons.

In short we cannot afford not to focus on the BTWC; and the Review Conference process is part of our overall efforts.

The BTWC cannot afford to be left without a Review Process for the following reasons:

- Not every State is a Party to the BTWC;
- States in key areas of conflict and concern are still outside the Convention;
- Scientific and technological developments are increasing the potential capabilities of various actors to develop and produce biological weapons;
- The dual-use nature of much of the technology, knowledge, and equipment relevant to biological weapons requires our oversight.
- There is a need for review and further implementation of measures agreed by consensus at previous Review Conferences.

Put another way, international security agreements cannot be left simply to attend to themselves.

The purpose of the Review Conference process is to review the operation of the Convention and ensure the purpose of the preamble and the provisions of the Convention are being realized. As Article XII of the Convention goes on to state, such a review shall take into account any new scientific and technological developments relevant to the BTWC. We are all familiar with that language. Indeed, perhaps we are too familiar. We no longer think about its purpose and its salience to our overall objectives of biological disarmament and non-proliferation.

Consider, for example, if there was no Review Process what mechanisms would we use and have to handle issues related to compliance? How would we consider and review various developments, scientifically, technologically, internationally? How would we manage the necessity of interpreting the language of the Convention when ambiguities arise or questions are asked, such as the implicit prohibition of use of BW inherent to the Convention? How would we continue actually reinforcing existing requirements to implement the BTWC in addition to developing new and more effective implementing mechanisms?

There are, of course, a range of mechanisms, agreements, procedures and other means that support the objectives of the BTWC. Some of these pre-dated the BTWC, such as the Geneva Protocol. Others were developed after the entry into force of the Convention and others still contribute to the objectives of the BTWC directly and indirectly. To give a few examples:

- The development and spread of biosafety practices;
- The UNSG investigation mechanism developed during the 1980s;
- The Australia Group and the addition of pathogens and related equipment in the early 1990s;
- Regional Agreements such as the Mendoza Agreement of 5 September 1991 between Argentina, Chile, and Brazil and later acceded to by others in the region;
- The agreement on, and entry into force of, the CWC and its overlap in the area of toxins with the BTWC;
- The development of the Co-operative Threat Reduction programme in the Former Soviet Union, and more recent efforts related to Libya and Iraq;
- The publication of WHO guidance on *Public Health Response to Biological and Chemical Weapons*;
- The efforts of non-governmental bodies, such as the ICRC's initiative on *Biotechnology, Weapons, and Humanity*;

- The development of the Proliferation Security Initiative; and
- UNSCR 1540.

Some of these reinforce our moral interpretation, some enhance our ability to implement our legal obligations, and others rehabilitate individuals, institutions, or even States by shifting them back towards compliance with their legal undertakings. All these discrete mechanisms serve important functions: they add to national and international capabilities to prevent the proliferation and use of biological weapons. None, however, can replace the BTWC or provide a forum for all its States Party for upholding the legal obligations, moral judgments, and norms embodied in the Convention. The Review Conference process may not be the most exciting, the most innovative, or at all times the most effective mechanism, but without it an important process we require would be missing from our toolkit to counter BW proliferation.

What Should the BTWC Review Process Do in 2006 and Beyond?

In terms of thinking about the BTWC Review Conference process it is important to be clear that the argument here is not that the BTWC is the be all and end all of handling biological weapons disarmament, proliferation and BW threats. It is not necessary to reject or challenge the many other mechanisms which have evolved since 1975. Equally, it is not necessary to say that there is no need for new mechanisms and agreements outside the BTWC handling particular issues in the future: some, such as UNSCR 1540 are important additions to our collective efforts. But they do not replace the BTWC and they are unable to replace it. The BTWC is the bedrock on which newer mechanisms have been built. If we didn't have the BTWC and its complete prohibition on development, production, stockpiling, acquisition, retention, and transfer of biological and toxin weapons, what would we be using?

The first contribution the Review Conference process makes is self-evident: a chance to review the operation of the Convention and to consider scientific and technological developments. Traditionally this has been used to ensure that collective understandings about the scope of the Convention remain up to date. To provide one possible example: in 2006 States Party may wish to recall their affirmation that the BTWC covers all agents and toxins however derived, and this includes ones created synthetically. Such collective understandings, reached by consensus, keep the BTWC relevant. By doing so they ensure its provisions can be used to challenge and roll back development and proliferation, *and*, that States Party themselves ensure their national mechanisms are up to date. The Review Process is therefore important to maintain a collective baseline of common understandings and expectations.

The second contribution is to extend the collective, international understandings and interpretations of what the BTWC means and requires. For example, national implementation mechanisms under Article IV are not an 'add-on' but a basic requirement of implementation, though not all States Party seem to have realized this. A further example would be the formula 'any recipient whatsoever' under Article III which applies to individuals and terrorists as well as States, international organizations, and States Party. The outcome of the Review Conference process sets the tone for further developments, the level of expectations among States Party,

and signals intentions. For example, fifteen years ago export controls and export licensing were a relatively new and controversial addition to the BTWC in the context of the Review Conference, but the Third Review Conference set an important baseline: now export controls and licensing are accepted and expected. It helps set the agenda and legitimise action at national and multilateral levels.

Third, the Review Conference process can identify areas of weakness in implementation or scope, or even expectations, and set the agenda for addressing such weaknesses. The agreement on the Confidence-Building Measures (CBMs) did this in 1986 and they were extended in 1991; the agreed understanding on 'use' and its coverage under the BTWC were addressed in 1996; and, the intersessional programme between 2003 and 2005, which resulted directly from the Fifth Review Conference, identified specific areas for attention and consideration. Achieving a consensus on these matters and getting agreement among the States Party to develop them was not easy; there were disputes between States Party and persuasion and argument were necessary then and likely will be in the future. That is the nature of diplomacy, and in the context of biological weapons and the BTWC, where else can this process take place?

Fourth, flowing from this is that the Review Conference process and the forum offered by the BTWC allows States Party, experts, and others to engage with each other, build relationships, seek clarity and advice, argue their perspective, and influence the direction the international community takes with regard to biological weapons prohibitions.

Fifth, consideration should be given to the implications of not attending fully to the BTWC and its Review Conference process: what would this signal? More importantly what would it in practice actually result in? We know from history and experience that international treaties are not self-implementing. Some States Party may immediately pass and enact the required national implementation legislation and regulations required to embody the international agreement into national law. Others take time. Left alone, without attention, the salience of a Treaty begins to wither and its importance may only be realized once its provisions have been breached: a Review Conference process can counter atrophy in many ways. Finally, not to pay full attention would imply little concern for the vast majority of States Party who are in compliance with the BTWC, but signals to the non-compliant, the potential non-compliant, and those outside the Convention that States Party do not care about the BTWC. The implication here is that anyone can breach the Convention with impunity. These are not signals we would wish to send: losing the focus on an international arms control treaty such as the BTWC can be all too easy: it may avoid a dispute, difficulties, or perhaps an invidious choice at a certain moment in time, but staying in the process, moving it forward where possible, and upholding and strengthening the BTWC are essential elements of treaty stewardship.

This latter element is perhaps what has occurred over the last three years in the current intersessional programme of work. That programme of work was agreed as a fall back option in 2002 and most had low expectations of it. To the surprise of many it has actually proved very useful in terms of implementation: wide-ranging discussions among States Party, the different views on a particular issue, the advantages and disadvantages of various courses of action, the most

appropriate locus for any action, and the sharing of information and details on actual practice. The focus on discrete topics, such as national implementation legislation in 2003, has required each State Party to examine in detail their existing practices, the rationale for such activity in a given area, and the implementation and effectiveness of such measures. For the UK, such meetings have been beneficial in themselves by requiring those involved in the implementation of the BTWC to consider how and why the UK does certain things in particular ways. To date, the outcomes from the intersessional work programme have been able to identify good practice, where specific issues require further and more specialized consideration, and where co-operation with other partners might be required in the future. The results include a significant degree of information sharing, awareness raising, and identification of good practice among the States Party. It may be a surprise to many that such information sharing and identification of good practice has not been the norm in the past for the BTWC States Party. Such developments, and results, may be intangible, but the benefits of such activity should not be underestimated. This is true not only for States Party such as the UK – which has gained from the programme of work – but especially for those States Party seeking advice and assistance on how to implement the Convention effectively and efficiently. I know that a number of States Party have benefited directly from such assistance. The practical response to a difficult situation in 2002 has produced positive results and the intersessional programme to date indicates that a further pragmatic work programme is worthy of consideration.

Looking to the future we can see some potential areas for further consideration. One is the number of States Party to the BTWC. At 155 States Party the BTWC has representatives from every continent, but compared to the 175 States Party to the CWC and the 189 States Party to the NPT, the BTWC is lagging. Another area may be to look again at the CBMs. Various proposals for extending the CBMs were made in 2001 by States Party and others have continued this theme. The rate of response is certainly in need of further attention.

Extending the scope of the CBMs is one possibility; another is enhancing the submission and distribution process, assisting States Party unable to fulfil their CBM undertaking, or encouraging States Party to share the information submitted as a demonstration of compliance which permits others to seek clarification in certain areas.

Any future programme of work has yet to be decided upon by the States Party, so there is no point in setting out some kind of future agenda here. The above examples, and the preceding observations are intended to indicate that the BTWC Review Conference process can contribute a lot more to our varied responses to BW proliferation threats and risks. Emphasis needs to be placed on two elements: first, the BTWC and its Review Conference process is one of many responses and should not be seen as the *only* response and tool available to us. Second, we ignore at our peril the role, importance, and potential the Review Conference process offers for effective, on-going Treaty stewardship. Because the Review Conference process is not high profile there is a danger in thinking it is not important. And, because recent Review Conferences have been difficult and fractious, there is a danger in thinking stewardship and oversight can be put aside to avoid a difficult diplomatic scrap.

Each Review Conference of the BTWC has involved a major difference of opinion on a particular issue; but each has also produced results with important consequences. The Review Conference process has moved the Convention's provisions and its implementation mechanisms forward, enhancing those mechanisms when and where possible, and working towards practical and appropriate strengthening of the Convention.

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Forthcoming Events

Wiston House, UK

Wilton Park conference WPS 06/19
*International Collaboration on
Planning for Pandemics*
2-5 March 2006

Details: www.wiltonpark.org.uk

OPCW Headquarters, The Hague

*Next formal sessions of the OPCW
Executive Council:*
EC-44, 14-17 March 2006
EC-45, 16-19 May 2006
EC-46, 4-7 July 2006
EC-47, 7-10 November 2006
*11th session of the Conference of
the States Parties:*
5-6 December 2006

Details: www.opcw.org

BWC meetings, Geneva

*Preparatory Committee for the
Sixth Review Conference:*
26-28 April 2006
Sixth Review Conference:
within the period from 20 November
to 8 December 2006

Details: www.opbw.org

Decision on the Follow-up to the OPCW Action Plan on Article VII: Ensuring the Effective Implementation of the Chemical Weapons Convention

Santiago Oñate, Ralf Trapp and Lisa Tabassi¹

There was a decided buzz in the air during the Tenth Session of the Conference of the States Parties (“Conference”) of the Organization for the Prohibition of Chemical Weapons (“OPCW”), held 7 through 11 November 2005, as States Parties endeavoured to reach consensus on four draft decisions which were generally considered to be of direct relevance to all. Discussions on the establishment of an OPCW office in Africa,² the optional format for offers of assistance under Article X(7)(c),³ the full implementation of Article XI,⁴ and measures to be taken following the conclusion of the Plan of Action regarding the Implementation of Article VII Obligations (“the Action Plan”),⁵ had increased in intensity throughout the summer and autumn of 2005. By the time the Conference session opened, all participants had become actively engaged in the debate. Consensus was only achieved at the last possible moment by the Executive Council (“Council”) and subsequently by the Conference itself.

This comment will focus on the results of the Action Plan, the Conference decision on follow-up to it, and the issues that emerged during the consultations on both those matters.

The Action Plan on Article VII

The Action Plan was initiated by the OPCW First Review Conference in May 2003, which called upon the Council to recommend, and the Conference to develop and adopt, a plan of action regarding the implementation of Article VII obligations, with the objective of fostering the full and effective implementation of the Convention by all States Parties.⁶ The eventual decision creating the Action Plan was adopted by the Conference in October 2003 at its Eighth Session.⁷ The Action Plan reminded States Parties that it had been more than six years since the entry into force of the Chemical Weapons Convention (“the Convention”)⁸ and set a time frame⁹ of November 2005 by which time all States Parties which had not yet done were expected to have: (a) designated or established a National Authority; (b) enacted the legislation, including penal legislation, and/or adopted the administrative measures necessary to implement the Convention; and (c) provided to the OPCW Technical Secretariat (“Secretariat”) the full text of the legislation and information on specific measures taken. Under the Action Plan, States Parties were requested, *inter alia*, to set their own realistic target dates for the steps they needed to take to meet the deadline and to inform the Secretariat of any assistance needed to meet their national implementation obligations. States Parties were encouraged to lend advice to each other, upon request, to meet the Action Plan objectives and to inform the Secretariat of what assistance they could offer.

During the course of the Action Plan, reports were duly prepared by the Secretariat for consideration by the Council and the Conference.¹⁰ The Council fulfilled its assigned role of guiding and coordinating the Action Plan with the Secretariat¹¹ and the Conference reviewed the progress made so far at its Ninth Session in November 2004.¹² At that time it decided that further action needed to be taken under the Action Plan: primarily, efforts by States Parties and the Secretariat needed to be intensified and information on the progress achieved needed to be expanded.¹³ Throughout the lifetime of the Action Plan interested delegations met in open-ended consultations to discuss it. The regular scrutiny of the progress achieved, combined with outreach to governments by States Parties on a bilateral or regional basis or by the Director-General directly or through the Secretariat, as well as increased voluntary funding for assistance missions, created a perceivable momentum among States Parties to meet the objectives of the Action Plan which led to a measured degree of concrete results.

The results of the Action Plan, 2003-2005

In the Director-General’s final report on the Action Plan,¹⁴ the results as at 7 November 2005 were reported to be the following, in brief:

- (a) 148 States parties (85% of the 174 States Parties) had designated or established their National Authorities;
- (b) 106 (61%) had adopted national legislative and administrative measures and had informed the OPCW under Article VII, paragraph 5;
- (c) 83 (48%) had submitted the text of the legislation or measures to the Secretariat;
- (d) 59 (34%) had adopted legislation that covers all key requirements for enforcement of the Convention;
- (e) 47 (27%) had completed the review of their existing regulations in the area of trade with chemicals, and had confirmed that these are consistent with the object and purpose of the Convention;
- (f) 48 (28%) that had yet to adopt their legislation and administrative measures had prepared draft legislation and were at different stages in enacting it.

Assistance towards meeting the Action Plan objectives had been requested by, and provided to, 107 States Parties by the Secretariat and/or States Parties. Such assistance ranged from regional, sub-regional and thematic workshops on practical aspects of how to implement the Convention as well as legislative drafting workshops, technical assistance visits

(by the Secretariat or by States Parties or jointly), training courses, comments on draft legislation by the Secretariat or a member of the OPCW Network of Legal Experts, other support (including computer software for preparation of declarations, computer or laboratory equipment), and voluntary funding of specific projects. Fifteen States Parties named experts ready to participate in technical assistance visits. During the course of the Action Plan, on-site technical assistance was received by 76 States Parties (41 of them in 2005), 27 regional, sub-regional and thematic workshops were held, and comments on 120 drafts of legislation were provided to 79 States Parties.

Historically, the trend appeared as follows:

Status at:	Number of States Parties	Number (and percentage) of States Parties that had made Article VII(5) submissions	Legislation covers areas key to enforcement of the CWC	Draft legislation proposed or commented on by the Secretariat, upon request
C-I: May 1997	87	0 (0%)	Not available	0
C-II: Dec. 1997	103	24 (23%)	Not available	0
C-III: Nov. 1998	120	40 (33%)	Not available	0
C-IV: July 1999	125	43 (34%)	Not available	0
C-V: May 2000	133	48 (36%)	Not available	6
C-VI: May 2001	143	53 (38%)	Not available	8
C-7: Oct. 2002	145	70 (48%)	39 (27%)	16
C-8: Oct. 2003 (Action Plan adopted)	154	94 (61%)	51 (33%)	36
C-9: Nov. 2004	166	96 (58%)	52 (31%)	66
C-10: Nov. 2005 (Action Plan ended)	174	106 (61%)	59 (34%)	156 ¹⁵

The report noted that while the overall percentage of States Parties that had completed the adoption of the necessary legislation and administrative measures had remained more or less the same since the adoption of the Action Plan, the number of States Parties that had sought advice on draft legislation had more than tripled. In addition, the actual number of States Parties that had made progress on their legislative processes had increased from approximately 100 in October 2003 to approximately 150 by November 2005. During the same period, the number of States Parties had increased by 13%. Thus, it was clear that progress had been achieved but that additional time would be required for draft legislation to be shepherded through the parliamentary process.

The report indicated that the success of the Action Plan depended on the active and systematic engagement of States Parties. The deadline had created a momentum; nevertheless, there were still a sizeable number of States parties which had made little or no progress under the Action Plan. Some had given reasons for the delay and others had remained silent, despite repeated attempts by the Secretariat and States Parties to engage them. When provided, the reasons for the delay were various. Many of them had to raise awareness of and generate domestic support for the plan, and engage and educate stakeholders, before they can begin drafting legislation and setting up a functioning National Authority. In other cases States Parties are lacking resources and/or experience relevant to the drafting of CWC implementing legislation, including

with regard to human and financial resources. Internal economic and political factors or external events (including conflicts and wars) hindered some. Events unrelated to the Convention interfered in some cases, for example, changes in government or elections delayed the process or caused setbacks when draft legislation had to be resubmitted or redrafted. In particular in parliaments of States Parties that are undergoing economic or political transition, the draft legislation was competing with other bills for consideration.

It was pointed out to the Conference that much work remains to be done. There is still no National Authority in 26 States Parties and no legislation or administrative measures in 68 States Parties. Half of the rest need to address gaps in their legislation – typically the measures to control transfers

of scheduled chemicals are lacking. Of the 59 States Parties which have comprehensive legislation, some still need to promulgate the necessary regulations to make that legislation enforceable.

Under the Action Plan, the Conference undertook to review further, at its Tenth Session in November 2005, the status of implementation of Article VII and “to **consider and decide** on any **appropriate measures** to be taken, **if necessary**, in order to ensure **compliance** by all States Parties with **Article VII**.” The highlighted words were the subject of intensive discussions during the Eighth Session in order to reach consensus on terms of the Action Plan itself. Intense discussion on those words emerged again in the summer and autumn of 2005 as delegations met to consider what action should be taken by the Conference on the Action Plan.

June 2005: the United States non-paper

On 30 June 2005, the delegation of the United States of America distributed a non-paper entitled, “Ensuring Article VII Implementation: Options for CSP10” during the Action Plan consultations. This non-paper resulted in effect in setting the parameters for the debate on follow-up to the Action Plan and, to a certain extent, polarised delegations on the issues. The non-paper indicated that States Parties must come to the Tenth Session with some common reasonable, objective and measurable standards by which to assess the progress of States Parties under the Action Plan.

The non-paper suggested that the failure to (a) establish or designate a National Authority, or (b) have draft legislation pending in the parliamentary process, or (c) have draft administrative measures to enable Article VI requirements to be met, is a clear statement to the Conference that the State Party lacks even a minimum level of political commitment to the Convention and warrants immediate measures by the Conference. It was suggested that those immediate measures should consist of: (a) the requirement that the State Party submit a written explanation for its failure to the Council at its December session; (b) the requirement that the State Party establish a practicable timetable for meeting the tasks within 30 days and submit it to the Council for monitoring; (c) the State Party would not be eligible to election to the Council, to Vice-Chair or other regional leadership position, or to any office of the Conference until the obligations are met; (d) international cooperation and assistance from the OPCW would be limited to support in meeting Article VII obligations; and (e) the requirement for quarterly updates to the Council.

It was proposed that States Parties that have draft or incomplete legislation or administrative measures should be given an additional grace period of six months to complete the task. The grace period would be contingent upon the submission of a national plan outlining how obligations would be met within the grace period. Progress reports to the Council would be required after 90 and 180 days. If the obligations were not met within six months, the measures proposed above would apply.

The non-paper considered that new Member States should be given sufficient time and assistance to meet their obligations. New States Parties would be required to establish a National Authority by 1 January 2006, provide quarterly updates to the Council, and adopt comprehensive penal legislation and administrative measures before the Eleventh Session of the Conference in 2006; otherwise the measures proposed above would apply.

At the Eleventh Session, it was proposed that the Conference should review the status of implementation of Article VII and “take any necessary measures under Article XII to ensure compliance with the Convention and to redress and remedy any situation that contravenes the provisions” of the Convention. The Conference could decide to task the Director-General with providing the United Nations Security Council, in the context of Security Council resolution 1540, with a list of States Parties that had not met their Article VII obligations.

Open-ended consultations on the results of the Action Plan and the consequences

Open-ended consultations on progress under the Action Plan were regularly held throughout its lifetime. Initially these were facilitated by Mr Mark Matthews of the United Kingdom; however, upon the UK’s assumption of the presidency of the European Union, Mr Ronald Muench of Germany assumed the role of facilitator and led the consultations to their successful conclusion. Participation in the consultations was wide throughout the summer and autumn, with 25-40 delegations regularly present. When the US non-paper was tabled in June, discussions began in earnest on what, if any, consequences there should be for States not meeting the plan’s objectives. Discussions increased in focus in August once an advance copy was distributed of the Director-General’s final report

containing commentary, statistical analysis and a 174-page annex presenting the situation in each State Party in respect of Article VII. In September the Facilitator tabled the first draft decision which was the result of his personal discussions with delegates over the summer. All further consultations by delegations during September to November were devoted to negotiating the text of the draft decision.

Delegations generally agreed that the Action Plan had been a success, in that measurable progress had been achieved by the majority of States that needed to take action, albeit much of the work was still in process. There was also general recognition that the Action Plan had led to increased attention by States Parties to implementation of the Convention and an appreciable momentum to reach the plan’s objectives. There was also a general consensus that this momentum should be fostered in order to maintain it. The range of assistance measures and assistance-providers was viewed by all as a positive contribution to be continued and augmented by further involving regional or sub-regional organisations as a means to increase awareness for the objectives of the Action Plan and to generate the necessary political support. A significant number of delegations considered that there should be consequences for the failure to meet the plan’s objectives, in order to give meaning to the overall timeframe set by the Conference. A significant number of other delegations stressed the need to continue with a cooperative approach; they considered that there were valid reasons in most cases for the delay in meeting objectives and that assistance should be augmented to help those States. Thus the debate centred on consequences and next steps. The main points of contention can be summarised as the following:

(a) The scope of the Action Plan

It was pointed out that “national implementation” implicitly touches upon all provisions of the Convention. Even though the Action Plan was meant to address Article VII, aspects of Article VI declarations, Article X information submissions on national protective programs, and Article XI reviews of trade regulations were explicitly within the scope of the plan. Some delegations considered that a selective and differentiated approach to implementation of the Convention was not advisable, i.e., why should there be consequences for delay in the implementation of Article VII obligations and no consequences for delay in the implementation of Articles IV or V obligations? Other delegations countered this argument by saying that delays in destruction obligations were being dealt with in accordance with the provisions set out by the Convention on this matter and that the consultations on the Action Plan should not be linked to other matters.

(b) “Measures”

Measures which act as an incentive, e.g., assistance and encouragement, would maintain the momentum and, if coercive measures are decided upon, they should be counterbalanced by incentives. Measures should be tailor-made to fit the needs of the State Party concerned since delay in implementation in almost every case was due to unique situations. It was noted that if coercive measures were included, this would be the first instance in which the Conference would be adopting a punitive decision. Furthermore, if restrictive measures were applied, the decision could have an impact on universality of the Convention by sending the wrong signals to States not

party. Other delegations considered that pressure must be applied to States lagging behind on implementation. A simple extension of the time frame for completing the Action Plan would undermine the credibility of the Conference and the target it had set in its decision.

It was pointed out that some of the proposed measures – for example, barring States from eligibility for membership on the Executive Council, appointment to Vice-Chair or other office or regional leadership positions, participation in international cooperation and assistance – would affect treaty rights which the Conference could not suspend by its decision alone. It was clear that a punitive decision could not be reached by consensus, and that a vote on the issue would generate serious divisions.

(c) References to UNSC res. 1540, the UN Security Council and UN General Assembly

A number of delegations objected to explicit reference to United Nations Security Council resolution 1540 (“1540”),¹⁶ saying that there was no precedence for referring to the decisions of another international organisation, the two organisations are independent, and nothing in the UN-OPCW Relationship Agreement would require Action Plan matters to be taken to the UN Security Council. Other delegations countered by saying that 1540 overlaps with Convention obligations and the Action Plan and that this fact should not be ignored. Some States considered it a useful tool of pressure to report the names of States which had not met the Action Plan objectives to the Security Council, and therefore suggested to use the routine reporting by the Director-General to the United Nations under the UN-OPCW Relationship Agreement to bring the names of these States Parties to the attention of the Security Council. Others considered such a report to be beyond the scope of the routine reporting under the Relationship Agreement. For them, such a report would have been essentially the same as a referral of a compliance issue to the Security Council, a procedure involving Article XII measures which they were not prepared to invoke.¹⁷ Some delegations also expressed serious doubts as to the competence of the Security Council on the issue.

(d) References to Article VIII, paragraph 36, and Article XII and ‘compliance’

A number of views were expressed in connection with the notion that measures could include action taken under Article VIII, paragraph 36, or Article XII of the Convention. Delegations expressed their interest in ascertaining the definitions of, and distinctions between, the terms ‘compliance’, ‘non-compliance’, ‘violation’, ‘contravention’ and ‘breach’ of the Convention and the conditions under which the two articles could be invoked to remedy those situations.

Article VIII, paragraph 36, provides the mandate to the Council to consult with States Parties regarding compliance and cases of non-compliance and to request them to take measures to redress the situation within a specified time. In cases of particular gravity and urgency, the Council can bring the matter to the UN General Assembly and Security Council. Article XII requires the Conference to take the necessary measures to ensure compliance with the Convention and to redress and remedy any situation which contravenes the provisions of the Convention. In cases where a State Party has been requested by the Council to take measures to redress

a situation and it fails to do so, the Conference may, upon Council recommendation, restrict or suspend the State Party’s rights and privileges under the Convention. In cases of particular gravity, Article XII requires the Conference to bring the issue (together with relevant information and conclusions) to the attention of the UN General Assembly and Security Council.

The view expressed was that the treaty establishes its own self-contained regime for dealing with non-compliance, and some went so far as to claim that only violations of Article I could be referred to the UN Security Council and General Assembly. It was argued that failure to fulfil obligations under Article VII was not of sufficient gravity to warrant the referral of the matter to the UN. The UN Security Council should be the organ of last resort and non-compliance with Article VII would not be a matter affecting international peace and security. Others pointed out that there is no link between Article XII and Article I; the negotiators in Geneva intentionally did not specify any limitations on Article XII, and that failure to implement at the national level may well affect international peace and security given the present threat of terrorism.

A number of States were of the view that a lack of resources by a State Party to implement the Convention could not be construed as a material breach of obligations. Lack of resources is also not a matter of grave non-compliance to be submitted to the UN organs.

The terms of the decision on follow-up to the Action Plan

Ultimately, the decision agreed upon by the Conference referred only euphemistically, not explicitly, to Article VIII, paragraph 36, Article XII, UNSC res. 1540 and the term “compliance.” The following are the actions to be taken in terms of the decision:

- (a) Any State Party without a National Authority, legislation or administrative measures to implement the Convention is to notify the OPCW of the designation or establishment of its National Authority by the 45th Council session (16-19 May 2006) and the steps it has taken to enact legislation and adopt administrative measures by the 47th Council session (7-10 November 2006). Such States Parties are to enhance their interaction with the OPCW and inform it, preferably by the end of 2005, of any difficulties it has in adopting the required measures. Each of them must also develop plans with realistic target dates, enabling the fulfilment of Article VII obligations by the 11th Conference session (5-8 December 2006), and provide the plans to the Secretariat preferably by the end of 2005. They are also to keep the OPCW informed of the progress made in implementing Article VII obligations;
- (b) The Secretariat is to continue to provide States Parties with further assistance upon request, as a matter of priority and within the parameters set by the OPCW Programme and Budget. States Parties are to provide their assistance requirements to the Secretariat, preferably by the end of 2005. The particular needs of new States Parties which have requested assistance are to be taken into account;
- (c) States Parties are encouraged to offer assistance in implementing the decision, including the provision of expertise,

development of partnerships with relevant regional organisations and through voluntary contributions;

- (d) Without prejudice to the rights and privileges of States Parties under Articles X and XI, technical assistance provided by the Secretariat to States Parties with no National Authority and which have not provided the required information, should be focused as a matter of priority on the designation or establishment of a National Authority, drafting legislation and administrative measures and on their implementation;
- (e) The Council is to monitor the implementation of the decision. In cases where a State Party has not submitted any of the information required by the 47th session, or where the Council finds the information submitted by the State Party to be inadequate, the Council will consult with the State Party and, taking into account the difficulties it previously informed the OPCW of, request it to take measures to redress the situation;
- (f) The Director-General was required by the decision to inform all States Parties of the provisions of the decision as soon as possible after the 10th Conference session. The Secretariat is to prepare regular reports on the progress throughout the year and a comprehensive report to the 47th Council session which the Council will submit to the 11th Conference session, together with its recommendations; and
- (g) The Conference will review further at its 11th Session the status of implementation of Article VII, and will consider and decide on any appropriate measures to be taken, if necessary, in order to ensure fulfilment¹⁸ by States Parties of their Article VII obligations, in particular by those States Parties that did not submit any of the required information.

Conclusion

The decision by the Conference on the follow-up to the Action Plan focuses attention on those States Parties that lack the very basics of national implementation – a National Authority and legislation to implement the Convention. It clarifies that these States Parties have been given a limited period of time to remedy these deficiencies, and that they have a responsibility to inform the OPCW of their plans, the progress they are making, the difficulties they are facing, and the assistance they need. If States Parties fail to respond to this call, the Council is required under the Conference decision to approach each of these States Parties in order to request that they redress the situation, taking into account the information that they have previously submitted to the OPCW on their difficulties. This, effectively, leads directly into the compliance assurance mechanisms set out in the Convention with regard to those States Parties that by the 47th Session of the Council have still failed to put their house in order and that have failed to inform the Council about their difficulties and their plans to rectify that situation.

The decision, furthermore, re-emphasises the need for providing assistance to those States Parties that need it, both from the OPCW and directly from willing and capable States Parties.

As the Director-General emphasized in his final report on the Action Plan, national implementation of the Convention is a process that will need continuing support.¹⁹ Progress under the Action Plan will continue to be realised as parliaments consider and adopt the drafts pending before it. The follow-up to the Action Plan in 2006 will undoubtedly yield even further results – the Director-General has already contacted all States Parties and an ambitious support programme has already emerged on the calendar. When all objectives of the Action Plan are met, the foundations for full and effective implementation at the national level will have been established by all States Parties. Nevertheless, States Parties will need to devote resources to enable a vital National Authority and the vigilant application and enforcement of the legislation and administrative measures they have adopted. The development and maintenance of the capacity for effective national implementation will be an ongoing need. Experience has shown that the sharing of practical knowledge amongst States Parties is extremely valuable to identifying and promoting best practices in national implementation. The dialogue and partnership that developed between the Secretariat and States Parties as they worked together to assist with national implementation was another very positive result of the Action Plan that will continue to be fostered in the follow-up phase and hopefully thereafter.

Notes

- ¹ The authors are, respectively, Legal Adviser (and Project Manager for the Action Plan), Senior Planning Officer (and Secretary to the open-ended facilitations on the Action Plan) and Legal Officer (principal for legislative assistance) in the Technical Secretariat of the Organisation for the Prohibition of Chemical Weapons (OPCW). The views expressed are the authors' own and do not necessarily reflect those of the OPCW Secretariat. Also the authors would like to express their appreciation to Marie-Eve Rancourt, Legal Consultant, Catherine Geci, Intern, and Kai Sebastian Melzer, Intern, in the Office of the Legal Adviser, for their meticulous records of the proceedings of the facilitations on the Action Plan during June through November 2005.
- ² Conference decision C-10/DEC.13, dated 9 November 2005.
- ³ Conference decision C-10/DEC.8, dated 10 November 2005.
- ⁴ Conference decision C-10/DEC.14, dated 11 November 2005.
- ⁵ Conference decision C-10/DEC.16, dated 11 November 2005.
- ⁶ Subparagraph 7.83(h) of the 'Report of the First Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention (First Review Conference) 28 April–9 May 2003', OPCW document RC-1/5, 9 May 2003, www.opcw.org.
- ⁷ Conference decision C-8/DEC.16 dated 24 October 2003, www.opcw.org.
- ⁸ The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, which was opened for signature on 13 January 1993 and entered into force on 29 April 1997. Amended version available at www.opcw.org.
- ⁹ In drafting the decision, delegations intentionally used the term "time frame" instead of "deadline."
- ¹⁰ Notes by the Director-General: First Progress Report on the Plan of Action Regarding the Implementation of Article VII

- Obligations (EC-36/DG.16 dated 4 March 2004, Corr.1 dated 15 March 2004 and Add.1 dated 25 March 2004); Information on the Implementation of the Plan of Action for the Implementation of Article VII Obligations (S/433/2004 dated 25 June 2004); Second Progress Report on the OPCW Plan of Action Regarding the Implementation of Article VII Obligations (EC-38/DG.16 dated 15 September 2004; Corr.1 dated 24 September 2004; and Corr.2 dated 13 October 2004); Report on the OPCW Plan of Action Regarding the Implementation of Article VII Obligations (C-9/DG.7 dated 23 November 2004); Third Progress Report on the OPCW Plan of Action Regarding the Implementation of Article VII Obligations (EC-40/DG.11 dated 16 February 2005; Corr.1 dated 21 April 2005; Add.1 dated 11 March 2005; and Add.1/Corr.1 dated 14 March 2005); Further Update on the Plan of Action Regarding the Implementation of Article VII Obligations (EC-41/DG.12 dated 15 June 2005 and Corr.1 dated 24 June 2005); Report on the Plan of Action Regarding the Implementation of Article VII Obligations (EC-42/DG.8 C-10/DG.4, dated 7 September 2005; Corr.1 dated 26 September 2005; C-10/DG.4/Rev.1 EC-M-25/DG.1 dated 2 November 2005; Add.1 dated 8 November 2005; and Corr.1 dated 10 November 2005).
- ¹¹ Reports on the sessions of the Council: paragraph 6 of EC-36/3, dated 26 March 2004; paragraph 7 of EC-38/2 dated 15 October 2004; subparagraphs 6.1 to 6.3 of EC-40/2 dated 18 March 2005; subparagraphs 5.11 to 5.13 of EC-41/5 dated 1 July 2005; paragraph 7 of EC-42/5 dated 30 September 2005; and subparagraphs 3.1 to 3.3 of EC-M-25/4 dated 11 November 2005.
- ¹² Subparagraph 9.1 of the Report of the Ninth Session of the Conference of the States Parties (C-9/6, dated 2 December 2004).
- ¹³ Conference decision C-9/DEC.4 dated 30 November 2004, www.opcw.org.
- ¹⁴ Note by the Director-General: Report on the Plan of Action Regarding the Implementation of Article VII Obligations (EC-42/DG.8 C-10/DG.4 and Corr.1 respectively dated 7 and 26 September 2005; EC-M-25/DG.1 C-10/DG.4/Rev.1, Add.1 and Corr.1, respectively dated 2, 8 and 10 November 2005).
- ¹⁵ One-hundred and fifty-six drafts have been submitted by 93 States Parties. In some cases, States Parties have requested advice on drafts several times during their governmental consultative process. Most of the drafts commented on are still going through the process of parliamentary approval.
- ¹⁶ United Nations Security Council resolution 1540, dated 28 April 2004.
- ¹⁷ See further, Article IV of the UN-OPCW Relationship Agreement, Council document EC-MXI/DEC.1 dated 1 September 2000, adopted by the Conference in C-VI/DEC.5 dated 17 May 2001.
- ¹⁸ The follow-up decision expresses the objective “measures ... to ensure **fulfilment** by all States Parties of their Article VII obligations,” (operative paragraph 14) in contrast to the original Action Plan decision language, “measures ... to ensure **compliance** by all States Parties with Article VII” (operative paragraph 19).
- ¹⁹ C-10/DG.4/Rev.1 EC-M-25/DG.1, page 3, paragraph 12.

Historical Note no. 5

Alibek, Tularaemia and The Battle of Stalingrad

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False allegations of the development, production and/or use of biological weapons (BW) were major triggers for the biological arms race that took place after World War I,¹ and in the end led to the invasion in Iraq by the US and their allies.

In this paper, I will deal with claims that the Soviet Red Army used *Francisella tularensis* as a biological weapon in WW II. Throughout WW II the Germans were very afraid of enemy use of BW following the discovery of the French BW facility *Laboratoire de prophylaxie* at the *Poudrierie nationale du Bouchet* in Vert le Petit.² Every outbreak of infectious diseases or intoxications in the homeland and in occupied regions, especially those deviating from the norm, had been thoroughly investigated.³ But by the end of WW II, only a few cases of biosabotage had been detected by the Germans.⁴

So when Ken Alibek, alias Kantjan Alibekov, a former director of the Soviet BW organization *Biopreparat*, alleged after his defection to the West that the Soviet Red Army had used *Francisella tularensis* as a weapon against German troops in WW II, it was not only scholars of BW history who took notice.

Francisella tularensis, the agent causing tularaemia, is one of the most pathogenic bacteria known, and can be easily disseminated. For these reasons, it is considered a candidate BW agent.⁵ Experts of a CDC Strategic Planning Workgroup placed *F. tularensis* in that category of biological agents that “have the greatest potential for adverse public health impact with mass casualties”.⁶ In the past, *F. tularensis* has been studied, produced, weaponized, and stockpiled by Japan, by the US, and by the Soviet Union.⁷ France likewise at least considered the use of *F. tularensis* before WWII.⁸ Recently, concerns have once again focused on the possible use of this agent for bioterrorism,⁹ and *F. tularensis* was indeed procured by the Rajneeshee sect while planning their bioterrorist activities in 1984,¹⁰ though in the end, they decided to use *Salmonella typhimurium* as a sabotage agent instead.¹¹

However, there had been no claims that this agent had ever actually been used for hostile purposes.

But in a hearing in 1998, Alibek mentioned: “My own analysis of a tularaemia outbreak among German troops in southern Russia in 1942 indicates that this incident was very likely the result of the USSR’s use of biological weapons.”¹²

Alibek repeated and substantiated this claim in his widely read book *Biohazard*. A similar claim was made recently in the Russian newspaper *Pravda*.¹³

As a cadet in 1973, Alibek was reportedly requested by one of his professors to evaluate a “mysterious outbreak of tularaemia on the German-Soviet front shortly before the Battle of Stalingrad in 1942”. He assessed the voluminous *History of Soviet Military Medicine in the Great Patriotic War 1941-1945* as well as scientific journals from the war-time period, and he came to the conclusion mentioned above.¹⁴

But one should have some reservations about Alibek’s claims, not least because he based them neither on personal experience nor on documents conclusively proving the alleged use of *F. tularensis* as BW by the Red Army. Moreover, in the absence of hard facts, Alibek’s claims are not convincingly supported by his arguments, which are summarized below.

Hence, the members of a “Working Group on Civilian Biodefense”, convened by the Center for Civilian Biodefense Studies, Johns Hopkins University Schools of Medicine, mentioned rather cautiously that “Ken Alibek *has suggested* that tularaemia outbreaks affecting tens of thousands of Soviet and German soldiers on the eastern European front during World War II *may have been the result of intentional use*”¹⁵ [emphasis added]. Other experts pointed out, that Alibek’s “report has not been substantiated”.¹⁶ Croddy and Krcalova, in evaluating several reports published in Soviet-Russian journals, concluded that the epidemic was not caused by the deliberate dissemination of *F. tularensis* but rather “was a natural outbreak” caused by “a complete breakdown in public health infrastructure”.¹⁷

Up to now, only a few contemporary German sources have been considered¹⁸ in order to prove or disprove Alibek’s claim. Therefore, encouraged by Stefan Winkle¹⁹ I undertook to assess – in addition to some Russian papers – more contemporary reports published by German medical officers – three of whom were serving in a panzer army at the time in question – and to compare them with the arguments made by Alibek and the author of the *Pravda* paper, respectively:

1. A “mysterious outbreak of tularaemia on the German-Soviet front [occurred] shortly before the Battle of Stalingrad in 1942”.²⁰

But: The outbreak of 1942 was not “mysterious” at all, since it was not the first epidemic of tularaemia in the land-bridge between the Black Sea and the Caspian Sea. Since 1926²¹ several large outbreaks had been reported:²² in 1938 there was an epidemic causing several thousand cases of tularaemia,²³ and another large outbreak occurred during the winter of 1941-42.²⁴

Tularaemia was in fact endemic in that region.²⁵ For this reason, an effective protective system had been organized by the Soviet administration before the German occupation. An important element of the protective system involved wiping out mice and other murine rodents (the main transmitters of the disease – and of plague, which was also endemic in that area) by the use of so-called “deratisators”.²⁶ In January 1941, recommendations had also been issued by the High Command of the Soviet Southwest army in order to prevent tularaemia.²⁷

2. Alibek claims that a large outbreak of tularaemia suddenly occurred in the Volga region first among

*German panzer troops late in the summer of 1942. Within a week of the initial German outbreak, thousands of Russian soldiers and civilians living in the Volga region also came down with tularaemia.*²⁸ Likewise, according to the article in *Pravda* “[t]he use of infected rats against the Nazi army had an inverse effect too: the disease came over the front line, and infected a lot of Soviet soldiers”.

But: The outbreak did not affect German troops first. When German troops approached the region some soldiers developed tularaemia “subsequent to infections among the Russian civilian population”.²⁹ Gerhard Rose, Chief Consultant in Tropical Medicine to the German Air Force, pointed out in an interrogation “that the Germans were greatly surprised to find extensive epidemics of tularaemia in Russia among the civilian population in the Donetz Basin and along the Black Sea”.³⁰ Besides, the outbreaks of tularaemia did not start in the summer but in the winter: the 1941-42 outbreak lasted from October until June, with a peak in January (14,000 cases)³¹, and the 1942-43 epidemic started in November and lasted until the end of February.³²

3. According to Alibek, the number of cases of tularaemia rose from a normal figure of about 10,000 in 1941 to more than 100,000 in 1942, whereas the incidence of the disease returned to 10,000 in 1943.

But this assertion is to be doubted, too. The peak of the 1942-43 epidemic was not reached in 1942 but in mid-January 1943.³³

Furthermore, according to the leading Soviet epidemiologist Victor Zhdanov, about 100,000 cases per annum had been reported throughout the 1940s and not only in that particular year.³⁴ And in any case, independently of the difference in these figures, the following numbers make it clear how marginal the impact of the epidemic actually was on the capability of the German troops: While Gerhard Rose recalled that the cases of tularaemia among the Russian people during the war “numbered hundreds of thousands”³⁵, only 130 German soldiers suffered from tularaemia in 1941-42³⁶, and during the period 1939-43³⁷ altogether 1771 cases of tularaemia had been diagnosed in the German field forces (plus an additional two in the replacement forces). Moreover, these figures include cases diagnosed among troops serving in Norway. Hence, the claim made in the *Pravda* article that “about 50 percent of German prisoners who were taken captive after the battle of Stalingrad, were suffering from classic symptoms of tularaemia”³⁸ is simply not credible.

From a German perspective, tularaemia was indeed a war disease, but of much less importance than other diseases³⁹. In fact, in a contemporary monograph on war diseases, tularaemia was not even mentioned at all⁴⁰.

4. Alibek mentioned that most of the journals he studied in the course of his evaluation “reported this as a naturally occurring epidemic”. Nevertheless, he came to a different conclusion⁴¹.

But like Winkle⁴² and like Croddy and Krcalova⁴³ I am convinced that the journals studied by Alibek drew the correct conclusions. One of the papers which should have been available to Alibek during his studies in 1973 was published

by leading Soviet expert I.I. Rogozin⁴⁴. Rogozin observed that there had been a massive multiplication of infected rodents. He concluded that “a decisive source of the infection [with *F. tularensis*] revealed the inhalation of dust when contaminated straw was used as mattresses”. This assessment is to be taken very seriously since Rogozin was head of the anti-epidemic department of the People’s Health Commissariat (i.e. the Ministry of Health) who himself studied the outbreak in 1942 on the spot^{45 a}. Correspondingly, according to a Soviet monograph, since the fighting persisted in the region throughout the normal period of the grain harvest, the crops were left standing in the fields, providing ample food for the murine rodents, and causing an intensive multiplication in their numbers. That supported their infection with *Francisella tularensis*. In consequence, the infected animals contaminated large areas of the regions of Rostov, Stalingrad and Woroschilowgrad and caused outbreaks of tularaemia in that area⁴⁶.

These conclusions totally correspond with assessments drawn and published during WW II by German medical officers in at least eight articles. Each of these papers describe more or less at length that the outbreak was caused by field mice, forest mice, shrews and other rodents, which multiplied rapidly because crops remained unharvested and the grass uncut because of the war, thus providing a large source of food for the rodents⁴⁷.

Another reason for the enormous multiplication of the rodents – according to both German and Russian experts – was that the systems established to prevent plague and tularaemia had totally collapsed as a consequence of the war^{48, 49}.

The animals – a high percentage of which were infected with *Francisella tularensis*⁵⁰ – excreted the bacteria with their faeces so that the bacteria were disseminated with the dust from the fields and/or with contaminated bread and other food⁵¹. The majority of soldiers treated in a military hospital specializing in tularaemia had been infected orally by contaminated bread and other food.⁵² Gerhard Rose recalled that tularaemia “was transmitted by direct contact through food, or by mice and rats”⁵³. Occasionally the bacteria had been transmitted also by insects (especially mosquitos and ticks)⁵⁴, by contaminated water⁵⁵ and – sometimes – by biting mice⁵⁶. (The outbreaks of 1926 and 1928 were caused by water rats who were present in consequence of the flooding of the river Volga⁵⁷.)

In order to protect the German troops from tularaemia, the soldiers were advised to follow the recommendations - issued by the Soviet Southwest army back in 1941 - not to take up quarters in contaminated villages or, better still, to bypass the villages altogether. Contaminated hay or straw should be contained in trenches and burned. Such activities should be performed preferably “by civilians who had already survived tularaemia”⁵⁸.

5. *Because 70 percent of the infected persons suffered from pulmonary tularaemia, Alibek concluded that “only exposure to a sudden and concentrated quantity of tularaemia could explain the onslaught of infections in the German troops alone” and that the pneumonic form of the disease “could only have been caused by purposeful dissemination”.*⁵⁹ *Indeed, according to a German publication, 80% of the patients did suffer*

*from pulmonary tularaemia*⁶⁰. *And a Russian expert reported that 95.2% of Soviet soldiers were affected by pulmonary tularaemia in December 1942 – January 1943*⁶¹.

But this high percentage of pulmonary infections is not a proof of the hostile spread of the pathogens. Pulmonary tularaemia arises not only after a deliberate spread of *F. tularensis*, but also because of inhaled dust from contaminated straw, hay or soil. Most of the cases of inhalationary tularaemia had been caused by the use of hay for bedding in dug-outs and trenches⁶². Rogozin concluded from such data that the inhalation of dust was the decisive factor for the infection⁶³. In some cases, the occurrence of the disease disappeared within days when a military camp was moved from a field to a forest. On the other hand, soldiers developed tularaemia within a short time - even within 36 hours - when a bivouac was transferred from a forest to a field⁶⁴.

6. *When Alibek told his professor that the pattern of the disease “suggests that this epidemic was caused intentionally”, the professor asked him not to talk about this assumption again and never to mention it to anyone*⁶⁵. *This reaction “convinced” Alibek that the “Soviet troops must have sprayed tularaemia at the Germans. A sudden change in the direction of the wind, or contaminated rodents passing through the lines, had infected our soldiers and the disease had then spread through the region”*⁶⁶.

But the reaction of the professor is clearly not proof substantiating Alibek’s assumption. On the contrary, the professor might have been attempting to prevent his student from spreading a crazy unproven idea.

7. *Later Alibek met an elderly lieutenant colonel of the Red Army, who worked in a secret BW laboratory in Kirov during WW II. The officer told him that a tularaemia weapon had been developed in 1941. He left Alibek “with no doubt that the weapon had been used”*⁶⁷.

*Presumably the Soviet pre-war BW programme did indeed already include activities with *F. tularensis**⁶⁸. *According to leading BW expert Professor Heinrich Kliewe, a Soviet prisoner of war had testified before the German Abwehr in 1942 that “joint experiments with tularaemia agents were made with good success on the Isle of Wosroschdenije. The bacteria emulsions were supposedly filled in ‘tanks’ fastened to motor vehicles. They were dispersed as microbe clouds under high pressure in the direction of the wind; also little glass balloons and infected metal darts were dropped from airplanes”*⁶⁹. *This information prompted Kliewe in 1943 to recommend measures for protection from hostile spread of *F. tularensis* and other pathogens*⁷⁰. *By the way, allegations regarding the misuse of *Francisella tularensis* have a long tradition in the USSR. In 1931 German epidemiologist Professor Heinrich Zeiss was expelled from the Soviet Union after being involved in the control of plague, tularaemia and other infectious diseases for more than ten years.*

Zeiss was accused of having provided German facilities with F. tularensis “for military purposes” (note 71). 48 of his Russian collaborators were imprisoned. About ten years later leading Soviet microbiologists have been accused and imprisoned again, some of whom even executed, because they had allegedly performed biosabotage and spread, inter alia, tularaemia between 1939-41 (Merkulov, note 72).

But Kliewe did not mention any alleged or actual use of bacteria as weapons by Soviet troops or saboteurs⁷³. Apart from Alibek’s claims, there have been no reports on the actual use of *F. tularensis* as a warfare agent or in bioterrorist attacks. There have been also no other reports regarding an alleged use of BW by the Red Army which was obviously not prepared to use such weapons during WW II for several reasons⁷⁴. Neither German medical officers nor Soviet authors considered in their publications the possibility of a hostile spread of tularaemia agents as a possible source for the infections observed. Likewise, the sanitary officers did not discuss such a possibility in private contacts with Eduard Boecker of the Robert Koch-Institute, Berlin, who was involved in the diagnostics of tularaemia and other diseases during the war⁷⁵. After the war Kliewe mentioned the “alleged possibility of the Russians using bacterial clouds of plague and tularaemia”⁷⁶ but testified that “although there seems to have been a belief that the Russians were all ready to use BW there is complete absence of any documentary proof of this, despite the fact that the Germans overran two of the alleged BW stations”⁷⁷. Similarly, Walter Hirsch, head of the German BW committee *Arbeitsgemeinschaft Blitzableiter* reported that “[o]nly the employment by the [BW] agents [presumably studied by the Russians] in the hinterland, mainly in Warsaw, and few other large places in the zone of communications such as Kiev and Minsk could be ascertained by the Germans”⁷⁸.

8. According to Alibek, “such large numbers” of German panzer troops suffered from tularaemia that the Nazi campaign in southern Russia ground to a temporary halt, thus suggesting that the German defeat at Stalingrad was at least partially caused by that outbreak⁷⁹.

The 4th Panzer Army did indeed interrupt their advance towards Stalingrad, **but** already in July 1942 – five months before the first cases of tularaemia occurred in November of that year⁸⁰. The advance of the troops towards Stalingrad was not delayed by the disease, but by Hitler. On 13 July 1942 he gave orders to change the direction of their advance southward to support the 1st Panzer Army, that had orders to cross river Don south of Stalingrad near Rostov, and to approach the Caucasus Mountains⁸¹. This decision was revised only 18 days later when Hitler ordered instead that the 4th Panzer Army were to attack Stalingrad⁸².

According to the well-known military expert Basil Henry Liddell Hart, Hitler’s order of 13 July was a major cause for the German defeat in the battle of Stalingrad⁸³. The *Führer* was responsible for the disaster, and not *Francisella tularensis* (independent of whether the disease was weaponized and spread by the Red Army or not).

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Notes

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Report from Geneva

Review no 24

The Biological Weapons Convention Meeting of States Parties, 2005

As reported in *Bulletin 68* (June 2005), the Meeting of Experts of the States Parties of the Biological and Toxin Weapons Convention (BWC) on 13 to 24 June 2005 had made significant progress in considering the single topic identified for 2005:

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

by producing a report (BWC/MSP/2005/MX/3 dated 5 August 2005 – this and other official BWC documentation is available at <http://www.opbw.org>). Attached to the report as Annex I was a paper prepared by the Chairman listing the considerations, lessons, perspectives, recommendations, conclusions, and proposals drawn from the presentations, statements, working papers and interventions made by delegations on the topics under discussion at the Meeting. The report, as in the report from MX/2004 a year earlier, stated that "[t]he Meeting of Experts noted that it was the Chairman's view that the paper could assist delegations in their preparations for the Meeting of States Parties in December 2005 and in its consideration of how best to "discuss, and promote common understanding and effective action on" the topic in accordance with the decision of the Fifth Review Conference.'

This provided the States Parties with an excellent starting point from which to develop language to meet the requirement of the mandate for the Meeting of State Parties in December 2005 to 'discuss, and promote common understandings and effective action'.

Preparations for the Meeting of States Parties, 2005

The Final Report (BWC/MSP/2004/MX/3 dated 5 August 2005) of the Meeting of Experts comprised a report of 5 pages together with Annex I, a 39 page listing of the considerations, lessons, perspectives, recommendations, conclusions, and proposals drawn from the presentations, statements, working papers and interventions made by delegations on the topic under discussion at the Meeting; and Annex II, a 6 page listing of the documents of the Meeting of Experts.

The Chairman, Ambassador John Freeman of the UK, wrote to the States Parties on 20 September 2004 to say that he intended to continue to follow precedent established in previous years of this process and will work with the regional groups and individual States Parties closely and transparently. To that end he attached a five page synthesis of the Annex to the report of the Meeting of Experts encompassing the considerations, lessons, perspectives, recommendations, conclusions and proposals drawn from the presentations, statements, working papers and interventions from that

meeting. This synthesis document clustered the many ideas expressed at the meeting in a logical way removing the repetitions, but remained based on the discussions at the Meeting of Experts and did not include any new ideas or concepts. The Chairman said that it is not meant to be prescriptive or to prejudice the work in December but he hoped it would be a useful tool in preparing for that meeting and provide an indication of areas where States Parties might look to find common understanding and effective action as directed by our mandate.

The clusters in the synthesis document (subsequently circulated in all languages at MSP/2005 as MSP/2005/L.1 dated 16 November 2005) were:

General Considerations

Purpose and Benefits

Desirable Qualities

Scope, Form and Structure

Content of Codes of Conduct

Principles

References to Norms, Laws and Standards

Ethical Guidance

Notification, Sanctions and Consequence

Adoption of Codes of Conduct

Principles

Wider Involvement

Methods

Promulgation of Codes of Conduct

Principles

Methods

For each cluster, a preambular paragraph was followed by a series of bullet points thus following a format similar to that which had been adopted in the final reports of MSP/2003 and MSP/2004. However, the language used in the preambular paragraphs for each cluster in the synthesis paper prepared for MSP/2005 was less assured – using “*suggested that*”, rather than the “*States Parties should*” used in the synthesis paper prepared for MSP/2004.

The Chairman’s letter of 20 September 2005 went on to set out a proposed timetable for the week with an opening plenary session on the morning of Monday 5 December followed by an afternoon session for IOs/NGOs noting that if any of the International Organisations which spoke to MX/2005 ask for an opportunity to update us he would consider such interventions on the Monday afternoon. Should other experts from the Meeting of Experts also wish to update MSP/2005, he would circulate their comments in writing to all delegations. He also planned to set aside an hour or so to allow NGOs to address the Meeting of States Parties, as has been the case in the last two years.

Tuesday and Wednesday would be set aside for the discussion of the topic, with the hope that late on Wednesday or early on Thursday the Chairman would circulate draft language for the report. Thursday would be available for consultation with a view to the adoption of the report on the Friday. In addition, the Chairman’s letter noted that the Secretariat has also suggested that States Parties will wish to discuss administrative arrangements relevant to the 2006 Review Conference, in particular the budget and he would ensure time is made available for this.

In New York, in the First Committee of the United Nations General Assembly, Hungary on 12 October 2005 introduced a draft resolution (A/C.1/60/L.33) on the BWC. In its operative paragraphs, the resolution noted with satisfaction the number of States that have become Party to the Convention and reaffirmed the call upon all States not yet party to become so at an early date, welcomed the information and data provided to date and reiterated its call upon all States Parties to participate in the exchange of information and data agreed at the Third Review Conference. In the third operative paragraph, the resolution:

“3. Recalls *the decision reached at the Fifth Review Conference (in BWC/CONF.V/17, para. 18) to discuss and promote common understanding and effective action: ... in 2005 on the topic of the content, promulgation and adoption of codes of conduct for scientists; and calls upon the States parties to the Convention to participate in its implementation;*”

The fourth operative paragraph “*Welcomes the significant participation of the States parties at the meetings of the States parties and meetings of experts to date and the constructive and useful exchange of information achieved, and welcomes also the discussion and the promotion of common understanding and effective action on agreed topic*” reflects the general feeling that the discussions at the annual meetings have been useful.

The fifth operative paragraph looks ahead to the Sixth Review Conference saying that “*the Sixth Review Conference will be held in Geneva in 2006 and the dates will be formally agreed by the preparatory committee for that Conference, which will be open to all States parties to the Convention and which will meet in Geneva during the week beginning 24 April 2006.*” Unlike previous comparable resolutions, this one did not give the precise dates for either the preparatory committee or for the Review Conference itself.

As expected, the First Committee adopted this draft resolution without a vote on 28 October 2005. It was subsequently approved by the General Assembly without a vote on 8 December 2005 as A/RES/60/96.

Other Preparations

On the weekend of 3-4 December 2005 before the Meeting of States Parties, there was a workshop in Geneva of the Pugwash Study Group on the Implementation of the Chemical and Biological Weapons Conventions entitled “*Achieving a Successful Outcome of the Sixth Review Conference.*” About 80 participants from 20 countries had a very useful and intense exchange of views which focussed on a successful outcome to the Sixth Review Conference in 2006.

Meeting of States Parties, 5 to 9 December 2005: Opening Plenary Session

The Meeting of States Parties began on Monday 5 December 2005 in a plenary session when the Chairman, John Freeman of the UK, welcomed the representatives from the States Parties. 87 States Parties participated in the Meeting of States Parties — five more than in the Meeting of Experts, as

Albania, Belarus, Bhutan, Bosnia-Herzegovina, Costa Rica, Ecuador, Ghana, Kyrgyzstan, Lesotho, Oman, Senegal, Sri Lanka, Sudan, The former Yugoslav Republic of Macedonia and Venezuela participated in December, whilst Afghanistan, Bahrein, Benin, Cambodia, Georgia, Iraq, Kenya, Luxembourg, Qatar and Singapore did not. Seven Signatory States participated: Egypt, Haiti, Madagascar, Myanmar, the Syrian Arab Republic, the United Arab Emirates and the United Republic of Tanzania; four more (Haiti, Myanmar, the United Arab Emirates and the United Republic of Tanzania) than in June. Two State neither Party or Signatory, Israel and Kazakhstan, were granted Observer status; one more (Kazakhstan) than in June. The Convention now has 155 States Parties and 16 Signatory States (see BWC/MSP/2005/MX/INF.5).

Four intergovernmental organizations (ICGEB, ICRC, OECD and OPCW) participated as observers as did UNIDIR and UNMOVIC and 18 NGOs (BWPP, CACNP, CSIS, INES, Inter Academy Panel, Kodikanai Institute of Technology (India), Pugwash, Queen's University Belfast, South African History Archive, SIPRI, LSE, The US National Academies – USA, The University of Bradford, The University of Exeter, The University of Hamburg, Tri-Valley Cares, VERTIC, and the Wellcome Trust). Over 380 individuals from States Parties participated, of whom just under 170 had come from capitals.

In the opening formalities, the provisional agenda (MSP/2005/1) and the provisional programme of work (MSP/2005/2) for the meeting were formally adopted, although one slight change to the programme of work was noted in that on the Monday afternoon the statements by IGOs would be taken prior to the informal session in which NGOs would be able to make statements. The rules of procedure of the Fifth Review Conference (as annexed to CONF.V/17) were formally adopted which would apply *mutatis mutandis*. The Chairman said that four specialized agencies had requested that they participate as observers: ICGEB, ICRC, OECD and the OPCW. This participation was agreed. The Chairman went on to note that there was a considerable NGO participation with significant lunchtime meetings. He proposed to suspend the formal meetings so that, as had been done at the Fourth and Fifth Review Conferences, at the Meeting of Experts and of States Parties in 2003 and 2004 and at the Meeting of Experts in 2005, NGOs could make statements to the States Parties in informal session on Monday afternoon immediately after the statements by the IGOs. This was agreed, concluding the formalities.

John Freeman went on to say that his synthesis paper was now available in all languages as BWC/MSP/2005/L.1. He also reminded delegations that all working papers would be distributed in the language of their submission only, whilst the report and any substantive documents would be translated into all languages. He reminded delegations that documents were available from the UN document system and that this was frequently the easiest way to obtain them.

He went on to say that one of the guests of the Meeting of Experts, the Inter Academy Panel on International Issues, had formally agreed a “*Statement on Biosecurity*” that was relevant to the work of the Meeting of States Parties, and this would be circulated to delegations. He concluded his opening remarks by saying that he looked forward to a productive week in accordance with the mandate for the Meeting.

Political Statements

The meeting then continued with the General Debate in which a message was first delivered on behalf of the Secretary-General and then 29 statements were made by States Parties in the following sequence: Malaysia on behalf of the Non-Aligned Movement (NAM), UK on behalf of the EU, Canada, China, Japan, Russian Federation, Saudi Arabia, Germany, Sweden, New Zealand, USA, Switzerland, Argentina, India, Norway, Iran, Morocco, Algeria, Brazil, Australia, Belarus, Mexico, Indonesia, Jordan, France, Nigeria, Nigeria, Kazakhstan (a State not Party to the Convention), Ukraine, Italy and Pakistan. Many of the statements made by the States Parties took the opportunity to look ahead to the Sixth Review Conference in 2006.

The message from the **Secretary-General** noted that this year marked the anniversary of two major treaties addressing the terrible threat posed by biological weapons. In regard to the Geneva Protocol, “*it is appropriate to call on the countries that still maintain reservations to the Protocol to withdraw them, since other conventions agreed to since then have rendered them obsolete.*” In considering the 30th anniversary of the entry into force of the Biological and Toxin Weapons Convention, this “*remains at least as relevant today, given the challenges of the time*” and “[*t*]here has never been more urgent need for international commitment to the universal application and full compliance with the Convention”.

The Secretary-General went on to say “*looking ahead to next year's review conference, this is a major opportunity to reaffirm the ban on biological and toxin weapons. It will also provide a chance to address the threat posed by the possible use of such weapons by terrorists. ... It is increasingly understood that bolstering the biological security regime has become a matter of tremendous importance for global health and international peace and security. I urge you to recognize how much is at stake, and to make concerted efforts to ensure that next year's Review Conference succeeds in its task.*”

Malaysia spoke on behalf of the **NAM and Other States Parties**, and noted that like the rest of the international community, “*all members of the Group are seriously concerned with the potential threats of the use of biological agents and toxins as an instrument of war or terror. In the light of this development, the Group feels that there is a greater necessity and urgency for the States Parties to work towards strengthening and improving the effectiveness and implementation of this Convention so that together we can fully address this concern.*” The statement went on to say that “[*t*]he high importance the Group attaches to an effective and verifiable BWC, implemented in a comprehensive manner cannot be overemphasized”, and said that “[*t*]he Group further recognizes the particular importance of strengthening the Convention through multilateral negotiations for a legally binding Protocol to the Convention. We believe that the effective contribution of the Convention to international and regional peace and security would be enhanced through universal adherence to the Convention. The Group stresses the particular importance of all States

Parties to pursuer the objectives that were set forth by the Fourth Review Conference in 1996, as we strongly believe that the only sustainable method of strengthening the Convention is through multilateral negotiations aimed at concluding a non-discriminatory legally binding instrument, dealing with all the Articles of the Convention in a balanced and comprehensive manner.”

The statement concluded by reemphasizing *“the Group’s commitment towards preserving multilateralism as the only vehicle for preventing the reprehensible use of disease as instruments of terror and war in a sustainable way.”*

The **UK** then spoke on behalf of the **European Union** and also **Bulgaria, Romania, Turkey and Croatia** as well as **Albania, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia and Serbia and Montenegro** and the EFTA country, **Norway**, and **Ukraine and the Republic of Moldova**. The statement began by saying that the *“European Union continues to attach high priority to the strengthening of the Biological and Toxin Weapons Convention (BTWC). The Convention remains the fundamental legal and normative foundation of our individual and collective obligation to biological disarmament, our efforts to prevent the proliferation of biological and toxin weapons, and the means to counter the threat of biological agents and toxins being developed as weapons. The EU remains committed to developing measures to verify compliance with the BTWC.”*

The EU went on to say that, as a demonstration of its support, it hopes to finalise soon a Joint Action to enhance the universality of the Convention through outreach and to help States Parties improve their national implementation through the provision of assistance. In regard to the Meeting of States Parties, the EU considers that the task *“this week is to make recommendations for the way forward. ... In broad terms, the EU supports an outcome that recognizes the value of codes of conduct related to the legal, ethical and normative elements of the prohibition on biological and toxin weapons and the potential usefulness of the instrument for supplementing national implementation measures. ... The EU believes we should leave this Meeting of States Parties with a clear commitment to further work in this area, to be undertaken at the most appropriate levels.”*

Looking ahead to the Review Conference, the EU said that it had already begun its planning for the Review Conference and that *“without losing sight of the long-term objectives for the Convention, the EU believes that the Review Conference must contribute actively to continued enhancement of the implementation of the BTWC and that our efforts should focus on specific, feasible and practical enhancements to strengthen the Convention and its implementation. To that end, and building on the success and the lessons of the current work programme, we believe there should be a further intersessional work programme and are currently considering the topics that could usefully be covered in such a programme.”*

The EU concluded by reiterating that *“the States Parties to the BTWC must be fully alert to the challenges posed by biological and toxin weapons and their potential use. We cannot shirk our responsibilities and we must address the threat by whatever means we can. The Review Conference in 2006 is a good opportunity to take this important work forward.”*

Canada then spoke, saying that it had found the entire 2003 – 2005 intersessional process had been a positive and constructive experience. However, they did not represent the sum total of activity necessary to support the Convention. Looking ahead to the Review Conference in 2006, the statement said that *“Canada views the Biological and Toxin Weapons Convention as a vital convention embodying a comprehensive and crucial prohibition. We stress the need for us all to be fully engaged in promoting the Convention’s universality, in ensuring its implementation and in reinforcing its authority. In this regard, the Review Conference represents a major opportunity to take a fresh look at our progress to date and to address areas of deficiency.”* The statement went on to say that *“States Parties, in our view, need to start examining possibilities for Review Conference ‘deliverables’.* A Canadian non-paper that looks forward to the 2006 Conference has been circulated Among the ideas spelled out in the paper are: the formulation of action plans for BTWC universalization and national implementation; the further elaboration of transparency and confidence-building measures; continued annual BTWC meetings; the establishment of a BTWC Scientific Advisory Board; and provision for BTWC implementation support. These are the types of practical steps that the membership should consider adopting to reinforce the strength and authority of this Treaty which bans a deadly class of WMD.” The statement concluded by calling for a session devoted this week to future perspectives, which would clearly help us to advance our preparations for next year’s meetings, rather than leaving all policy-rich discussion to lunch-time events.

China then spoke, saying that *“the rapid development and enormous potential of biotechnology and life science have greatly contributed to the fight against diseases and safeguard of health by mankind. However, they have also brought new challenges to the prevention of the bio-terrorism threat and abuse of bio-research for weapon purposes.”* The statement went on to say that *“the 6th Review Conference of the BWC which will be held next year will review the implementation of all the articles of the BWC. It will be of great significance in strengthening the effectiveness of the BWC and affecting the way ahead of the multilateral process for biological disarmament. The international community should seize the chance to further explore the measures on strengthening the BWC in the multilateral framework. The rapid development of biotechnology, the possible prevalence of cross-border infectious diseases and the danger of bio-terrorists remind us of the necessity and urgency to strengthen the BWC. China is always supportive of strengthening the the effectiveness of the BWC in a comprehensive manner in the multilateral framework and is ready to work with other States Parties to contribute to the success of the Review Conference.”*

Japan spoke next, providing views on the code of conduct for scientists, and then noting that the three-year programme of work will be completed with the conclusion of this meeting. The statement went on to say that *“one of our tasks at the Sixth Review Conference next year will be to consider the work of the meetings for the past three years and decide on any further action. Therefore, it is essential*

this stage, for the States Parties to commence preparatory work, such as examine the outcomes of these meetings, identify the elements that can contribute to the strengthening of the BWC, and specify further concrete actions.” Japan concluded by saying that “this meeting will be the last opportunity for many States Parties to meet before the Preparatory Committee next year. Therefore, for the successful outcome of next year’s Review Conference, Japan would like to encourage the States Parties to make full use of this opportunity to informally exchange their views. Furthermore, in order to ensure the smooth commencement of the Preparatory Committee, Japan hopes that the necessary procedural arrangements will be made without delay.”

The Russian Federation then spoke, saying that “the development of the global situation since the last annual meeting of States parties ... in December 2004 has once again confirmed the relevance of our efforts aimed at identifying the ways to strengthen the BTWC.” The statement noted that 2005 had marked the 30th anniversary of the entry into force of the Convention, the confirmation of the significance of the BTWC in UN SCR 1540 and the reflection in the G8 Gleneagles statement. The statement went on to say that “we would like to stress that we consider biologists’ codes of conduct as one of the additional measures in terms of BTWC compliance. At the same time, our priority in insuring an effective implementation of the Convention bans is the adoption of the appropriate national legislation, including criminal legislation. Meanwhile, we are still of the opinion that the task of strengthening the Convention through the development of a legally binding mechanism of the verification of its compliance remains relevant.” The Russian statement concluded by saying that they have hope “that by the time the Sixth BTWC Review Conference starts in 2006, we will be equipped with specific ideas. We think that the results of our implementation of the triennial program of work must be reflected in the outcome documents of the Sixth Review Conference which is already in preparation.”

Saudi Arabia then spoke, stating that the Convention unquestionably forms a sound basis on which to address the delicate situation needed to concert international peaceful efforts for security and stability. The statement went on to outline the steps being taken by its government authorities to meet the provisions of the Convention.

Germany then spoke, first reflecting upon the Meeting of Experts, and going on to say that “it would be most advantageous if States Parties were in a position to report to the Sixth Review Conference that they have taken action to remedy shortcomings identified at the 2003 to 2005 Meetings.” The statement then asked whether any future system of further meetings after the Review Conference in 2006 would result “in further direct regime consolidation, enforcement and adaptation to new needs?” to which the German answer is a clear yes. In looking ahead to the Review Conference, Germany noted that “the second task for the Review Conference will be to review the Convention’s operation in the light of developments since the last Conference. It has to be kept in mind here that the last final review document, within the meaning of Article XII,

dates back to 1996. States Parties must conduct a full and comprehensive review of the Convention and produce a final document that reflects this work and sets a credible future course.” The statement went on to say that “[i]n the longer term, Germany remains committed to developing measures to verify compliance with the BTWC. The Review Conference is an important opportunity to agree on specific and realistic measures to strengthen both the Convention itself and compliance with it.” Germany concluded by saying “[u]niversality remains an important goal and the RevCon should agree on a practical strategy towards that aim, including the possible adoption of an action plan. Germany, together with all EU partners, remains committed to developing measures to verify compliance with the BTWC. For the time being, the annual return of CBMs plays an important role by offering an official, transparent and systematic demonstration of ongoing compliance with the BTWC, as well as fulfilling commitments undertaken at Review Conferences.”

Sweden then spoke, noting that “concrete suggestions were made [by the UN High Level Panel report and the S-G’s report In Larger Freedom] on how to strengthen the implementation of the BTWC. The UN Summit in September failed to bring any of these suggestions forward. It is now incumbent on us, the States Parties, to do what is necessary to ensure a strong and viable regime.” The statement went on to look ahead to the Review Conference saying “we need to thoroughly review all aspects of the operations of the Treaty, in accordance with its article XII, and in so doing be guided by the substance at hand. This includes measures to strengthen the implementation of the Convention, to help States fulfil their obligations, to reduce the threat from biological weapons and agents and to move towards universal adherence. One key issue will be how to further the process of developing effective measures to verify compliance with the Convention. Recent failures to achieve a viable verification regime must not prevent us from seeking common understanding and substantive ways forward. In the process we must be creative and avoid becoming bogged down in traditional trenches. The stakes are much too high.” Sweden concluded by saying that “[t]he tasks ahead are challenging. But the realities of biological warfare or terror are such that we cannot afford to fail. Realistic ambitions are those that match these realities.”

New Zealand then spoke, welcoming the Chairman’s synthesis paper and looking forward to the adoption of non-binding guidance. The statement then said “we see merit in states parties beginning to reflect on new ideas to take the Convention forward in 2006. New Zealand will certainly be among those seeking to strengthen the Convention. In that respect we welcome ideas that have been circulated informally by other participants. We support proposed action plans for universality and national implementation, including through encouragement in relevant regional forums and in bilateral contacts. We also support strengthening the treaty secretariat, especially because we do not wish to lose sight of capacity constraints that may hinder small developing countries’ implementation efforts.”

The **USA** then spoke, looking back at the successful Meeting of Experts in June 2005 and welcoming the fact that the Inter Academy Panel (IAP) had on 1 December released basic principles relating to the construction of codes of conduct which had been formally endorsed by 69 of the 92 IAP members. The statement goes on to note that, as we enter the final meeting of the 2003 – 2005 Work Program, *“the expert discussions, and related preparatory and follow-on work, has created renewed awareness of the importance of effective national measures and how such measures are a key component in stemming the threat of biological weapons. Indeed, in the consideration of how to strengthen and make more effective the BWC regime, the strengthening of national efforts to implement the Convention are key.”* The statement concludes by saying *“we hope that the unique efforts of this year can be captured in some overarching manner and we look forward to a thorough review of national progress on all the Work Program topics at the Review Conference next year.”*

Switzerland then spoke saying that *“this follow-up process will take us up to the next review conference in 2006, which we hope will adopt specific recommendations in the light of the efforts of the past three years.”* In regard to the adoption of a universal code of behaviour, Switzerland said that *“it needs to be accompanied by implementation at the national level, and the results need to be communicated to the States Parties. We believe that every State Party to the BWC should be in a position to give periodical reports of the implementation of the code.”* Looking ahead to the Review Conference, Switzerland said that it *“believes that it time for us all carefully to prepare for the 6th Review Conference of the BWC which will take place in Geneva in 2006. In this context, we welcome the proposals formulated by Canada in the non-paper that was circulated in September 2005.”*

Argentina then spoke, pointing out that, in the light of developments in biotechnology, it was necessary to raise the awareness of the risks associated with the abuse of biotechnology. In regard to the Review Conference in 2006, which needed to strengthen the Convention in all of its aspects, Argentina supported the Canadian idea of providing time this week to consider informally the issues for the Review Conference.

India then spoke, noting that the BWC has some intrinsic weaknesses and that *“India, therefore, fully supports initiatives to strengthen the Convention, ensure its full implementation by all States Parties and make it universal.”* The statement took stock of the present intersessional process and then looked ahead to the Review Conference saying that *“we believe it will provide an opportunity to review the implementation of the Convention in its entirety, and consider steps that may contribute to strengthening the Convention, further its implementation, and promote universal adherence to it. In this regard, we would like to stress the importance of promoting universal adherence to the Convention and full compliance by States Parties to all their obligations under the Convention. States Parties assume obligations and implement them in good faith, trusting that fellow States Parties would do the same. However, this assurance,*

that other States Parties are complying with their obligations, is reinforced by our ability to verify the compliance and detect non-compliance. The fear that non-compliance may be detected acts as an effective deterrence against non-compliance. Verification is also useful for its transparency enhancing quality, which in turn helps in promoting confidence. We believe that inclusion of a mechanism to verify compliance and detect non-compliance with the Convention will strengthen the instrument. The next Review Conference will provide a fresh opportunity to consider this issue.”

Norway then spoke, saying that *“we are to embark on preparations for the Review Conference next year. In this process we should be ambitious, but also realistic. We need progress, given the continued and enhanced threat by bioterrorism and challenges posed by advances in biotechnology. We must strengthen the BTWC. We must involve all stakeholders in our deliberations. We must build on experiences gained over the last ten years, while aiming for do-able and feasible options. That would include measures to ensure full compliance with the BTWC. That would also include measures to further enhance the effectiveness of Confidence Building Measures.”*

Iran then spoke, saying that *“we still believe that the effective strengthening of the implementation of the BTWC is only possible through the adoption of a comprehensive, multilaterally negotiated and legally binding international instrument.”* The statement then went on to say that *“the mandate of this process as spelt out in the Final Document of the Fifth Review Conference is to promote a common understanding and effective action on the five specific items.... it is left to the Sixth Review Conference in 2006 to ... decide on the further action required. It is also pertinent to note that the purpose of the present process is to promote and not to reach a common understanding as sometimes extrapolated. Reaching a common understanding includes an element of negotiation among States parties which is not the purpose of the current process.”*

Morocco then spoke, saying that there was an urgent need to strengthen the Convention through the multilateral negotiation of a legally binding instrument. Morocco noted that the CBMs had been agreed at the Second and Third Review Conference in order to reduce ambiguities. The statement went on to recognize the usefulness of drafting and implementing of codes of conduct to ensure that the life sciences are not misused in any way.

Algeria then spoke, noting that the threat posed by biological weapons to peace and international security and the developments in the life sciences all led to the importance of negotiation in a multilateral framework of a legally binding instrument to strengthen the Convention as a verification mechanism is needed to guarantee implementation. On codes of conduct, Algeria welcomed the Chairman’s synthesis, and believed that it should be possible to establish standards for codes of conduct.

Brazil then spoke saying that *“Brazil strongly believes that States-Parties to this Convention must not repeat the*

deadlocks of the past, and again miss the chance to address and overcome the obstacles on the way to the goal of an effective, verifiable and equitable system for ensuring compliance with the BWC.” Brazil went on to say that *“we approach the 2006 Review Conference, when States-Parties will once more have the chance to consider the ways and means of advancing the goals of the Convention in a comprehensive manner, and to adopt measures aimed at filling the institutional gap that has hitherto prevented full implementation of its terms, in particular in the realm of verification of compliance.”*

Australia then spoke saying that the three year programme had been valuable as, taken in its entirety, the programme has examined a range of measures that would assist States Parties in their implementation of the Convention. Looking ahead to the Review Conference, Australia said *“the Review Conference next year presents an opportunity for States Parties to further the objectives of their treaty.... We are inclined to agree that practical steps on such issues such as universalisation, confidence-building measures and national implementation could usefully reinforce the BWC. Australia believes that States Parties must make the most of our meeting in 2006 to strengthen implementation of the BWC. We can ill afford to stand still while the threats of proliferation and terrorism are evolving.”*

Belarus then spoke welcoming the Chairman’s synthesis document and the principles for codes of conduct whether existing or new ones. The statement went on to say that the Belarus parliament was examining a draft law to incorporate the latest advances in biosafety and consider how to promote transparency.

Mexico then spoke saying that they regretted the limited scope of the decision of the Fifth Review Conference and looked forward to a more comprehensive approach being adopted next year as an effective verification protocol was needed to free humanity from the possibility of biological and toxin agents being used as weapons.

The morning session then concluded with an announcement that the afternoon session would commence with statements by Indonesia, Jordan and France prior to the statements from IGOs.

Indonesia spoke first, saying that *“Indonesia is of the opinion that the Member States should continue to develop verification regime that the Convention could be implemented effectively to overcome the evolution of types of threats of international peace and security.”* The statement went on to address codes of conduct and said that *“we may hope that a common understanding envisaged in a more concrete proposal could be reached”* at this Meeting of the States Parties.

Jordan then spoke, saying that previous meetings had outlined the mechanism of response to biological weapons and recognizing the potential proliferation of biological agents in terrorist activities, called for States Parties *“to work together from now on to determine new and clear milestones of cooperation among state-parties”* which should focus on

exchanging information on protective measures against known and emerging diseases, preventing the spread of outbreaks of such diseases and the provision of assistance by developed countries in combating outbreaks of disease.

France then spoke to recall that a Franco-Swiss International Seminar had been held in Geneva on 9-10 June 2005 to mark the 80th anniversary of the signing of the Geneva Protocol. Copies were provided of the Final Declaration of that seminar which called on *“those States which have made reservations upon accession to the Protocol to consider constructively the withdrawal of such reservations.”* The declaration went on to say that *“our two countries call for the continuation, with the greatest energy, of the efforts initiated eighty years ago in order to ensure the total prohibition of chemical and biological weapons. More than ever, we must make the best use of the multilateral instruments at our disposal: norms, verification mechanisms, confidence-building measures, which are mutually complementary and intrinsically linked for this purpose.”*

The afternoon session then continued with the statements made by IGOs and then, in informal session, the statements made by NGOs. On the Tuesday morning, 6 December 2005, a further three statements were made by Nigeria, Kazakhstan (a State not Party to the Convention) and the Ukraine.

Nigeria spoke first saying that *“Nigeria believes that Code of Conduct is not only desirable but is absolutely necessary. Code of Conduct would promote accountability, transparency and create a safer environment for all. ... My delegation believes that if there is political will, generic universal Code of Conduct could be developed and its application could also be mandatory.”*

Kazakhstan then outlined the progress that it was making towards accession to the Convention and said that this was currently an urgent matter for the parliament as the lower house had recommended that Kazakhstan adhere to the Convention and the Senate now has to approve this.

Ukraine then spoke saying that it believes *“it is necessary that the international community implements appropriate measures and intensifies its efforts to increase the effectiveness and, what is also very important, universality of the Convention, as well as of its regime as a powerful tool to control the proliferation of biological weapons.”* The statement then went on to consider codes of conduct pointing out that they must have common features – or in other words, must be harmonized and to note that codes need to be implemented at three levels; local or institutional; national; and international.

The Meeting of States Parties then went into working session during which a statement was made by Italy.

Italy spoke welcoming the Chairman’s synthesis document and saying that this was an appropriate basis for an outcome document of this Meeting of States Parties. Italy went on to say what it considered were important elements of codes and concluded by saying that *“the issue of the role of scientists and the codes of conduct should continue to be*

addressed and monitored both at the Review Conference and during the following intersessional period.”

On the morning of Wednesday 7 December 2005, Pakistan made its statement.

Pakistan spoke, noting that “*we need to maintain a delicate balance between negative applications of biosciences and development of technology for peaceful and legitimate purposes. ... The primary object of codes of conduct should be to preserve the benign uses and stem the malign uses of biosciences.*” The statement went on to say that “*aware-ness raising minimizes the risks of diversion of peaceful research to the weaponisation of biotechnology. It will also enhance effective implementation of the Convention.*”

Inter Governmental Organisations

On the afternoon of Monday 5 December 2005, statements were made by three of the IGOs that had addressed the Meeting of Experts in June 2005: OECD, OPCW and ICGEB. Although in June seven IGOs – UNESCO, ICGEB, ICRC, OECD, OPCW, FAO and OIE – had made statements, it was evident that the Chairman’s letter of 20 September 2005, saying that if any of the International Organisations which spoke to MX/2005 ask for an opportunity to update the Meeting of States Parties such interventions would be considered on the Monday afternoon, had been sent only to the States Parties and not to the IGOs. Consequently, the statements were only made by those IGOs that were aware of, and had advised the Secretariat that they wished to speak at, the Meeting of States Parties.

The **OECD** statement noted that the OECD had a network of depositaries of biological materials. It said that they had had a group of experts which had been considering biosecurity measures since November 2004, and which had had their final meeting in November 2005 with a view to finalizing such biosecurity measures in 2006. The statement concluded by mentioning the OECD International Futures Programme Biosecurity Project at www.biosecuritycodes.org

The **OPCW** presentation noted that the OPCW and IUPAC had been addressing the topic of education and codes of conduct as part of an action following on from the First CWC Review Conference which had agreed on the need to raise awareness of that Convention. The presentation noted that the First CWC Review Conference had resulted in two Action Plans: one for universality and one for national implementation measures. An update on the current status of these action plans was provided – the CWC currently has 175 States Parties, 11 Signatories and 8 Non-Signatory States. The presentation went on to report on the successful IUPAC/OPCW workshop held in Oxford in July 2005, which had shown that few chemists were aware of the CWC and the need for education, outreach and codes of conduct for chemists.

The **ICGEB** presentation said that a lot of work had been done by ICGEB on codes of conduct since the Meeting of Experts in June 2005. A number of points that were relevant to codes were addressed noting that there had been very

ample debate amongst the small community of scientists who had been following this issue. ICGEB concluded by saying that they could play an important role and would aim to complete their analysis before the Review Conference in 2006.

Non Governmental Organisations

As already noted, the opening plenary session had agreed that non-governmental organizations (NGOs) could make short statements in informal session during the afternoon session on Monday 5 December 2005. Short statements were made by the following ten NGOs:

- Graham S. Pearson, Department of Peace Studies, University of Bradford.
- Kathryn Nixdorff, International Network of Engineers and Scientists for Global Responsibility (INES)
- Marie Chevrier, Scientists Working Group on CBW, Center for Arms Control and Non-Proliferation
- Angela Woodward, VERTIC
- Nicholas A. Sims, London School of Economics
- Brian Rappert, University of Exeter
- Jean Pascal Zanders, BioWeapons Prevention Project
- Richard Guthrie, Stockholm International Peace Research Institute
- Iris Hunger, Study Group on Biological Arms Control, University of Hamburg
- Sergei Batsanov, Pugwash Conferences on Science and World Affairs

Short introductions were then made to statements from three NGOs who were not present in Geneva

- Society for the Study of Peace and Conflict, New Delhi, India (introduced by Jean Pascal Zanders BWPP)
- Pax Christi International (introduced by Malcolm Dando, University of Bradford)
- Tri-Valley CAREs (Communities Against a Radioactive Environment) (introduced by Kathryn McLaughlin, BWPP)

As at the Fourth and Fifth Review Conferences and at previous Meetings of Experts and Meetings of the States Parties, the NGO speakers spoke from seats in the room, whilst their statements were distributed to all those present. There were about 200 people present in the room during the NGO statements which, with simultaneous translation into the six official UN languages, enabled the NGOs to communicate their views to all present.

The **University of Bradford** statement first said that an international effort on education, awareness raising and codes of conduct in the life sciences area will bring significant benefits for peace and security by helping to achieve in-depth compliance with the Convention throughout academia, industry and government. It then went on to consider the Sixth Review Conference in 2006, recommending that a modular approach be adopted so that agreement is achieved on as much as possible, and setting out a list of some eleven modular points.

The **INES** statement said that a code of conduct is an essential element for raising awareness and delineating the responsibilities of those working in the life sciences to aid in

the effort to reduce and minimize the dual-use risks involving work in areas of relevance to the Convention. It then went on to look ahead to the Sixth Review Conference urging in the light of the enormous advances in science and technology in the life sciences that the Review Conference reaffirm that the prohibitions should embrace all such advances and that the States Parties should establish a mechanism whereby States Parties can collectively and interactively respond to advances in science and technology more frequently than at five year intervals.

The **Scientists Working Group on CBW** statement pointed out that a code of conduct is one means of strengthening the norm against the possession and use of biological and toxin weapons and of incorporating that norm into the very culture of the life sciences. It then set out five elements that they considered should be included in all such codes. The statement went on to urge States Parties to develop mandatory multi-level oversight and review mechanisms applicable to all activities in the life sciences having dual-use potential.

The **VERTIC** statement said that the annual meetings have facilitated a constructive dialogue on certain issues related to implementation of the Convention. However, VERTIC considers that the complexity of national implementation warrants an ongoing process beyond the Sixth Review Conference in 2006. The establishment of some type of mechanism, such as a clearing house, focal point or support unit would be a useful means of further strengthening national implementation and coordinating implementation support.

The **London School of Economics** statement pointed out the importance of ensuring that codes of conduct apply to all those engaged in scientific activity and not solely to scientists and that such codes should be seen to apply with equal vigour to those in government employment as well as to those in industry and academia. Looking ahead to the Sixth Review Conference, the statement urged that States Parties should organise themselves to make more frequent and systematic use of scientific advice, offered collectively to the States Parties as a whole.

The **University of Exeter** statement urged that the outcome of the Meeting of States Parties should not only agree to the value of codes of conduct but should offer as much as it can in the way of substantive proposals for the nature of such codes. Looking ahead to the Sixth Review Conference, it was proposed that a new Confidence-Building Measure should be adopted under which the States Parties exchange information about the adoption and implementation of codes of conduct related to the prohibitions in the Convention. Furthermore, consideration should be given to addressing education and outreach at a subsequent annual meeting of the States Parties.

The **BWPP** statement looked ahead to the Sixth Review Conference in 2006 by addressing how universalization of the Convention might be achieved, pointing out that the institutional deficit of the Convention needs to be addressed. The statement went on to identify the need for a concrete implementation of Article X as a way in which tangible benefits could be recognized from adhering to the Convention.

The **SIPRI** statement pointed out that codes of conduct and practice for scientists can have an important impact on the life sciences and offer a means to address the dual-use/dual-purpose dilemma. However, codes of conduct also need to be considered for scientists outside the biological sciences as their expertise could be used to support biological-weapons related activities. The statement also pointed out the importance of codes of conduct incorporating the Convention's 'general purpose criterion' thereby ensuring that the code remains relevant regardless of future scientific and technological developments. It was pointed out that the States Parties should also consider incorporating codes of conduct into the Confidence-Building Measure exchanges.

The **Study Group on Arms Control at Hamburg University** statement looked ahead to the Sixth Review Conference pointing out that the possibility to verify compliance with agreed obligations is an integral part of effective arms control and disarmament. The statement went on to say that routine information collection is already being undertaken for the existing Confidence-Building Measures (CBMs) and urged that the Sixth Review Conference should strengthen the CBMs by agreeing measures to promote regular participation, by focusing the CBM topics and associated forms onto the most relevant data, and by developing a follow-up process.

The **Pugwash Conferences on Science and World Affairs** statement reported on the outcome of the Workshop on "*Achieving a Successful Outcome of the Sixth Review Conference*" at which there was support for systematic well-planned actions to improve national implementation of the Convention including the provision of help to States Parties as well as developing a more modern system of information exchange and communication among States Parties. In addition, there was wide support for a more systematic action by States Parties to achieve universality of adherence to the Convention.

As already noted, the following three statements from NGOs whose representatives were unable to be in Geneva were briefly presented.

The brief introduction of the statement by the **Society for the Study of Peace and Conflict, New Delhi, India** pointed out the potential dangers from the misuse of advances in science and technology and said that a code of conduct needed to be in place for all scientists irrespective of the nature, place or scope of their work.

The brief introduction of the **Pax Christi** statement supported the creation and adoption of a general code of ethical principles within codes of practice that are, where possible, extensions of existing codes for health and safety. It went on to urge States Parties to work towards the international criminalization of the activities prohibited under the Convention.

The brief introduction of the **Tri-Valley CAREs** statement addressed concerns about the activities relating to the life sciences carried out within US nuclear weapons laboratories at Livermore, and called upon all nuclear weapons states to pledge not to collocate such biological agent facilities within classified nuclear weapons facilities.

The Chairman then closed the informal session thanking the NGOs for their contributions.

Lunchtime Presentations

Lunchtime presentations were also made on five days:

Monday 5 December 2005 Seminar arranged by Department of Peace Studies, University of Bradford and the Quaker United Nations Office Geneva entitled “*Code of Conduct for the Life Sciences*”: Malcolm R. Dando Bradford Briefing Paper No. 18, *Raising Awareness: A Hippocratic Oath for Life Scientists*; Graham S Pearson Bradford Briefing Paper No. 19, *Education, Outreach and Codes of Conduct: OPCW and IUPAC Activity*; and Nicholas A Sims (LSE) Bradford Review Conference Paper No. 15, *The BTWC Sixth Review Conference in 2006*.

Tuesday 6 December 2005 Seminar arranged by the BioWeapons Prevention Project entitled “*Taking the BTWC Forward: The 6th Review Conference and Beyond*”: Ambassador Paul Meyer (Canada) *Strengthening the BTWC: Some Initial Ideas*; Angela Woodward (VERTIC) *Implementation Support and Other Dimensions of Universality*; and Iris Hunger (Study Group on Biological Arms Control) *Transparency and Confidence: The Future Role of CBMs*.

Wednesday 7 December 2005 Seminar organized by the National Academies and the Royal Society entitled “*Measures to Address Biosecurity Challenges*”. Dr Sergio Pastrana (Cuban Academy of Sciences) on the InterAcademy Panel on biosecurity, Dr Robert Mathews (Australia) on the International Union of Pure and Applied Chemistry education project, David Carr (Wellcome Trust) on the Wellcome Trust – UK Medical Research Council – UK BBSRC joint statement on managing risks of misuse associated with grant funding activities, and David Sawaya (OECD) on the OECD biosecurity website and its initial operation.

Thursday 8 December 2005 Seminar organized by the BioWeapons Prevention Project entitled “*Article X of the BTWC: Managing Technology Transfers Beyond the 6th Review Conference*.” Dr. Kalpana Chittaranjan (India) *Role of BTWC’s Article X on India’s Biotechnology Development*; Dr Jean Pascal Zanders (BWPP) *A Novel Approach to Confidence and Transparency in Technology Transfers*; and Filippa Corneliussen (BIOS Centre, LSE) *Technology Transfers through Accreditation*.

Friday 9 December 2005 Seminar organized by VERTIC entitled “*Technical Assistance for BWC Implementation*.” Angela Woodward (VERTIC) *VERTIC’s Guide to national implementation of the BWC and BW-aspects of UN Security Council Resolution 1540 (2004)*; Andreas Persbo (VERTIC) *Technical assistance for national implementation*; and Adrian Baciu (Coordinator, Bio-Terrorism Prevention Programme, OIPC-Interpol) *Technical assistance and training for law enforcement*.

Outcome of the Meeting of States Parties

The Meeting of States Parties held four public meetings on 5, 6 and 9 December 2005, and also met in five working sessions

during the period from 6 to 9 December 2005.

There were two working papers submitted by States Parties – one submitted by India (WP.1) and the other by Russia (WP.2).

At the final public plenary session on Friday 9 December 2005, the States Parties adopted the report of the Meeting of States Parties. This report (BWC/MSP/2005/3), as at the Meeting of States Parties in 2004, addresses both the procedural aspects and the operative paragraphs of the Meeting of States Parties. The report of MSP/2005 has two Annexes: Annex I contained the synthesis of considerations, lessons, perspectives, recommendations, conclusions and proposals (as contained in BWC/MSP/2005/L.1) and Annex II provides a listing of all the official documents of the meeting. Unlike the report of the Meeting of the States Parties in 2004 (BWC/MSP/2004/3), there was no inclusion of an Annex containing the considerations, lessons, perspectives, recommendations, conclusions and proposals drawn from the presentations, statements, working papers and interventions made by delegations on the topics under discussion at the Meeting of Experts (as contained in the Annex II of the Report of the Meeting of Experts (BWC/MSP/2005/MX/3)). As in the Final Report of MSP/2004, the paragraph relating to Annex I in the Final Report of MSP/2005 contains the sentence that “This annex was not discussed or agreed upon and consequently has no status.”

One paragraph in the Final Report addresses the arrangements for the Review Conference in 2006. This states that the Meeting of States Parties noted the nomination by the Group of Non-Aligned and Other States of Ambassador Masood Khan of Pakistan to be President of the Sixth Review Conference and Chairman of the Preparatory Committee. It was further agreed that the Preparatory Committee for the Sixth Review Conference would be held in Geneva from 26 to 28 April 2006, and that the Sixth Review Conference would be held in Geneva within the period of 20 November to 8 December 2006, with the precise dates of the Conference to be decided by the Preparatory Committee. In addition, it was noted that the cost estimates for the Preparatory Committee and the Sixth Review Conference, as contained in document BWC/MSP/2005/INF.1 were approved.

There was agreement to five paragraphs of substance on the outcome of the meeting:

18. *On the mandate to discuss, and promote common understanding and effective action on the content, promulgation and adoption of codes of conduct for scientists, the States Parties recognised that:*

(a) *while the primary responsibility for implementing the Convention rests with States Parties, codes of conduct, voluntarily adopted, for scientists in the fields relevant to the Convention can support the object and purpose of the Convention by making a significant and effective contribution, in conjunction with other measures including national legislation, to combating the present and future threats posed by biological and toxin weapons, as well as by raising awareness of the Convention, and by helping relevant actors to fulfil their legal, regulatory and professional obligations and ethical principles;*

- (b) codes of conduct should reflect the provisions of the Convention and contribute to national implementation measures;
- (c) a range of different approaches exist to develop codes of conduct in view of differences in national requirements and circumstances;
- (d) codes of conduct should avoid impeding scientific discovery, placing undue constraints on research or international cooperation and exchange for peaceful purposes;
- (e) science should be used for peaceful purposes only but has the potential to be misused in ways that are prohibited by the Convention, and therefore codes of conduct should require and enable relevant actors to have a clear understanding of the content, purpose and reasonably foreseeable consequences of their activities, and of the need to abide by the obligations contained in the Convention.

19. The States Parties recognised that all those with a responsibility for, or legitimate interest in, codes of conduct should be involved in their development, promulgation and adoption. The States Parties agreed on the value of codes of conduct applying not just to scientists, but to all those involved in scientific activity, including managers and technical and ancillary staff.

20. On the content of codes of conduct, recognising the principles listed in paragraph 18, the States Parties agreed on the importance of codes of conduct being:

- (a) compatible with national legislation and regulatory controls and contributing to national implementation measures;
- (b) simple, clear and easily understandable both to scientists and to wider civil society;
- (c) relevant, helpful and effective for guiding relevant actors in making decisions and taking action in accordance with the purposes and objectives of the Convention;
- (d) sufficiently broad in scope;
- (e) regularly reviewed, evaluated for effectiveness, and revised as necessary.

21. On the adoption of codes of conduct, recognising that it is important to build on and coordinate with existing efforts, and avoid imposing burdensome and duplicative measures, the States Parties agreed on the value of:

- (a) demonstrating the benefits of codes and encouraging relevant actors to develop codes themselves;
- (b) using existing codes, mechanisms, frameworks and bodies as far as possible; and
- (c) tailoring adoption strategies according to the needs of each relevant sector.

22. On the promulgation of codes of conduct, recognising that codes of conduct will be most effective if they, and the principles underlying them, are widely known and understood, the States Parties agreed on the value of continuous efforts on promulgation through appropriate channels.

This agreed outcome was developed from the original proposed outcome which was provided by the Chairman on the afternoon of Wednesday 7 December 2005. This initial proposed text had consisted of six textual paragraphs which effectively built upon the material in the synthesis document which had been widely welcomed in the opening statements to the Meeting of States Parties. The proposed opening paragraph would have set the scene:

On the mandate to discuss, and promote common understanding and effective action on the content, promulgation and adoption of codes of conduct for scientists, the States Parties recognised that codes of conduct for scientists can support the object and purpose of the Convention by making a significant and effective contribution, in conjunction with other measures, to combating the present and future threats posed by biological and toxin weapons and bioterrorism, as well as by raising awareness of the Convention and of the potential risks inherent in scientific activity, and by helping scientists and other relevant actors to fulfil their legal, regulatory, professional and ethical obligations.

Successive paragraphs dealt with those to whom codes should apply, the content, the value, the adoption and the promulgation of codes. This proposed outcome was thus different in format from that which had been adopted at the Meeting of States Parties in 2004 and would have demonstrated a maturing of the outcome of the consideration of the topic for 2005.

Such a textual approach to the outcome failed to attract consensus and the second version circulated on 8 December 2005 followed a similar format to that in the Final Report of MSP/2004 with four paragraphs listing a number of subitems, first on points recognized by the States Parties, then on the content, adoption and promulgation of codes of conduct. The final version saw much of this draft carried forward with amendment, although the subitems relating to the promulgation of codes were lost.

The principal changes made to the second draft in arriving at the final agreed and adopted version are shown below underlined:

18. *On the mandate to discuss, and promote common understanding and effective action on the content, promulgation and adoption of codes of conduct for scientists, the States Parties recognised that:*

- (a) *while the primary responsibility for implementing the Convention rests with States Parties, codes of conduct, voluntarily adopted, for scientists in the fields relevant to the Convention can support the object and purpose of the Convention by making a significant and effective contribution, in conjunction with other measures including national legislation, to combating the present and future threats posed by biological and toxin weapons, as well as by raising awareness of the Convention, and by helping relevant actors to fulfil their legal, regulatory and professional obligations and ethical principles;*
- (b) *codes of conductg should reflect the provisions of the Convention [rephrased] and contribute to national*

implementation measures;

- (c) a range of different approaches exist to develop codes of conduct in view of differences in national requirements and circumstances; [previously 9b)]
- (d) codes of conduct should avoid impeding scientific discovery, placing undue constraints on research or international cooperation and exchange for peaceful purposes;
- (e) science should be used for peaceful purposes only but has the potential to be misused in ways that are prohibited by the Convention, and therefore codes of conduct should require and enable relevant actors to have a clear understanding of the content, purpose and reasonably foreseeable consequences of their activities, and of the need to abide by the obligations contained in the Convention.

19. The States Parties recognised that all those with a responsibility for, or legitimate interest in, codes of conduct should be involved in their development, promulgation and adoption. [Considerably shortened] The States Parties agreed on the value of codes of conduct applying not just to scientists, but to all those involved in scientific activity, including managers and technical and ancillary staff.

20. On the content of codes of conduct, recognising the principles listed in paragraph 18, the States Parties agreed on the importance of codes of conduct being:

- (a) compatible with national legislation and regulatory controls and contributing to national implementation measures;
- (b) simple, clear and easily understandable both to scientists and to wider civil society;
- (c) relevant, helpful and effective for guiding relevant actors in making decisions and taking action in accordance with the purposes and objectives of the Convention;
- (d) sufficiently broad in scope;[curtailed]
- (e) regularly reviewed, evaluated for effectiveness, and revised as necessary.

21. On the adoption of codes of conduct, recognising that it is important to build on and coordinate with existing efforts, and avoid imposing burdensome and duplicative measures, the States Parties agreed on the value of:

- (a) demonstrating the benefits of codes and encouraging relevant actors to develop codes themselves;
- (b) using existing codes, mechanisms, frameworks and bodies as far as possible; and
- (c) tailoring adoption strategies according to the needs of each relevant sector.

22. On the promulgation of codes of conduct, recognising that codes of conduct will be most effective if they, and the principles underlying them, are widely known and understood, the States Parties agreed on the value of continuous efforts on promulgation through appropriate channels. [Curtailed by deletion of five subitems on achieving promulgation]

These substantive paragraphs were followed by two paragraphs, which were similar to those that had been adopted in the Final Report of MSP/2004, which in the Final Report for MSP/2005 stated that;

23. The States Parties further considered that in pursuing the above understandings and actions, States Parties could, according to their respective circumstances, consider the considerations, lessons, perspectives, recommendations, conclusions and proposals drawn from the presentations, statements, working papers and interventions made by delegations on the topic under discussion at the Meeting of Experts, as contained in Annex I of the Report of the Meeting of Experts (BWC/MSP/2005/MX/3), as well as the synthesis of these considerations, lessons, perspectives, recommendations, conclusions and proposals contained in BWC/MSP/2005/L.1, which is attached to this report as Annex I. This annex was not discussed or agreed upon and consequently has no status.

24. States Parties are encouraged to inform the Sixth Review Conference of, inter alia, any actions, measures or other steps that they may have taken on the basis of the discussions at the 2005 Meeting of Experts and of the outcome of the 2005 Meeting of States Parties in order to facilitate the Sixth Review Conference's consideration of the work undertaken at the meetings in 2005 and of a decision on any further action in accordance with paragraph 18 (e) of the decision adopted at the Fifth Review Conference (BWC/CONF.V/17).

Reflections

The atmosphere at the 2005 Meeting of States Parties was positive despite the failure of the UN Summit in September 2005 to agree any language on disarmament and non-proliferation. It was particularly noticeable in the statements in the General Debate, as well as in some of the NGO statements and activities, that increasing attention is being given to the Sixth Review Conference in 2006. There was useful recognition that the Review Conference needs to review the Convention in its entirety and that a Final Declaration that builds upon and extends the understandings agreed at previous Review Conferences is a key outcome to maintain the vitality of the Convention. There was widespread acknowledgement of the desirability of an initiative to achieve universality of the Convention and of the need also to agree actions to improve national implementation measures. In addition, there was similarly widespread support for improving the Confidence-Building Measures.

The outcome of the Meeting of States Parties in 2005 was similar in structure and content to that of the corresponding meeting in 2004. However, the inability of the States Parties to take a further step forward by adopting a more textual approach, as proposed by the Chairman, to the substantive outcome, despite the widespread statements of support for the synthesis document, served as a reminder that the States Parties appear to be most at ease in following similar approaches to those adopted previously. This sends a clear message in regard to the Sixth Review Conference in 2006 that a successful outcome is most likely to be achieved through following a similar Article by Article review approach to that adopted in the earlier Review Conferences. Proposals to

adopt a different approach are likely to lead to much time being spent in debate about how to proceed and risks failing to meet the requirements of Article XII of the Convention that the Review Conference shall “review the operation of the Convention, with a view to assuring that the purposes of the preamble and the provisions of the Convention ... are being realized. Such review shall take into account any new scientific and technological developments relevant to the Convention.”

Preparations for the Sixth Review Conference in 2006 were expedited through the noting in the Final Report of the nomination by the Group of Non-Aligned and Other States of Ambassador Masood Khan of Pakistan as President of the Sixth Review Conference and Chairman of the Preparatory Committee. The determination that the Preparatory Committee

would be held in Geneva from 26 to 28 April 2006 was welcomed, even if the precise dates of the Review Conference within the period of 20 November to 8 December 2006 would be decided by the Preparatory Committee. The cost estimates were approved for a three week Review Conference. It is strongly recommended that the Review Conference should fill three weeks as this is the first opportunity for a comprehensive review of the operation of all Articles of the Convention since the Third Review Conference in 1991.

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

News Chronology

May through October 2005

What follows is taken from issues 69+70 of the Harvard Sussex Program CBW Chronicle, which provide a fuller coverage of events during the period under report here, and also identify the sources of information used for each record. All such sources are held in the Sussex Harvard Information Bank, which is open to visitors by prior arrangement. For access to the Chronicle, or to the electronic CBW Events Database compiled from it, please apply to Julian Perry Robinson.

May Albanian chemical weapons are the subject of a report in *Global Partnership Update* by Vladimir Orlov of the Moscow-based Center for Policy Studies in Russia (PIR Center), who had travelled to Albania in April. Based on his “travels and conversations” Orlov writes: “[In the 1970s and 1980s the Albanian leader Enver Hoxha] built 750,000 bunkers and imported large quantities of weapons including several hundred canisters of lethal military chemicals... These chemicals, stored in bunkers about 25 km away from Tirana, included yperite, or sulfur mustard, as well as lewisite and adamsite... Altogether, the bunkers hold nearly 600 vessels containing about 16 tons of ‘bulk agent’... It is believed the chemical agents were imported during the 1980s... It appears China is to blame.” [See also 20 Oct 04 and 10 Jan]

2 May The Helsinki Commission (HELCOM) reports that “only 4 small scale incidents of World War II chemical munitions caught by fishermen in the Baltic Sea were reported during last year, compared to 25 in 2003”. The Commission states that, whilst this is the lowest number since 1999, experts are not yet attributing any specific trends to the drop in the numbers. The highest number of incidents during the last 20 years was in 1991, when there were 103 catches amounting to 5378 kg. The report, which was prepared by Denmark on the basis of information received as of 9 April 2005, found that the majority of chemical munitions caught were “completely corroded and represented lumps of mustard gas and sneeze gas”. According to HELCOM, the governing body of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, “about 40,000 tonnes of chemical munitions were dumped into the Baltic Sea after the Second World War – mostly in the area to the east of Bornholm, south-east of Gotland and south of Little Belt”. It states that it is estimated that the said chemical munitions “contained some 13,000 tonnes of chemical warfare agents”.

2-3 May In Lisbon, a basic course for personnel from Portuguese-speaking states parties involved in the national implementation of the CWC takes place. The aim of the course, which is jointly organized by the government of Portugal and the OPCW, is to increase the ability of parties to comply with their obligations under the CWC. It is primarily intended for personnel of the national authorities of Brazil, Cape Verde, Sao Tome and Principe, Mozambique and Timor Leste; delegations from Angola and Guinea-Bissau, though not parties to the CWC, also participate. In total, the course brings together thirty participants.

2-5 May In Kansas City, Missouri, an *International Symposium on Agroterrorism*, hosted by the Federal Bureau of Investigation Heart of America Joint Terrorism Task Force, takes place. Attending the symposium are around 750 people from law enforcement, agriculture, food processing, science, health, government and medicine. The purpose of the symposium is to discuss ways to: “prevent an act of Agroterrorism in the US through a well coordinated intelligence collection, analysis and dissemination process”; “develop a technical and tactical response capability sufficient to neutralize and eliminate a potential attack”; and “educate the agriculture community on the role of law enforcement in responding to threats directed at the nation’s food supply”.

2-6 May In Punta del Este, Uruguay, the first Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants (POPs) 2001 takes place. The Convention, which currently has 98 parties, calls for, *inter alia*, international action on 12 POPs grouped into three categories: 1) pesticides: aldrin, chlordane, DDT, dieldrin, endrin, hepta-chlor, mirex and toxaphene; 2) industrial chemicals: hexa-chlorobenzene (HCB) and polychlorinated biphenyls (PCBs); and 3) unintentionally produced POPs: dioxins and furans.

On day four, on the sidelines of the conference, US Deputy Assistant Secretary for Environment Claudia McMurray says: "Our hope is that next year we will be a party to the treaty... It's a pretty aggressive schedule but that's what we're shooting for."

2-13 May In Austria, sixteen participants from thirteen countries participate in the second advanced multidisciplinary course for UNMOVIC roster inspectors. The objective of the course is to enhance the capabilities of multidisciplinary teams to carry out inspections of sites not previously inspected. It includes a computer-based desktop simulation of inspections at chemical, biological and missile facilities, and a practical inspection exercise.

3 May The Madrid ABC news reports that an al-Qa'ida cell based in France recently planned a chemical attack on a US naval base in Rota, Spain. The report, which does not cite sources, states that Algerian Said Arif – who was extradited from Syria to France last June after fleeing France in December 2002 – has admitted to being a member of a cell that was plotting to attack the base with chemical weapons. The authorities, however, were unaware of how the attack was to be executed. The paper says Arif was considered a lieutenant of Jordanian Abu Musab al-Zarqawi [see 15 Dec 04 and 30 Mar].

3 May In Ocala, Florida, a waiter pleads guilty in a federal court to possessing, though not to having made, ricin. Steven Michael Ekberg was arrested on 12 January after an anonymous caller telephoned the local police station saying that Ekberg had weapons and a box full of poisons, including ricin, at his home. A search by the FBI uncovered castor beans in plastic bags and a vial containing a substance which later tested positive for ricin.

Four months later, Ekberg is sentenced to twenty-six months imprisonment and two years of probation and drug-counselling sessions. He had faced up to ten years imprisonment.

5 May In Moscow, the Zamoskvoretsky district court rules that neither the Russian special forces nor the medical personnel were responsible for the deaths of the hostages during the ending of the siege of the Dubrovka Theatre [see 26 Oct 02]. The storming of the theatre by the special forces involved a fentanyl-based agent being pumped into the building's ventilation system. Lawyers for Svetlana Gubareva, who lost her daughter and her fiancé during the siege, had petitioned the court to overrule earlier refusals by the Prosecutor General's Office to institute criminal proceedings against the secret services and medics who took part in the release of hostages. The refusal to initiate a legal action against medics was signed in the Moscow Prosecutor's Office on 31 December 2002. The case against Special Forces' officers was closed on 16 October 2003, when investigators concluded that the special forces had acted "out of extreme necessity". [See also 6 Aug 03 and 17 Mar]

5 May Chechen rebel leaders had been planning attacks using poisons and toxic substances in the capitals of the north Caucasus and several large regional centers elsewhere in Russia, according to the spokesman for the regional Russian Federal Security Service (FSB). The news follows the discovery of a specially equipped cache containing an imported cyanide-based substance during the course of combat in an unnamed settlement on the Chechen-Ingush border. Ilya Shabalkin says a militant group operating in Ingushetia had been involved in the planned chemical attacks and that the

main organizer was a Jordanian called Abu Majahid, who he says arrived in Chechnya in 1992 where he served as an emissary of al-Qaida. Shabalkin says the attacks were to have been executed by a Wahhabi group led by Alash Daudov, who was previously involved, amongst other things, in the Dubrovka Theatre siege [see 26 Oct 02]. Daudov is reported to have obtained toxic substances from an Arab country through Abu Mujahid. Shabalkin says: "Experts have concluded that the application of these strong-acting poisons in minimal doses in crowded places, in vital enterprises and in water reservoirs could produce numerous victims... According to experts, the contents of a single 4-gram container could kill around 100 people." He says that the amount of liquid cyanide and another still-unidentified poison recovered was sufficient to kill 3,000 to 4,000 people.

Twelve days later, Shabalkin announces that the FSB have killed Daudov and two other Chechen rebels in Grozny. He says that Daudov had maps of Magas (Ingushetia's new capital), Nalchik (capital of Kabardino-Balkaria), Nazran (Ingushetia) and Grozny (Chechnya) on him, with places of possible future terrorist attacks marked. "Places of possible future terrorist attacks with the use of poison are marked on the maps, particularly marketplaces, reservoirs, grain elevators and railroad and bus stations," says Shabalkin.

5 May In Indiana, the Newport chemdemil facility destroys the first two of its approximately 1,600 VX-filled rockets. The destruction process is expected to take around two years to complete.

6 May The US National Research Council's ad hoc Defense Intelligence Agency Technology Forecasts and Reviews Committee releases *Avoiding Surprise in an Era of Global Technology Advances*, which says that the US military should be wary of the potential for biological attacks that fall short of WMD status but that nevertheless hinder US troops. The report states: "Troops must be ready to respond to threats on short notice as well as to participate in planned military actions... Disease that incapacitates but does not kill (as opposed to the effects of weapons of mass destruction) can be disabling and the source of the infection difficult to determine. Particular vulnerabilities are the foodborne, vectorborne and zoonotic diseases that could be introduced locally and for which vaccines, good diagnostics and treatment are not available... The major current barrier to the use of [avian influenza] to disable military populations is the lack of human-to-human transmission of current strains... The technology is already available and in use for genetically engineering influenza virus." The report is the first by the committee, which is now expected to be disbanded and replaced by a standing panel on the same subject. The initial report is intended to "establish the foundation for a long-term collaborative relationship to support the examination of technology warning issues". It covers a wide variety of areas where the Department of Defense could focus its efforts to forecast future technological threats.

9 May In Iranian Kurdistan, a delegation of the International Court of Justice is conducting an investigation into the chemical attacks carried out by the Iraqi government in 1988, according to Adn Kronos International (AKI) news agency [see 18 Mar 88].

9-13 May In Seoul, there is a CWC international assistance and protection course, jointly organized by the government of South Korea and the OPCW. The course provides training for as many as twenty-five participants, from CWC parties in Asia,

in planning for and building a response team in civilian protection, civilian defence, and rescue operations in contaminated areas, as well as for measures against incidents involving chemical warfare agents.

10-12 May In Ettlingen, Germany, the European Working Group on Non-Lethal Weapons conducts its third [see 13-14 May 03] *Symposium on Non-Lethal Weapons*, which is organized by the Fraunhofer Institut Chemische Technologie. Included among the sixty presentations are two that relate to the use of fentanyl-type agent during the October 2002 Moscow theatre siege: "Principles of Modeling of the Scenario of Calmative Application in a Building with Deterred Hostages", by V.L. Klochikin, A.A. Lushnikov and V.A. Zagaynov of the Karpov Institute of Physical Chemistry, Moscow; A.V. Putilov of the Federal Agency on Atomic Energy of the Russian Federation, Moscow; V.V. Selivanov of the Bauman Moscow State Technical University; and M.A. Zatevakhin of St Petersburg State University; and "Pharmacological Non-Lethal Weapons", by L. Hess, Institute for Clinical and Experimental Medicine, Prague; J. Schreiberova, Department of Anesthesia, Resuscitation and Intensive Care, University Hospital, Hradec Kralove; and J. Fusek, Military Medical Academy, Hradec Kralove. There is also a presentation by M. Annati, Director of the Regional Technical Bureau for telecommunications, IT and Advanced Technologies, Italian Navy, Milan, entitled "Military Use of Chemical Riot Control Agents, a Case for Legal Assessment".

10-12 May In Avignon, France, an international seminar on CBRN attack attracts the participation of around three hundred military and civilian officials from some thirty countries. "The threats are no longer at the frontiers", says Colonel Lentilhac, French Army CBRN Coordinator, "but also there are no frontiers to the threat". An emergency preparedness and response exercise is presented. Industry representatives also present the latest generation of CBRN protection and detection equipment.

11 May US President George Bush signs a federal law prohibiting the Department of Defense from studying the feasibility of relocating chemical weapons for chemdemil. The measure, approved by the Senate one day previously, was included in a bill authorizing an additional \$82 billion for Iraq and Afghanistan and for fighting terrorism worldwide.

11 May In the US Senate, the Bioterrorism and Public Health Preparedness Subcommittee of the Education, Labor and Pensions Committee holds a hearing on *Biological Threats*.

13 May The US Department of Defense recommends closing three of the eight US chemdemil facilities as part of its cost-cutting efforts. The facilities in question are at Deseret, Utah; Umatilla, Oregon; and Newport, Indiana. The Department says the facilities will close once their stockpiles of chemical agents are eliminated. Operations are scheduled to come to an end at Deseret and Newport in 2008 and at Umatilla in 2011.

13 May In Greenbelt, Maryland, a man pleads guilty to federal charges of possessing ricin, having been accused of using it to harass a business competitor [see 29 Sep 04]. Myron Tereshchuk is currently in prison after pleading guilty last year to related extortion charges concerning his attempt to force his competitor – a trademark information company – to pay him \$17 million. While searching his home

in March 2004, FBI agents found items related to ricin production, at least eight hand grenades, explosive powder, firecrackers and chemicals. He faces a maximum term of fifteen years imprisonment for the charges relating to possession of ricin and explosives.

15 May *The Ottawa Sun* reports that the Canadian Department of National Defence has confirmed that in 1966 US forces sprayed forested areas of the Gagetown army base in New Brunswick with Agent Orange. It says that ten months ago the government accepted a claim for compensation for a retired member of the Canadian military who was suffering from leukemia. It quotes a "confidential memorandum" as stating: "The [Department of Veterans Affairs] is aware that Agent Orange was used as a herbicide for defoliation on the training grounds of CFB Gagetown... The department accepts the medical opinion [of Gordon Sellar's doctors] and the results of published US medical research that establishes a causative relationship between Agent Orange exposure and the development of chronic lymphocytic leukemia."

The next day, spokeswoman for the Department of Veterans Affairs Janice Summerby says: "All those who believe they are suffering from a medical condition related to their service are encouraged to apply for disability pension." She says that non-Hodgkin's lymphoma, Hodgkin's disease, and lymphocytic leukemia are the most likely signs of exposure to Agent Orange, although other forms of cancer will be considered by the department.

16 May Japan has pledged to build twelve facilities in China in order to speed up the elimination of chemical munitions abandoned by the Japanese Imperial Army at the end of the Second World War, according to *The (London) Guardian* quoting the Tokyo *Yomiuri Shimbun*. An unidentified Japanese official is quoted as saying: "If Japan takes on the dismantling work using its technology and financial resources, relations with China will no doubt improve." The paper says that work on the facilities – in Beijing, Harbin and ten other locations – is expected to commence in three years. The actual dismantling of the weapons will take place at a facility to be built in the Haerbing district of Jilin, near the North Korean border, where, the paper says, ninety per cent of the munitions are believed to be buried. Two weeks later, the *Nihon Keizai Shimbun* reports that the chemdemil facility will be built in China's north-eastern Jilin province, and that Japan will pay more than \$1.9 billion towards its construction. At a news conference, Japanese Chief Cabinet Secretary Hiroyuki Hosoda says: "We want to carry out disposals as quickly as possible while keeping in mind (a target date of) 2007."

16 May Bulgaria cannot possibly possess any weapons of mass destruction, given the relevant international controls, according to Bulgarian National Security Service Director Ivan Chobanov. Speaking to BGNES news agency, Chobanov makes the statement in response to a report published by the Hamburg *Spiegel* (Online), which claimed that, according to the Russian intelligence services, weapons of mass destruction had recently been deployed in Bulgaria, Poland, the Czech Republic, Slovakia, and Hungary.

Six weeks later, in Sofia, during a two-day NATO seminar on preventing the proliferation of WMD, Bulgarian Deputy Defence Minister Nikolay Milkov says "no threats related to weapons of mass destruction originate from Bulgaria".

16 May Canada is increasing its focus on domestic security, with specific attention to chemical, biological and nuclear threats, according to Director-General of Policy

Planning, Department of Defense, Vincent Rigby [see also 31 Mar]. Speaking during a Heritage Foundation briefing in Washington, DC, Rigby says that an expansion of the three-year-old Joint Nuclear, Biological and Chemical Defense Company is a “major plank” in the new policy.

16 May In Washington, DC, the US Department of Defense (DoD) files an appeal against the ruling last year that its mandatory anthrax vaccination programme was unlawful, having declared that the Food and Drug Administration (FDA) had not fully licensed the vaccine as effective against inhaled anthrax [see 27 Oct 04]. In its brief, the DoD argues that the injunction imposed on it by US District Judge Emmet G Sullivan “intrudes” into the military’s efforts to protect troops from possible anthrax attacks. It states: “The district court compounded that error by substituting its own judgment of AVA’s efficacy for the contrary scientific conclusions of the [FDA]... The [FDA] has repeatedly confirmed that [the vaccine’s] label encompasses approval for use against all forms of anthrax, regardless of the route of exposure – including inhalation exposure.” Earlier this year, the FDA issued an emergency authorization for DoD to resume giving anthrax shots, but only on a voluntary basis [see 4 Feb].

Six weeks later, six anonymous DoD military and civilian personnel file a brief requesting that the injunction not be lifted, on the grounds that the vaccine used in the programme has never formally been declared as being safe or approved for use against inhalational anthrax.

16-19 May In Kuala Lumpur, Malaysia, the first regional workshop on assistance and protection against chemical weapons takes place. Organized jointly by the government of Malaysia and the OPCW, the workshop brings together representatives of CWC parties in Asia, and serves as a forum for civil protection officials, to develop and enhance the civilian protection against chemical weapons. The workshop provides participants with information and advice on planning and operating a protection response system, establishing an integrated response system at the national level and developing regional cooperation in assistance and protection as foreseen by the CWC.

16-20 May In Lázne Bohdanec, Czech Republic, the fifth international civil protection training course takes place. The training course is an annual event offered by the government of the Czech Republic under Article X of the CWC, and jointly organized with the OPCW. The purpose of the course is to provide participants from CWC parties with basic knowledge in the field of protection against chemical weapons and national capacity building.

16-25 May In Geneva, on the fourth and fifth day of the 58th meeting of the World Health Assembly (WHA), the 192 members of the World Health Organization (WHO) reject one proposed study with variola, urge extra care with others, and question the composition of the WHO Advisory Committee on Variola Virus Research. Last year, the Committee recommended, amongst other things, allowing the transfer of DNA snippets of up to 500 base pairs among laboratories, the production of gene chips containing variola DNA, insertion of a gene for green fluorescent protein into the variola genome, and splicing variola genes into the genomes of other orthopoxviruses [see 4-5 Nov 04]. Since the WHA did not vote or adopt a resolution on the subject, the WHO Secretariat must interpret what exactly it decided. WHO Smallpox Programme Officer Daniel Lavanchy says the WHA agreed to ban the gene-transfer studies for now, but gave the green light to the other work.

On the eighth day of the meeting, the WHA approves a new set of International Health Regulations to “prevent, protect against, control and provide a public health response to the international spread of disease”. The 2005 regulations cover a broader range of public health emergencies than the original International Health Regulations adopted in 1969, including emerging diseases. Diseases whose occurrence must be notified to the WHO include smallpox, polio, SARS and human influenza caused by a new sub-type. The regulations also introduce the concept of a matrix for countries to decide whether a disease outbreak constitutes a matter of international concern. In this regard, countries should give consideration to whether an outbreak is serious, unusual or unexpected, whether there is a significant risk of international spread, and whether there is a significant risk of international travel or trade restrictions. Not present in the final version of the Regulations is the provision that had been included in the January 2004 draft concerning suspected intentional releases of biological, chemical or radionuclear agents – a provision that could have engaged WHO in verification or response activities.

19-20 May In Windhoek, Namibia, delegates from fourteen African states convene for a workshop on the practical implementation of the CWC through, *inter alia*, national implementing legislation. Representatives from Botswana, Ethiopia, Gambia, Ghana, Kenya, Lesotho, Malawi, Namibia, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe attend the workshop.

20 May The US Department of Defense releases letters showing that, prior to the terrorist attacks on 11 September 2001, al-Qai’da operatives in Afghanistan commenced the assembly of equipment necessary to build a rudimentary biological weapons laboratory, so *The New York Times* reports. The letters – recently made public under a Freedom of Information Act request – are among those documents recovered in late 2001 following the invasion of Afghanistan. US intelligence officials have previously cited the letters as evidencing that al-Qai’da had been working to develop biological weapons, and the letters were referred to in the report of the Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction [see 31 Mar]. The letters are said to detail a visit by an unnamed al-Qai’da scientist to a laboratory at an unspecified location where he was shown “a special confidential room” containing thousands of samples of biological substances. The *Times* states that according to an unidentified “biological weapons researcher”, the author of the two letters is widely believed to be a Pakistani microbiologist called Abdur Rauf.

20 May In Washington, DC, the Russian American Nuclear Security Advisory Council (RANSAC) convenes a seminar on *Biological Threat Reduction*, the second in its 2005 congressional seminar series on issues concerning the US-Russian security relationship. The theme of the seminar is international biological proliferation risks, including potential threats from Russian and former Soviet Union biological facilities, and the security implications stemming from the rapid growth of the global biotechnology industry. Opportunities and policy options for international cooperation to reduce biological proliferation threats are also discussed.

24 May In New York, the Council on Foreign Relations holds a session on *Weapons of Mass Destruction and Iraq*. In his speech, former head of the Iraq Survey Group Charles Duelfer says: “[I]t was clear [Saddam Hussein] was hiding things. It was clear he was trying to thwart inspectors. But it turns out that much of his motivation for that – much of

the Iraqi motivation for that was because they just didn't like inspectors poking around their most secure areas. It was also a point of pride... [Also] there was a greater concern than we could appreciate sitting here in Washington of the threat posed by Iran... Saddam was certainly aware of the WMD assessments of Iran and he created intentionally a certain ambiguity about what his capabilities were. So there were mixed motivations."

24 May In Richmond, Virginia, Steven Hatfill files an appeal to reinstate a lawsuit in which he claimed that *The New York Times* compromised his reputation by implying that he was involved in the anthrax mailings in 2001. Last year, his claim against the newspaper was dismissed on the grounds that the columns, written by Nicholas Kristof, accurately reflected the state of the FBI's investigation [see 29 Nov 04].

24-25 May In New York, the UNMOVIC College of Commissioners convenes for its nineteenth [see 23-24 Feb] regular session, attended, as on previous occasions, by observers from both the OPCW and IAEA.

26 May In the US Senate, the Permanent Subcommittee on Investigations of the Committee on Homeland Security and Governmental Affairs conducts a hearing on the Department of Homeland Security's programmes to improve the port security of cargo containers. The purpose of the hearing is to investigate the effectiveness of the Customs-Trade Partnership Against Terrorism (C-TPAT) and the Container Security Initiative (CSI) [see 21 May 04]. In his testimony before the committee, Director of Homeland Security and Justice Issues of the Government Accountability Office (GAO) Richard M Stana presents a summary of the GAO's latest efforts by way of the following two GAO reports that evaluate the US Customs and Border Protection response to the terrorist threat: *Cargo Security: Partnership Program Grants Importers Reduced Scrutiny with Limited Assurance of Improved Security* (11 March 2005), and *Container Security: A Flexible Staffing Model and Minimum Equipment Requirements Would Improve Overseas Targeting and Inspection Efforts* (26 April 2005).

26-27 May In Washington, DC, the Board of Health Promotion and Disease Prevention of the Institute of Medicine holds its second meeting relating to its project on *Gulf War and Health: Infectious Diseases*.

27 May At UN headquarters, Secretary-General Kofi Annan transmits to the Security Council the twenty-first [see 28 Feb] quarterly report on the activities of UNMOVIC, for the period 1 March to 31 May 2005. The report states:

"UNMOVIC imagery analysts have continued the ongoing review of the status of sites subject to inspection and monitoring in Iraq. Of the 411 sites inspected in the period from November 2002 to March 2003, Commission experts have acquired and examined post-war high-resolution imagery covering 378 sites, including those considered the most important. As part of the continuing examination and analysis, experts have determined to date that 109 of the sites (of which 90 had been identified in the Commission's previous report [see 28 Feb]) were cleaned to varying degrees. Further analysis revealed that dual-use equipment and materials subject to monitoring have been removed totally from 52 sites, and partially from 44 sites which suffered less damage. Additionally, at 13 sites, some equipment and materials that were stored in the open have been removed. Approximately 7,900 items of dual-use equipment and material (130 biological, 4,780 chemical and 3,000 missile-related) covered by the UNMOVIC plan for

ongoing monitoring and verification and the export/import monitoring mechanism were known to have been located among the 109 sites through declarations by Iraq and UNMOVIC inspections. Significant quantities of dual-use raw material were also known to have been present at those sites. From the imagery analysis UNMOVIC has concluded that biological sites were less damaged (only 12 of the 109 are biological sites). The fact that such facilities are generally smaller sized units and were probably better protected through local security arrangements may account for the lesser damage and the smaller numbers of equipment and items removed from them.

"The addenda [to the comprehensive report of the Iraq Survey Group {see 6 Oct 04}] [see 25 Apr] do not change the previous assessment and comments made by UNMOVIC with regard to the [report] [see 28 Feb]. Some information presented in the addenda differs in detail from information and documents UNMOVIC possesses. However, it appears that most of the information comes from interviews with individuals and is based mainly on their recollections. With respect to Iraq's programmes, UNMOVIC is in possession of comprehensive information, compiled on the basis of multiple sources of information... On the issue of the status of dual-use items and former weapons sites subject to monitoring, the limited assessments of the Iraq Survey Group provided in the addenda and statements to the media in March by the Deputy Minister of Industry of Iraq [see 12 Mar] corroborate information already obtained by UNMOVIC through satellite imagery assessment.

"The Commission has continued its work on the compendium of Iraq's proscribed weapons and programmes. The first draft was compiled by UNMOVIC in March 2005, as foreshadowed in the Commission's twentieth report [see 28 Feb]. The draft attempts to provide a detailed technical description of Iraq's proscribed weapons and programmes with an emphasis on lessons that can be drawn from both the nature of the programmes and the experience gained in the process of their verification by United Nations inspectors." An appendix to the report contains "examples of lessons learned in the course of the work on the compendium".

27 May The US Department of State Bureau of Nonproliferation releases *United States Initiatives to Prevent Proliferation*. The document sets out "a number of initiatives [enunciated by President George Bush] to increase resources for nonproliferation assistance programs, to disrupt the trade in proliferation-related materials and technologies, and to improve the effectiveness of the nuclear nonproliferation regime".

27 May In the USA, following a request to do so by the Department of Health and Human Services (HHS), the *Proceedings of the National Academy of Sciences* (PNAS) withdraws from its publication schedule, for internal review, a bioterrorism-related article which it had planned to publish online three days later. The article, by Lawrence Wein of Stanford University and graduate student Yifan Lu, models the potential for terrorists to contaminate the US milk supply with a small quantity of botulinum toxin. In a letter to the Academy, HHS Assistant Secretary Stewart Simonson says that the article as "is a road map for terrorists and publication is not in the interests of the United States". One day previously, *The New York Times* published an opinion piece by Wein – which it had accepted before PNAS opted to withdraw the article – describing the study in some detail.

Six weeks later, the Academy publishes the paper. On the subject of its publication Wein says that every reviewer at the Academy had concluded that the information in the article was publicly available and easily obtainable via the Internet. Spokesman for HHS Bill Hall says that HHS still opposes

publication but was not in a position to block release of the data, which are not classified.

31 May From Brussels, the Working Party on Civil Protection of the European Council transmits to the Council of the European Union its annual Presidency report for 2004 on the implementation of the joint programme of the Council and the Commission to improve cooperation in the European Union for preventing and limiting the consequences of CBRN terrorist threats [see 20 Dec 02]. The report states: "The CBRN Programme was accompanied by an inventory of the instruments relevant for that programme, collated by the Presidency in cooperation with the Commission Services and the Council Secretariat... The present second Presidency report represents a second and last update of the inventory. [T]he Council and Commission's 2004 EU Solidarity Programme on the consequences of terrorist threats and attacks ... has widened, revised and replaced the 2002 CBRN-Programme following the attacks on Madrid on 11 March 2004. The Presidency salutes the new 2004 Solidarity Programme as the worthy successor of the 2002 CBRN Programme... Coreper/Council are invited to take note of the present report, which contains, in Annex I, a report on the activities of the Council, established by the Council Secretariat; Annex II, a report on the activities of the Commission, established by the Commission staff."

31 May In Washington, DC, on the occasion of the second anniversary of the Proliferation Security Initiative (PSI) [see 31 May 03], US Secretary of State Condoleezza Rice says: "Now, over 60 countries support the PSI, and participation in the PSI is growing in every region of the world. I would like, particularly, to welcome the most recent additions to the PSI partnership – Argentina, Iraq and Georgia... In the last nine months alone, the United States and 10 of our PSI partners have quietly cooperated on 11 successful efforts. For example, PSI cooperation stopped the trans-shipment of material and equipment bound for ballistic missile programs in countries of concern, including Iran."

31 May The RAND Corporation releases *Diversion of Nuclear, Biological, and Chemical Weapons Expertise from the Former Soviet Union: Understanding an Evolving Problem*. The 58-page report "examines a variety of pathways by which proliferation-relevant knowledge can be diverted, including emigration of scientists, engineers, or employees of weapons complexes, illicit transfers of knowledge from the FSU, and transfers of knowledge during official contacts at home or abroad".

1 June In Canberra, the Indonesian embassy is closed following the receipt of an envelope containing what the Australian authorities describe as a "biological agent" accompanied by a letter with racist overtones. Speaking on Channel 9 television, Prime Minister John Howard says: "It's not an innocent white powder. It's some type of biological agent. I'm not a scientist but they say it belongs to the bacillus group and is being tested." Indonesian diplomats in Australia have reportedly received numerous threats since, five days previously, an Indonesian court sentenced an Australian citizen, Schapelle Corby, to twenty years imprisonment for smuggling four kilograms of cannabis into Bali. Howard says that the sending of the envelope will not help Corby's case.

The next day, the Australian Federal Police releases a statement saying that "it has been advised that testing has shown the substance is not anthrax" and that "it is very unlikely that there are any bacteria of major pathogenic significance".

Two days later, a package addressed to Foreign Minister Alexander Downer that contains a white powder in a sealed

plastic bag is discovered during the routine X-raying of post at the Australian parliament's loading dock. A full-scale emergency is declared, with parts of Parliament House locked down for nearly five hours. The powder is later discovered to be cement dust.

1 June In Iraq, an Iraqi soldier has died after eating a poisoned watermelon near the northern Iraqi city of Mosul the day before, according to a statement issued by the US-Iraqi liaison office in Tikrit. The statement reads: "An unknown driver of a truck full of watermelon gave poisonous watermelon to Iraqi soldiers on several checkpoints spread along the road from north of Sharqat to Hamam al-Alil town, near the northern Iraq city of Mosul... A soldier died and 12 others were evacuated to Mosul Hospital." US military spokesman Andre Hance says that the driver – who posed as a farmer and stopped at checkpoints presenting the watermelons as gifts to thirsty soldiers – has since been detained.

1 June Croatian Ministry of Foreign Affairs Assistant Minister of the Division for Multilateral Affairs and International Organizations Tomislav Vidošević and US Assistant Secretary of State for Arms Control Stephen G Rademaker sign a reciprocal Proliferation Security Initiative (PSI) ship-boarding agreement. Croatia is the fourth state – following Liberia [see 11 Feb 04], Panama [see 12 May 04], and the Marshall Islands [see 13 Aug 04] – to sign such an agreement with the USA.

1 June In Alabama, the Anniston chemdemil facility destroys the last of its 9,600 sarin-filled 155-mm artillery shells just over a month after commencing the process [see 27 Apr]. Next month the facility will begin destruction of its 105-mm shells.

2 June In Poland, the fifteenth [see 8-18 Nov 04] Proliferation Security Initiative (PSI) exercise gets underway. The scenario of exercise Bohemian Guard '05 is the interception of an illegal rail shipment of chemical-weapons-related materials from Poland through the Czech Republic and on into a third nation. The exercise is jointly organized by the Czech Republic and Poland; participating are Croatia, Hungary, Latvia, Ukraine, Romania, Slovakia and the USA.

2 June In Switzerland, researchers have discovered that the inhalation of the hormone oxytocin makes people more likely to trust others, according to an article published in the journal *Nature*. Oxytocin has been nicknamed the 'elixir of love' because levels rise after sex and in the first flush of a romance; it also plays a part in inducing lactation and labour. Michael Kosfeld and Ernst Fehr, of the University of Zurich, headed the study in which volunteers were split into two groups of 'investors' and 'trustees'.

2 June In the USA, Constella Health Sciences releases *Final Report: Survey for Determining the Location, Capacity, and Status of Existing and Operating BSL-3 Laboratory Facilities within the United States*. The report results from a letter of agreement signed in October 2004 between Constella Health Sciences and the National Institute of Allergy and Infectious Diseases (NIAID) – in partnership with the American Society for Microbiology (ASM) – under which the former agreed "to develop and conduct a brief survey of academic, biotechnology, and pharmaceutical facilities in the United States". The aim of the report is "to provide NIAID with information that would help better define the location, capacity and status of existing and operating US laboratory facilities that incorporate Biosafety Level 3 (BSL-3) containment". The

report states: "Of the 1096 facilities mailed a Census Survey ... [245] of the 528 responding facilities ... indicated that they currently have BSL-3 capable laboratories while 283 ... stated that they do not have laboratories with BSL-3 capabilities... For the Validation Survey, 1383 individuals were mailed a survey solicitation letter [of which 128] of the [527] responding individuals ... indicated that the facility at which they are employed has BSL-3 capable laboratories and 399 ... indicated that their organization does not have BSL-3 capable laboratories."

3 June Grenada deposits its instrument of accession to the CWC with the UN Secretary-General. In thirty days, Grenada will become the 169th [see 21 Apr] party to the Convention.

3 June In Utah, the Tooele chemdemil facility destroys the last of 22,600 VX-filled land mines from the Deseret Chemical Depot [see also 1 Jun].

Two months later, the facility completes the neutralization of the last of its stockpile of agents VX and GB. Spokesman for the facility Elaine Southworth says it means that around half of the total GB agent stockpiled in the USA has now been destroyed. The facility will next commence its final operation, i.e. the destruction of around 125,000 mustard agent-filled munitions.

5 June Bulgarian author and broadcaster Georgi Markov, who died in 1978 after being stabbed with an umbrella containing ricin while he was waiting for a bus in London, was murdered by Francesco Giullino, according to a report in *The (London) Times*. The report refers to files of the Durzhavna Sigurnost, the then Bulgarian secret service, uncovered by Hristo Hristov during six years of research. The findings of Hristov, a Sofia-based investigative journalist, were serialized one week previously in the Bulgarian daily newspaper *Dnevnik*. Giullino is reported as being a Dane of Italian origin who travelled Europe in a caravan under the pretence of being an antiques salesman, whereas in reality he was a Bulgarian secret agent. His instructions to murder Markov came from General Stoyan Savov, the deputy interior minister with special responsibility for state security. Rumen Danov, special adviser for national security to the country's first post-communist president Zhelu Zhelev, is reported to have confirmed that the documents uncovered by Hristov are genuine. On 5 February 1993 Giullino was interrogated in Copenhagen for six hours by British and Danish detectives after a tip-off linking him to the case. He admitted espionage but denied any involvement in the Markov killing, and he was released, as Denmark had no case against him. In 1992, General Savov committed suicide shortly before going on trial for his role in the partial destruction of the dossier on the Markov case. In 1992 General Vladimir Todorov, the former Bulgarian intelligence chief, was sentenced to sixteen months imprisonment for destroying ten volumes of material relating to the case.

6 June India adopts the *Weapons of Mass Destruction and their Delivery System (Prohibition of Unlawful Activities) Act 2005*. In a letter – dated 8 August 2005 – to the President of the UN Security Council, Permanent Representative of India to the UN Nirupam Sen says: "Specifically, the ... Act fulfils India's obligations pursuant to Security Council resolution 1540 [see 28 Apr 04]... The Act updates the present system of export controls in India with a view to making it more contemporary, by introducing transit and trans-shipment controls, re-transfer provisions, technology transfer controls, brokering controls and end-use based controls. The Act prohibits the export of any good or technology

from India if the exporter knows that it is intended to be used in a WMD programme."

6-8 June In Almaty, Kazakhstan, the fourth regional meeting of national authorities of CWC states parties in eastern Europe takes place. This year the focus is on chemical-industry issues. Jointly organized by the government of Kazakhstan and the OPCW, the objective of the meeting is to provide a framework within which national authority representatives can review and discuss issues relating to the practical implementation of the CWC. Topics discussed include national experiences with regard to the collection and submission of industry declarations, processing and managing data, and industry outreach.

7 June In Tokyo, governmental officials and experts convene for an international conference to assess what progress has been made in the elimination of WMD and protecting stored nuclear waste since the G-8 pledged to contribute around \$20 billion over ten years towards the effort [see 26-27 Jun 02]. The conference is organized by the Center for Strategic and International Studies and co-sponsored by the Nuclear Threat Initiative (NTI). US Senator and co-chairman of NTI Sam Nunn says the pledges so far of \$17 billion fall short of the goal, and that only a fraction of this money had actually been spent.

7 June China releases a position paper on the reform of the United Nations which states *inter alia*: "China supports and actively participates in multilateral efforts aimed at strengthening the effectiveness of the [BWC] and takes a positive attitude towards the immediate resumption of negotiation on a verification protocol of the Convention. China supports the conclusion of a new biological security protocol by the State Parties to the Convention through negotiations so as to classify dangerous biological agents and establish binding international standards for the export of agents of this kind... China opposes the proliferation of weapons of mass destruction and their delivery systems, supports the strengthening of the current international non-proliferation regime and calls for the resolution of proliferation issues within the framework of international law by political and diplomatic means. Any non-proliferation measures should contribute to international and regional peace, security and stability. Like many other nations, China is not in favor of the interceptive measures taken by the Proliferation Security Initiative beyond the international law."

7 June In the US House of Representatives, the Appropriations Committee rejects a request by the Bush administration for \$4 million to resume a feasibility study on developing a new nuclear weapons capability for striking hardened and deeply buried targets under the Robust Nuclear Earth Penetrator Program. In approving a \$408 billion defense appropriations bill for FY 2006, the committee does approve a \$4.5 million request for the Air Force to assess how to deploy a penetrating bomb from a B-2 stealth bomber. It follows the House Armed Services Committee's approval, one month previously, of language authorizing the Air Force to resume the study, on the grounds that a key field test of the weapon's metal shell could guide a decision to pursue a nuclear or conventional penetrating bomb.

7 June In Washington, DC, at an international biosecurity conference hosted by the European Institute Public Policy Forum, German Foreign Ministry Counter-Terrorism Co-ordinator Georg Witschel says: "Looking at al Qaeda, since they have lost their territorial base, and since state sponsor-

ing is in general declining, the probability of such an attack might be slightly lower than it was a few years ago, but the risk is still pretty high."

7-8 June Off the Spanish coast in the western Mediterranean, a Proliferation Security Initiative (PSI) air exercise takes place [see also 2 Jun]. Hosted by the Spanish government, the purpose of exercise Blue Action '05 is to refine standard air operating procedures. It is the thirtieth PSI activity since the initiative was launched [see 31 May 03].

8 June UK Foreign Secretary Jack Straw presents to Parliament his response to the Foreign Affairs Committee report on *Foreign Policy Aspects of the War on Terrorism* [see 5 Apr]. The document states: "The Government does not support the negotiation of an optional verification protocol [to the BWC] by a 'coalition of the virtuous'. The Government continues to believe this would be ineffective and would not strengthen the Convention. An optional arrangement would inevitably mean that those States about which the UK had most concerns could opt out of a protocol leaving those inside any such coalition with more onerous obligations than others, without providing us with any more security... The UK continues to play a leading role in shaping the Proliferation Security Initiative (PSI)... The text of the amendments to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation is still under discussion. However, the draft Article 8 makes clear that the detention of a vessel would only take place with the express authorisation of the flag state."

8 June In the UK House of Commons, responding to a written question addressed to the Secretary of State for Defence regarding the number of claims concerning Gulf War related illness, Under-Secretary of State for Defence and Minister for Veterans Don Touhig says: "Our records indicate that, as at 30 April 2005, 1,477 claims have been accepted and 119 rejected in respect of Gulf War related illness. All decisions issued by the Veterans Agency carry a right of appeal."

8 June At UN headquarters, following a meeting of the Security Council on the latest report of UNMOVIC [see 27 May], acting US ambassador to the UN Anne Patterson tells reporters that there was a consensus for the mandate of the UNMOVIC to be "rapidly reviewed" [see also 8 Mar]. She says that Council members were anxious to get the commission's work wrapped up this summer, before a summit of world leaders in September. Russian UN Ambassador Andrei Denisov says: "I can agree that there is a general perception by the council members that the time to wrap up the body has come. The problem is how to do it."

8-9 June In Russia, there is a Regional Dialogue Meeting – organized by Green Cross Legacy Programme, the Russian Federal Agency for Industry and the Governor of Kirov Oblast Nikolai Shaklein – on the subject of planning for the Maradykovsky chemdemil facility. The plans were first presented on the occasion of the last National Dialogue Meeting [see 10-11 Nov 04]. The purpose of the meeting is to provide detailed information on the plans to the local population and regional authorities. The first day of the meeting takes place in Kirov; the second, in Mirny.

Six weeks later, Shaklein says the first operational phase of the facility will be launched in March 2006 and that it should complete the destruction of its stockpile – which amounts to 17.4 per cent of Russia's chemical weapons stock – by 2012.

9 June Russian BW Monitor publishes *Russia's Biowarriors: A Who's Who of Biodefence Scientists in the Soviet Union and Russian Federation, 1917-2005* by Anthony Rimmington. The report, which is the first in a new series to be released by the Monitor, constitutes a biographical reference providing details of senior biodefence personnel who worked, or are still working, in organizations and at facilities subordinate to a range of different Soviet/Russian organizations, including the Ministry of Defence, Ministry of Agriculture, Biopreparat, the various academies of science and the intelligence services.

9 June The UK Department of Health releases a consultation version of *The NHS [National Health Service] Emergency Planning Guidance 2005*. The guidance enunciates a set of general principles to guide all NHS organizations in developing their ability to respond to major national and regional incidents within the context of the requirements of the Civil Contingencies Act 2004. It replaces the *NHS Emergency Planning Guidance 1998* and all other material previously included in or associated thereto.

9 June In the US Senate, the Education, Labor and Pensions Committee Bioterrorism and Public Health Preparedness Subcommittee conducts a hearing on *Biodefense*.

9 June In the US House of Representatives, the International Relations Subcommittee on International Terrorism and Nonproliferation conducts a hearing on the *Proliferation Security Initiative: An Early Assessment*. Testifying before the committee, Assistant Secretary, Department of State Bureau of Arms Control Stephen Rademaker says: "There is ample authority to support interdiction actions at sea, in the air, and on land. States around the world have concurred with this fact and lent their support to the PSI. Importantly, the unanimous passage of UN Security Council Resolution 1540 [see 28 Apr 04] establishes clear international acknowledgement that cooperation, such as PSI, is both useful and necessary [see also 07 Jun China]... In the last nine months alone, the United States and ten of our PSI partners have quietly cooperated on eleven successful efforts [see 31 May]... We are further operationalizing the PSI by pursuing and concluding bilateral ship-boarding agreements [see 1 Jun], a tool specifically encouraged in the WMD Commission Report issued last March [see 31 Mar]."

9 June In Washington, DC, there is a conference on *Preparing for the Inevitable: Bioterrorism and Emerging Infectious Diseases*. The three themes discussed are: 'facing the dual threat of bioterrorism and emerging infectious diseases'; 'countermeasures and responses to bioterror and emerging infectious diseases: realistic assessment of national preparedness and next steps'; and 'preparing for the inevitable: a new paradigm for security and health'. The event is jointly organized by the Public Policy Institute, Georgetown University; the Center for Law and the Public's Health at Georgetown and Johns Hopkins University; Virginia Tech, Office of the National Capital Region; and the Center for Biosecurity, University of Pittsburgh Medical Center.

9-10 June In Geneva, a seminar on *Biological and Chemical Weapons Threat Yesterday and Today* takes place to mark the occasion of the eightieth anniversary of the signing of the 1925 Geneva Protocol. It is organized jointly by the governments of France and Switzerland in collaboration with the United Nations Institute for Disarmament Research (UNIDIR) and the Geneva Centre for Security Policy (GCSP).

The purpose of the seminar is to assess the Protocol in its historical context, and to address the issue of the current threat posed by chemical and biological weapons, both from a military perspective and from the perspective of the threat posed by non-state actors. Threats relating to public health are also discussed.

10 June The Geneva Centre for Security Policy hosts a conference on *Combating Proliferation Cooperatively: Global Partnership Program at New Stage*. The purpose of the conference is to assess the successes and failures of the Global Partnership since its inception three years ago [see 26-27 Jun 02] and to identify areas for discussion at the upcoming meeting of the G-8 next month in Scotland.

11 June In Geneva, a symposium on *Incapacitating Biochemical Weapons: Scientific, Military, Legal and Policy Perspectives and Prospects*, takes place. More than fifty-five persons from nineteen countries examine the growing interest in chemical and biochemical incapacitating agents on the part of military and law enforcement organizations, and the effects that the development and potential use of such agents may have on human welfare, and on biological and chemical weapons arms control. Fifteen speakers discuss themes relating to "Military and Scientific Issues" and "Legal and Policy Issues Relating to Incapacitating Biochemical Weapons". The symposium is sponsored by the Scientists Working Group of the Center for Arms Control and Non-Proliferation, and the Geneva Forum (UNIDIR, Quaker UN Office, Program for Strategic and International Security Studies of the Graduate Institute of International Studies).

13 June In the UK House of Commons, in a written ministerial statement on the illnesses suffered by veterans of 1991-1992 Gulf War, Under-Secretary of State for Defence and Minister for Veterans Don Touhig says: "It has been a key principle of the Government's approach to dealing with the concerns of 1990-91 Gulf veterans that the Ministry of Defence will fund appropriate research into Gulf veterans' illnesses issues. In 2003, at MoD's request, the Medical Research Council (MRC) undertook a review of research into Gulf veterans' illnesses and provided recommendations about where future studies should focus [see 22 May 03]. One recommendation was that the MoD should pursue research to replicate preliminary US neuro-imaging studies in the UK. The MRC subsequently hosted meetings of experts in order to consider what research might be carried out in the UK. Among the conclusions reached by the expert group was that a major study now underway in the US is likely to be definitive, and that there is no need to replicate the preliminary work in the UK. The group were also unable to identify a specific way in which neuro-imaging studies could provide clear benefit to UK veterans. On 8 June 2005 the MRC advised that based on current evidence they do not recommend that this area of work be taken forward. Taking that advice into account, the MoD has decided that it will not now proceed with neuro-imaging studies, although it would not close off the possibility of looking again at this once ongoing US studies have reported. The MoD continues to work with the MRC to take forward other recommendations of the MRC's 2003 review particularly in the area aimed at improving the long term health of veterans with persistent symptoms." [See also 8 Jun]

13 June From Canada, CBC News reports on the discovery of a US Army document which states that the herbicide Agent Purple was sprayed over CFB Gagetown in New Brunswick in 1966. Responding to the report Canadian Defence Minister Bill Graham says: "We'll make sure all people

who were exposed to these, who can show there is a relationship between their disease and what we engaged in the past, will be compensated." Thus far, the Canadian government has only acknowledged the harm caused from the spraying of Agent Orange over the army base in 1966 and 1967, and is paying compensation in two cases connected thereto [see 15 May]. CBC News also reports a military briefing note to the New Brunswick cabinet as showing that the agent 2,4,5-T was sprayed over the base as early as 1956. Retired sergeant Earl Graves says the soldiers were told to cover their heads when the planes flew by. "They were out in the exercise area and the planes flew over spraying and they were told to just put ponchos over their head, that it wouldn't hurt them," says Graves. He says that 170 soldiers in his regiment have thus far died of cancer.

Eight days later, Karen Ellis of the Department of Defence and Veterans Affairs says, before a parliamentary committee, that the tests involving the spraying of Agent Orange and Agent Purple in 1966 and 1967 were small in scale and limited in time and scope. "Our understanding is that it's a very quick breakdown of the product, that it degrades very quickly, in a few hours, and that there is very little risk that it endures for any period of time in terms of permanent contamination", says Ellis. The government will, however, conduct new tests on soil and water at the base.

Ten days later, the ministry of National Defence releases a background document *Testing of Agent Orange and Agent Purple at CFB Gagetown in 1966 and 1967*, appended to which is *Chemicals Used During Spraying Tests at CFB Gagetown*, listing "the 19 compounds used during the spraying tests in conjunction with the US at CFB Gagetown in 1966 and 1967". The background document states: "Since the 1950s, various types of herbicides have been applied at CFB Gagetown to deal with vegetation in the training areas. For three days in June 1966 (14-16 June) and four days in June 1967 (21-24 June), small-scale testing of various defoliants and desiccants (see list of Chemicals Used During Spraying Tests at CFB Gagetown), including the defoliants known as Agent Orange and Agent Purple, took place over a small portion of the base - 0.3 per cent of the total base area. The testing was conducted in cooperation with the United States military in order to assess the effectiveness of these products... Reports suggest there were a limited number of people on the ground during the 1966 test; however, we do not have a comprehensive list of all those involved in the testing. Based on the information we have to date, the testing did not involve widespread spraying, and because of the precautions taken, it is unlikely that civilians outside the base came into contact with Agents Orange or Purple. These tests are the only known instances, based on available information, in which Agents Orange and Purple were sprayed at CFB Gagetown."

One month later, in Ottawa, a group of armed services veterans and civilians file a class action against the government, claiming that they suffered deleterious health effects - including cancer, organ failure, birth defects and neurological damage - from the aerial spraying of the herbicides over and around the base between 1956 and 1984.

13-15 June In Nicosia, the second CWC regional workshop on *Universal Chemical Weapons Ban in the Mediterranean Basin and the Middle East* takes place. Jointly organized by the government of the Republic of Cyprus and the OPCW, with support from the European Union, it brings together representatives of twenty-three States Parties, as well as representatives of seven States that have not ratified or acceded to the CWC, which include Comoros, Djibouti, Iraq, Israel, Lebanon, and Syria. The European Union, the League of Arab States, and the Egyptian Council for Foreign Affairs

are also represented. The aim of the workshop is to promote awareness among states in the Mediterranean Basin, the Middle East, and neighbouring regions of the problems commonly encountered in seeking to achieve full and uniform compliance with the Convention's obligations. In addition, it provides practical measures to help reach this goal.

13-15 June In Bratislava, Slovakia, a workshop takes place to coordinate OPCW capacity-building training courses at the national, regional and international levels in accordance with Article X of the CWC. Representatives of the main contributors of the courses – which are conducted jointly by the OPCW and Member States – i.e. the Czech Republic, South Korea, Serbia and Montenegro, Slovakia, South Africa, Sweden and Switzerland – review and discuss the coordination of future courses and other matters related thereto. In total, twenty-three representatives of CWC Member States, including Austria and Croatia, attend the workshop.

13-24 June In Geneva, the third [see 19-30 Jul 04] and final Meeting of Experts from States Parties to the BWC meet to consider “the content, promulgation, and adoption of codes of conduct for scientists”. At the fifth Review Conference [see 14 Nov 02] it was decided that States Parties would meet twice yearly until the next Review Conference in 2006 “to discuss, and promote common understanding and effective action” on specific topics related to better implementation of the BWC. At the end of the meeting, the chairman, Ambassador John Freeman of the UK, produces a paper listing the considerations, lessons, perspectives, recommendations, conclusions and proposals drawn from presentations and working papers, to assist delegations in their preparations for the Meeting of States parties to be held in December. The paper is annexed to the report of the Meeting. Although recognizing the value of such codes, the meeting failed to move beyond agreement on a basic set of principles.

14 June The former Ukrainian Prosecutor-General says that no evidence was found to support the theory that President Viktor Yushchenko had been poisoned, so reports RIA Novosti, citing an interview in *Fakty* newspaper [see also 10 Feb]. Gennady Vasilyev says that “neither [Ukrainian] nor Austrian experts found any confirmation of the fact that a crime involving poisoning was committed” and that of particular interest is the fact “of carefully concealed intervention by American specialists at the stage when Yushchenko was treated in Vienna [see 10 Sep 04]”.

Two days later, Ukrainian Prosecutor General Svyatoslav Pyskun says, during a press conference in Kiev, that a forensic examination will be undertaken, which will show who poisoned Yushchenko and when it occurred. “The investigation is going on continuously, systematically, day by day. Much will depend on the results of a forensic examination,” says Pyskun.

14 June Turkey and the USA sign an agreement to improve Turkish border security and develop export controls to stop the transport of materials that could be used to produce weapons of mass destruction, so reports the Associated Press. “Developments in the world at large, and in Turkey's neighborhood, continue to demonstrate the urgency of preventing the spread of dangerous weapons and these technologies,” says US Ambassador to Turkey Eric Edelman. In a statement, the Turkish Foreign Ministry says that the USA will provide “technical equipment and expertise to help identify materials with double usage that contain sensitive technology”.

14 June In Geneva, the BioWeapons Prevention Project (BWPP) launches the first of two phases of the

BioWeapons Monitor – an online searchable database of open-source information – during a lunchtime seminar at the Palais des Nations. The BWPP describes the Monitor as a “civil society initiative to track compliance of governments and other entities with the [BWC] and other international treaties that codify the norm against biological weapons, relevant scientific and technological developments, and measures undertaken by governments and relevant organizations to increase openness and transparency”.

14 June From London, the European Academies Science Advisory Council (EASAC) releases *Infectious Diseases: Importance of Co-ordinated activity in Europe*. The report states: “EASAC emphasises the importance of increased investment and coherence to support better preparedness and responsiveness in infectious disease, in particular with regard to: disease surveillance and control systems – for rapid identification and rapid responsiveness; public health infrastructure – Europe-wide co-ordination of national structures and building national structures where not yet present; development of applications – innovation goals for vaccines, diagnostics and therapeutics; [and.] research and training – improving the capability that supports all the other priority actions, training a greater number of skilled basic and clinical scientists and co-ordinating the human and veterinary science agendas.”

14 June In the US House of Representatives, the Government Reform Subcommittee on National Security, Emerging Threats and International Relations holds a hearing on *WMD Countermeasures*.

15 June In the US Senate, the Committee on Homeland Security and Governmental Affairs holds a hearing on *Is the Federal Government Doing Enough to Secure Chemical Facilities and Is More Authority Needed?* [see also 27 Apr].

16 June In Shaanxi, China, the Chinese army undertakes its first joint Army and Air Force medical service support exercise for responding to a chemical, biological or nuclear attack. The exercise, which is jointly organized by the Air Force Logistics Department and the 4th Military Medical University, brings together personnel from more than ten medical treatment, disease prevention, and aviation units.

16-19 June In Choshi City, Japan, an *International Symposium on NBC Terrorism Defense* – organized by the Chiba Institute of Science – takes place in commemoration of the tenth anniversary of sarin attacks in Tokyo [see 20 Mar 95]. The symposium provides, amongst other things, an opportunity for participants to share information with the Japanese experts who experienced dealing with the aftermath of the attack.

20 June In Washington, DC, following a US-EU summit, US President George Bush, European Commission President Jose Manuel Barroso, Luxembourg Prime Minister and current President of the European Council Jean-Claude Juncker, and EU foreign policy chief Javier Solana issue a *Joint Statement by the European Union and United States on the Joint Program of Work on the Nonproliferation of Weapons of Mass Destruction*. The statement reads: “We reaffirm our willingness to work together to implement and strengthen key arms control, disarmament and non-proliferation treaties, agreements and commitments that ban the proliferation of WMD and their delivery systems. In particular we underline the importance of the [NPT], the [BWC] and the [CWC]... The EU and the US will work together in advance of the upcoming

[BWC] Review Conference in 2006, in order to strengthen the [BWC]... We will continue to support the multilateral institutions charged with verifying activities under relevant treaties and agreements.”

20-30 June In Paris, the first of two basic courses for OPCW national authorities takes place. The course provides a comprehensive overview of all aspects of effective national implementation of the CWC obligations. The course includes a detailed review of the CWC and the functioning of the OPCW, its governing bodies and the Technical Secretariat; the establishment and operation of national authorities; the legal rights and obligations of CWC parties; and the objectives of the action plan on Article VII national implementation obligations, adopted at the eighth session of the Conference of States Parties [see 21-24 Oct 03]. Representatives from the following twenty-three OPCW members attend the course: Albania, Algeria, Argentina, Azerbaijan, Burundi, Cameroon, Cote d'Ivoire, Ethiopia, Gabon, Jamaica, Latvia, Lesotho, Libya, Mauritius, Mongolia, Nicaragua, Nigeria, Republic of Korea, Saudi Arabia, Sudan, Uzbekistan, Venezuela, and Viet Nam. Representatives from the Congo and Djibouti, which have signed but not yet ratified the CWC, also attend. The course is jointly organized by the French government and the OPCW, and hosted by the Centre Française de Formation pour l'Interdiction des Armes Chimiques (CEFFIAC).

21 June In Guangzhou, three people are treated in hospital after inhaling vapour that leaked from an abandoned mustard gas shell while they were removing sand from a river bank [see also 4 Aug 03 and 23 Jul 04]. The Chinese Foreign Ministry later says the shell was one of many abandoned by the Japanese Imperial Army at the end of the Second World War.

Five days later, following a request to do so by the Chinese government, Japanese chemical weapons experts and governmental officials arrive to verify the origin of the shell. An unidentified Japanese official says that the Chinese government collected several other abandoned shells. In a statement, Japanese Foreign Ministry Press Secretary Hatsuhsa Takashima says: “We truly regret the incident and would like to express our sympathy to the people affected... To prevent similar incidents, we will make every effort to remove abandoned chemical weapons in hazardous conditions as soon as possible [see also 20 May].”

21 June In the USA, the Senate Foreign Relations Committee releases *The Lugar Survey on Proliferation, Threats and Responses*, commissioned by Committee Chairman Richard Lugar. A survey of eighty-five nonproliferation and national security experts estimates at fifty per cent the probability of a nuclear, biological, chemical or radiological attack over the next five years and at seventy per cent the probability of such an attack over the next ten years. Of the survey, Lugar writes: “[M]y intent was to discover consistencies and divergences in attitudes about nonproliferation among a large and diverse group of well-informed experts... I believe that the results of this survey will be useful in helping to define the parameters of the risks that we face, assessing the current state of non-proliferation and counter-proliferation efforts, and identifying issues of concern that require more attention.”

23 June In Indonesia, an investigation has found that the Indonesian intelligence agency was involved in the death of a human rights activist whose blood was found to contain a lethal dose of arsenic, so reports the British Broadcasting Corporation. Munir Said Thalib died during a flight from Jakarta to Amsterdam on 7 September last year after his food

was reportedly poisoned. Deputy Chairman of the fact-finding team investigating the case Asmara Nababan says: “There are indications of [the intelligence agency’s] involvement... but we cannot say whether the agency was involved as an institution or whether it was just individual officers... We have the names of people who have played key roles, but we cannot determine how far is their involvement in the murder.” Indonesian police have already named three suspects: Polycarpus Budihari Priyanto, a former pilot who allegedly gave up his business class seat to Munir during the flight, and two flight attendants – Oedi Irianto and Yeti Susmiarti – who were involved in serving Munir his food. All three worked for the state-owned Garuda Airlines. The team said police should also open an investigation into the former chief of the intelligence agency, Abdullah Hendropriyono, and several of his deputies, including Muchdi Purwopranjono, the former chief of the army special forces unit. Mr Hendropriyono has refused to testify in front of the investigating panel.

Five weeks later, Polycarpus is charged with being an accessory to murder and goes on trial a week thereafter as the sole suspect in the case despite the conclusions of the fact-finding team. The three-page indictment alleges that he murdered Munir because he believed Munir was undermining the unity of the country. It alleges that he mixed the arsenic into a glass of orange juice, which was then served to Munir by a flight attendant.

Nine weeks later, a panel of five judges reject a motion by Polycarpus that the charges against him be thrown out on the grounds of insufficient evidence.

27 June From Brussels, the Council of the European Union adopts a regulation that, *inter alia*, lists certain goods which “could be used for capital punishment, torture or other cruel, inhuman or degrading treatment or punishment” that are to be subject to a case-by-case assessment for export from the EU. The goods listed include: “Substances for the purpose of riot control or self-protection and related portable dissemination equipment, as follows: ... Portable devices for the purpose of riot control or self-protection by the administration or dissemination of an incapacitating chemical substance (Note: This item does not control individual portable devices, even if containing a chemical substance, when accompanying their user for the user’s own personal protection); ... Pelargonic acid vanillylamide (PAVA) (CAS 2444-46-4); ... Oleoresin capsicum (OC) (CAS 8023-77-6).”

27 June In the UK House of Commons, in a written answer to a question regarding the making of erroneous statements – in the context of the recent court case on the matter [see 8 Apr] – that ricin had been found following the raid of a flat in north London [see 5 Jan 03] Home Secretary Charles Clarke says: “An initial test conducted by Dstl Porton Down on 6 January 2003 on an exhibit taken by police from the flat occupied by Kamal Bourgass gave an apparent positive result for ricin. However, confirmatory tests which were conducted throughout the period from 7 January 2003 to 28 January 2003 failed to detect the presence of ricin. Ricin was identified and confirmed on 7 January 2003 in a second exhibit, consisting of 22 castor beans seized from the flat. Nicotine poison was also identified and confirmed. Other materials, specifically mentioned in the poison recipes recovered from the flat were also found including acetone and isopropyl alcohol... Further tests on the first exhibit on 27/28 April, 2003 also did not detect ricin.”

27 June-1 July At Wiston House in the UK, there is a Wilton Park conference on *Next Generation Weapons of Mass Destruction: Anticipating the Threat*, convened in cooperation

with the US Defense Threat Reduction Agency. The purpose of the conference is to discuss what new weapons of mass destruction are likely to emerge as a result of changing technologies and their global dissemination; the implications for international security of changing biotechnology, emerging laser capabilities, advances in chemistry, the expansion of space-based scientific, commercial, and defence-related activities; and the policies needed to prevent the development and proliferation of new WMD?

27 June-2 July In Lexington, Virginia, a workshop on *Integrating Science & Politics in the Study of Weapons of Mass Destruction* takes place at Washington and Lee University. Funded by the US Institute of Peace, the workshop is designed to help college and university instructors prepare or update course material related to weapons of mass destruction and nonproliferation.

27 June-8 July In the Netherlands, an analytical skills development course – organized by the OPCW and funded in part by the European Union – takes place at Delft University. The purpose of the course is to assist qualified analytical chemists from OPCW member states with economies that are developing or in transition, to expand their experience and practical skills in analytical chemistry. Twenty participants attend the course, receiving basic training and gaining experience in gas chromatography (GC) and GC mass spectrometry (GC-MS), as well as learning about the preparation of environmental samples and GC and GC-MS analyses of the samples for CWC-related chemicals.

28 June *The (Zimbabwe) Herald* suggests that the UK and US, “in a bid to arm-twist the region to capitulate to the whims of the world’s superpowers”, are using unspecified “unconventional” chemical weapons to manipulate the weather system resulting in droughts in southern Africa. It says recent droughts, which defied predictions by the Zimbabwean government and the Southern African Development Community’s Drought Monitoring Centre, point to the possibility that the weather is being manipulated for political purposes.

28 June US President George Bush issues an executive order – *Blocking Property of Weapons of Mass Destruction Proliferators and Their Supporters* – the effect of which is to freeze the assets of individuals or companies in the USA who undertake business with entities in Iran, North Korea and Syria believed to be involved in proliferating WMD. The order designates eight organizations as being responsible for WMD and missile programmes, freezes their US assets, and prohibits US citizens or companies from engaging in transactions with them.

28 June In Washington, DC, US Defense Secretary Donald Rumsfeld and Indian Defence Minister Pranab Mukherjee sign *The Defense Framework*, which amongst other things aims to “enhance capabilities to combat the proliferation of weapons of mass destruction”. The agreement also states that “our defense establishments shall ... conduct joint and combined exercises and exchanges [and] collaborate in multinational operations when it is in their common interest”.

Commenting on the agreement three days later, Pakistani Ambassador to India Jehangir Karamat says: “If India gets PAC-3 [Patriot Advanced Capability-3] we will either have to ask the US also to provide the same system to us or we will have to think of other ways to have our own missile defence.” PAC-3 is a missile defence system that relies on kinetic energy to destroy warheads that could be used to deliver chemical, biological or nuclear weapons.

28-29 June In Sofia, at a NATO forum on weapons of mass destruction, more than a hundred delegates from NATO member states, as well as scientific experts, discuss NATO priorities and problems relating to weapons of mass destruction. The forum, opened by Bulgarian Deputy Foreign Minister Nikolay Milkov, is jointly organized by the Bulgarian Foreign Ministry and NATO.

28-31 June At OPCW headquarters, the Executive Council convenes for its forty-first [see 15-18 Mar] session, which is chaired by Ambassador Alfonso Dastis of Spain.

The Council considers and notes the report by Director-General Rogelio Pflirter on the status of implementation of Articles X and XI of the CWC and of national-implementation measures. It notes that 30 States Parties have thus far submitted information on their national programmes for protective purposes, pursuant to paragraph 4 of Article X during 2004 in accordance with the procedures and timelines laid down at the ninth session of the Conference of States Parties. It further notes that, pursuant to paragraph 7 of Article X, 64 States Parties have elected one or more measures in relation to how they would provide assistance through the OPCW in the event of the use, or threat of use, of chemical weapons against another State Party. The Council also notes that 48 States Parties have provided information on their existing national regulations relating to trade in chemicals.

The Council notes that, since the fortieth [see 15-18 Mar] session of the Executive Council, States Parties are making good progress in achieving the objectives of the action plan on Article VII national implementation obligations, adopted at the eighth session of the Conference of States Parties [see 21-24 Oct 03].

The Council considers and approves corrections to the detailed plans for destruction and conversion for the Russian ‘Khimprom’ CWP (production of a VX-type substance and filling it into munitions) in Novocheboksarsk.

The Council considers and approves a facility agreement with China regarding on-site inspections at a single small-scale facility and for a Schedule 1 facility for protective purposes.

The Council notes the resignations of P I Suvrathan and John Fox from the ABAF, and approves the appointments of Pradeep Singh and Emily W Spencer.

The Council considers and concludes an agreement between the OPCW and the Kuwait, Poland, Switzerland on the privileges and immunities of the OPCW.

Nigerian President and Chairman of the African Union Olusegun Obasanjo calls for a regional OPCW office to be established in Africa. “This is very encouraging and I hope that further co-operation agreements will be reached between AU and OPCW in our collective endeavour to make the world a safer place for mankind,” says Obasanjo.

During the session the US national authority distributes *Ensuring Article VII Implementation – Options for CSP-10*. The paper sets out a number of “appropriate measures” that CSP-10 could adopt to achieve full and effective implementation with the Article VII action plan.

The Council adopts a draft report on the implementation of the CWC in 2004, which is to be considered and approved by the Conference of the States Parties at its tenth session.

29 June In Algiers, a man previously believed by UK prosecutors to have been involved in, amongst other things, manufacturing ricin in a North London flat with a view to carrying out attacks in London [see 27 Jun] is convicted of setting up and belonging to a foreign terrorist organization and sentenced to ten years imprisonment. According to Reuters news agency, Mohamed Meguerba, who jumped bail in the

UK in 2002, is believed to have provided information to Algerian interrogators which led to the UK police raiding the flat and which was central to the recent conviction in the UK of Kamel Bourgass for plotting to “use poisons or explosives to cause disruption, injury or fear” [see 8 Apr].

Note: The official UK statement to the press when the original police raid on the north London flat was announced [see 5 Jan 03] had said: “This successful joint operation between the Anti-Terrorism Branch, MPS Special Branch and the Security Service followed receipt of intelligence”. There was no disclosure then of the nature of the “intelligence”. However, shortly afterwards, when addressing the UN Security Council [see 5 Feb 03] just prior to the US-led invasion of Iraq, US Secretary of State Colin Powell seemed to be referring explicitly to the case, apparently asserting that one of a group of “North African extremists” arrested in France in December 2002 [see also 17 Mar 03 Paris and 10 Jan 04] had provided information about a plot involving toxins that targeted Britain. Secretary Powell added: “Later evidence again proved him [the detainee] right”.

29 June US President George Bush announces that – following a review led by the National Security Council’s homeland security adviser, Frances Fragos Townsend – his administration has accepted seventy out of the seventy-four recommendations of the Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction [see 31 Mar]. Bush says that three more of the recommendations would be studied, and that one classified recommendation had been rejected. Among those recommendations accepted are the formation of a new National Counter Proliferation Center to co-ordinate the government’s collection and analysis of intelligence on chemical, biological and nuclear weapons - a task currently undertaken by numerous national security agencies.

30 June Ukrainian President Viktor Yushchenko says the authorities know who was behind the attempt to poison him last year [see 10 Sep] and that a number of people suspected of involvement in the assassination attempt are on the run. In an interview with *The (London) Times*, Yushchenko says the substances used in the plot have been traced to a laboratory in the Ukraine where they were created “in apparent violation of international laws” banning the development of chemical weapons, and that the state’s security services had also deployed the same poison to kill others in the past [see 14 Jun]. He says that there were only two other known survivors of exposure to the poison in Europe, one believed to have been an Austrian textiles researcher.

Two months later, the Kiev *Ukrayinska Pravda* quotes Boris Volodarskiy – a researcher “who has spent a long time researching intentional poisonings organized abroad by Soviet (Russian) special services during the past 80 years” – as saying that the Russian special services were responsible for poisoning Yushchenko and that “the chances that this crime will be solved by Ukrainian law enforcement agencies are extremely small”. According to Volodarskiy, the poisoning of Yushchenko was similar to the attempt on Nikolay Khokhlov’s life by KGB agents in Frankfurt in September 1957, a subject on which Volodarskiy’s research was recently published. Volodarskiy is currently completing work on a book entitled *The Ukrainian Patient* on the subject of the poisoning of Yushchenko.

30 June In the US House of Representatives, the Committee on International Relations Subcommittee on International Terrorism and Nonproliferation holds a hearing

on *Nonproliferation and the G-8*.

30 June-1 July In Bethesda, Maryland, the National Science Advisory Board for Biosecurity (NSABB) convenes for its first meeting. Topics discussed during the meeting are: the development of criteria for identifying dual-use research and research results; communication of dual-use research results, methods, and technologies; codes of conduct in the life sciences; dual-use research – international perspectives; chemical synthesis of bacterial and viral genomes. The Department of Health and Human Services (DHHS) established the NSABB last year with a view to its recommending strategies for government agencies, publishers and research institutions overseeing biological research [see 4 Mar 04]. It also aims to encourage national and international norms to prevent misuse of science, for example by recommending a code of conduct for scientists and laboratory workers that could be adopted by professional organizations and institutions.

One day previously, announcing the appointment of 24 members to the 25-member NSABB, DHHS Secretary Mike Leavitt said. “We all realize some research that results in new medical treatments, agricultural advances, and biodefense countermeasures could end up in the hands of terrorists who could twist it for their own purposes... The NSABB will provide a forum to help educate scientists on biosecurity, and constitute a way for the federal government to receive advice on how to advance scientific knowledge without compromising security.”

1 July The Latvian Ministry of Defence announces that the USA has allocated \$4.5 million to help the Latvian army upgrade and develop equipment such as chemical and biological weapons detection kits.

2 July In Hulun Buir, northern China, experts have discovered a “toxic gas experiment plant” known locally as ‘Bayanhan’, according to Xinhua news agency, quoting Xu Zhanjiang, a researcher on the history of Japanese biological war with the Harbin Municipal Academy of Social Sciences. “The site covers more than 110 square kilometers, extending nine kilometers from east to west and 13 kilometers from north to south... Pits big and small are seen on the grassland even today,” says Xu, adding that, during World War II, the Japanese soldiers used to conduct biological tests there which involved dropping gas bombs into pits containing live people and animals. Xu, who for five years researched the subject, says that a clue to the existence of the plant came from the memoirs of some Japanese soldiers who mentioned some cruel and inhuman gas experiments they had been party to in the region. He says the plant remained concealed and well-preserved for more than sixty years because it is hidden away deep in the grasslands. “It may be the largest scale and best preserved gas experiment site in the world,” says Xu.

4-8 July In Surabaya, Indonesia, there is a training course – jointly organized by the government of Indonesia and the OPCW – on assistance and protection against chemical weapons for personnel who respond to incidents involving toxic chemicals, including chemical weapons agents. Twenty-two participants representing the local health service, the fire service, as well as forensic experts from the police attend the practical part of the course; the main part of the course focuses on operations in contaminated areas and principles of individual protection.

5 July At UN headquarters, Secretary-General Kofi Annan submits a report to the General Assembly on

Verification In All Its Aspects, Including the Role of the United Nations in the Field of Verification. The report relates to a request made by the General Assembly last December that the Secretary-General report to it on replies received by him from member states on the issue of verification. The report contains replies from Canada, Chile, Guatemala, Japan, Mexico, Russia and Sweden.

5 July In the USA, researchers have identified inhibitors of the anthrax toxin termed lethal factor (LF) that could be developed into an emergency treatment for exposure to inhalational anthrax, according to an article in the *Proceedings of the National Academy of Sciences*. Led by Maurizio Pellecchia, of the Burnham Institute, the research team – supported by grants from the National Institute of Allergy and Infectious Diseases – tested three lead compounds in mice infected with anthrax spores, in combination with the antibiotic Ciprofloxacin. The survival rate for mice treated with each of the compounds tested in the combination therapy was two-fold over mice treated with Ciprofloxacin alone.

5-7 July In Yaoundé, Cameroon, a legal workshop for Central African national authorities takes place pursuant to the decision taken at the eighth session of the OPCW Conference of the States Parties which approved an action plan regarding the implementation of Article VII obligations [see 21-24 Oct 03]. The workshop, which is jointly organized by the OPCW and the government of Cameroon, aims to provide practical assistance for Central African CWC parties on legal matters pertaining to the national implementation of the CWC, in particular drafting comprehensive national legislation, in addition to the review of existing legislation. It is also intended to provide the Technical Secretariat with an opportunity to interact with participating parties regarding the development of their internal timetables to adopt necessary measures and implement their obligations under the action plan. The workshop is attended by 38 participants from 10 States Parties (Burkina Faso, Burundi, Cameroon, Chad, Côte d'Ivoire, Gabon, Mali, Niger, Rwanda, and Sao Tome and Principe), as well as a representative from the Democratic Republic of Congo.

6 July In the UK House of Commons, responding to a written question addressed to the Foreign Secretary regarding damages awarded to former OPCW Director-General José Bustani, Minister of State for the Foreign Office Kim Howells states: "Following the original judgment of the International Labour Organisation Administrative Tribunal (ILOAT) [see 16 Jul 03] and the subsequent review of the level of damages awarded [see 14 Jul 04], requested by the [OPCW] with the support of States Party, which resulted in a reduced award to Mr Bustani for material damages, the UK and other States Party accepted the judgment and supported OPCW's payment of the award, since ILOAT judgments are final."

Twelve days later, responding to another written question addressed to the Foreign Secretary on whether the award to Bustani following the review requested by the OPCW was made for material damages only, Howells replies: "The original judgment ... [awarded Bustani] ... moral as well as material damages. In the subsequent review of this award, the OPCW did not request a review of the moral damages element of the award but only of the material damages. The ILOAT clarified that material damages must only compensate for loss actually suffered and that therefore net earnings from other sources, i.e. including that related to any new employment, had to be deducted from the payment to Mr. Bustani. In consequence the overall payment of damages to him was reduced."

6-8 July At OPCW headquarters, an implementation training course for nine representatives of the Iraqi government takes place. Sponsored by the government of Japan, the course addresses the specific requirements of the Iraqi government to ensure that the CWC is effectively applied following possible future accession of Iraq thereto. Its purpose is to provide the representatives of the Iraqi government with the guidance needed to prepare obligatory declarations, establish and efficiently operate a National Authority, enact national implementing legislation and put in place the required regulatory measures to eliminate chemical weapons and to prevent their spread in accordance with the CWC.

8 July From Moscow, Interfax-AVN military news agency quotes an unidentified spokesman of the Russian State Commission for Chemical Disarmament as saying that it would be unreasonable to move the stocks of chemical weapons from Kizner, Udmurtia, to Shchuchye, Kurgan. The spokesman is quoted as saying: "Such efforts will also be not cost-effective. The expenditures for chemical weapons transportation from Kizner to Shchuchye will cost about 21.5 billion rubles (\$745.5 million), while the costs of these weapons cannibalization in Kizner is merely 13.2 billion rubles (\$457.7 million) [sic]."

Five days later, Deputy Head of the Federal Industry Agency Viktor Kholstov tells the news agency that construction of the chemdemil facility in Kizner, Udmurtia, will start in the middle of 2006 and be completed by 2009.

8 July The US Department of Defense releases *Air Force Health Study (Final Report)*, which evaluates the health, survival and reproductive outcomes of veterans of Operation Ranch Hand (the unit responsible for the aerial spraying of herbicides over Viet Nam from 1962 to 1971). The study, which summarizes the outcomes of the 2002 physical examinations of 1,951 veterans, is the final examination cycle of a twenty-year epidemiological investigation. Amongst other things, it supports the findings from earlier reports in 1992 and 1997 that Agent Orange is associated with adult-onset diabetes and identifies adult-onset diabetes as being the most important health problem suffered by veterans. The study finds that as dioxin levels increase, not only do the presence and severity of adult-onset diabetes increase, but the disease onset time is decreased. It also states that a 166 per cent increase in diabetes requiring insulin control was seen in those with the highest levels of dioxin. The study further finds that cardiovascular disease findings were not consistent, notwithstanding that separate studies have found an increased risk of cardiovascular death in Ranch Hand enlisted ground crews, the subgroup that on average had the highest levels of dioxin. Other findings include an increase in the frequency of reported acne, and several blood tests showed elevated liver function and blood lipids with increased levels of dioxin.

9-12 July In Oxford, a joint meeting of a temporary working group of the OPCW Scientific Advisory Board (SAB) and the International Union of Pure and Applied Chemistry (IUPAC) takes place at St Anne's College. The meeting is held under the auspices of a joint OPCW-IUPAC project on education and outreach regarding chemical weapons. Participants recommend that chemists develop their own codes of conduct, and that educational material describing the CWC and the obligations of member states relating thereto should be developed. They also highlight the importance of viewing the CWC in the context of the beneficial uses and misuses of chemicals, and to raise awareness of multiple uses of chemicals.

11 July From Moscow, Interfax-AVN military news agency quotes an unidentified spokesman for the Russian State Commission for Chemical Disarmament as saying that the service life of ammunition filled with toxic substances stored at Russian facilities has been extended until 2006. The spokesman is quoted as saying: "The technical condition of 83,100 rounds of aviation and 2,001,100 rounds of artillery ammunition fitted with toxic substances has been evaluated of late. This entire arsenal has been provided with certificates extending their safe storage life until the end of 2006." He adds that almost 27,000 rounds of ammunition have undergone the replacement of gas-detecting coating, and this coating will also soon be replaced on over 180,000 other rounds of such ammunition. [See also 8 Jul]

11 July In Pretoria, Lothar Neethling [see 12 Nov 99], who founded the South African Police (SAP) forensics unit in 1971, dies of lung cancer. The *Cape Times* reports Neethling as having been accused of developing numerous "knock-out drops" and toxins called 'Lothar se doepa' (Lothar's potions) for use on African National Congress [ANC] activists. The said accusation was made by Dirk Coetzee, a former commander of with the SAP Vlakplaas, in an interview in 1989 with the anti-apartheid Afrikaans newspaper, *Vrye Weekblad*. Neethling sued *Vrye Weekblad* for defamation. In his testimony Leslie Lesia, a secret agent of the security forces, said that he was given some of Lothar's 'doepa' to kill ANC activists in Mozambique and Zimbabwe. On appeal, the court declared it could not determine the truth, because both Neethling and Coetzee had probably lied, and that the paper had therefore indeed slandered Neethling.

11 July In Tunis, the head of the ruling Palestinian Fatah faction tells reporters "I can categorically confirm that Abu Ammar (Yasser Arafat) was poisoned" [see 11 Nov 04]. "The poison was administered in the food and in the medication he swallowed," says Faruq Qaddumi, the most senior Palestinian figure to endorse the poisoning theory.

11 July The US Government Accountability Office transmits to Congress *Homeland Security: DHS' Efforts to Enhance First Responders' All-Hazards Capabilities Continue to Evolve*. The report finds *inter alia* that "because terrorist attacks are planned, intentional acts, all of DHS' prevention capabilities focus on terrorist attacks, while almost all other baseline capabilities focus on all hazards."

11-15 July In Kuala Kubu Bharu, Malaysia, there takes place a workshop on assistance and protection against chemical weapons for Malaysian first responders and personnel involved in response activities involving toxic chemicals. The workshop – which is jointly organized by the government of Malaysia and the OPCW – is attended by twenty-six participants from the fire service, health service, police and specialist laboratories.

12 July The Japanese Health, Labor and Welfare Ministry is expected to begin stockpiling smallpox vaccine for fifty-six million people in preparation for a possible biological attack following a recommendation to do so by a panel of experts, so reports the *Daily Yomiuri*. The paper reports it as marking the first time that the government has disclosed how many smallpox vaccinations would be needed to combat a biological attack involving smallpox. In 2001 it announced that it would commence stockpiling sufficient vaccine for three million people, but since then it has declined to say how much has been set aside.

12 July The Yemeni government approves a draft law to establish a national committee to "sponsor all measures to bring the agreement of banning, producing or storing chemical and biological weapons into effect", so reports the Saba news agency.

12 July From Rome, ANSA news quotes a former cleric of a mosque in Carmagnola, Turin, as saying that Italy will face attacks using nerve gas that the country's authorities will be unable to monitor. In an interview, Abdel Qader Fadlallah Mamour – who has been deported from Italy – says that Rome, Milan, Bologna and Venice are potential targets.

12 July In the US House of Representatives, the Subcommittee on Emergency Preparedness, Science and Technology of the Select Committee on Homeland Security holds a hearing on *Project Bioshield*.

13 July In Amman, four of the thirteen defendants charged with plotting a chemical attack in Jordan [see 15 Dec 04] confess thereto. Hussein Sharif is quoted by *al-Hayat* as saying, before the military tribunal, "[Abu Musaab Al Zarqawi] said that if we had chemical weapons we would have hit Tel Aviv and the traitor collaborator (Jordanian) regime". Another defendant, Hassan Omar al-Samik, is quoted as saying: "I came back to Jordan to perform the Islamic duty of jihad (holy war) and kill the infidel rulers and government officials who spread corruption for the interest of their American and Jewish masters."

13 July In the US House of Representatives, the Subcommittee on Prevention of Nuclear and Biological Attack of the Committee on Homeland Security holds a hearing on *Engineering Bio-Terror Agents: Lessons from the Offensive US and Russian Biological Weapons Programs*. Those testifying before the Committee include a prominent figure in the Soviet biological weapons programme, Ken Alibek.

13-14 July In Washington, DC, the National Research Council of the National Academies Committee on Biodefense Analysis and Countermeasures holds its first meeting. The Committee describes itself as "a steering committee for coordination of studies requested by the National Biodefense Analysis and Countermeasures Center related to biodefense analysis in support of the Department of Homeland Security". Its purpose is to "conduct two to four meetings annually to meet with the sponsor to discuss potential studies to be performed (by independent ad hoc committees) under the standing committee and to receive briefings on the progress being made in relevant experimentation and technology development and their specific contribution to homeland security against the biological threat".

14 July In the UK House of Commons, responding to a written question addressed to the Foreign Secretary on what breaches of the BWC have occurred since 1980, Foreign Office Minister of State Kim Howells states: "To date no complaints of breaches of the obligations of the convention have been submitted to the United Nations [under Article VI]. As one of the Depositary Governments of the BTWC, the UK views the issue of compliance with the convention as being of central importance and routinely monitors the compliance of all States Parties to the convention."

Asked, in a separate written question addressed to the Foreign Secretary, what measures the Government is taking to ensure the full implementation of the BWC and CWC, Howells replies: "The UK, as a Co Depositary Government of the

[BTWC], actively supports all appropriate measures that would strengthen the Convention and the UK is chairing the 2005 intersessional meetings of the BTWC. As a State Party to the [CWC], the UK contributes actively to the work of the [OPCW]. The UK led negotiations on an OPCW Action Plan on the implementation of the CWC.”

14 July The US journal *Human Vaccines* publishes online the research results of a study – funded by the UK Ministry of Defence (MoD) – by the UK National Institute for Biological Standards and Control into the particular interaction of anthrax and pertussis vaccines in mice. The MoD funded the research with a view to addressing the health concerns of veterans of the 1990–91 Gulf War. The researchers found that pertussis vaccine, vaccine combinations, or aluminium salt caused illness; anthrax vaccine produced little effect; combinations of diluted vaccine produced less serious side effects of shorter duration; and pertussis vaccines acted as an adjuvant for anthrax vaccine. However, the researchers point out that the relatively high vaccine dose used, together with the low sensitivity of mice to anthrax toxin, emphasises that caution should be exercised in applying these results to human recipients of these vaccines.

Six days later, in the UK House of Commons, in a written ministerial statement, Under-Secretary of State for Defence and Minister for Veterans Don Touhig says: “The study is part of a wider programme of research into vaccines interactions, which has been overseen by an independent panel of experts... This work represents a further step towards meeting the [MoD’s] commitment to investigate these issues.”

14 July US Under-Secretary of Defense for Policy Douglas Feith says that the Bush administration erred by building its public case for war against Iraq on the claim that it [Iraq] possessed WMD. In an interview with the Associated Press, Feith says: “I don’t think there is any question that we as an administration, instead of giving proper emphasis to all major elements of the rationale for war, overemphasized the WMD aspect.”

14 July In the US House of Representatives, the Committee on Government Reform holds a hearing on *Project Bioshield Evaluation*.

17 July In Alabama, the Anniston chemdemil facility completes destruction of its stockpile of 8-inch shells containing the nerve agent sarin. The facility is expected to commence destruction of its 105mm sarin-filled shells later this month with completion thereof expected by the end of the year.

18 July In the UK House of Commons, Secretary of State for Trade and Industry Alan Johnson presents the statutory annual report of the UK CWC National Authority. Regarding OPCW inspections, the *Annual Report 2004: Operation of the Chemical Weapons Act 1996* states: “The UK received a total of seven routine inspections in 2004: two at Schedule 2 industrial sites; four at [discrete organic chemicals] industrial sites; and one at the [old chemical weapons] storage and destruction facilities at Dstl Porton Down. All the sites inspected were acknowledged by the OPCW to have provided first-class co-operation and all the inspections were completed without incident... One practice challenge inspection was held during 2004, at Royal Air Force Honington, Suffolk, in September. OPCW inspectors participated in this exercise and a number of CWC States Parties sent representatives to observe the exercise. Exercise activities included simulated media handling and a press conference.” The report also

re-iterates the importance of the General Purpose Criterion thus: “All States Parties must ... ensure that all toxic chemicals – whether or not they are subject to verification or have previously been weaponised – are subject to the prohibitions in the CWC. A discussion paper on this subject was submitted to the First Review Conference by the UK.”

19 July The Tokyo High Court dismisses an appeal by a group of 180 Chinese nationals who were claiming compensation from the Japanese government for having been victims of biological experiments at the hands of the Japanese Imperial Army during the Second World War [see also 19 Apr]. In upholding a lower court ruling [see 27 Aug 02] and acknowledging the fact that Japan had indeed conducted biological warfare at the time, Judge Yukio Ota says: “Japan is held responsible for using germ weapons in violation of a treaty [Geneva Protocol 1925] ... [but there are] no rules that allow individuals to directly demand damages from perpetrating countries.” Ota also dismisses, on grounds of state immunity, a claim for damages based on a Chinese civil law that was in force at the time in question. Furthermore, he says that the Japanese government has no responsibility to compensate for acts conducted before the enactment of the State Redress Law after the War.

19 July Cambodia deposits its instrument of ratification to the CWC with the UN Secretary-General. In thirty days, Cambodia will become the 170th [see 3 Jun] party to the Convention.

19 July In England, in the ‘ricin plot’ case, the Court of Appeal Criminal Division dismisses the appeal of Kamal Bourgass [see 29 Jun] against his conviction on the charge of “conspiracy to cause a public nuisance by the use of poisons and/or explosives to cause disruption, fear or injury” [see 8 Apr]. The appeal had been heard on 18 May.

19 July The US Government Accountability Office transmits to Congress *US Postal Service: Guidance on Suspicious Mail Needs Further Refinement*. The report arises from an incident two years ago [see 15 Oct 03] in which a letter containing a vial of ricin was discovered at the post office in Greenville, SC. Among other things, the report recommends that the Postal Service should “provide guidance to employees on the response actions to take in the event a mail piece has characteristics of both suspicious mail and mail containing hazardous material.”

19-20 July In Guatemala City, the third sub-regional meeting of OPCW national authorities in Central America on the implementation of the CWC takes place. The objective of the meeting, which is jointly organized by the government of Guatemala and the OPCW, is to increase national capacities to comply with CWC obligations. Participants provide detailed briefings on the status of their governments’ national implementation measures, including measures to monitor chemical transfers by national customs services. The potential benefits of an integrated system of information-sharing on exports and imports of scheduled chemicals among CWC parties are also discussed.

20 July The UK Foreign and Commonwealth Office releases its eighth [see 7 Jun 04] annual report on *Strategic Export Controls*, covering calendar year 2004. The Foreword to the report states: “Over this reporting period, we have introduced Quarterly Reports which allow for more immediate access to licensing information during the year ... and they have now been published for the whole of 2004.”

The report records that 80 Standard Individual Export Licences (SIELs) and Standard Individual Transshipment Licences (SITLs) were denied or revoked during the year (compared to 116 in 2003) because they risked “contributing to proliferation of weapons of mass destruction or ballistic missiles”. The total number of SIELs and SITLs denied or revoked for all reasons was 148.

Information extracted from the four quarterly reports for the period 1 January to 31 December 2004 shows that export licenses were granted for: “tear gas/riot control agents” to Germany and Saudi Arabia; “tear gas/irritant ammunition” to Barbados, Finland, France, Norway and Singapore; “training tear gas/irritant ammunition” to Norway and Singapore; “CS hand grenades” to Barbados, France and Germany; “inert CS hand grenades” to Germany and Jordan; “chemicals used for chemical processes” to Algeria, Bangladesh, India, Malaysia, Nigeria, Pakistan, Russia, Taiwan, South Africa and the United Arab Emirates; “corrosion resistant chemical manufacturing equipment” to Brazil, Canada, China, India, Iran, Israel, Malaysia, Nigeria, Pakistan, Qatar, Russia, Saudi Arabia, South Africa, South Korea, Taiwan, Thailand and Turkey; “chemical mixtures” to Iran; “toxins” to Switzerland, Turkey, United Arab Emirates and the USA; “technology for the production of toxins” to Burma; “technology for the development of toxins” to Iceland; “technology for the production of toxins” to Iceland; “human pathogens” to Bangladesh, Egypt, Jordan, Saudi Arabia, Singapore, South Korea, Switzerland, Taiwan, Thailand and the USA; “human pathogens [for use in medical research]” to Gabon; “anthrax vaccines” to the Czech Republic, Denmark, Estonia, Germany, Netherlands and Norway; “vaccines” to Iran; “biotechnology equipment” to India, Iran, Mexico, Pakistan, Singapore, South Africa and the United Arab Emirates; “components for biotechnology equipment” to Romania; “CBW munitions disposal equipment” to Greece; and “depleted uranium” to the USA.

20 July At UN headquarters, Chairman of the 1540 Committee [see 28 Apr 04] Mihnea Ioan Motoc presents his second progress report to the Security Council, covering the Committee’s activities since 26 April. The report, which also sets out the Committee’s programme of work for the period 1 July to 30 September 2005, states: “The Committee, with the support of its experts, has already examined more than 50 national reports, as indicated in the first programme of work. All information contained in the first national reports examined by the Committee [as well as in the official public data provided by States to the UN, IAEA and OPCW and other international organizations] has been summarized in the form of a matrix that reflects provisions of the resolution... [T]he Committee is reaching out to reporting States with a view to soliciting additional information or to seeking clarification in areas covered by their first reports... I am confident that the goal of completing the examination of first round country reports could be attained by October 2005... As of today, 118 States have submitted reports to the Committee... However, 74 Member States have yet to report... The Committee is also considering the possibility of reaching out to Member States through international and regional organizations. Regional seminars and workshops aimed at raising the awareness of the problem worldwide and facilitating further reporting are also envisaged... The Committee has continued its interaction with the IAEA and the OPCW on ways these organizations can support our work and contribute to the implementation process of resolution 1540.”

20 July In the US Senate, the Committee on Agriculture, Nutrition and Forestry holds a hearing on *Agro-Terrorism Preparedness*.

21 July Russian Industry and Energy Minister Viktor Khristenko announces that the government has approved a draft programme for the chemdemil of 20 per cent of the country’s remaining 40,000 tonnes of chemical weapons by 2007; 45 per cent by the year 2009; and complete destruction by 2012 [see also 11 Jul]. “The program is already underway, but we have to specify some measures and the funding,” says Khristenko. He continues: “The spending on the destruction of chemical weapons will amount to R81 billion; the maintenance of facilities used for destruction, [\$2.8 billion]; ensuring the safety of destroying and storing the weapons, [\$149.3 million]; and the state environmental control, [\$41.7 million].” According to Khristenko, the reason that the deadline for destruction has been put back to 2012 is because “some [foreign states], having promised to allocate funds, took the position of waiting and some started to attach additional conditions to aid”. He says: “Instead of [\$1.2 billion] during the implementation of the programme, [\$730 million] was received from foreign states while assistance was received only in respect of three out of seven destruction facilities, and in addition to this, in 1999-2002 one of the co-sponsors – the USA – did not provide any funds at all.”

21 July US Senator Ensign proposes an amendment to the FY 2006 National Defense Authorization Bill that would require the President to submit to Congress an annual report on the use of riot control agents by the US armed forces. Amongst other things, the report would require: “a description of efforts by the United States Government to promote adoption by other states-parties to the [CWC] of the United States policy”; and “a description of the availability of riot control agents, and the means to deploy them, to members of the Armed Forces deployed in Iraq”. Included in the amendment is a ‘statement of policy’ in which Senator Ensign says: “It remains the longstanding policy of the United States, as provided in Executive Order 11850 and affirmed by the Senate in the resolution of ratification of the [CWC] that riot control agents are not chemical weapons but are legitimate, legal, and non-lethal alternatives to the use of lethal force that may be employed by members of the Armed Forces in combat and in other situations for defensive purposes to save lives, particularly for those illustrative purposes cited specifically in Executive Order 11850.” [See also 5 Feb 03]

21 July The US Senate approves an amendment to its version of the FY 2006 Defense Authorization Bill, which provides permanent annual waiver authority for the congressionally-imposed presidential certifications required before funds can be released under the Cooperative Threat Reduction Program. In his speech before the Senate the sponsor of the bill, Richard Lugar, says: “The certification and waiver processes consume hundreds of man-hours of work by the State Department, the Intelligence Community, the Pentagon, as well as other departments and agencies... While awaiting a temporary waiver to be authorized in law, new Nunn-Lugar projects were stalled and no new contracts could be finalized from April 16 to August 9, 2002. This delay caused numerous disarmament projects in Russia to be put on hold.”

22 July From Moscow, the German Embassy announces that Germany is to provide Russia with further technical assistance in addition to that provided to construct the Gorny chemdemil facility [see 5 Jul 02] by assisting with the ongoing construction of the Kambarka facility. A statement released by the Embassy says: “[Germany] and [Russia] have agreed that the German side will assist the construction in Kambarka by delivering components and equipment. The full amount of German aid is EUR 150 million.”

22 July In Kampala, fifty-six individuals from the district of Luweero file a claim in the high court against the state claiming, *inter alia*, that the police used tear gas to disperse them during a protest for financial compensation, so reports *The (Kampala) New Vision*. The claim states: "The spraying of tear gas upon the applicants was unlawful and contravened Article 24 of the constitution [which prohibits inhuman, degrading and cruel treatment]."

23 July In New Delhi, the Institute for Defence Studies and Analyses holds a seminar on *Agroterrorism and Its Threat in Indian Context*. Giving the main presentation, Ajey Lele, a researcher at the Institute, states that agriculture is one of the easiest targets for terrorists and that any disruption could have catastrophic consequences for India's economy.

23 July In Tehran, in his first official duty since being elected as president, Mahmud Ahmadinezhad says: "Nuclear, chemical and biological weapons are sources of concern for the entire world. The international community and all countries should endeavour to eliminate the threat they pose to the international arena." He adds: "You can see that countries which are posing more threat to the world than any other country, are building the most destructive WMDs and atomic, chemical and biological weapons. Their stock rooms are filled with such weapons... We announce that the countries which possess nuclear weapons and have filled their stock rooms with chemical and biological weapons are posing threats to all the world."

24 July Ecuadorian Foreign Minister Marcelo Fernández says that Ecuador will take Colombia to the International Court of Justice if discussions between the two governments fail to end Colombia's aerial spraying of coca and poppy plantations with glyphosate in and around the border region between the two countries [see 23-24 Sep 04].

25 July Cypriot Foreign Minister Georgios Iacovou and US Secretary of State Condoleezza Rice sign a reciprocal Proliferation Security Initiative (PSI) ship-boarding agreement. A US Department of State press release states that the agreement "is significant because Cyprus is the world's sixth largest ship registry measured by gross tonnage of registered ships". Cyprus is the fifth state – following Liberia [see 11 Feb 04], Panama [see 12 May 04], the Marshall Islands [see 13 Aug 04] and Croatia [see 1 Jun] – to sign such an agreement with the USA.

25 July *The American Journal of Public Health* publishes research which finds that US veterans of the 1991-92 Gulf War who were in the vicinity of the storage depot at Khamisiyah, Iraq, when large numbers of munitions held there, - including, so it later transpired, chemical munitions – were blown up [see 3 May 02], are nearly twice as likely to die from brain cancer than other veterans. In the study, the cause-specific mortality of 100,487 veterans who might have been exposed to chemical agent was compared with that of 224,980 control veterans. Tim Bullman, of the Department of Veteran Affairs, says: "We found an approximately twofold excess of brain cancer deaths, 12 to 13 excess deaths in a population of 100,000 veterans, associated with possible exposure to chemical warfare agents."

25-29 July In Kruševac, Serbia, the second international basic training course on assistance and protection takes place further to an offer made by Serbia and Montenegro

under Article X of the CWC. Twenty participants attend the course, including representatives from Algeria, Austria, Bangladesh, Bosnia and Herzegovina, Cameroon, Greece, India, Macedonia, Mexico, Moldova, the Philippines, Poland, Qatar, Romania, Tunisia, UK and Uzbekistan. The purpose of the course is to provide training on planning and establishing a support team for the protection of civilian populations against chemical weapons; mounting rescue operations in contaminated areas; responding to incidents involving chemical-warfare agents; using individual and collective protective equipment; using monitoring, detection, and decontamination techniques; and taking samples.

25 July-5 August In Swindon, UK, the fourth advanced biological training course for inspectors on the UNMOVIC roster takes place. Participating in the course are sixteen experts from twelve countries as well as staff from UNMOVIC headquarters. The objective of the course is to provide the basis for participants to develop practical skills to prepare and carry out on-site inspections at dual-use biological production facilities. A mock inspection is conducted as part of the course.

26 July In Madrid, a group of members of parliament submit a parliamentary motion demanding an explanation from the Spanish government regarding its use of chemical weapons against the Rif population during the Spanish occupation of northern Morocco during 1922-1927. In an interview with the *Morocco Times*, the head of the Association of Toxic Gas Victims (ATGV) in the Rif, Ilyass Omari, says that fifty per cent of cancer cases in Morocco are concentrated in the north of the country and that "research has shown there are strong indicators that the cancer is caused by the gases that were used against the resistance in the north". The ATGV was established in July 2000 in Al Hoceima, northern Morocco, with the aim of exerting pressure on the Moroccan, Spanish and French governments to acknowledge the victims of the attacks.

27 July In Kambarka, Udmurtia, the Russian State Commission on Chemical Disarmament meets for a field session to discuss the 2005 half-year results and the progress on the second stage of the Russian chemdemil programme. Speaking to ITAR-TASS news agency, Secretary of the Commission Alexander Kharichev says that the Kambarka facility [see 22 Jul] is ninety per cent completed and the Maradykovo facility [see 8-9 Jun] is about sixty-five per cent completed. He says: "The commission instructed the Federal Agency for Industry to ensure the completion of building and assembly work in Kambarka by November 1, and in Maradykovo by December 31... The commission instructed the Federal Agency for Industry to draft a government resolution on benefits and compensation to people who live in these areas." Meanwhile, Commission member Nikolai Bezbodov tells Interfax-Military News Agency that Russia will only be able to fulfil the second stage of its chemdemil programme – involving the destruction of 8,000 tonnes of chemical warfare agents – by 29 April 2007, if the Kambarka and Maradykovo facilities begin operating as planned.

27 July The US Department of Energy (DoE) Office of Inspector General issues *Inspection Report: Coordination of Biological Select Agent Activities at Department of Energy Facilities*. The report states: "[T]he Department has not established an orderly, coordinating mechanism for its biological select agent research and development activities...[N]o entity was ... assigned responsibility to

coordinate biological select agent activities within the Department [after the disbanding of the Biosurety Working Group]... DoE has not developed and executed a coordinated plan for the development, construction, and operation of biosafety level-3 (BSL-3) laboratories... We believe that the establishment of a central entity to coordinate biological select agent activities within the Department, as well as with other Federal agencies, is critical.

28 July In the US House of Representatives, the Homeland Security Subcommittee on Prevention of Nuclear and Biological Attack conducts a hearing on *Implementing the National Biodefense Strategy*. Among those testifying before the committee are Director of the Centers for Disease Control and Prevention Julie Gerberding and Director of the National Institutes of Allergy and Infectious Diseases Anthony Fauci.

28 July In McLean, Virginia, a federal appeals court reinstates a libel suit brought by Steven Hatfill against *The New York Times*, ruling that articles written by its columnist implicating Hatfill in the anthrax attacks [see 15 Oct 01] could be considered defamatory as they imply that Hatfill was behind the attacks. The judgment of the court states: "A reasonable reader of Kristof's columns likely would conclude that Hatfill was responsible for the anthrax mailings in 2001." Last year [see 29 Nov 04], a district court judge ruled that columns written by columnist Nicholas Kristof in which Hatfill was named reflected the state of the investigation at the time. The case will now be returned for trial to the district court in Alexandria, Virginia. [See also 24 May]

29 July From Turkey, a statement released by the General Command Headquarters of the Kurdish People's Defence Forces (HPG) to the Mesopotamia News Agency says that in mid-July government forces killed four Kurdish fighters "in an attack with chemical weapons". The HPG says that the incident occurred in the area of Hakkari Ciya Reske. It later claims that the Turkish Army was forced to withdraw on 4 August.

29 July The US Department of State (DoS) announces its intention to merge the Arms Control Bureau and the Nonproliferation Bureau into the Bureau of International Security and Nonproliferation. A DoS fact sheet states: "This bureau will take the lead in counter and nonproliferation initiatives and negotiations. It also will feature a new office to focus on the nexus between WMD and terrorism, the preeminent threat we face as a nation." As part of the reorganization, Secretary of State Condoleezza Rice says that Bureau of Political-Military Affairs will be strengthened and the Verification and Compliance Bureau will now be called the Verification, Compliance and Implementation Bureau and be given an expanded mission. Regarding the reorganization, Rice says: "Today, protecting America from weapons of mass destruction requires more than deterrence and arms control treaties... [The changes will] better focus the department's efforts to prevent the spread of WMD, including through the Proliferation Security Initiative, counterproliferation, interdiction, and by increasing the focus on WMD/terrorism and threat reduction programs."

1 August In Harbin, China, a group of researchers publish a list of the names of sixteen Soviet and five Korean nationals who were "specially transferred" by the Japanese Imperial Army to Unit 731 for biological experiments during the Second World War. The majority of the victims were

prisoners of war documented as being prisoners of war and secret agents. In addition, the group says it will confirm the names of a number of Mongolian victims once their fragmented files have been pieced together. Jin Chengmin, director of the research institute on Unit 731 in Harbin, Heilongjiang Province, says that "information of only 1,463 victims has been recovered and that a lot of work needs to be done for discovering more documents about foreign victims". The documents from which the list was compiled were found buried in various archives in Beijing and the north-eastern provinces. The documents record the victims' name, gender, age, nationality, occupation, domicile, and location of arrest. In one case a picture of a victim is also documented. [See also 5 Mar 99]

1 August Russian State Commission on Chemical Disarmament member and State Duma Deputy Nikolai Bezborodov says that \$33.82 million of chemdemil funding is to be allocated to provide medical services for inhabitants of areas where chemical destruction facilities are located. He points out that medical centres were built in the village of Gorny in 2002, Shchuch'ye in 2004 and Kambarka in 2005, and that construction of a medical centre in Maradykovsky is nearing completion. He says that centres are to be established in the towns of Pochep and Leonidovka in 2007 and in Kizner in 2009.

1 August The US Department of Agriculture (USDA), the Food and Drug Administration (FDA), the Department of Homeland Security (DHS) and the Federal Bureau of Investigation (FBI) have joined forces to form the Strategic Partnership Program Agroterrorism (SPPA) Initiative, so reports FoodNavigator-USA.com. The announcement of the partnership, made one week previously at a Food and Agriculture Sector Coordinating Council meeting, follows a report into the vulnerability of the US milk supply chain that criticized the FDA for not imposing stricter regulations on the food and drink industry [see 27 May]. Under the Initiative, four pilot visits will be conducted during September and October with a view to assessing and identifying vulnerabilities in the food and agriculture sectors. Over the next year, teams of federal and state officials will travel to all fifty states to meet with representatives of all sectors of the food industry. Earlier in the year, in the first collaboration between the agencies, the FBI, with the support of DHS, USDA and FDA, hosted an *International Symposium on Agroterrorism* [see 2-5 May].

1-5 August In Vladivostok, there is a seminar for Russian and US customs officials on export controls and maritime port security relative to WMD and their delivery systems. The seminar, which is organized by the Russian Federal Customs Service and the US Coast Guard, focuses on issues such as the inspection of containers and tracking down traffickers of WMD.

2-3 August In Havana, the seventh [see 21-22 Apr 04] regional workshop for national authorities of CWC parties in Latin America and the Caribbean takes place. The purpose of the workshop, which is jointly organized by the government of Cuba and the OPCW, is to provide practical support in the training of escorts for international inspections conducted under the terms of the CWC. Representatives from the following twenty parties participate: Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Ecuador, El Salvador, Guatemala, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Trinidad and Tobago, Uruguay and Venezuela. In addition, a representative from Honduras, a signatory that has not yet ratified the Convention, and representatives from Spain

participate. During the course of the workshop there is a mock inspection of an industrial facility, Planta de Detergentes Suchel Debon.

4 August From the UK, the journal *Nature* publishes a critical review of the recently released *Biological Espionage* by Alexander Kouzminov [see 12 Feb]. It is written by Jens H Kuhn, Department of Microbiology and Molecular Genetics, Harvard Medical School; Milton Leitenberg, Center for International and Security Studies, University of Maryland; and Raymond A Zilinskas, Chemical and Biological Weapons Nonproliferation Program, Center for Nonproliferation Studies, Monterey Institute of International Studies. The review concludes thus: "It seems surprising that an insider can write a book about the special operations of Soviet foreign intelligence services in the West and provide so little about their achievements. At best, *Biological Espionage* is the personal memoir of a former Soviet employee who writes about the practices of Soviet and Russian intelligence agencies in the biological field but provides little evidence of their accomplishments. Why was it written in the first place? If not [to] inform, then perhaps to misinform?"

4 August Belizean Ambassador to the US Lisa Shoman and US Assistant Secretary of State Stephen Rademaker sign a reciprocal Proliferation Security Initiative (PSI) ship-boarding agreement. Belize is the first CARICOM member state and sixth state [see 25 Jul] to sign such an agreement with the USA. According to a US Department of State press release, "The combination of states with which we have signed bilateral ship boarding agreements, plus the commitments made by other [PSI] partners under the Statement of Interdiction Principles, translates into more than 60 percent of the global commercial shipping fleet dead weight tonnage now being subject to rapid action consent procedures for boarding, search, and seizure."

4 August In Washington, DC, the Department of Commerce Materials Technical Advisory Committee holds a meeting at which presentations are made on the subject of codes of conduct under the BWC and the addition of select agents to the Commerce Control List. On codes of conduct, US Special Negotiator for Chemical and Biological Arms Control Issues, Department of State, Don Mahley says that the US position is that there should be no uniform code of conduct. Rather, he says, each group should establish its own code tailored to its particular focus and its members' activities, and that the code should be based on a bottom-up approach.

5 August From the Czech Republic, Radio Free Europe/Radio Liberty reports that Czech researchers have developed an environmentally friendly enzyme-based technology that counters the effects of mustard gas. Researchers at Masaryk University in Brno and the Czech Military Institute of Protection developed the system over a period of two years with funding from NATO. Jiri Damborsky of Masaryk University, who worked on the project along with three others, says of the technique: "The enzyme [employed] reacts within minutes, is able to split several molecules of mustard gas per second, and its decontaminating effect is expected to last for hours at an average temperature of 30 degrees Celsius."

5 August The US Department of Commerce Bureau of Industry and Security publishes a final rule [see also 30 Mar] to implement the understandings reached at this year's plenary meeting of the Australia Group (AG) [see 18-21 Apr].

With regard to implementing the changes made by the AG to the *Control List of Dual-Use Chemical Manufacturing Facilities and Equipment and Related Technology*, the rule revises the Commerce Control List (CCL) entry controlling certain pumps that can be used to make chemical weapons or AG-controlled precursor chemicals. Other changes include the amending of the EAR to implement changes to the AG *Control List of Dual-Use Biological Equipment*, by revising the CCL entry regarding equipment capable of use in handling biological materials. The amendment adds certain spraying or fogging systems, spray booms or arrays of aerosol generating units, and components relating thereto. In addition, the rule also amends the CCL entry controlling certain genetic elements and genetically modified organisms by revising the Technical Note in the entry. The effect of this amendment is to clarify the scope of the controls on genetic elements and genetically modified organisms that contain nucleic acid sequences associated with the pathogenicity of any AG-controlled microorganisms. This is consistent with the AG *Control List of Biological Agents*, the AG *Control List of Animal Pathogens*, and the AG *Control List of Plant Pathogens*.

6 August In New York City, researchers release inert gases in an area of two square kilometres south of Central Park as part of a three-week project to track airflow patterns with a view to improving responses to a possible bioterror attack. It is the first of six days of testing, during which time the researchers will track the seven different gases using around 180 samplers and 35 weather stations. The data collected will then be fed into computer models that can be run in an emergency to predict how chemical, biological or radioactive material will disperse throughout the city in the following hours and to advise the emergency services on how to respond. A small-scale preliminary test was carried out around Maddison Square Garden in March. The research is part of the Departments of Homeland Security, Defense and Energy four-year Urban Dispersion Program, which commenced in 2003 and costs \$10 million. Earlier experiments tracking airflow patterns took place in Oklahoma City and Salt Lake City.

7 August The *Washington Post* reports that the al-Qa'ida network is compiling an online library of training materials that include instructions for producing, *inter alia*, ricin and *Yersinia pestis*. According to the report, Gabriel Weimann, a professor at the University of Haifa, Israel, began tracking radical Islamic web sites eight years ago. At that time he had identified a total of 12; he is currently tracking more than 4,500. Weimann says: "They are all linked indirectly through association of belief, belonging to some community. The Internet is the network that connects them all." The *Post* cites one manual as using information obtained from US and Japanese biological weapons programmes during the Second World War on "how to inject carrier animals, like rats, with the virus and how to extract microbes from infected blood ... and how to dry them so that they can be used with an aerosol delivery system."

8-12 August At OPCW headquarters, the second [see 28 Feb – 3 Mar] technical workshop on the declaration of transfers of scheduled chemicals takes place. The workshop provides twenty-nine participants representing the national authorities of seventeen CWC parties with practical assistance in the development of effective legislative and administrative measures for tracking and reporting transfers of scheduled chemicals. It provides, amongst other things, an opportunity for participants to discuss discrepancies remaining in their aggregate national data reported to the OPCW. Representatives of the national authorities of France, Germany, Japan,

Switzerland and the UK assist in the conduct of the workshop as providers of national assistance. It is funded by a voluntary contribution from the European Union.

9 August In Mosul, Iraq, the US military – acting on information from detainees – uncover what it describes as an “insurgent” “clandestine chemical production facility” that is “possibly related storage sites” and which comprises around 1,500 gallons of various chemicals, so reports the American Forces Press Service.

Four days later, Deputy Public Affairs Director for Multinational Forces in Iraq Jackson McRae says the chemicals discovered include glycerin, sodium hydroxide and ethanol sulphate [sic]. Henry Franke, a nuclear, biological, and chemical defense officer, says chemical samples indicate that the facility could have been used to produce explosives, but that only their components, not the explosives themselves were found.

9 August US Strategic Command (STRATCOM) commander James Cartwright says that STRATCOM is expected to have preliminary WMD defenses in place by the end of the year. Initial capabilities, he says, include “detection and warning” capabilities, which will then be added to and scaled up “as appropriate”.

15 August *The Japan Times* reports that a researcher at Kanagawa University has uncovered a “report on bacteriological warfare” dated 17 July 1947 in which the head of the G2 intelligence unit of the US-led post-war occupation forces in Japan, Charles Willoughby, tells the chief of staff of the Far Eastern Commission that “data on human experiments [from Unit 731] may prove invaluable”. Another document cited by researcher Keiichi Tsuneishi is a letter dated 22 July 1947, sent by Willoughby to S J Chamberlin, director of intelligence of the US War Department General Staff, to illustrate the need for continued use of confidential funds without restrictions to obtain such intelligence. In the documents Willoughby states that “information procured will have the greatest value in future development of the US BW programme” and that the information was “only obtainable through the skilful, psychological approach to top-flight pathologists” involved in Unit 731 experiments. Tsuneishi uncovered the documents in the US National Archives. [See also 1 Aug]

15-17 August In Yerevan, a workshop on WMD Commodity Identification Training takes place. Twenty participants attend the workshop, which is organized and funded by the US Department of Energy. Its purpose is to familiarize officials from the Armenian State Customs Committee and National Security Service with the implementing and enforcing WMD-related export controls.

15-18 August In Singapore, the seventeenth [see 7-8 Jun] Proliferation Security Initiative (PSI) multinational interdiction exercise takes place. The first three days of exercise ‘Deep Sabre’ comprise the sea phase; the fourth day involves a port search. It brings together around 2,000 personnel from the military, coast guard, customs and other agencies from a total of thirteen PSI countries (Australia, Canada, France, Germany, Greece, Italy, Japan, the Netherlands, New Zealand, Russia, Singapore, the UK and the USA). In total, ten surface vessels and six maritime patrol aircraft participate in the sea phase. The scenario for the exercise involves the interdiction of a merchant ship carrying an illegal shipment of dual-use chemicals destined for an entity of proliferation concern. Once interdicted, the ship is diverted to Singapore for a port search by civilian enforcement agencies.

16-18 August In Hanoi, there is a workshop – sponsored by the US Department of Defense – on the subject of detoxification of land contaminated with Agent Orange and other defoliants. The objective of the workshop is to promote dialogue between Vietnamese and US governmental scientists on the subject of scientific research on the consequences of contamination with a view to improving the land in areas where the US military constructed storage depots for Agent Orange.

17 August The Vietnamese government passes legislation which identifies activities prohibited under the CWC and provides for criminal sanctions relating thereto. Vietnam ratified the CWC in 1998.

17 August In the USA, a microbiologist and plastic surgeon resigns his position at the University of Texas Medical Branch (UTMB) after its Scientific Integrity Committee concluded that he had engaged in “egregious” misconduct by making “false and excessive statements” about a purported anti-anthrax lotion made from a blend of citrus oils, plant herbs, and seed bitters. In a report dated 29 June this year, the Committee states that on 1 February 2005 John Hegggers wrote a letter on UTMB letterhead to Bio-Germ, the Dallas company that produces the lotion, in which he said his research had demonstrated the product’s efficacy and safety. In the letter Hegggers wrote: “We believe it will be successful against smallpox, the plague, and other pathogens possibly used by terrorists. [It] should be rolled out to our Nation’s First Responders, Military and, as soon as possible, to the citizenry of our Country.” The Committee concluded that the fact that the lotion and many other products killed the microbes is irrelevant since the tests used vegetative anthrax bacteria rather than bacterial spores. The panel called his recommendation for mass deployment of the lotion “utterly irresponsible scientifically”.

18 August Bhutan deposits its instrument of ratification to the CWC with the UN Secretary-General. In thirty days, Bhutan will become the 171st [see 19 Jul] party to the Convention.

18 August In Washington, DC, Marine Corps Commandant Michael Hagee says the Corps is working towards “erasing the border between sea and land” by attacking directly from the sea, partly owing to the fact that neighbours of WMD-equipped US adversaries may be deterred from allowing US land bases on their territory. Hagee makes his comments during his keynote speech at a conference organized by the American Enterprise Institute.

19 August In Aktau, Kazakhstan, Russian Federal Security Service [FSB] Director Nikolai Patrushev says: “Terrorists want to get access to biological, nuclear and chemical weapons. That is what we are registering. That is the information we have... We are checking these enterprises in a real sense and, on the basis of the shortcomings that exist, we are today adopting measures to eliminate them. Our assessment of the situation at the present time is that the terrorists will not get the weapons they want.” Speaking during a meeting with his counterparts from other CIS states the day after a counter-terrorism exercise in which CIS forces simulated the seizure of an oil tanker by a terrorist group in the Caspian Sea, Patrushev does not give any details regarding the groups that he alleges have tried to acquire WMD, nor does he say when such attempts were made.

21 August *The (London) Times* reports that it has obtained an internal police document showing that the police and intelligence services believe they thwarted an al-Qai’da

plot hatched last year to carry out a "sarin gas attack" against targets that included Parliament and the London underground railway network. The *Times* refers to an unidentified "senior officer" as saying: "They were planning to use chemicals, a dirty bomb and sarin gas. They looked at all sorts of ways of delivering it." [Note: This report remains unsubstantiated]

21 August From the USA, CNN broadcasts '*Dead Wrong*' – *Inside an Intelligence Meltdown*, in which the chief of staff to former US Secretary of State Colin Powell from 2002 through 2005 says his involvement in Powell's presentation to the UN Security Council on Iraqi WMD [see 5 Feb 03] was "the lowest point" in his life. Lawrence Wilkerson says: "[Powell] came through the door ... and he had in his hands a sheaf of papers, and he said, 'This is what I've got to present at the United Nations according to the White House, and you need to look at it'... It was anything but an intelligence document. It was, as some people characterized it later, sort of a Chinese menu from which you could pick and choose... There was no way the Secretary of State was going to read off a script about serious matters of intelligence that could lead to war when the script was basically unsourced." He says that he and Powell spent four days and nights with the then Director of Central Intelligence George Tenet and other officials to try and ensure the accuracy of the presentation.

22 August The US *Newsweek* quotes an unidentified UK official as saying that acting Executive Chairman of UNMOVIC Demetrios Perricos has raised the issue of monitoring potential WMD efforts in Iraq in the event that they be restarted in order to counter a possible Iranian nuclear programme. The official is reported as saying that at the meeting of the UN Security Council in June, when Perricos raised the issue, Russia and France pushed for continued special inspections. In addition, *Newsweek* quotes a UN official, speaking on condition of anonymity, as saying that the Iraqi WMD program "is an issue everyone wants to sweep under the carpet".

23 August The Iraqi draft constitution contains a provision stating that the Iraqi government "respects and implements Iraq's international commitments preventing the spread, development, production and use of nuclear, chemical and biological weapons," so reports Reuters news agency.

24 August The US Base Realignment and Closure Commission recommends closing the Umatilla, Oregon, and the Newport, Indiana, chemdemil facilities when they have completed operations. With regard to the facility at Deseret, Utah, its recommendation to close the facility upon completion of operations is conditional on a feasibility study first being undertaken with a view to assessing whether the plant could be converted to destroy conventional weapons. The Commission's recommendation with regard to the Deseret facility therefore overrules a recommendation by the Department of Defense to close the facility unconditionally [see 13 May]. Two weeks later, the Commission submits its recommendations to President George Bush.

24-25 August In New York, the UNMOVIC College of Commissioners convenes for its twentieth [see 24-25 May] regular session, attended by an observer from the IAEA.

26 August The Russian government sanitary and consumer rights watchdog, Rospotrebnadzor, denies media reports that a current outbreak of tularemia in Nizhny Novgorod and Dzerzhinsk originated from institutes conducting research into biological weapons. A statement issued by the agency says: "There are no laboratories or research institutes in the

territory of Nizhny Novgorod region or nearby regions that carry out research into this form of infection, or that manufacture any preparations." The agency says that ninety-six people, including fifteen children who had asked for medical assistance showed symptoms of tularemia such as skin ulcers, although only forty were actually diagnosed with tularemia. Rospotrebnadzor links the outbreak people visiting their dachas in the Gorokhovets district, Vladimir region, where it says an active "natural hotbed" of tularemia exists. One day previously the web site PHXnews.com posted a contribution from a blogger, under the headline "Biowarfare: Another 'Sverdlovsk Incident' in Russia?", linking the outbreaks to "the presence of biowarfare facilities in the region". Over the course of the previous week ProMED-Mail, a web-based information service run by the International Society for Infectious Diseases, released three news items relating to reports of outbreaks of tularemia in the region.

28 August In the US House of Representatives, the Homeland Security Subcommittee on Prevention of Nuclear and Biological Attack holds a hearing on the subject of the threats posed by different biological agents. In his testimony, Director of the National Institute of Allergy and Infectious Diseases Anthony Fauci says: "As the power of biological science and technology continues to grow, it will become increasingly possible that we will face an attack with a pathogen that has been deliberately engineered for increased virulence." Director of the Centers for Disease Control and Prevention Julie Gerberding testifies thus: "The technical obstacles [to launching an attack with engineered biological agents] are really trivial... What's difficult is the distribution of agents in ways that would bypass our capacity to recognize and intervene effectively." Chemical and Biological Countermeasures Portfolio Director, Department of Homeland Security, John Vitko says that "assessments are nearly complete" for plague, tularemia and nerve agents, and that an assessment of viral hemorrhagic fevers would begin next month.

29 August In Sulaimaniya, Iraq, a judge investigating charges against Saddam Hussein has held talks with Kurdish officials in order to "inspect and collect information" relating to the chemical attack on Halabja [see 18 Mar 88], according to a statement issued by the Kurdistan regional government.

29 August In Kiev, Ukrainian President Victor Yushchenko and US Senator Richard G Lugar sign an agreement under which the USA will assist Ukraine to upgrade the security for pathogens currently stored at a number of laboratories in Ukraine. The agreement, signed under the auspices of the Cooperative Threat Reduction (CTR) programme, also aims to help Ukraine significantly reduce the time required to accurately diagnose disease outbreaks and to assess whether or not they result from a hostile act. In this regard, the agreement provides for cooperation to develop better diagnostic tools and treatments to protect both US and Ukrainian populations against infectious diseases, including leveraging US laboratory capabilities to improve detection of endemic diseases in Ukraine. It is the first time that CTR funds will be applied directly to projects aimed at securing pathogen strains and sensitive biological knowledge within Ukraine. The laboratories earmarked for upgrades in security include those that undertook work with the plague during the Soviet Union era and which now store samples of naturally occurring pathogens for the purpose of research and public health.

29 August Antigua and Barbuda deposits its instrument of accession to the CWC with the UN Secretary-Gen-

eral. In thirty days, Antigua and Barbuda together with Honduras, which deposits its instrument of ratification simultaneously, will become the 172nd and 173rd [see 18 Aug] parties to the Convention.

29 August Honduras deposits its instrument of ratification to the CWC with the UN Secretary-General. In thirty days, Honduras together with Antigua and Barbuda, which deposits its instrument of accession simultaneously, will become the 172nd and 173rd [see 18 Aug] parties to the Convention.

29 August The US National Research Council Committee on Monitoring at Chemical Agent Disposal Facilities of the Board on Army Science and Technology releases *Monitoring at Chemical Agent Disposal Facilities*. The US Army requested the report for the purpose of advising its Chemical Materials Agency (CMA) on “the status of analytical instrumentation technology and systems suitable for monitoring airborne chemical warfare agents at [chemdemil] disposal and storage facilities”. The report states: “Consistent with previous NRC reports [see 3 Dec 02], the committee finds that the current airborne agent monitoring systems are adequate to safely protect the chemical demilitarization workforce, the public, and the environment, although potential incremental improvements that enhance sensitivity and specificity to reduce the rate of false-positive alarms and/or cycle times might improve plant efficiency and safety... On the basis of its evaluations of the potential agent release scenarios coupled with information on the probable detection capabilities of the newer agent monitoring technologies, the committee finds that disposal facility unpack areas might sustain agent releases, possibly including agents other than the one that its NRT monitors are set up to detect for the current agent disposal campaign... The committee also finds that, to pose an acute risk to the public, the atmospheric release of sufficient chemical agent vapor or aerosol would require a major accident, almost certainly involving explosion and/or fire... The committee recommends that the Army and other relevant stakeholders should assess whether public protection would be significantly enhanced by the development and deployment of dispersed fixed or portable fast-response agent sensors or the development of a mobile fast-response agent sensor platform capable of detecting and tracking a large release plume.”

29-31 August In Dushanbe, Tajikistan, the third [see 13-15 Oct 04] regional workshop for national authorities on the practical implementation of the CWC in central Asia takes place. The workshop, which is jointly organized by the government of Tajikistan and the OPCW, is followed by a two-day training course for the personnel responsible for the national implementation of the CWC in Afghanistan and Tajikistan. Thirty-four participants from the following fifteen CWC parties attend the workshop: Afghanistan, Azerbaijan, Bangladesh, Belarus, Georgia, Iran, Kazakhstan, Kyrgyzstan, Mongolia, the Netherlands, Oman, Russia, Tajikistan, the USA and Uzbekistan. Speaking at the workshop, Tajik Deputy Minister for Industry Dzhabor Rasulov says: “Although Tajikistan produces some chemical and toxic substances, specifically liquid chlorine... [t]hese components are used for other purposes, specifically in industry.” He adds: “Tajikistan has never had or produced chemical weapons, although local enterprises produce components that could be used to manufacture them.”

30 August At UN headquarters, Secretary-General Kofi Annan transmits to the Security Council the twenty-second [see 27 May] quarterly report on the activities of UNMOVIC, for the period 1 June to 31 August 2005. An appendix to the report contains extracts on the Iraqi biological weapons pro-

gramme taken from an “extensive draft summary” of a compendium of Iraq’s “proscribed weapons and programmes” – the first draft of which was referred to in the twenty-first quarterly report. The report says: “As stated in the previous quarterly report ... of the 411 sites inspected in the period from November 2002 to March 2003, post-war high-resolution imagery has been examined for 378 sites, including those considered the most important. The analysts have determined that 118 sites have been cleaned to varying degrees, up from 109 sites mentioned in the previous report... Following the departure of a number of staff, core UNMOVIC staff at the Professional level now total 46, drawn from 24 nationalities... The body of the compendium contains sensitive information on technological details of research and production by Iraq of chemical and biological weapons and development of its indigenous missile systems in combination with information on former suppliers to Iraq. The draft summary, however, provides a more general description of proscribed programmes, with an emphasis on lessons learned by United Nations inspectors. An extract containing the biological section of the summary of the compendium is attached as an appendix to this present report.”

The appendix includes this:

“The account of the United Nations verification indicates that, under a comprehensive and intrusive international inspection regime, Iraq could not completely hide its biological weapons programme. Although it has not been possible to answer satisfactorily all outstanding questions concerning Iraq’s biological weapons programme, such as total quantities of bulk agents produced, weaponized and destroyed, and the disposition of all biological seed stocks, etc., the inspectors were able to discover evidence of a programme larger than had been declared by Iraq and to develop effective lines of investigation that led Iraq to eventually admit the bulk production of biological warfare agents.”

30 August US Secretary of State Condoleezza Rice transmits to Congress *Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments*, which covers the period from 1 January 2002 to 1 January 2004. The 108-page report provides, *inter alia*, “an assessment of the adherence [by] nations to obligations undertaken in arms control, nonproliferation, and disarmament agreements or commitments”. On the subject of compliance with the BWC the report states:

“US concerns regarding China’s BWC compliance are based on a number of indicators over a number of years. First, the United States believes that China possessed an offensive BW program prior to its accession to the BWC in 1984. Upon accession, China was obliged to eliminate its offensive program, but China never admitted this program and the United States believes that it maintained the program throughout most of the 1980s, at the very least... China’s current research activities and dual-use capabilities raise the possibility that sophisticated BW work could be underway. For example, because of the possible offensive applications of aerosolization techniques, the United States’ concerns are underscored by publications indicating military involvement in such research... There are some reports that China may still retain elements of its biological warfare program. Such reports support the United States’ continued belief that China has not abandoned its offensive BW program... Despite China’s BWC CBM declarations to the contrary ... the United States reaffirms its judgment that China maintains some elements of an offensive BW capability in violation of its BWC obligations...”

“[T]he June 2003 NCR [Noncompliance Report] finding stated that Cuba likely had ‘at least a limited, developmental offensive biological warfare research and development effort’...”

While it is clear that Cuba's biotechnology industry could be put to offensive BW uses – and that this industry's extensive international contacts could be a focus of BW-related proliferation – the key factual issue is whether or not Cuba has in fact applied its biotechnology skills to offensive BW work... Based on the same body of reporting, there is a split view over whether Cuba maintains a BW effort. This arises because the body of information available on Cuba is inconclusive, supporting hypotheses both for and against Cuba having an offensive effort. In a recent National Intelligence Estimate [see 18 Sep 04], the Intelligence Community unanimously held that it was unclear whether Cuba has an active offensive biological warfare effort now, or even had one in the past. On the basis of the same reporting, the policy community believes that the compliance judgment of the June 2003 NCR that Cuba has "at least a limited, developmental offensive BW research and development effort" remains correct... Some [governmental analysts] continue to believe that Cuba has at least a limited offensive biological warfare research and development effort and that this effort is in violation of Cuba's obligations under the [BWC]. Others believe that it is unclear whether Cuba has an active offensive biological warfare (BW) effort now, or even had one in the past. However, all judge with high confidence that Cuba has the technical capability to pursue some aspects of offensive BW... The US Government will seek to pursue additional information on which to assess this issue...

"Iran is technically capable of producing at least rudimentary, bulk-fill biological warheads for a variety of delivery systems, including missiles... [A]vailable information about Iranian activities indicates a maturing offensive [BW] program with a rapidly evolving capability that may soon include the ability to deliver these weapons by a variety of means. The Iranian BW program has been embedded within Iran's extensive biotechnology and pharmaceutical industries so as to obscure its activities. The Iranian military has used medical, education, and scientific research organizations for many aspects of BW-related agent procurement, research, and development... The United States judges that, based on all available information, Iran has an offensive biological weapons program in violation of the BWC...

"Available information suggests that North Korea has a mature offensive BW program, and that it may consider the use of biological weapons as an option in any future conflict... We assess that North Korea has developed and possesses a number of organisms that could be used as BW agents, including anthrax, plague, and cholera... North Korea is believed to possess a munitions-production infrastructure that would allow it to weaponize biological warfare agents, and may have such biological weapons available for use... The United States believes North Korea has a dedicated, national-level effort to develop a BW capability and has developed, produced, and may have weaponized for use, BW agents in violation of the BWC. North Korea probably has the capability to produce sufficient quantities of biological agents for military purposes within weeks of a decision to do so...

"Even though the Soviet Union, and now Russia, regularly submitted annual CBMs [under the BWC], including in 2003, these submissions continue to be incomplete and misleading... The United States continues to assess that Russia maintains a mature offensive BW program and that its nature and status have not changed. Russia's BW program builds on capabilities and expertise inherited from the far more extensive Soviet BW program that dates back to the 1920s... The United States continues to receive unconfirmed reports of some ongoing offensive biological warfare activities, and key officials from the Soviet offensive BW program continue to occupy influential positions... The United States also assesses

that Russia has the capability to mobilize BW production...

"Syria's biotechnical infrastructure is capable of supporting agent development. However, Syria lacks the technical infrastructure for a robust or sophisticated BW program and depends on foreign assistance to upgrade its biotechnology infrastructure... The United States judges that based upon the evidence available, Syria is developing an offensive biological warfare capability that would constitute a violation of the BWC if Syria were a State Party." [Note: Reference is made to Syria notwithstanding that it is not a party to the BWC; conversely the report makes no reference to Israel, India and Pakistan with regard to nuclear weapons on the basis that neither of these are parties to the NPT].

On the subject of compliance with the CWC the report states:

"The Chinese chemical industry has the capability to produce many chemicals, some of which have been sought by states trying to develop a chemical warfare capability... China continues to conduct CW research and development that has applications for either defensive or offensive purposes. China also has the capability to quickly mobilize its chemical industry to produce a wide variety of chemical agents... The United States judges that China maintains a CW production mobilization capability, although there is insufficient information available to determine whether it maintains an active offensive CW research and development program. Moreover, in violation of its CWC obligations, China has not acknowledged past transfers of chemical weapons and it may not have declared the full extent of its CW-related facilities...

"The United States believes Iran has manufactured and stockpiled blister, blood, and choking chemical agents, and weaponized some of these agents into artillery shells, mortars, rockets, and aerial bombs. We continue to believe that Iran has not acknowledged the full extent of its chemical weapons program, that it has indigenously produced several first-generation CW agents (blood, blister, and choking agents), and that it has the capability to produce traditional nerve agents. However, the size and composition of any Iranian stockpile is not known... The United States judges that Iran is in violation of its CWC obligations because Iran is acting to retain and modernize key elements of its CW infrastructure to include an offensive CW R&D capability and dispersed mobilization facilities....

"The principal issue is whether Russia's CWC declaration is adequate as it relates to CW production and development facilities, chemical agent and weapons stockpiles, and whether Russia has met the CWC-established timelines for submission of plans for destruction and verification of destruction of its CW... The United States has longstanding concerns about the completeness and accuracy of Russia's CW stockpile declaration... The United States ... believes that Russia's CWC declaration is incomplete, and that Russia failed fully to declare its CW stockpile and CW-related facilities, including some related to production and development. In addition, Russia may maintain CW mobilization capacities... We have indicated that our concern is not with declared [storage and destruction] facilities, but with sites that were not declared under the CWC (but should have been)... On CW development facilities, the United States assesses that Russia did not declare all of its development facilities as required under Article III (1)(d) of the Convention... In March 2002, the Director General of the OPCW Technical Secretariat announced that phosgene drained from 3,844 artillery shells at Shchuch'ye and sent to a commercial facility for processing had been completely destroyed under OPCW supervision. However, Russia had never received formal OPCW approval to process the drained phosgene at the commercial site in question, and did not designate that facility as a CW destruction facility as required by the CWC.

Despite these failures, however, the processing of the phosgene was done under continuous monitoring by OPCW inspectors... Notwithstanding the presence of OPCW inspectors, the United States and other States Parties at that time maintained that the phosgene should have been destroyed pursuant to the requirements of Article IV and Part IV(A) of the CWC... The United States judges that Russia is in violation of its CWC obligations because its CWC declaration was incomplete with respect to declaration of production and development facilities, and declaration of chemical agent and weapons stockpiles....

"Although Sudan is a party to the CWC, there have been allegations of CW use by the Sudanese against rebels in southern Sudan, although these allegations have not been confirmed [see 8 Oct 04]... Numerous unconfirmed reports throughout the 1990s indicated that Sudan was researching, developing, producing, and testing CW agents. Reporting indicates that by the mid-1990s Sudan had established, with foreign assistance a CW research and development and small-scale production effort with the goal of indigenously producing CW. The United States previously assessed that Sudan was maintaining its R&D capability and probably had produced at least small quantities of CW agents... The United States lacks sufficient evidence to determine whether Sudan is in violation of its CWC obligations."

The next day, the Russian Ministry of Foreign Affairs issues a statement rejecting the aforementioned US accusations thus: "While continuing to categorically accuse Russia of violating its international obligations under the [BWC] and the [CWC], the State Department does not take the trouble to publish any concrete facts. It is well known however that only because of the 'special' position of the US were there discontinued the multilateral talks conducted for more than six years in Geneva to establish a mechanism for verifying compliance by states with the [BWC]... We consider it appropriate to once again stress that Russia is committed to comply with the BTWC and CWC undeviatingly."

Two days later, Director-General of the Arms Control Department of the Chinese Foreign Ministry Zhang Yan, dismissed the accusations levelled by the report at China. Speaking at a news conference Zhang says: "These statements are far from the truth and are irresponsible. We hope that the US side will stop such erroneous practices and we also express our strong dissatisfaction... [The report turns] a blind eye to China's considerable efforts in the field of arms control, disarmament and nonproliferation... [China has] faithfully honored and fulfilled its relevant obligations and responsibilities."

Two weeks later, the North Korean state-run newspaper *Rodong Sinmun*, rejects the findings of the report as follows: "[North Korea does not possess] a single biological weapon... Since signing the [BWC] we have implemented it sincerely... Our republic is not a violator of the agreement but a victim of biological weapons." The paper says that the USA is the "real offender", since it employed biological weapons during the 1950-53 Korean War.

1 September The Chinese State Council issues a white paper on *China's Endeavors for Arms Control, Disarmament and Non-Proliferation* [see also 3 Dec 03], the purpose of which is to "elaborate on the Chinese government's policies and positions on arms control, disarmament and non-proliferation and to give a systematic account of China's involvement in the international arms control, disarmament and non-proliferation affairs." The paper states: "Full scope should be given to the central role of the UN and other international organizations [in preventing the proliferation of WMD and their means of delivery]. The existing non-proliferation mechanism should be strengthened and improved under the framework of

international law and on the basis of equal and universal participation of all countries and democratic decision-making. A balance should be struck between non-proliferation and peaceful uses. The legitimate rights of each state to peaceful uses should be guaranteed while proliferation activities under the pretext of peaceful uses be prevented." Meanwhile, Director-General of the Department of Arms Control and Disarmament Ministry of Foreign Affairs Zhang Yan says: "The PSI [Proliferation Security Initiative] has so far failed to completely exclude the possibility of interdiction operations beyond the framework of current international law..."

1 September OSPAR member states, that is to say the fifteen parties to the 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic, are today due to submit to the OSPAR Commission a short description of the systems that they have established to meet the aims of Recommendation 2003/2 on an OSPAR Framework for Reporting Encounters with Marine Dumped Conventional and Chemical Weapons [see 23-27 Jun 03], or else to provide an explanation as to why they have failed to do so.

1 September The US Institute of Medicine of the National Academies Committee on Measures to Enhance the Effectiveness of the CDC Quarantine Station Expansion Plan for US Ports of Entry releases *Quarantine Stations at Ports of Entry Protecting the Public's Health*. The report, commissioned by the Centers for Disease Control and Prevention (CDC), finds that no single entity currently has the responsibility, authority, and resources to orchestrate all the activities of the quarantine system. Furthermore, it determines that a comprehensive plan is required to meet the challenges posed by emerging diseases and the threat from bioterrorism. "The United States needs a single entity to exert national strategic public health leadership for the Quarantine Network to successfully protect the US population from microbial threats that originate abroad," says the report.

2 September In Baku, Azerbaijan, 124 samples of 62 unique strains of causative agents of plague, anthrax and cholera are despatched to the USA under the Cooperative Threat Reduction (CTR) Program, where they will be used for research to counter possible acts of bioterrorism. Azerbaijan agreed to the transfer as part of an agreement, signed three months previously, between the US Department of Defense and the Azerbaijani Cabinet of Ministers, under which the USA agreed to provide financial assistance to Azerbaijan to improve the security of its pathogens. The agreement, together with a similar one signed between the USA and Georgia at the end of last year, also allows the USA to learn more about the Soviet-era biological weapons program.

Six days later, the Azerbaijani Ministry of Health issues a statement expressing "extreme surprise" at a report in the *Chicago Tribune* referring to the transfer as involving "bacterial strains that are a legacy of the former Soviet Union's elaborate biological weapons program". The statement says that the samples transferred were copies of strains obtained from animal vectors of dangerous infections and their ectoparasites; whilst other samples were taken from the environment and stored in a museum of microbial cultures for molecular genetic analysis. Meanwhile, Azerbaijani Deputy Minister of Health Abbas Velibekov says: "I can officially say that Azerbaijan, both as part of the Soviet Union or during its independence, has never had and never will have bacteriological weapons."

5-9 September In Helsinki, the third *Workshop on the Analysis of Chemicals Related to the Chemical Weapons*

Convention (CW-LABEX) takes place at the University of Helsinki (VERIFIN). The event, which is jointly organized by VERIFIN and the OPCW, is a one-week tabletop proficiency test, comprising demonstrations and practical exercises on analysis and evaluation of data from exercise test samples. It is intended both for laboratories that are active or plan to become active in the analysis of chemicals under the CWC, and for those that are participating or intend to participate in OPCW proficiency testing.

6 September From London, the International Institute for Strategic Studies (IISS) releases *Iran's Strategic Weapons Programmes: A Net Assessment*, which is the third in a series of 'strategic' dossiers published by the Institute [see 9 Sep 02 and 21 Jan 04]. Presenting the report to the press, IISS Director John Chipman says: "From public information, we cannot determine whether Iran is conducting offensive CBW research. Nonetheless, it is certainly true that the development of Iran's civilian, chemical and biotechnical infrastructure has enhanced Iran's inherent ability to produce chemical and biological weapons agents if it decided to do so. Rather than risk exposure – especially in the area of maintaining stocks of agent or actual weapons – Iran may be content to conduct CBW research and development within its civilian activities (which would be very difficult to detect) and maintain a break out capability, in the event that the production and weaponisation of chemical and biological agents was deemed necessary." The *Assessment* had input from the Harvard Sussex Program.

6-8 September In Tehran, the third [see 20-22 Sep 04] regional meeting for national authorities of CWC parties in Asia takes place. The meeting is organized jointly by the Iranian government and the OPCW. Taking part in the meeting are forty-eight participants from twenty-two regional parties; six participants from three parties from outside the region; fifteen participants from Iran; representatives from two non-parties – Egypt and Myanmar; one signatory – Bhutan; and a representative from the European Union. Further to the decision taken at the first meeting [see 29-31 Oct 03] to collectively promote the goals of the CWC in the region, the meeting aims to provide a platform for representatives of national authorities to review the implementation of the Convention. During the meeting, Director-General of the Iranian Foreign Ministry for Political and International Affairs Seyyed Mehdi Hosseini says that in Iran around 100,000 people are still suffering the effects of chemical weapons used by Iraq during the Iran-Iraq war – and half of them are in a critical condition.

8 September In Arkhangelsk, Russia, a team of researchers set sail for the Kara Sea, near the Novaya Zemlya archipelago, to verify data relating to, amongst other things, the locations where chemical munitions were dumped at the end of the Second World War [see also 2 Dec 03]. The findings of the expedition will be submitted to the Russian Emergency Ministry, which will then compile a database of potentially hazardous objects located on the seabed.

8 September The Tel Aviv *Haaretz* quotes a number of medical practitioners – who say they have seen the confidential medical report on Yasser Arafat's death [see 11 Nov 04] – as saying that the three main possibilities for the cause of his death were poisoning, AIDS or an infection [see also 11 Jul]. *Haaretz*, which has obtained a copy of the report, says that the report lists the immediate cause of death as a massive brain hemorrhage. It adds, however, that "a discussion among a large number of medical experts ... shows that it is impossible to pinpoint a cause that will explain the

combination of symptoms that led to the death of the patient."

8 September In the UK, the Medical Research Council (MRC), the Wellcome Trust and the Biotechnology and Biological Sciences Research Council (BBSRC), publish a joint policy statement on bioterrorism and biomedical research, the effect of which is to modify their pre-existing individual statements on the subject. The joint statement reads thus: "We have consulted members of funding and advisory committees across the three organisations, on the basis of a discussion document. The outcome of this has led the BBSRC, the MRC and the Wellcome Trust to agree changes to our policy statements, guidance and procedures in four areas: introduction of a question on application forms asking applicants to consider risks of misuse associated with their proposal; explicit mention of risks of misuse in guidance to referees as an issue to consider; development of clear guidance for funding committees on this issue and the process for assessing cases where concerns have been raised; [and] modification of organisational guidelines on good practice in research to include specific reference to risks of misuse."

8 September In the US House of Representatives, the Subcommittee on Prevention of Nuclear and Biological Attacks of the Select Committee on Homeland Security holds a hearing on *WMD Terrorism*.

9 September In Moscow, there is a workshop on *Prospects for International Cooperation in Biosafety, Biosecurity and Biomaterials Control*, which brings together experts in the fields of bio-security and bio-safety from Russia and Switzerland. The objective of the workshop, which is jointly organized by the Center for Policy Studies in Russia and the Geneva Centre for Security Policy, is to explore and define possible areas of co-operation between Switzerland and Russia in the field of biosecurity and biosafety, with a view to converting the Russian bio-security complex to conduct work for peaceful purposes. In his presentation, Senior Advisor, Department for Security and Disarmament Affairs, Russian Ministry of Foreign Affairs, Vladimir Bundin says: "During Russia's G8 presidency, one of the priorities that we have already announced will be the fight against infectious diseases... Our common task is an integrated, global study of highly infectious diseases. International cooperative efforts, I believe, should focus their attention on the problem of mankind's vulnerability to naturally or intentionally spread smallpox and newly emerging diseases that are a danger to humans, animals, and plants. This could make a substantial contribution to the strengthening of the BTWC and the fight against bioterrorism."

9 September In Pretoria, the South African Constitutional Court unanimously overrules a trial court decision to dismiss six charges against the former head of South Africa's chemical and bacterial weapons programme relating to conspiracy to commit murder in Namibia, Swaziland, Mozambique and the UK [see 12 Oct 99]. The trial judge, Willie Hartzenberg, had held the charges against Wouter Basson to be non-justiciable, as the offences were committed outside of South Africa. Notwithstanding the issue of double jeopardy, the decision paves the way for the National Prosecution Authority to proceed with the six charges against Basson. In handing down the unanimous judgment, Chief Justice Pius Langa says there was a "real and substantial connection" between South Africa and the crimes allegedly committed elsewhere. He also criticises the Supreme Court of Appeal for failing to consider South Africa's obligation to uphold international humanitarian law, when turning down the

State's challenge. The court summarizes its findings thus: "The effect of this conclusion is that the indictment previously quashed, stands. It is up to the State to decide whether to put the accused on trial on the same indictment or on an amended indictment. Should the state decide to do so, the question of the right of Dr Basson to be tried within a reasonable time and the question of double jeopardy will have to be determined by the trial court, in the first instance." [See also 10 Mar 04]

Six weeks later, the National Prosecuting Authority (NPA) announces its decision not to prosecute Basson on the six charges thus: "The [NPA] has concluded that a fresh prosecution of Dr Wouter Basson on the charges originally quashed by the Pretoria High Court is in law not permissible. This follows the NPA's thorough consideration of the judgement by the Constitutional Court passed several weeks ago, and all the relevant principles relating to the doctrine of double jeopardy... It is an intrinsic principle of South African law that an accused cannot be tried twice on the same offence or on substantially the same offence, irrespective of whether he was convicted or acquitted in the first trial."

11 September In northern Iraq, the US military has been using chemical weapons in its assault on rebels, according to a recorded statement attributed to the Jordanian Abu Musab al-Zarqawi [see also 10 Nov 04 and 28 Feb]. The statement says: "O nation of Islam, your heroic children are writing with their own blood the most beautiful of epics ... In the towns of Al-Qaim and Tal Afar... where your Crusader enemies are using more destructive weapons including poison gas."

The next day, a US official speaking on condition of anonymity owing – according to Reuters news agency – to the sensitivity of the subject, rejects the allegation. "Anything the man says is probably not true. But for certain, the claim of poison gas is not true... [The recording probably is authentic] based on the fact that there's no record of false Zarqawi tapes ever surfacing."

Two days later, Jaish al-Taefa al-Mansura (Army of the Victorious Community), a Sunni group, claims that it fired shells filled with chemical agents at several government buildings in Baghdad.

Three days subsequently, in al-Madaien, The Islamic Army in Iraq, another Sunni group, launches rockets and "chemical shells" on an Iraqi and US military camp, so the group claims.

Four days later, an unidentified spokesman for the US Central Command denies the allegations of the two Sunni groups thus: "There was no chemical attack against coalition forces... [However] all threats [are taken] very seriously... If the enemy uses chemical weapons against us, it will be a clear indication of the inherent ruthlessness and brutality of this enemy."

12 September Russia plans to increase the financing of its chemdemil programme by 7 billion rubles (\$247 million) in 2006, according to member of the State Commission on Chemical Disarmament Nikolai Bezborodov. He says: "It is planned to increase financing from the state budget for the programme to destroy chemical weapons by more than 50 per cent next year. While this year it [financing] comes to 11.1 [billion rubles (\$391 million)], the draft 2006 budget proposes allocating 18.2 [billion rubles (\$641 million)] for these aims. This is practically three times more than last year." [See also 1 Aug]

12 September At OPCW headquarters, the fifth [see 040402] OPCW inspector-training course, which lasted eight weeks, concludes. With the addition of 18 new inspectors, the OPCW now has a total of 173 inspectors.

13 September The Russian Black Sea Fleet rebuts Ukrainian media reports that highly toxic chemical substances are buried on Russian territory in the Crimea, so reports ITAR-TASS news agency. The rebuttal follows a report by a Sevastopol-based regional broadcaster stating that there was a "burial site for chemical agents" which had been constructed on territory controlled by the Black Sea Fleet, without due regard to the "highly toxic chemical agents" storage regulations. Responding to the allegation, head of the Fleet's radiation, chemical and biological defence services Captain Valeriy Panov says: "The substances stored by the Black Sea Fleet are not hazardous for people... These [substances] are means of chemical defence intended for decontamination of and protection from poisonous agents. They are not toxic substances." According to the press service of the Black Sea Fleet, when the Soviet Black Sea Fleet was divided between Russia and Ukraine, the Ukrainian authorities refused to accept half of the Fleet's chemical defence agents because it did not have the appropriate facilities. It says: "The [Russian] Black Sea Fleet has been keeping the whole stock of chemical defence agents at Russia's expense. The Black Sea Fleet is paying for removal of the chemical defence agents and hardware to the new storage facilities [in Russia]. The removal is to be completed by the end of the year."

13 September In Geneva, UNIDIR and the UN Department for Disarmament Affairs co-host an 'information briefing' for parties to the BWC on the Convention's sixth review conference.

13 September In Greenbelt, USA, a federal judge sentences a man to three and a half years imprisonment and three years of supervised release for, *inter alia*, possession of unregistered toxins. Myron Tereshchuk [see 13 May] was arrested eighteen months previously following the discovery by FBI agents of castor beans, together with equipment and literature that could assist in the production of ricin – firearms, grenade hulls, chemicals, explosive powder and firecrackers were also discovered [see 29 Sep 04]. Tereschuck will serve the sentence consecutively to the sentence he is currently serving for extortion.

14 September In Los Angeles, experts in the fields of law enforcement, private industry, the military and customs convene for a workshop on *Air Cargo* through a US perspective. In his address, US Customs and Border Protection Commissioner Robert Bonner identifies the purpose of the workshop as being to explore ways to improve the security of US airlines so as to prevent air cargo from being the means for proliferation of WMD as well as to discuss how and when to effect inspections of aircraft and/or their cargo under the Proliferation Security Initiative [PSI].

14-16 September At UN headquarters, parties to the UN Charter convene for the UN 2005 (*Millennium*) *World Summit*. A draft document agreed upon in advance by delegates and adopted by the General Assembly makes no reference to non-proliferation or disarmament. An earlier draft included a disarmament and nonproliferation section comprising twenty-one separate items, however, it was then reduced to seven elements before it was decided, on the eve of the summit, to scrap them all owing to a lack of consensus. On the first day of the Summit UN Secretary-General Kofi Annan referred to the omissions thus: "I hope the leaders will see this a real signal for them to pick up the ashes and really show leadership on this important issue when we are all concerned about weapons of mass destruction and the possibility that they may even get into the wrong hands."

14-16 September In Beijing, China, an *International High-Level Forum on Bioeconomy* is held, which includes a session on biosafety. Presentations made at the session on biosafety include one by John Steinbruner, University of Maryland, on *The Protective Oversight of Highly Consequential Biological Research*.

15 September UK Home Secretary Charles Clarke orders the arrest and deportation of seven men among whom are people who had been cleared in court of involvement in the so-called 'ricin plot' [see 8 Apr]. He does so hours before disclosing new government plans to hold suspected terrorists without charge for three months. This attracts renewed media attention to the 'ricin plot' case, in which Kamal Bourgass had recently appealed, unsuccessfully, against his public-nuisance conviction [see 19 Jul]. There is particular attention to the failure of laboratory tests to confirm the initial widely reported detection of ricin in an exhibit taken from the scene of the original arrest [see 27 Jun]: scientists at DSTL Porton Down had reached this negative finding two weeks after the arrest. The British Broadcasting Corporation now reports that government ministers and the police were only informed thereof two months later, on 20 March 2003. An unidentified spokesman from the Ministry of Defence says the delay had been caused by a breakdown in communications and that DSTL is currently examining its procedures to ensure similar mistakes do not recur. DSTL itself is reported as stating that the delay had no bearing on the outcome of the trial [see 8 Apr], because the trial was concerned with the intention to produce ricin rather than its possession.

Meanwhile, an unidentified Home Office official says that the government is exercising its power to deport the seven men because their "presence in the UK is not conducive to the public good for reasons of national security". Though the Home Office declines to identify those concerned, the Associated Press quotes a "senior government official" as saying that one or more of the defendants in the aforementioned ricin trial are among them.

16 September Vanuatu deposits its instrument of accession to the CWC with the UN Secretary-General. In thirty days, Vanuatu will become the 174th [see 29 Aug] party to the Convention.

16 September Russian President Vladimir Putin says that Russia and the USA should focus their efforts on preventing acts of terrorism involving weapons of mass destruction. Speaking at a White House press conference in Washington, DC, Putin says: "Anti-terrorist cooperation between the United States and Russia is a traditional item of our agenda. We have agreed to build up bilateral coordination, in particular, in the Russian-American Anti-Terrorist Working Group... We think that we should focus on the joint prevention of terrorist acts using weapons of mass destruction."

16 September In Washington, DC, a federal judge dismisses two claims brought by Steven Hatfill against former Attorney-General John Ashcroft, former FBI official Van A Harp and Justice Department employees Timothy Beres and Daryl Darnell for having been identified as a "person of interest" during the investigation into the 2001 anthrax mailings [see 17 Dec 04]. However, District Judge Reggie B Walton affirms Hatfill's claim that the defendants imparted false discrediting information to the press, and that this had had the effect of damaging his reputation and employment prospects. [See also 28 Jul]

17-23 September In Dubrovnik, Croatia, the third [see 6-12 Sep 03] World Congress on Chemical, Biological and Radiological Terrorism takes place. The Congress – which is organized jointly by Applied Science and Analysis, Portland, USA, and AC Laboratory, Spiez, Switzerland, in cooperation with the Ministry of Defence of Croatia – brings together around 250 individuals from the EU and the USA. Participants discuss methods of preventing the proliferation of WMD as well as protective equipment for workers responding to attacks involving WMD. Addressing the Congress on day three, OPCW Director-General Rogelio Pfrter draws attention to the assistance and protection activities of the OPCW as carried out under the Article X of the CWC.

19 September In Volgograd, Russia, health officials from Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Uzbekistan, Kyrgyzstan, Russia and Ukraine attend a conference on *Problems, Biosecurity and Counter Measures against Bioterrorism*. The conference notes that a higher incidence of epidemics of certain diseases in CIS countries over the last ten years has made the issue of addressing the threat of bioterrorism more acute.

19 September In Dushanbe, Tajik and US defence officials discuss matters pertaining to the non-proliferation of WMD. Director of the US International Counterproliferation Program (ICP) Harlan Strauss offers advice to Tajik officials on using improved equipment and improving training to strengthen the monitoring of Tajikistan's border. The ICP office works with countries in Central Asia to assist in preventing the cross-border transit of goods that have potential dual-use applications.

20 September In Yichun, in the Chinese north-eastern province of Heilongjiang, a chemical-weapons disposal team sent by the Japanese government has recovered around 1000 munitions, including 281 chemical munitions, according to Japanese Director of the Abandoned Chemical Weapons Office Hisashi Michigami. The team was sent to China at the end of August, after chemical munitions were discovered at a residential site in the city on 29 July [see also 21 Jun]. Michigami says that that the recovered weapons are being kept in a temporary storage area provided by China until the completion of a facility which Japan is planning to build to dispose of the weapons [see 16 May].

20 September In Moscow, following a meeting with German Ambassador to Russia Walter Jurgen Schmidt, Chairman of the Russian State Commission for Chemical Disarmament Sergei Kiriyenko says: "Germany is our most stable partner in the process of the elimination of chemical warfare agents... Russian-German cooperation in this sphere has been invariably mentioned as a perfect example in contacts with the leaders of other countries that are Russia's partners in the process of chemical weapons elimination." Schmidt says that "extensive research is underway into Germany's likely participation in the construction of a [chemdemil] plant in Leonidovka, the Penza Region". [See also 5 May 03]

20 September UK Security Service Director-General Elizabeth Manningham-Buller submits written evidence to the House of Lords in its hearing of an appeal against a Court of Appeal ruling that evidence obtained by abuse of detainees overseas may be admissible in a British court so long as UK agents had not participated in the abuse or solicited it. Her statement, which is leaked to news media a month

later, indicates that both her agency (MI5) and the Secret Intelligence Service (MI6) are prepared to accept and if necessary act on "detainee reporting" furnished through foreign liaison officers that could in fact be information obtained under torture. Foreign liaison might withhold detainee reporting, she writes, if too many questions were asked about its provenance. She provides two illustrations of the value of detainee reporting, one being the 'ricin plot' case [see 15 Sep], which had succeeded because of information obtained from the authorities in Algeria who had interrogated Mohammed Meguerba [see 29 Jun].

20 September In Utah, the Commander of the Deseret Chemical Depot announces that the mission of the Chemical Agent Munitions Disposal System (CAMDS) facility has been revised in the run-up to its closure in three years' time. In addition to preparing for its closure, Raymond van Pelt says, the facility will now primarily focus of the segregation and re-packaging of secondary waste. Since 1970, the CAMDS facility has developed personal protective ensembles, monitoring systems, processing equipment and procedures currently in use by other US chemdemil facilities. It employs around 130 Army civilians and is located about 1.5 miles south of the Tooele chemdemil facility.

20-21 September In Kuala Lumpur, the International Committee of the Red Cross (ICRC) hosts a conference on *Preventing Hostile Use of the Life Sciences* [see also 23-24 Sep 02]. The aim of the event is to promote dialogue on how advances in the life sciences can be used to benefit humanity while at the same time minimizing the risks of hostile use. Attending the conference are forty biotechnology scientists and policy experts from thirteen countries including Australia, China, India, Indonesia, Japan, Malaysia, New Zealand, the Philippines, Singapore, South Korea, Thailand, the UK and the USA. Speaking to reporters on the first day of the conference, ICRC adviser on armed violence and effects of weapons Robin Coupland says that, whilst there is "huge political emphasis on terrorists, the main risk and source of an attack is still state programs".

20-21 September In Paris, there is a workshop on *Science and International Humanitarian Law: Science to the Service of War and the Responsibility of Scientists*. It is sponsored by the Association for the Defense of the International Humanitarian Fundamental Laws (ADIF), Euroscience, Pugwash-France, Fondations Daniel Iagolnitzer and La Ferthé (under the aegis of the Fondation de France), and UNESCO. The workshop focuses on the historical and technical aspects of different weapons, their use, and related violations of international humanitarian law. Regarding chemical and biological weapons, the following themes are discussed: use of chemical and biological weapons in the twentieth century; present scientific estimates of the consequences of the use of Agent Orange and current claims for compensation of civilian victims; conventions on the prohibition of the production and use of chemical and biological weapons and on their destruction; and the present situation and perspectives.

20-21 September In Washington, DC, there is a workshop, organized by Unconventional Concepts Inc, on *Nano-Technology Applications to Chemical and Biological Defense and Homeland Security*. It is sponsored by the Office of the Deputy Assistant to the Secretary of Defense for Chemical and Biological Defense, the Army National Protection Center, and the Science & Technology Directorate of the Department of Homeland Security.

22 September From the UK, BBC Radio 4 broadcasts *Operation Cauldron*, the theme of which is UK government's covert trials with plague bacteria off the coast of Lewis, Scotland in the 1950s [see 27 Jan 04]. The broadcast refers to newly declassified top-secret documents, interviews with surviving witnesses, and the private diary of the lead scientist involved in the trials. Reference is made to one occasion in 1952 when a trawler unexpectedly sailed into the zone where a trial was being undertaken and the captain of the naval ship carrying out the tests nevertheless ordering the trial to continue. The programme also gives an insight into the subsequent cover-up, as the government tried to reconcile the conflicting demands of public health and official secrecy. In this regard, a memorandum from the government giving instructions to the captain of the ship states: "Requirements gravely political are more important than what may seem best from a purely medical point of view for individuals." Another document reveals that the decision was taken not to inform the Secretary of State for Scotland or the islanders of Lewis.

23 September The Washington, DC, *Arms Control Today* publishes an interview with OPCW Director-General Rogelio Pfrter on current issues relating to the CWC. On the issue of universality Pfrter says: "[I]n a way one could say that in the Middle East, unfortunately, chemical weapons are hostage to nuclear weapons... North Korea is a very different case, I mean they won't even respond to any openings that we might make, and we do make openings ever so regularly to them." Regarding UN Security Council resolution 1540 [see 28 Apr 04] he says: "I personally believe it has been an extremely positive development... By stating obligations that are identical to our own convention, it demonstrates that our convention is very much an up-to-date document and quite relevant in the efforts against terrorism, which quite clearly constitutes a major priority." Asked what the effects would be if the CWC's 2012 destruction deadline for chemical weapons is not met, Pfrter says: "I think it will have a devastating effect... I know there is quite a degree of skepticism out there, but I as director of this organization have received nothing but reaffirmation and confirmation of their commitment and I look forward to the actions that will crystallize that commitment. I was in Russia in July and I heard it from the highest authorities there that they will do it... I think at this stage, entertaining any idea of the renegotiation of this convention is very bad. Not the least because as you know this convention was adopted by consensus and any reopening of the doors would mean entering into a Pandora's Box. We don't know where it might end. Secondly, I believe that the priority issue of non-proliferation could be greatly affected if the obligations undertaken by possessor states are not implemented, because then it will probably be more difficult to push forward with industry verification on the agenda, which is aimed at that."

23 September In Washington, DC, the ninth [see 17 Sep 04] Legacy Forum of the Green Cross takes place, the subject on this occasion being *Chemical Weapons and WMD Cooperative Threat Reduction: Comprehensive Approaches for a Complex World*.

During the Forum, the Green Cross releases *Deadly Weapons and Dire Needs: Exploring the Intersection of Social Infrastructure and Weapons Demilitarization in Shchuch'ye: A Struggling Chemical Weapons Community*. The report is "the first systematic assessment of social infrastructure investment and community development needs in a chemical weapons community" and it "highlights the most pressing socio-economic concerns and contains recommendations regarding investment priorities". It states: "The [Global Green]

Legacy Program has become increasingly concerned that the [Shchuch'ye] area's destitute conditions, in combination with the presence of a dangerous weapons stockpile and an expensive destruction facility, will create a 'perfect storm' of problems that could ultimately derail the project... Impoverished residents might be driven to compromise the security of the nerve agent stockpile or the nerve agent destruction facility – for the right price – through collusion with terrorist groups.” The study was undertaken by Global Green USA, Green Cross Switzerland and the Institute for Urban Economics in Moscow.

24 September The US government invited companies, earlier in the year, to tender for the production of bulk quantities of the non-virulent Sterne strain of anthrax, and for equipment to produce significant volumes of other biological agents for use by the US Army at Dugway Proving Ground, Utah, so the *New Scientist* reports. The invitations – initially reported by Edward Hammond of the Sunshine Project – include a “biological services” contract which states that “the company must have the ability and be willing to grow *Bacillus anthracis* Sterne strain at 1500-litre quantities”. Other contracts require fermentation equipment for producing 3000-litre batches of an unspecified biological agent, and sheep carcasses to test the efficiency of an incinerator for the disposal of infected livestock. Programme director for biological and chemical weapons at the Center for Arms Control and Non-Proliferation, Washington, DC, Alan Pearson says: “It raises a serious question over how the US is going to demonstrate its compliance with obligations under the [BWC] if it brings these tanks online... If one can grow the Sterne strain in these units, one could also grow the Ames strain, which is quite lethal.”

25 September The *Washington Post* reports on the existence of “top secret” and “compartmented” military exercises relating to WMD that take place under the military's extra-legal powers, known as ‘Granite Power’ which provide for emergency military operations in the USA without civilian supervision or control. The *Post* quotes an unidentified spokesman at the Joint Force Headquarters-National Capital Region as confirming the existence of ‘Granite Shadow’ – the name of the exercise relating to WMD – insofar as it is “the unclassified name for a classified plan”.

25-28 September In Los Angeles, at the 109th annual meeting of the American Academy of Otolaryngology Head and Neck Surgery, a team of Iranian researchers present their research on *Head and Neck Manifestation of Chemical Warfare Agent in Iranian Veterans*. Over a two-year period, Zojaji Ramin and H Sadeghi from Azad Medical University, Tehran, and M Balali-Mood of Mashad University examined 43 veterans who were exposed to chemical weapons during the Iran-Iraq war. The research team conclude that mustard gas is responsible for a wide range of symptoms which can be categorized into three groups: direct irritant effect on the skin and mucosal surfaces such as eyes and the respiratory tract; systemic abnormalities like neuromuscular complications and impairment of cellular and humeral immunity which result in infections, septicemia; and carcinogenicity.

26 September In the Netherlands, an appeals court reduces to four months the sentence of a former Danish intelligence agent who, before the US-led invasion of Iraq, leaked to the Danish newspaper *Berlingske Tidende* a document which stated that there was “no reliable information on operational weapons of mass destruction” in Iraq [see 14 Apr 04]. Frank Grevil, who was subsequently fired from his job and sentenced to six months imprisonment, claimed that he

was performing a public service by publicising the document.

26 September French defence-electronics group Thales SA issues a statement denying allegations made by a former company executive that it paid millions of US dollars in bribes, and sold chemical weapons to the former Iraqi regime. In an earlier interview with the Paris *Le Monde*, former Chief Executive of Thales and Engineering and Consulting Michel Josserand said: “I estimate that Thales must pay out between 1 percent and 2 percent of its global revenue in illegal commissions... [It] sidestepped the (UN) Oil for Food Program and delivered chemical weapons to Saddam Hussein's government.” *Le Monde* reported that Josserand told police investigators that the company took part in the construction of an Iraqi chemical-weapons plant disguised as a factory that made baby's milk powder. In an interview with the Associated Press Thales spokesman Christophe Robin says: “We never broke the embargo... Thales does not produce chemical weapons. Thales completely denies these unfounded and dishonest allegations.”

26 September-7 October In Helsinki, a course for representatives of laboratories in countries that are party to the CWC is held at the University of Helsinki (VERIFIN). The course, which is jointly organized by VERIFIN and the OPCW, aims to enhance the practical skills of participants in analysing chemicals related to the CWC through techniques such as gas chromatography-mass spectrometry. [See also 5-9 Sep]

27-30 September At OPCW headquarters, the Executive Council convenes for its forty-second [see 28-31 Jun] session.

28 September US President George Bush issues an order to waive specific restrictions of the Arms Export Control Act, thus allowing US companies to engage in the demilitarization of Libya's stockpile of chemical weapons. The Act prevents US companies from exporting defence-related equipment to Libya on the grounds that the US designates Libya a state sponsor of terrorism. The move follows the decision by Libya to abandon its chemical weapons programmes [see 19 Dec 03].

28 September The US Department of Health and Human Services (DHHS) and the Department of Homeland Security (DHS) promulgate the final rule implementing the food facilities registration provision of the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. It confirms the interim final rule on food facility registration that DHHS and DHS issued two years ago [see 9 Oct 03]. Information provided to the Food and Drug Administration under the rule will assist it in identifying and promptly locating food processors and other establishments, in the event of deliberate or accidental contamination of the food supply.

28 September In Charlottesville, USA, a federal judge orders that new tests be conducted on a substance used to convict a former University of Virginia neurologist for possession of ricin for use as a weapon [see 31 Jul 98]. Raymond Mettetal, who spent seven years in prison before an appeals court cleared him, applied to the court for the substance to be analysed again, saying that the substance was not toxic. He was arrested on the campus of Vanderbilt University in August 1995 disguised and carrying a syringe of saline solution in a briefcase. Federal prosecutors argued that he had devised a plan to kill his former mentor, the chairman of Vanderbilt's neurosurgery department George Allen. Mettetal claimed he was only acting out a fantasy.

28 September-1 October In Kampala, there is a conference on *The Global Bargain for Biosecurity and Health*. The purpose of the conference, which is attended by scientists, lawyers, government officials and law enforcement officials, is to discuss the ways in which security against biological weapons and the promotion of global public health complement each other. In this context, the development of international law to protect against the spread of disease, oversee scientific research, and criminalize the misuse of pathogens is also discussed. The conference is organized jointly by the International Law Institute, Kampala, and the International Consortium for Law and Strategic Security, California.

29 September In the US House of Representatives, the Subcommittee on International Terrorism and Nonproliferation of the Committee on International Relations holds a hearing on *Evolving Counterterrorism Strategy*. The hearing examines the evolving nature of the terrorist threat and how to update the *National Security Strategy for Combating Terrorism* [see 030214]. It is the first of two hearings to be held by the Subcommittee on the subject of the US counterterrorism strategy.

29 September The Toronto *National Post* reports a recent intelligence assessment by the Canadian Integrated Threat Assessment Center as warning that materials needed to manufacture chemical, biological and radiological weapons "are readily available on the open market". The assessment continues: "The pre-eminent terrorist threat to North America emanates from the jihadist movement and Muslim extremist sympathizers who may take up jihadism or support terrorist operations."

30 September-2 October At Wiston House in the UK, there is a Wilton Park conference on *CBW Proliferation: Developing New Responses*, convened in cooperation with the Chemical and Biological Arms Control Institute, Washington, DC. The purpose of the conference is to discuss how the regimes against CBW can be strengthened; the initiatives needed with regard to BW in 2006; how the acquisition of CBW by terrorists can be prevented; additional means to end covert BW programmes in some countries; to get industry more involved; and the implications of technological change for CBW non-proliferation.

October The US Department of State, Bureau of Verification, Compliance and Implementation, releases a 'Case Study' on *Yellow Rain*, which relates to the alleged use of chemical weapons in Laos, Cambodia and Afghanistan in the 1970s [see 15 Feb 91]. The study "focuses attention on some of the difficulties that can arise during an investigation, including problems in obtaining good data, the challenges in confirming use and reaching an attribution determination in the absence of such data". It states: "Recent non-governmental reanalysis of the Yellow Rain investigation suggests that while the evidence most strongly supports the hypothesis that chemical/toxin attacks occurred in Southeast Asia and Afghanistan, the scientific evidence is not strong enough to answer with certainty questions regarding the composition of the agent, the intent of use, or whether the agent originated in the former Soviet Union... The difficulty in reaching a conclusive finding on the Yellow Rain investigation derives from multiple challenges faced by the original team assigned to determine if the CBW allegations were true... The investigation into allegations of CBW use in Southeast Asia and Afghanistan serves as an important case study for examining the challenges of proving or disproving use, assigning

attribution and enforcing compliance... Some of the larger unresolved issues raised by the Yellow Rain investigation include the level to which it is important to coordinate with experts in academia and industry – particularly in areas where government expertise is limited; the potential for Nongovernmental Organizations (NGOs) to provide important information regarding allegations of use; and the level of international coordination necessary to successfully conduct an investigation."

3 October Russia Ren TV reports that the Office of the Prosecutor for the Saratov region is investigating the discovery by a villager in Ivanovka of a corroded munitions shell containing an unknown poisonous substance in a pile of manure and earth in late September. A few hours after the shell was exploded, twelve of those participating in the operation were taken to hospital to be treated for poisoning; seven are still undergoing treatment. Interviewed for the report, Vladimir Mandych, an expert with Saratov military institute of protection against radiation and chemical and biological weapons says all the munitions of the type discovered were destroyed in the late 1950s and early 1960s. Therefore, "this shell belongs to World War Two", says Mandych. However, Lev Fedorov, president of the Union for Chemical Safety says the shell cannot date back that far since "everything manufactured during the war and for war purposes has long perished or become rotten".

3 October In the UK, the Decontamination Service – the function of which is to provide advice and guidance regarding decontamination of buildings and the environment after a chemical, biological, radiological or nuclear (CBRN) incident – officially commences operations. The Service, which is an executive agency of the Department for Environment, Food and Rural Affairs (DEFRA), was established under the CBRN Resilience Programme which is led by the Home Office [14 May 04].

3-13 October In Paris, the second [see 20-30 Jun] basic CWC course for national authorities takes place. It is financed in part by the French government in support of the OPCW action plan relating to the implementation of Article VII obligations. The purpose of the course is to review all aspects of the CWC's effective national implementation, including a detailed review of the CWC and the functioning of the OPCW. Representatives of the following 22 CWC parties attend: Antigua and Barbuda, Bangladesh, Belarus, Botswana, Dominica, Gabon, Indonesia, Jordan, Kazakhstan, Kiribati, Macedonia, Mali, Mexico, Moldova, Peru, Sao Tome and Principe, Senegal, Serbia and Montenegro, Sri Lanka, Trinidad and Tobago, United Arab Emirates and Yemen. Also attending are representatives from three CWC signatories — Comoros, Guinea-Bissau and Haiti, from Angola, and from an unidentified country that has neither ratified nor acceded to the CWC.

4-5 October In Rome, a seminar takes place to mark the tenth anniversary of the ratification by Italy of the CWC, organized by the Italian Ministry of Foreign Affairs. In his keynote address, OPCW Director-General Rogelio Pfirter acknowledges the contributions Italy has made in support of the implementation of the Convention, in particular for its support for other parties in destroying their declared chemical weapons stockpiles; its provision, through the OPCW's Associate Programme, of training in industrial best practices to parties whose economies are developing or in transition; and for providing training to the OPCW's inspectors.

4-5 October At OPCW headquarters, there is a workshop for customs authorities on the technical aspects of the implementation of the Chemicals Transfer Regime under the CWC. It is funded by the European Union's Joint Action Plan, which, amongst other things, provides support to OPCW activities that aim to enhance the effective implementation of the Convention. Attending the workshop are eighty-two representatives from fifty CWC parties, as well as representatives from the UN Environmental Programme (as a representative of the Green Customs Initiative), the World Customs Organisation and the Port Authority of Rotterdam. In his opening address to the workshop, OPCW Director-General Rogelio Pfirter says that the workshop aimed to improve the understanding of senior customs authorities of the requirements of the CWC, particularly with regard to provisions relating to the import and export of relevant chemicals.

6 October US researchers working on the 1918 Spanish influenza virus report in the journal *Nature* the coding sequences of the three viral polymerase genes, thus completing the determination of the entire coding sequence of the eight segments of RNA that comprise the genome of the virus. The team of six scientists at the US Armed Forces Institute of Pathology, led by Jeffery K Taubenberger, found that the three polymerase sequences differ but slightly from avian consensus sequences, with only ten out of more than 2,000 amino acid positions consistently distinguishing the 1918 and other human influenza strains from the H5N1 strain of the virus currently circulating in domestic and wild birds in Asia which has also infected humans. Taubenberger and others have been working since 1995 to piece together the complete coding sequence of the 1918 flu virus, working mainly with virus fragments recovered from the lung tissues of an Alaskan influenza victim who had been buried in permafrost in November 1918.

The next day, the journal *Science* publishes a report by a team including Taubenberger and Terrence M Tumpey of the US Centers for Disease Control and Prevention describing the synthesis, reconstitution and testing in mice of the 1918 influenza virus. Its synthesis was based on the previously determined complete viral coding sequence, including the polymerase gene sequences cited above. The reconstituted 1918 virus, when administered to mice by intranasal inoculation, was found to be extraordinarily virulent and rapidly lethal.

6-7 October In Addis Ababa, a workshop to promote the universality and implementation of the CWC takes place. Its purpose is to demonstrate the legal, administrative and enforcement mechanisms of the CWC regime, as well as the benefits to be derived from OPCW membership through the programmes for protection and assistance. Attending the workshop – which is jointly organized by the Ethiopian government, the African Union and the OPCW – are representatives from the following African countries that are preparing to join the CWC: Angola, Central African Republic, Congo, Comoros, Djibouti, Egypt, and Guinea-Bissau. Also attending are representatives from six CWC parties, i.e. Bulgaria, Ethiopia, Kenya, Malawi, Sudan, and Tunisia. Representatives from the European Union, and the UN Department for Disarmament Affairs also attend.

7 October In London, former UNSCOM inspector Scott Ritter [see 18 Jul 01 and 8 Sep 02] gives a presentation on *Iraq as an Intelligence Success and Policy Failure* at the Royal Institute of International Affairs, Chatham House. The theme of the presentation is that the US intelligence services were aware that the USA had no case to invade Iraq based on intelligence relating to Iraqi WMD and so had to 'shape' the intelligence to fit the administration's policy of regime change.

7 October In Maryland, a chemical defense research facility at Aberdeen Proving Ground enters into service. The \$46 million facility – which is part of the Edgewood Chemical Biological Center – will study, amongst other things, detection, protection and decontamination equipment against nerve, blister and blood agents. Director of Center's Advanced Planning and Initiatives Jeffrey Hinte says: "Our job is to prevent technological surprises... We focus on the nonmedical aspects of the Chemical Biological Defense Program."

8 October *The (London) Guardian* reports that it has obtained "a secret British intelligence document" which says that more than 360 entities in eight countries have "procured goods an/or technology for weapons of mass destruction programmes". The 17-page document, entitled *Companies and Organisations of Proliferation Concern*, was compiled by MI5 with a view to attempting to prevent UK companies inadvertently exporting sensitive goods or expertise to organisations covertly involved in WMD programmes. It warns against exports to entities in Iran, Pakistan, India, Israel, Syria and Egypt, and to beware of front companies in the United Arab Emirates, which is named as "the most important" of the countries where front companies may have been used. It also highlights concerns that companies in Malta and Cyprus could have been used as fronts for WMD programmes. The list of private companies, university departments and government organizations referred to was compiled two years ago.

9-13 October In the Ukraine, a chemical terrorism protection and assistance field exercise takes place at the Yavoriv Training Area near L'viv. Exercise 'Joint Assistance 2005' is planned and coordinated jointly by the Ukrainian government, NATO's Euro-Atlantic Disaster Response Coordination Centre (EADRCC) and the OPCW. More than a thousand assistance co-ordination, rescue and relief personnel, evaluators and support staff from the Ukraine, ten CWC parties, and nine Euro-Atlantic Partnership Council (EAPC) nations, participate in the exercise, which is the first to combine personnel and resources from both the OPCW and the EADRCC. The scenario for the exercise involves a series of terrorist attacks using a variety of improvised chemical weapons. During the exercise the teams assess the extent of the contamination, warn and evacuate the threatened population, search for victims and rescue them from contaminated areas, render specialized medical treatment for contaminated victims at a purpose-built field hospital, and train the local population in the use of personal protective equipment. In parallel with the relief effort, OPCW inspectors conduct an investigation of alleged use.

10 October In Canberra, Australian Minister for Foreign Affairs Alexander Downer releases *Weapons of Mass Destruction: Australia's Role in Fighting Proliferation* during a workshop on the subject of on-site inspection for the Comprehensive Nuclear-Test-Ban Treaty. The report "outlines Australia's multidimensional strategy to protect Australia and Australian interests from the threat of WMD proliferation". On the subject of chemical weapons proliferation, it says: "A few states are suspected of cheating on their CWC commitments by retaining undeclared chemical weapon programs and stockpiles. These states are able to do so in part because many of the chemicals used to produce chemical weapons are 'dual use'... North Korea and Syria – two states which are not members of the CWC – are suspected of having sizeable chemical weapon programs and stockpiles. Australia assesses that no country in South-East Asia or the South Pacific now has chemical weapons, although old unusable chemical-filled munitions from past conflicts have been found in some

countries.” More generally, in relation to countering the threat of WMD, the report states: “Australia will need to make full use of existing measures and help develop new measures to close the gaps in our defence against the spread of WMD. Bilateral, regional and global cooperation will be essential – WMD proliferation and the risk of WMD terrorism are global problems which governments cannot deal with in isolation.”

10 October At UN headquarters, OPCW Director-General Rogelio Pfirter addresses the First Committee of the General Assembly on the progress and developments in both chemical disarmament and the implementation of the CWC. He refers to a number of OPCW initiatives, including the efforts being made by parties to establish national infrastructure to detect, pursue and prosecute breaches of the Convention by their nationals within the jurisdiction of the party in question. In this regard, he says that the OPCW provides focused assistance to enhance national implementation, to identify areas for improvement, and to address perceived gaps as expeditiously as possible.

10-14 October In London, at the headquarters of the International Maritime Organization, the Conference on the Revision of the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (Convention) and the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (Protocol) is held. The Conference adopts two protocols: one to the Convention and one to the Protocol.

With regard to offences involving the chemical or biological weapons, the protocol to the Convention states:

“Any person commits an offence within the meaning of this Convention if that person unlawfully and intentionally ... when the purpose of the act, by its nature or context, is to intimidate a population, or to compel a Government or an international organization to do or to abstain from doing any act ... uses against or on a ship or discharges from a ship any explosive, radioactive material or BCN [biological, chemical or nuclear] weapon in a manner that causes or is likely to cause death or serious injury or damage ... or ... threatens, with or without a condition, as is provided for under national law [to use such a weapon] ... or ... transports on board a ship ... any BCN weapon, knowing it to be a BCN weapon ... or ... any equipment, materials or software or related technology that significantly contributes to the design, manufacture or delivery of a BCN weapon, with the intention that it will be used for such purpose... Any person also commits an offence within the meaning of this Convention if that person ... unlawfully and intentionally injures or kills any person in connection with the commission of any of the offences ... attempts to commit an offence ... participates as an accomplice in an offence ... organizes or directs others to commit an offence ... contributes to the commission of one or more offences ... by a group of persons acting with a common purpose...

“Each State Party shall take such measures as may be necessary to establish its jurisdiction over the offences set forth in [the Convention] ... in cases where the alleged offender is present in its territory and it does not extradite the alleged offender to any of the States Parties which have established their jurisdiction in accordance [with the Convention].”

In defining offences involving chemical or biological weapons, the protocol to the Protocol follows the wording of the protocol to the Convention with “fixed platform” substituted for “ship” and with the omission of the offence of knowingly transporting such a weapon or any equipment, etc relating thereto on board a ship. As with the Convention, the Protocol also requires each State Party to establish jurisdiction over the offences. Additionally, it requires State Parties to “take such

measures as may be necessary to establish its jurisdiction over ... offences ... when the offence is committed ... against or on board a fixed platform while it is located on the continental shelf of that State ... or ... by a national of that State”.

12 October In Dunhua, in north-eastern China’s Jilin province, a team of Japanese chemical weapons experts commence excavating chemical munitions abandoned by the Japanese Imperial Army during the Second World War. According to *China Daily*, Japan estimates that its Imperial Army abandoned more than 700,000 chemical munitions in China during the war – although Chinese experts put the figure at nearer two million – the bulk lying buried in Jilin province. The operation in Jilin province is expected to last for six weeks. One day previously, Japanese Cabinet Office Vice-Minister Takeshi Erikawa arrived in China to commence a five-day official visit.

The next day, following a visit by Erikawa to a chemical weapons burial site in Dunhua, Chinese Foreign Ministry spokesman Kong Quan criticizes Japan for not providing enough information on the location of the munitions. “Why go to this place?” he says. “The Chinese side has always been asking the Japanese side to provide places where chemical weapons were abandoned during its invasion of China, but Japan has never been able to do this.”

12 October The Democratic Republic of the Congo deposits its instrument of ratification of the CWC with the UN Secretary-General. In thirty days, the Democratic Republic of the Congo will therefore become the 175th [see 16 Sep] party to the Convention.

12 October At UN headquarters, the sixtieth session of the First Committee (Disarmament and International Security) of the General Assembly unanimously adopts a draft resolution on the implementation CWC. The resolution emphasizes that the universality of the Convention will contribute further to enhancing international peace and security and stresses that its full and effective implementation, its provisions on national implementation, and on delivering assistance and protection, contributes to the global fight against terrorism. The resolution urges all parties that have not fulfilled their obligations under Article VII to do so without further delay.

13 October The Australian Safeguards and Non-Proliferation Office (ASNO) transmits to Minister for Foreign Affairs Alexander Downer its 2004-05 annual report. ASNO does not have a formal role with regard to the BWC and biological non-proliferation, but it uses its “technical and related regulatory expertise” to provide support. Regarding implementation of the CWC, the report states: “Australia provided accurate and timely annual declarations and notifications to the OPCW. Also, Australia was one of a limited number of CWC States Parties that met the March 2005 deadline for the main annual CWC Article VI declaration... During the reporting period, there was only one ... short-notice routine ... inspection in Australia, a reduction from the two or three annual number of expected inspections. In November 2004, the OPCW undertook a routine verification inspection of a declared discrete organic chemical facility producing phosphorous [*sic*], sulphur or fluorine compounds in Western Australia. Through ASNO facilitation and industry cooperation, the OPCW inspection team was able to readily verify the accuracy of Australia’s declaration and the absence of Schedule 1 chemicals, in accordance with the inspection mandate... In June 2005, Australia conducted its first table-top exercise designed primarily to test aspects of its own domestic preparedness to manage a challenge inspection. The exercise was organised by ASNO in conjunction with the Department

of Defence. It was enhanced by the participation of the former Deputy Director-General of the OPCW Technical Secretariat, Dr John Gee. Thirty representatives from relevant Australian Government agencies actively participated in the inspection exercise."

13 October UK Minister of State for the Armed Forces Adam Ingram says that the £15 million of financial assistance provided by the UK to Russia towards the construction of the Shchuch'ye chemdemil facility "is being used absolutely as intended", and that the UK plans to provide "at least" another £20 million, so reports ITAR-TASS news agency [see 8 Dec 04 and 19 Jan]. Making his comments during a visit to the Kurgan Region, where the facility is being constructed, Ingram says: "I have already seen the buildings that have been erected and other facilities, and I have been convinced that we have attained great progress here."

14 October In Nalchik, the main city in the north Caucasus republic of Kabardino-Balkaria, Russian Special Forces have used a "knockout gas" against militants at a souvenir shop where two women were being held hostage, according to Russian NTV. The incident followed two days of fighting that started after the militants attempted to seize control of the city by attacking police and government buildings. In total, 108 people have been killed during the clashes: 72 militants, 24 members of the Russian forces and 12 civilians. Footage of the souvenir shop being stormed shows members of the Special Forces donning helmets and gas masks immediately prior to effecting an entry to the shop using a battering ram. A relative of one of the women says in an interview that the woman had been hospitalized and was receiving an antidote to counter the effects of the gas. Meanwhile, in Nalchik, Deputy Internal Affairs Minister Andrei Novikov tells reporters that the alleged leader of the attack, Iless Gorchkhanov, has been killed.

14 October In the UK House of Commons, responding to a written question addressed to the Foreign Secretary regarding what discussions he has had with his US counterparts regarding exports of anthrax to Iraq from the USA prior to the 1990-91 Gulf War, Minister of State for the Foreign Office Kim Howells says: "We consulted the United States embassy in London, who noted that the export of anthrax from the United States to Iraq in the 1980's was subject to scrutiny by the relevant US authority. Export licenses were granted for the transfers in accordance with controls in place at the time. The quantities exported were consistent with the requirements of legitimate scientific research and the United States authorities judged that there was no reason to suppose that the materials would be used for anything other than legitimate scientific purposes, namely the manufacture of vaccines. Anthrax, in particular, is endemic in Iraq."

Six days later, Austin Mitchell MP again tables an Early Day Motion calling on the government to report the USA to the UN Security Council in accordance with Article VI of the BWC for having sold various pathogens to Iraq during the 1980s. The Motion refers to the Riegle Report and the fact that, included among the pathogens which the USA sold to Iraq, was the Vollum strain of *Bacillus anthracis* which the Iraq Survey Group determined had been the one used by Iraq in its biological weapons programme [see 6 Oct 04]. The Motion is tabled "in the light of [the government's] commitment in the April 2002 Green Paper, *Strengthening Biological and Toxin Weapons Convention* that, those at every level responsible for any breach of international law relating to the use of such weapons will be held personally accountable".

14 October In Ottawa, the Markland Group for the Integrity of Armament Treaties and Carleton University's Norman Paterson School of International Affairs (NPSIA) sign an agreement establishing the Markland Program. Director of the Canadian Centre for Treaty Compliance (CCTC) Trevor Findlay, formerly director of VERTIC, London, will head the Program, which will focus on researching and publishing on topics concerning compliance with armaments treaties. NPSIA established CCTC in March of this year.

17 October In the UK House of Commons, parliamentary questions about the 'ricin plot' [see 20 Sep] have continued to be tabled. The Foreign Secretary has been asked when he received the DSTL Porton Down report [see 15 Sep] concluding that the substance in question was not ricin, and when he informed the US government thereof. Foreign Office Minister of State Kim Howells now responds: "[DSTL] Porton Down did not send the report of these tests to the Foreign and Commonwealth Office." Two weeks later, responding to a written question addressed to the Foreign Secretary regarding the dates on which he informed the US administration that a substance that had been believed to be ricin was in fact not ricin, Howells says: "The Foreign and Commonwealth Office did not inform the United States that a substance believed to be ricin was discovered in an incident in the UK in 2003, or that the substance subsequently was found not to be ricin." [See also 29 Jun]

Later the Home Secretary is asked for more information about the (erroneous) initial detection of ricin. He replies: "Following the police raid on 5 January 2003, a pestle and mortar was found in the flat on 6 January 2003 and sent for analysis. An e-mail sent at 06:02 am on 7 January 2003 from the Terrorism and Protection Unit (TPU) to the Home Secretary's Office confirmed a notification received earlier that morning (no time, medium, source or recipient recorded) that the powder found inside the mortar was ricin – enough for one lethal dose."

18 October The US Senate Committee on Health, Education, Labor and Pensions approves a bill to create a federal agency that would be exempt from requirements to publish its records, with a view to expediting the development and testing of new drugs and vaccines for use against, amongst other things, a possible bioterror attack. In addition to establishing the Biomedical Advanced Research and Development Agency (BARDA), the legislation would also provide manufacturers with immunity from liability in exchange for their participation in the scheme.

18 October In Richmond, Virginia, the fourth US Circuit Court of Appeals allows Steven Hatfill to proceed with his libel lawsuit against *The New York Times* in relation to articles written by its columnist Nicholas Kristof in 2002 which, he claims, linked him to the anthrax mailings four years ago [see 15 Oct 01]. The court, in reaching a 6-6 decision with one judge not participating, failed to produce the majority required to grant a rehearing. An earlier decision by a panel of three judges to reinstate the case is therefore reinstated on the ground that, taken as a whole, Kristof's columns could be taken to be defamatory [see 28 Jul]. The *Times* had requested the court to reconsider the earlier decision. The case will now go back to the federal court in Alexandria, unless the *Times* files a motion asking the Supreme Court to hear the case. [See also 16 Sep]

18 October In San Diego, two Kurds have filed a class action in a federal court against Saddam Hussein and Ali

Hassan al-Majid on behalf of the Kurdish population affected by the Iraqi use of chemical weapons in northern Iraq between 1987 and 1989, so reports the Associated Press. The lawsuit, filed one week previously, claims unspecified monetary damages for the victims, and states that some of the money would be used to pay for treating and monitoring the medical condition of the victims. The Alien Tort Claims Act allows foreigners to file lawsuits in US courts for wrongs “committed in violation of the law of nations”.

19 October In Paris, during its thirty-third session, the General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO) adopts, by acclamation, the *Universal Declaration on Bioethics and Human Rights*. The Declaration “addresses ethical issues related to medicine, life sciences and associated technologies as applied to human beings, taking into account their social, legal and environmental dimensions”. Its purpose is, *inter alia*, to “provide a universal framework of principles and procedures to guide States in the formulation of their legislation, policies or other instruments in the field of bioethics”. Another of its functions is to “recognize the importance of freedom of scientific research and the benefits derived from scientific and technological developments, while stressing the need that such research and developments occur within the framework of ethical principles set out in [the] Declaration and that they respect human dignity, human rights and fundamental freedoms”. At its thirty-first session in 2001, the Conference invited the Director-General to submit “the technical and legal studies undertaken regarding the possibility of elaborating universal norms on bioethics”. On 13 June 2003, following a request by the Director-General, the International Bioethics Committee (IBC) reported on the *Possibility of Elaborating a Universal Instrument on Bioethics*.

19 October In the UK, the War Pensions Appeal Tribunal holds that uncertainty relating to the risk to volunteers from participating in Ministry of Defence mustard gas and nerve agents experiments at Porton Down in 1962 and 1963 caused a former UK service member substantial anxiety and stress. Accordingly, the tribunal awards Thomas Roche nearly £6,000 damages and £32,000 costs. In its ruling, the tribunal states that the lack of disclosure to Roche of his medical records, for which he had been fighting for the past forty years, breached his “right to respect for private and family life”. The ruling follows the decision by the High Court last year that the tribunal had “erred in law” in rejecting Roche’s application for a pension and therefore had to reconsider its earlier decision [see 8 Oct 04].

20 October In England, the written evidence provided by MI5 Director-General Elizabeth Manningham-Buller for the Law Lords hearing on the admissibility of evidence obtained through torture [see 20 Sep, and see also 17 Oct] is posted on the internet. This is what she had written about the value of “detainee reporting” in the ‘ricin plot’ case: “We treat such intelligence with great care, for two main reasons: detainees can seek to mislead their questioners, and, where the Agencies [MI5 and SIS] are not aware of the circumstances in which the intelligence was obtained, it is likely to be more difficult to assess its reliability. However, experience proves that detainee reporting can be accurate and may enable lives to be saved. Two examples that are in the public domain illustrate the value which this form of reporting can have. [...] *Meguerba*. (i) Intelligence provided by Mohammed Meguerba [see 29 Jun] to Algerian liaison was disclosed as unused material in the trial of *R v Bourgass and others*, which concerned allegations

of a plot to produce and use ricin poison in this country. (ii) I exhibit [...] a paginated bundle containing some of the intelligence material disclosed in that trial which came from Algerian liaison. I have limited it to the early exchanges. On 31st December 2002 (p 1) Algerian liaison passed on information that they had arrested Meguerba and that he had told them of a plot to use a fatal poison in London within “the next few days”. He described the poison as being hidden in two Nivea cream boxes at 12 Harrow Road Wood Green. That was a non-existent address. On 2nd January 2003 (p 2) they passed further detail of Meguerba’s description of the plot and, importantly, a detailed description of where the flat was located in which Meguerba said the poison could be found. That was an accurate description of 352, High Road London N22, an address which was confirmed by Algerian liaison on 4th January 2003 (p 3). On 8th January 2003 (p 4) Algerian liaison provided further information from Meguerba, both about the address and about the plot. Nadir, referred to in that document, was Bourgass. (iii) Acting on this information, the police made a number of arrests in January 2003 and executed a search warrant obtained against the flat described by Meguerba. No ricin was found there, but the following relevant finds were made:

- Three sets of recipes/instructions for the making of poisons/explosives
- A (partial) list of chemicals
- Small quantities of basic ingredients for the making of ricin and cyanide, namely castor beans, apple seeds and ground cherry stones
- Materials/equipment capable of use in the making of ricin and cyanide including:- (a) a bottle containing acetone (b) a bottle containing isopropanol (c) a pestle and mortar (d) a funnel (e) two packets of blotting paper (f) thermometers (g) rubber gloves (h) coffee mill (i) scales
- a Nivea jar containing a substance which was an apparent attempt to make a form of nicotine poison
- items capable of being used in the making of explosives eg batteries, bulbs

(iv) Bourgass was subsequently convicted of attempted murder and conspiracy to cause public nuisance (in connection with ricin) and sentenced to 15 years’ imprisonment for attempted murder and 17 years’ imprisonment for the conspiracy, to run consecutively. He was also convicted of the murder of Detective Constable Stephen Oake, whom he attacked during the course of the search of a flat in Manchester [...] The other defendants in the trial, who were alleged conspirators, were acquitted.”

20 October The US Department of Health and Human Services publishes an interim final rule to add “reconstructed replication competent forms of the 1918 pandemic influenza virus containing any portion of the coding regions of all eight gene segments” to its list of select agents and toxins. The summary to the rule states: “We are taking this action for several reasons. First the pandemic influenza virus of 1918–19 killed up to 50 million people worldwide, including an estimated 675,000 deaths in the United States. Also, the complete coding sequence for the 1918 pandemic influenza A H1N1 virus was recently identified, which will make it possible for those with knowledge of reverse genetics to reconstruct this virus [see 6 Oct]. In addition, the first published study on a reconstructed 1918 pandemic influenza virus demonstrated the high virulence of this virus in cell culture, embryonated eggs, and in mice relative to other human influenza viruses [see 6 Oct]. Therefore, we have determined that the reconstructed replication competent forms of the 1918 pandemic influenza virus containing any portion of the coding regions of

all eight gene segments have the potential to pose a severe threat to public health and safety.” The addition, which takes immediate effect, requires entities that intend to possess, use, or transfer the agent to either register as required, or to amend their current registration. An entity may also be required to submit additional information involving the proposed work.

20-21 October In Moscow, there is the second [see 26-27 Oct 04] international conference on *Molecular Medicine and Biosafety*, which includes a training session on *Bioterrorism: Possible Objects for Affection and Counteraction Methods*. Incorporated into the conference, which takes place at the I M Sechenov Medical Academy, is a special session to mark the eightieth anniversary of the signing of the 1925 Geneva Protocol and the thirtieth anniversary of the entry into force of the BWC. The event is sponsored by the Ministry of Health and Social Development, the Russian Academy of Sciences, the Russian Academy of Medical Sciences, the I M Sechenov Moscow Medical Academy, the International Science and Technology Centre and TEMPO (a non-commercial partnership).

20-21 October In Abuja, Nigeria, the third [see 19-20 Oct 04] regional meeting of national authorities of CWC parties in Africa takes place. More than forty representatives from twenty-four CWC parties attend the meeting, which is organized jointly by the Nigerian government and the OPCW. Also attending are observers from the Congo – a signatory to the Convention [see 12 Oct] – and two non-parties – Angola and Liberia. The purpose of the meeting is to provide a platform for the collective promotion of the goals of the CWC – an aim expressed at the two previous meetings of African national authorities. It provides an opportunity for personnel involved in the national implementation of the CWC to strengthen their implementation support network and to further their discussions of the implementation-related issues from their previous meetings.

21 October Canadian Foreign Affairs Minister Pierre Pettigrew announces that Canada will contribute \$55 million towards the purchase of essential equipment for the destruction of around 1.9 million artillery shells containing nerve agent at the Shchuch'ye chemdemil facility. The contribution is part of Canada's overall commitment to pay up to \$1 billion dollars over ten years under the Global Partnership against the Spread of Weapons and Materials of Mass Destruction [see 26-27 Jun 02]. The project will be managed in partnership with the UK Ministry of Defence. [See also 19 Jan and 7 Feb]

21 October The US Department of the Treasury designates eight North Korean entities under an executive order aimed at proliferators of WMD [see 28 Jun], the effect of which is to prohibit all transactions between the entities and any US persons, and to freeze any assets the entities may have under US jurisdiction. The entities designated are: Heson Trading Corporation, Korea Complex Equipment Import Corporation, Korea International Chemical Joint Venture Company, Korea Kwangsong Trading Corporation, Korea Pugang Trading Corporation, Korea Ryongwang Trading Corporation, Korea Ryonha Machinery Joint Venture Corporation and Tosong Technology Trading Corporation.

21 October In Washington, DC, the Fletcher School of Law and Diplomacy holds a conference on *The Proliferation of Weapons of Mass Destruction*. Speaking at the conference, Under-Secretary of State for International Security and Arms Control Robert Joseph says: “Many of the tools we have

in place to combat proliferation by rogue states are just as relevant against WMD terrorism [e.g.,] improved nuclear and biological detection capability; and the interdiction of illicit traffic in nuclear and biological materials... While many of the tools are the same, preventing WMD terrorism requires different approaches from those we have followed against state WMD programs or against conventional or non-WMD-related terrorism. Intelligence collection and action against the two have in the past been quite different, with anti-terrorist intelligence focused on individuals and groups, and anti-WMD intelligence focused on state-based programs.”

24 October Syria is pursuing “an innovative chemical warfare programme in co-operation with Iran [further to an Iranian contractual commitment], made to Syria a few months ago”, according to *Jane's Defence Weekly* quoting an unidentified “diplomatic source”. Iran, it is reported, will assist Syria in the planning, establishment and pilot operation of about four or five facilities throughout Syria for the production of precursors for VX and sarin nerve agents and mustard blister agent. With Iranian help Syria, it is reported, hopes to acquire an independent production capability of precursors for producing chemical warfare agents, which it has thus far been unable to achieve. The source is quoted as saying: “This project is unprecedented and millions of US dollars have been allocated to implement it... The project includes building major facilities, including advanced equipment to produce tens to hundreds of tonnes of chemical warfare precursors per year that are sufficient for chemical warfare industrial manufacturing pilot production.”

25 October In Dallas, Texas, the fifth Circuit Court of Appeals upholds the convictions of former Texas Tech University professor Thomas Butler [see 1 Dec 03]. Butler is currently serving a two-year prison sentence after being convicted two years ago on forty-seven of sixty-nine charges primarily relating to contract related crimes including theft, fraud, embezzlement, mail fraud and wire fraud [see 10 Mar 04]. The charges stemmed from a federal investigation after Butler reported that thirty vials of plague-causing bacteria were missing from the university [see 15 Jan 03]. The court rules thus: “[T]he district court did not commit reversible error by refusing to sever the contract counts from the plague counts. Moreover, the district court made appropriate discovery and evidentiary rulings. Also, there was sufficient evidence supporting Butler's convictions under the contract counts and the plague counts.” Following the hearing, Butler's attorney, Jonathan Turley, says: “The only thing he is accused of is contract disputes with Texas Tech University. The more serious charges of the plague accounts have been dropped... We anticipated this decision, and have been ready all along to take this case all the way to the Supreme Court.”

Seven weeks later, the Associated Press quotes an unidentified “federal prison system official” as saying that Butler will be released on 2 January 2006.

25 October The US National Nuclear Security Administration of the Department of Energy has withdrawn its funding request for FY 2006 for research into the Robust Nuclear Earth Penetrator (RNEP), according to Senator Pete Domenici. The Associated Press quotes an unidentified administration official as confirming that a decision had been taken to focus on a non-nuclear bunker-buster. Earlier, the House of Representatives rejected a \$4 million request by the department for FY 2006 following approval of the request by the Senate [see 7 Jun]. It was the second year running that Congress refused to grant funding for the programme. [See also 27 Apr]

25-26 October In Washington, DC, the Institute of Medicine of the National Academy of Sciences convenes a workshop on *Protecting against Foodborne Threats to Health*. Participants discuss the following topics: globalization of the food supply; the burden of illness associated with foodborne threats to health; the food supply "threat" spectrum – case studies; and, regulatory responsibility – domestic and international threat reduction research and policy opportunities. Among those making presentations is Milton Leitenberg, Senior Research Scholar, Center for International and Security Studies, University of Maryland, on the subject of *Botulinum Toxin: The Linkage with Bioterrorism*.

26-27 October In Leeds, UK, Jane's holds its eighth [see 19-20 Oct 04] annual Less-Lethal Weapons Conference, under the title *Breaking the Cycle of Violence – Saving Lives*. The conference – which brings together individuals from the military, police, academia and industry – is intended to facilitate debate on best practice and operational requirements at the same time as highlighting progress, policy and technology on the battlefield.

27 October In London, Hugh O'Shaughnessy and Sue Branford launch their book *Chemical Warfare in Colombia: the Costs of Coca Fumigation* at a public meeting organized for that purpose by the Latin American Bureau (LAB). LAB describes itself as "an independent research and publishing organisation [working] to broaden public understanding of issues of human rights and social and economic justice in Latin America and the Caribbean".

27 October In the US House of Representatives, the Subcommittee on International Terrorism and Nonproliferation of the Committee on International Relations holds a hearing on *US Counterterrorism Strategy Update*. Testifying before the Committee is the Coordinator for Counterterrorism at the Department of State, Henry A Crumpton. It is the second of two hearings held by the Subcommittee on the subject of the US counter-terrorism strategy [see 29 Sep].

28 October At UN headquarters, during the sixtieth session of the First Committee of the General Assembly, UK Ambassador John Freeman issues, on behalf of the European Union, the following 'Explanation of Vote' relating to a draft resolution on the BTWC: "The EU would like to take this opportunity to reiterate its commitment to the BTWC Review Process ... as well as its support for all decisions of the 5th Review Conference of BTWC States Party, including that the 2006 Review Conference will consider the work of the meetings of States parties and meetings of experts and decide on any further action."

28-29 October In Heidelberg, the sixth European Molecular Biology Organizational (EMBO) / European Molecular Biology Laboratory (EMBL) joint conference on Science and Society takes place. Topics discussed, on the issue of *Science and Security*, include: preventing the misuse of biological knowledge; security and the freedom of research; science and technology of identification; and information technology in the knowledge society.

30 October The Newport (Virginia) *Daily Press* reports "newly released Army records" as stating that between 1944 and 1970 the US Army created at least 26 chemical weapons dumpsites off the coast of at least 11 states (six on the east coast, two on the Gulf coast, California, Hawaii and Alaska) – but knows the rough nautical co-ordinates of only half of these

sites. It reports that "at least 64 million pounds of liquid mustard gas and nerve agent in 1-ton steel canisters were dumped into the sea, along with a minimum of 400,000 chemical-filled bombs, grenades, landmines and rockets – as well as radioactive waste".

The next day, the *Press* refers to a 2001 Army report as stating that following the end of the Second World War the Army dumped chemical weapons at more than thirty sites off the coasts of more than eleven countries, including Italy, France, India, Australia, the Philippines, Japan, Denmark and Norway. The report states, however, that the Army cannot verify where all the dumpsites are located.

31 October UK Foreign Secretary Jack Straw responds – in the UK House of Commons – to a written question regarding the measures the UK plans to propose during its presidency of the European Union on countering the proliferation of WMD thus: "The European Union has provided further financial support to strengthen the ... [OPCW] and hopes to agree similar support by the end of our presidency to assist the effective implementation of the BTWC. We are drawing up plans with the Council Secretariat and Commission for work with a wide range of third countries to enhance export control measures. We are also working with the Council Secretariat, Commission and member states to revise the list of priorities for implementation of the EU WMD strategy [see 22 Nov 04] ahead of the European Council in December."

31 October In the UK House of Commons, replying to a written question addressed to the Defence Secretary as to, *inter alia*, which inoculations are both necessary and recommended for armed forces personnel before being deployed to Iraq, Minister for Veterans Don Touhig states that the "anthrax voluntary immunisation programme" requires a booster at an interval of one year (from a six-month booster), three vaccinations over a course of six weeks, followed by another six months thereafter. He states that the cost per person per dose (including Value Added Tax) is £124.00.

31 October In London, the War Pensions Appeals Tribunal, in a reserved judgment, rules that Gulf War Syndrome (GWS) exists as an "umbrella term" inasmuch as it covers specific symptoms and conditions attributed to service in the 1991 Gulf War. It says that it is "highly regrettable" that it has taken the MoD so long to acknowledge the existence of GWS and questions "whether the acceptance may have been earlier by at least one year if they had attended and given evidence at the Lloyd inquiry [see 17 Nov 04]". It continues: "Fourteen years after the end of the Gulf War, the [Ministry of Defence] has conceded the validity of the label GWS... It is not for this tribunal to ascertain why such a late concession was made, but the kindest comment that can be made is that the lateness of this concession was unfortunate." The case before the tribunal involved former trooper Daniel Martin, who claimed his asthma, anxiety and memory loss were symptomatic of GWS. Although the tribunal accepts that GWS is "the appropriate medical label", it holds that Martin failed to produce reliable evidence to satisfy the burden of proof that GWS is "a discrete pathological entity".

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

Book Reviews

Ian Kenyon

Biological weapons: From the invention of state sponsored programs to contemporary bioterrorism, Jeanne Guillemin, Columbia University Press, 2005.

The Biological Weapons Convention: A failed revolution, Jez Littlewood, Ashgate, 2005.

Toward a containment strategy for smallpox bioterror: An individual-based computational approach, Joshua M Epstein, Derek AT Cummings, Shubha Chakravarty, Ramesh M Singha, and Donald S Burke, Brookings Institution Press, 2004.

Jeanne Guillemin states that her object in writing *Biological weapons: From the invention of state sponsored programs to contemporary bioterrorism* is to offer the reader basic literacy in a complex area which combines knowledge from disparate fields: biology, medicine, military history, politics, law, and ethics. This she does well. Anyone coming new to this area of study will find here, in the compass of some 200 pages, a remarkably comprehensive overview from the relatively primitive attacks on draft animals by German saboteurs in WW1; through the allied programmes of WW2 and the Cold War; the US renunciation of biological and toxin weapons; the 1972 Biological Weapons Convention and the secret Soviet activities in direct breach of that instrument; the more recent activities in Iraq; and the first appearance of non-state actors, first Aum Shinrikyo in Japan and then the anthrax letters in the United States. The material is well controlled as the author, within an overall chronological framework, separates out the various threads, following each to a logical break before switching to another. Nor is this a dry retailing of the facts alone. The author's views of the immorality of the protection from war-crimes prosecution of the leaders of the WW2 Japanese programme and the stifling of political debate through the secrecy applied to the post WW2 US programme are cogently expressed. The final section of the book makes very clear the continuing dangers potentially posed by biological weapons as biotechnology continues its advance and the difficulties for non-proliferation efforts as long as the bio-industries are allowed to put commercial secrecy before the transparency which is essential to public safety.

Jez Littlewood has opted for a far more limited compass but an equally difficult task of condensing and organising his material to provide a guide for students of international affairs. The "failed revolution" of his title was the attempt by a portion of the arms control community, primarily state representatives but strongly supported by the academic and activist non-governmental organisations, to move from the previous incremental approach to propping up the 1972 Biological Weapons Convention to the negotiation of a new, legally binding Protocol which would cure its shortcomings. The first part of the book provides the background to the negotiation of the BWC; why it was flawed from the outset; the attempts

through 'politically binding' decisions of the quinquennial Review Conferences to alleviate some of the failings by 'confidence building measures'; the expert group to examine possible means of verification (VEREX); and the Special Conference which mandated the Ad Hoc Group to carry out the Protocol negotiations. The meat of the book is in the second part where the main themes, each of which came to form the basis of a different article of the Protocol draft, are analysed — the initial problem, described from the perspectives of the different players; the initial positions; the compromises; the evolution of the working draft (in Geneva jargon 'the rolling text'); and the position finally reflected in the Chairman's 'composite text'. A degree of clarity is introduced by the device of dividing positions into *reformist* and *minimalist*, the former comprising new requirements and the latter attempts to defend the *status quo*, although it is made clear that individual government delegations could be in the progressive camp on one issue whilst supporting reaction on another. The author has done an amazing job in distilling six years of intensive diplomatic efforts with a spectrum of national positions and with severe differences of view between traditional allies into a clear and comprehensible set of chapters of modest length. The final section, covering the abrupt end of the negotiations and the subsequent efforts to find new ways forward, makes it clear that the Protocol was not particularly close to completion in August 2001, many difficult issues were still unresolved, and that, although the United States government took the heat, they were by no means alone in being unable to accept the value of the text as it stood at the end. The author concludes with a sobering reflection on the continuing and potentially increasing dangers posed by the possibilities for misuse of biotechnology and the collective responsibility of the international community for actively seeking solutions.

By contrast to the other two publications *Toward a containment strategy for smallpox bioterror: An individual-based computational approach* by Epstein et al is a slim pamphlet of some fifty pages but none the less valuable for that. Brookings have taken what could have been a dry, statistical academic paper and by excellent design and presentation, including coloured graphs and diagrams, turned it into an easily understood and important contribution to the subject of preparedness for bioterrorism. The authors have used a computer model to demonstrate the probable effect of different vaccination strategies on the containment of an outbreak of highly contagious disease. They also show that requiring families of victims to isolate themselves at home, even without vaccination, can be a highly effective strategy. This last finding could have real benefit for natural outbreaks of diseases for which there are no vaccines, such as SARS or the feared human infective variant of avian influenza. Whilst the models used in this research are of necessity simplistic, the conclusions drawn make eminent sense. Meanwhile the authors are moving on to larger and more sophisticated models. They should have our full support in their endeavours.

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About Bulletin 69+70

We apologise for this double issue: for the fact that it *is* a double issue, and for the continued absence of *Progress in The Hague: Developments in the Organization for the Prohibition of Chemical Weapons*, a feature our recent surveys have shown to be valued by many (if not all) of our readers. Still, we are able to point with satisfaction to two new features. One is *Comment*, where the nature and implications of substantial new developments are described by leading practitioners in the field, to the extent that they are free to do so. The other is the *Book Reviews* feature.

The topic inaugurating the *Comment* feature is a development that has passed largely unnoticed in the outside world but which promises to add strength to the suppression of chemical-warfare weapons and also to suppression of some of the weapons that fall within the scope of the Biological Weapons Convention. On 11 November 2005, building upon an achievement of the First CWC Review Conference in May 2003, member-states of the OPCW agreed a plan, *Follow-up to the Plan of Action Regarding the Implementation of Article VII Obligations*, to hold those members publicly to account who have failed fully to act on the most fundamental of all the CWC obligations, those spelt out in Article VII National Implementation Measures, that the terms of the treaty be implemented nationally and effectively by each and every one of its parties. The obligation has existed since the CWC entered into force a decade ago; giving it special salience now is the concern of many states parties that none should

unwittingly constitute a source of supply or assistance to terrorists seeking toxic weapons. More importantly, the new plan promises to invigorate the CWC, strengthening the basic norm that it establishes.

HSP Advisory Board member Ian Kenyon, the former UK diplomat who was Chief Executive of the team tasked so successfully with converting the text of the CWC into an international organization overseeing the treaty's implementation, inaugurates the *Book Reviews* feature. The policy underlying it is that the items under review should be of outstanding interest and quality, and that the review should explain why such has been judged the case as pithily as possible and without necessarily summarizing the contents. That way we hope our reviews will draw readers to texts that ought to be read widely. Such texts are rare enough anyway and often hard to discern within the current flood of publication. Included on the list for future review are publications that have in fact been available for quite some while.

One further feature of this issue should be noted here. In the box below we state that new *Bulletin* subscriptions for 2006 and beyond are not currently being taken. This should not be read to mean that we intend to cease publication. On the contrary: we believe that the service the *Bulletin* seeks to provide is now more necessary than ever. The statement means simply that there is now uncertainty about the financial future of the *Bulletin*.

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