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IMPACT OF THE CWC: PROGRESSIVE DEVELOPMENT OF CUSTOMARY INTERNATIONAL LAW AND EVOLUTION OF THE CUSTOMARY NORM AGAINST CHEMICAL WEAPONS

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Sources of law creating the norm prohibiting chemical weapons

The most authoritative statement on the sources and hierarchy of international law is set forth in Article 38 of the Statute of the International Court of Justice as follows: (a) international conventions; (b) international custom, as evidence of a general practice accepted as law; (c) general principles of law recognised by civilised nations; and, finally, (d) judicial decisions (without according them precedential value) and the teachings of the most highly qualified publicists of the various nations, as a subsidiary means for the determination of rules of law.

In the case of the prohibition of chemical weapons, the conventional norm has gone through several evolutions, each one formulating a stricter norm wider in scope and gaining a greater number of parties. The principal multilateral instruments in force specifically regulating asphyxiating gases¹ are: the 1899 Hague Declaration, the 1925 Geneva Protocol, and the 1993 Chemical Weapons Convention (the "Convention" or "CWC"), which expanded the scope beyond 'gas' to cover all conceivable types of chemical weapons agent. In addition, the use of asphyxiating gas in international armed conflict has been defined in the 1998 Rome Statute of the International Criminal Court (the "Rome Statute") as a crime falling within the jurisdiction of the Court.

Prescribing a norm by treaty has three separate effects: (a) it is the direct source of an international obligation; (b) it can constitute the codification of custom; and (c) in the case of law-making treaties, it can have an impact on and influence the progressive development of custom. This comment focuses on the prohibition of chemical weapons as a customary norm, distinct from the treaty norm.

As the most recent codification of the prohibition of chemical weapons, the CWC set forth a comprehensive ban designed to eliminate categorically chemical weapons, established the OPCW, and created the most innovative and com-

plex international verification regime ever: encompassing reporting obligations, intrusive international inspections, and trade restrictions. However, the Chemical Weapons Convention represents a novelty in the field of disarmament and arms control² and is very recent. At this point in time, what is the content of the rule as crystallized in custom and what might be developing under the Convention as emergent customary law? The number of states parties to the CWC is nearly universal and state practice consistently reflects respect for the treaty norms. As these factors persist, the impact of the CWC on customary international law could become markedly significant, particularly if states parties exercise treaty obligations vis-à-vis states not party.

The customary rule prohibiting use of chemical weapons in international armed conflict

The Preamble of the 1925 Geneva Protocol recognises that "the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices, has been justly condemned by the general opinion of the civilised world" and on that basis the treaty was concluded. Ultimately the Geneva Protocol as a treaty norm was weakened by the significant number of parties which reserved³ a right to retaliate in kind with chemical weapons, with the result that

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it essentially became a ban on first use of chemical weapons. Nevertheless, it has long been considered to be declarative of customary international law. In 1969, a majority of the United Nations General Assembly recognised that “the Geneva Protocol embodies the generally recognised rules of international law prohibiting the use in international armed conflicts of all biological and chemical methods of warfare, regardless of any technical developments.” In particular, it declared “as contrary to the generally recognised rules of international law ... the use in international armed conflicts of: (a) any chemical agents of warfare – chemical substances, whether gaseous, liquid or solid – which might be employed because of their direct toxic effects on man, animals or plants...”⁴

The CWC represents explicit codification of the customary rule in its broader sense. For example, the Preamble recognises that the Convention “reaffirms principles and objectives of and obligations assumed under the Geneva Protocol” and states the object and purpose of the Convention as being “determined for the sake of all mankind, to exclude completely the possibility of the use of chemical weapons, through the implementation of the provisions of this Convention, thereby complementing the obligations assumed under the Geneva Protocol...” The drafters of the Convention ensured that the new treaty norm could not be weakened by reservations,⁵ and would even survive withdrawal from the treaty.⁶

In short, there is no doubt that the prohibition of *use* of chemical weapons exists as a principle of customary law. The value of identifying the rule, distinct from the treaty obligation, is twofold. First, it is applicable to all states, even those which have not become party to the treaty. Second, parties to the treaty may not opt out of adhering to the rule by withdrawing from the treaty or by exercising their right to terminate or suspend the operation of the treaty on the ground of the violation by another party of a “provision essential to the accomplishment of the object or purpose of the treaty”⁷ because they are separately bound by the rule under customary international law.

The customary rule prohibiting use of chemical weapons in internal armed conflict

With the issue of chemical weapons in international armed conflict settled, the next question regards the content of the customary rule in respect of internal armed conflict. State practice consists not only of “external conduct” in respect of other states, but also the state’s internal conduct, including its national legislation, judicial decisions, diplomatic communications, government memoranda, and unilateral declarations (e.g., ministerial statements in parliaments and elsewhere).⁸ In 1995, the International Criminal Tribunal for the former Yugoslavia (the “ICTY”), in an *obiter dictum*, examined state practice and *opinio juris* and determined that the customary rule prohibits the use of chemical weapons by a state on its own population. Using the most recent publicised allegation of chemical weapons use (the 1988 chemical attack by Iraq on the Iraqi town of Halabja), the ICTY examined in detail the reaction of the United Nations Security Council and the international community to that attack and concluded:

“It is therefore clear that, whether or not Iraq really used

chemical weapons against its own Kurdish nationals – a matter on which this Chamber obviously cannot and does not express any opinion – there undisputedly emerged a general consensus in the international community on the principle that the use of those weapons is also prohibited in internal armed conflicts.”

Under Article I (“never under any circumstances”), the CWC represents codification of the evolved customary rule prohibiting the use of chemical weapons in internal armed conflicts.

Chemical weapons violations as international crime

Although the Tadić decision cited above was rendered in 1995 and the CWC had entered into force in 1997 and had already achieved wide adherence (112 states parties), in 1998 the drafters of the Rome Statute chose to define chemical weapons crimes in terms of the narrower Geneva Protocol and using its explicit language. The implications of that deserve special examination since the Rome Statute is one of the most significant steps achieved in international law in a century and presently has 92 parties, after entering into force on 1 July 2002. Article 8, paragraph 2(b), of the Rome Statute provides as follows:

“2. For the purpose of this Statute, “war crimes” means:

...

(b) Other serious violations of the laws and customs applicable **in international armed conflict**, within the established framework of international law, namely, any of the following acts: [...]

(xviii) Employing asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices.”

[Emphasis added]

The definition of the crime as set forth in the Rome Statute contains significant limitations. Under that definition, the International Criminal Court (“ICC”) would only have jurisdiction over cases involving the *use* of chemical weapons in *international armed conflict*, and based on the principle of complementarity.⁹ Cases involving the use of chemical weapons would not be prosecuted by the ICC if the act occurred in internal armed conflict (most of today’s conflicts) or was a terrorist act, unless the acts were on such a scale that they could be deemed to fall within the scope of the crime of genocide or crimes against humanity as defined by the Rome Statute.¹⁰ Further, the ICC does not have jurisdiction over the crimes of developing, producing, otherwise acquiring, stockpiling, retaining or transferring chemical weapons in any circumstances; engaging in military preparations to use chemical weapons; assisting, encouraging, or inducing in any way anyone to engage in any activity prohibited to a state party to the Convention; or using riot control agents as a method of warfare.

At the time the Rome Statute was adopted, 17 July 1998, the CWC had been in force for over a year and most CWC states parties participated in the final drafting and adoption of the Statute. The Rome Statute constitutes *opinio juris*. What are the implications of limiting the chemical weapons crimes to the language of the Geneva Protocol and excluding the acts which should be criminalized pursuant to the CWC? Is

the content of the customary rule still limited to the prohibition of use in international armed conflict? Arguably it is not. The Rome Statute is reflective of the consensus that could be reached by states in respect of *crimes for which they were willing to confer jurisdiction upon a permanent international criminal court*. Before an ad hoc tribunal, states may be willing to define the crimes more widely. In their own national jurisdictions, because almost all parties to the Rome Statute are CWC states parties, they are required to define the crimes to encompass the full scope of acts prohibited by the Convention. The argument that the narrow definition of the crimes is intended only for the purpose of conferring ICC jurisdiction is further strengthened by the Elements of Crimes adopted by the Assembly of States Parties to the Rome Statute at its first session, 3-10 September 2002. In that document, the elements of Article 8(2)(b)(xviii) are specified as: (1) the perpetrator employed a gas or other analogous substance or device; (2) the gas, substance or device was such that it causes death or serious damage to health in the ordinary course of events, through its asphyxiating or toxic properties; (3) the conduct took place in the context of and was associated with an international armed conflict; and (4) the perpetrator was aware of factual circumstances that established the existence of an armed conflict. The footnote to the second element stipulates that “Nothing in this element shall be interpreted as limiting or prejudicing in any way existing or developing rules of international law with respect to the development, production, stockpiling and use of chemical weapons.”¹¹

Thus, although the Rome Statute was adopted later in time, the broad rule as stated in the CWC seems to hold precedence and can be viewed as codification of the customary rule prohibiting the use of chemical weapons in both international and internal armed conflicts.

Separately, the ban can also be examined in light of its status as *jus cogens*, which are the pre-emptory norms of international law. One commentator notes that “The major distinguishing feature of such rules is their relative indelibility. They are rules of customary law which cannot be set aside by treaty or acquiescence but only by the formation of a subsequent customary rule of contrary effect.”¹² War crimes are considered to form part of *jus cogens* crimes and a few authors have even gone so far as to propose that the prohibition of use of chemical weapons explicitly forms part of *jus cogens* crimes. Two elements must be present for a crime to be *jus cogens*: (1) it must threaten the peace and security of humankind; and (2) it must shock the conscience of humanity.¹³ The advantage of recognising the norm as one of *jus cogens* is that it is non-derogable by all states under any circumstances (peace or war); the duty to prosecute or extradite (*aut dedere aut judicare*) becomes applicable, any statutes of limitations become inapplicable, the theory of universal jurisdiction applies, and states have the obligation *erga omnes* not to grant impunity to the violators.¹⁴ While it is clear that the prohibition against chemical weapons is non-derogable, this comment suggests that clearer determination on the part of states to prosecute those who use chemical weapons is necessary before it can be considered to be a *jus cogens* crime. Historically, such determination is not evident. “The gap between legal expectations and legal reality,”

as Bassiouni puts it,¹⁵ is omnipresent in cases of chemical weapons use. Perhaps the inclusion of the crime (albeit narrow in scope) in the Rome Statute is the first step towards its establishment as a *jus cogens* crime.

Further development of the customary rule by the CWC

As said above, the value of identifying the customary rule, distinct from the treaty obligation, is that (1) it is applicable to all states, even those who are not party to the CWC, and (2) parties to the CWC may not opt out of adhering to the rule by withdrawing from the treaty since they are separately bound by the rule under customary international law.

The reactions of the international community to alleged use of chemical weapons, whether in international armed conflict (the Iran-Iraq war, 1980-88), internal armed conflict (Halabja, 1988), or peacetime terrorism (the sarin gas attack by Aum Shinrikyo in the Tokyo subway, 1995) have all been negative.¹⁶ It is clear that *opinio juris* does not condone chemical weapon use in any circumstances and any incidents of state practice have been seen as shocking, unlawful acts.

However, the Convention sets forth much more than the prohibition of use. It also prohibits development and stockpiling and requires destruction of existing stockpiles (all of which are a logical consequence of a total ban on use). It prohibits the use of riot control agents as a method of warfare. Its non-proliferation element—including the Article I obligation not to “assist, encourage or induce, in any way, anyone” and the Article VI obligations concerning dual-use chemicals—prescribes trade restrictions against states not party, that is, implied export and import controls. Its extensive verification regime involves intrusion into state sovereignty by eliminating the right of states to refuse entry for international inspections. Article XXI does not permit reservations to the Convention’s articles, thus making these norms non-derogable.

Thus, some of the CWC provisions are clearly a codification of existing customary international law while other provisions are novel. The Convention sets forth the prohibitions in terms of “never under any circumstances” (Article I) and requires states to make the prohibitions enforceable nationally to all in its jurisdiction and extraterritorially in respect of its nationals (Article VII(1)). Consequently, the norms are binding during peacetime and during all armed conflict (both international or internal) and the norms are binding upon the state and all persons (natural or legal, thus covering acts by companies and all individuals, including terrorists¹⁷).

The International Court of Justice indicated in the *North Sea Continental Shelf cases*¹⁸ the criteria for state practice to form a rule of customary international law: (a) the amount of time the rule has been adhered to; (b) the number and type of states adhering to the rule (especially states having an interest affected by the rule); and (c) uniform state practice. In this respect it stated in paragraph 74 that:

“Although the passage of only a short period of time is not necessarily, or of itself, a bar to the formation of a new rule of customary international law on the basis of what was originally a purely conventional rule, an indispensable requirement would be that within the period in question, short though it might be, state practice, including that of states whose inter-

ests are specially affected, should have been both extensive and virtually uniform in the sense of the provision invoked; — and should moreover have occurred in such a way as to show a general recognition that a rule of law or legal obligation is involved.”

In terms of the first two elements, the Convention has been in force for a relatively short time (since 1997), but the states parties include all declared chemical weapons possessor states and nearly all states having a relevant chemical industry. Membership is also wide. The Convention, seven years after entry into force, has 161 states parties and another 21 signatory states, including all but 11 of the UN’s 192 member or observer states. In other words, 182 of the world’s states either adhere to the Convention as binding treaty law or, as signatory states, are under the obligation to refrain from acts which would defeat its object and purpose.¹⁹ Of the dozen or so states that have made no commitment to the CWC,²⁰ nine are party to the 1925 Geneva Protocol, thus adhering to at least the narrower norm.²¹ Seven participated in the 1989 Paris Conference on the Geneva Protocol and adopted the Final Declaration calling for a comprehensive ban on chemical weapons.²² Only two states remain formally uncommitted in any respect to the ban on chemical weapons, Niue and Vanuatu, and in their silence, especially with no reports of alleged use or stockpiling ever alleged against them, do not stand as persistent objectors to the ban. Could any of the other states not party be considered as persistent objectors to a customary ban? It appears that the majority of them have not adhered to the Convention for two reasons: (a) they are non-possessor states with little or no relevant chemical industry and whose governments attribute little political priority to adhering to the Convention; or (b) they refuse on principle to adhere to a treaty that requires renunciation of chemical arsenals but leaves nuclear arsenals untouched, particularly since Israel is not yet a state party.

On the third element, state practice under the treaty, consensus-building and interpretation continue in the treaty-implementing body, the OPCW. The decisions of the policy-making organs are drawing state practice into greater uniformity.²³ Implementing legislation is being adopted which will criminalize acts violating the Convention in at least 161 national jurisdictions. Over time this aspect may become the most significant feature.

Since entry into force of the treaty, a number of events can be examined to see whether the norms discussed above are beginning to become enforceable even against states not party.

In 1998, arguing self-defence, the United States bombed an alleged Chemical Weapons Production Facility (“CWPF”) in the Sudan, at that time a state not party to the CWC. Were the negative reactions of states solely limited to condemnation of the use of force? The United States only formally apologised to the Sudan after it discovered that its intelligence had been faulty and the plant was not a CWPF after all. Following that event, the Sudan adhered to the Convention in 1999. Had the Sudan been party to it in 1998, and had there been questions concerning its compliance with the treaty, in principle they would have been resolved through the mechanisms available in the OPCW, including the right to a chal-

lenge inspection. And indeed, in 2003, the United States made a statement during the First Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention (“the OPCW First Review Conference”) alleging that two states parties, the Islamic Republic of Iran and the Sudan, were actively pursuing chemical weapons programmes.²⁴ The Islamic Republic of Iran immediately exercised its right of reply, confirming its compliance with the treaty, and at the time of this writing, the United States has not pursued the matter further in the Conference of the States Parties. In 2003, the United Kingdom and the United States invaded Iraq in order to destroy its alleged weapons of mass destruction programme, including chemical weapons. Press reports reflect that this action was criticised by a number of states and by the public at large. At the time of this writing, no reports show that chemical weapons or other weapons of mass destruction (“WMD”) have been located in Iraq, fuelling the controversy over the legitimacy of the action taken. Given the international criticism, neither the case of enforcement against the Sudan nor Iraq can be said to constitute accepted state practice at this time. Acting upon a recommendation of the OPCW First Review Conference, the OPCW Executive Council adopted an Action Plan for the Universality of the Chemical Weapons Convention, which urged states parties to undertake further efforts to promote universality of the Convention.²⁵ Subsequently, following diplomatic negotiations by the United Kingdom and the United States, the Libyan Arab Jamahiriya joined the CWC in January 2004 and began destroying its chemical weapons stockpile under international supervision by the OPCW in February 2004.

Less controversial have been efforts by states to intercept WMD from air and seagoing vessels. In May 2003, US President Bush announced the establishment of the Proliferation Security Initiative (“PSI”), a multinational response (originally 11 states²⁶) to address efforts by proliferators of WMD to circumvent existing non-proliferation norms. The Statement of Interdiction Principles²⁷ states the commitments as, *inter alia*, to undertake effective measures, either alone or in concert with other states, for interdicting the transfer or transport of WMD, their delivery systems, and related materials to and from states or non-state actors of proliferation concern. “States or non-state actors of proliferation concern” are defined as countries or entities that the PSI participants have established should be subject to interdiction activities because they are engaged in proliferation through: (1) efforts to develop or acquire chemical, biological, or nuclear weapons and associated delivery systems; or (2) transfers (either selling, receiving, or facilitating) of WMD, their delivery systems, or related materials. Among the specific actions to be taken are: (a) not to transport or assist in the transport of any such cargoes to or from states or non-state actors of proliferation concern, and not to allow any persons subject to their jurisdiction to do so; (b) to board and search any vessel flying their flag to seize such cargoes; (c) to seriously consider providing consent to the boarding and searching of their own flag vessels by other states and to the seizure of such cargo; (d) to require suspect vessels in their ports, internal waters or territorial seas to be subject to boarding, search and seizure of such cargoes prior to entry; (e) to require suspect aircraft

transiting their airspace to land for inspection and seizure of such cargoes; and (f) if their ports, airfields or other facilities are used as transshipment points for shipment of such cargoes, to inspect suspect vessels, aircraft or other modes of transport. PSI has been reported to be consistent with G-8 efforts, including the Global Partnership Against the Proliferation of Weapons of Mass Destruction and the European Union Strategy and Action Plan Against Proliferation of Weapons of Mass Destruction.²⁸ Further to this initiative, it was announced that a PSI Ship Boarding Agreement was concluded on 11 February 2004 between the United States and Liberia, which is the second largest ship registry in the world. The agreement provides authority on a bilateral basis to board sea vessels suspected of carrying WMD, their delivery systems, or related materials.²⁹

In parallel, for the past year the International Maritime Organization has been revisiting the 1988 Convention on the Suppression of Unlawful Acts against the Safety of Maritime Navigation (“SUA”) to see whether it needs improvement in light of the events of 11 September 2001. An Additional Protocol is being drafted to include additional safeguards to ensure that ships will not be commandeered as weapons themselves (as aircraft were on 11 September) and there are proposals to extend the list of unlawful acts to cover shipping of nuclear, biological or chemical weapons. A boarding provision is under discussion which would allow naval vessels to stop and board vessels suspected of carrying illicit cargoes. The current proposal is that such consent would be granted by the flag state upon four-hour notice, which in practice may prove difficult to meet when the shipowner is located in another country. While conclusion of negotiations of the Additional Protocol is not yet in sight, progress is being made on the proposals and participants are optimistic.³⁰

The key word in both of these arrangements is “consent” by the flag state. The 1982 United Nations Convention on the Law of the Sea (UNCLOS) prescribes the conditions under which a state may board a vessel flying the flag of another state. The high seas are reserved for peaceful purposes (Article 8). While warships and government non-commercial ships enjoy complete immunity on the high seas, there are only specific cases in which a warship has the right to “visit” other foreign ships and those cases are limited to piracy, slave trade, unauthorised broadcasting, ships without nationality, and ships of the same nationality as the warship or if the case meets the criteria for a warship in “hot pursuit” (Articles 96, 96, 110 and 111). In territorial waters, it is somewhat easier. Passage is innocent so long as it is not prejudicial to the peace, good order or security of the coastal state (Article 19). In the “Rules applicable to merchant ships and government ships operated for commercial purposes,” Article 27 of UNCLOS prescribes that:

“The criminal jurisdiction of the coastal state should not be exercised on board a foreign ship passing through the territorial sea to arrest any person or to conduct any investigation in connection with any crime committed on board the ship during its passage, save only if, *inter alia*, [...] the crime is of a kind to disturb the peace of the country or the good order of the territorial sea.”

The United Nations Security Council (the “UNSC”), particularly since 11 September 2001, has recognised that WMD and terrorism pose a specific threat to public order that needs to be addressed by the international community. The PSI and Additional Protocol to the SUA are consistent with Chapter VII resolutions adopted to prevent or suppress terrorist acts. In particular, in resolution 1373, under Chapter VII of the Charter of the United Nations, the UNSC called upon states to cooperate in the prevention of terrorist access to WMD. In its most recent resolution on this subject - resolution 1526 (2004) - the UNSC decided to improve implementation of measures imposed earlier³¹ to, *inter alia*, “prevent the direct or indirect supply, sale or transfer, to listed individuals, groups, undertakings and entities from their territories or by their nationals outside their territories, or using their flag vessels or aircraft, of arms and related materiel of all types including weapons and ammunition...” and “reiterates the urgency for all states to comply with their existing obligations to implement the measures referred to...” Article 27 (a)-(b) of UNCLOS could already provide the legal basis to exercise criminal jurisdiction over foreign ships in such cases in territorial waters. If illicit WMD cargoes are being seized at high sea by foreign warships participating in PSI or an eventual Additional Protocol to the SUA, and this practice is not objected to by the international community, this may spell further progressive development of the international law of the sea and will also have an impact on the customary norm in parallel to the CWC to prevent or suppress illicit traffic in chemical weapons.

One area to observe over time are the import/export controls over dual-use chemicals under the Convention. One point of contention in the OPCW is the maintenance by some states parties of export controls under the Australia Group separately and in parallel to its members’ Article VI obligations under the CWC. The Australia Group is an informal voluntary arrangement, dating back to 1984, among 33 states to implement strict export controls on a list of dual use substances and equipment, which includes all of the chemicals listed in the three schedules annexed to the Convention, as well as others. Other existing arms control regimes— including the 1970 Nuclear Non-Proliferation Treaty³², the voluntary Missile Technology Control Regime, and the 1999 Landmines Convention—also have implied export controls. Under modern treaty law, bans or restrictions on WMD are being linked with a non-proliferation element in order to make the ban effective. Reactions by the international community to use, or threat of use, have also prompted strict export controls. For example, the Security Council resolutions during the Iran-Iraq war called upon all states to continue to apply, establish or strengthen strict controls over the export of chemical products for the production of chemical weapons, in particular to parties to a conflict, when it is established or there is substantial reason to believe that they have used chemical weapons in violation of international obligations.³³ The Chapter VII ceasefire resolution in the 1991 Gulf War set forth an absolute prohibition on exports to Iraq of all components, means of production, technology or know-how related to WMD and created the binding obligation upon all states to maintain national controls and procedures to ensure compliance with that

prohibition.³⁴ One author has even gone so far as to suggest that emergent customary international law is leading to state responsibility for the failure to control the export of WMD.³⁵

Conclusion

Article XVI(3) of the CWC specifically provides that “The withdrawal of a State Party from this Convention shall not in any way affect the duty of States to continue fulfilling the obligations assumed under any relevant rules of international law, particularly the Geneva Protocol of 1925.” Thus the prohibition of use survives. Beyond that it could be concluded that the right of withdrawal, termination or suspension of the CWC would only absolve the state from its obligations to contribute to the OPCW budget, its obligations to declare its relevant chemical activities to the OPCW, and its obligation to accept OPCW inspections. The state would still be obliged to continue to secure its chemical weapons stockpile (if any) and to monitor trade in, and use of, dual use chemicals, consistent with its separate treaty obligations under United Nations Security Council resolution 1373 to prevent such weapons or chemicals from falling into the hands of terrorists. Although the state could recommence trading in dual use chemicals with states not party without restriction, it is to be anticipated that such a practice would be widely condemned by the international community, particularly if such trading led to the risk of proliferation of chemical weapons in violation of resolution 1373.

Although enforcement of the ban on production and stockpiling of chemical weapons against states not parties, namely, the Sudan in 1998 and Iraq in 2003, was widely criticised in the press, it can be argued that the criticism was levelled against the use of force and was not an assertion of the right of the Sudan or Iraq to produce and stockpile such weapons, even in the absence of treaty obligations incumbent upon them.

Future practice of states in implementation of the Proliferation Security Initiative, for example, seizing shipments of chemical weapons wherever they may be intercepted, regardless of jurisdiction or ownership, will need to be examined further in light of international reactions to such acts, before any conclusion on that aspect can be drawn.

What is clear in 2004 is that the situation is very fluid. One commentator has said that “Politics is international law on the move and international law is politics standing still.”³⁶ The pressure nationally and internationally to prevent proliferation of WMD is continuing to mount. With regard to chemical weapons, their comprehensive prohibition – not just against use but also against their development, production and stockpiling – was established in the 1993 Chemical Weapons Convention. It appears that this instrument will achieve universal status in concrete terms in the foreseeable future, if it hasn’t already in essence. With 161 states parties and a further 21 signatory states (who are under the interim obligation to refrain from acts which would defeat the object and purpose of the treaty), the comprehensive prohibition as a universal norm has been arguably attained already.

Notes

* The views expressed are the author’s own and do not necessarily reflect those of the OPCW Secretariat.

¹ There are a number of other instruments codifying the ancient prohibition on “poison” or “poisoned weapons” as a method of

warfare. The prohibition on the use of poison as a means of warfare dates back to ancient Indian, Chinese and Greek law and chemical weapons can be subsumed under that category. Beginning in 1899, a distinction was drawn between “poison” and “asphyxiating or deleterious gases” which, according to one writer [Jean Pascal Zanders, “International Norms Against Chemical and Biological Warfare: An Ambiguous Legacy”, *Journal of Conflict & Security Law*, vol. 8 (2003) no 2 pp. 391-410], is because gas was seen as a novel technological development. The distinction has continued to be maintained and can be found most recently in the list of war crimes falling within the jurisdiction of the International Criminal Court under its 1998 Statute. Since chemical weapons agent can take the form of solid, liquid or gas, prohibition of gas alone must be seen to be a limited one.

² See further, L. Tabassi, “The OPCW: Model or Anomaly?”, *2001 Hague Yearbook of International Law*, Martinus-Nijhoff Publishers, 2002, pp. 55-72.

³ After the CWC was concluded, a number of parties to the Geneva Protocol withdrew their reservations. The General Assembly routinely continues to call upon states to withdraw such reservations (UNGA resolution A/RES/57/62, dated 30 December 2002, entitled “Measures to uphold the authority of the 1925 Geneva Protocol”).

⁴ UNGA resolution 2603 A (XXIV), dated 16 December 1969. The words “toxic effects on man, animals or plants” and “regardless of any technological developments” do not appear in the Protocol. A number of states abstained from the voting because of controversy over the scope of the Protocol, or because they questioned the mandate of the General Assembly to be making these pronouncements. Some states said that because herbicides were unknown in 1925 (which, in fact, they were not), the Protocol does not cover them. The CWC does not cover herbicides which the Preamble proclaims are prohibited as a method of warfare “in the pertinent agreements and relevant principles of international law” (Preamble, paragraph 7).

⁵ Article XXII does not permit reservations to the Articles of the Convention.

⁶ Article XVI(3) provides, “The withdrawal of a State Party from this Convention shall not in any way affect the duty of States to continue fulfilling the obligations assumed under any relevant rules of international law, particularly the Geneva Protocol...”

⁷ Article 60, paragraph 3(b) of the Vienna Convention on the Law of Treaties.

⁸ R. Jennings and A. Watts (eds.), *Oppenheim’s International Law*, 9th edition (1992), vol 1, p.26.

⁹ Article 17 of the Rome Statute provides that the ICC will not admit cases that are being, or have already been, investigated or prosecuted by a state which has jurisdiction over the case, unless the state is unwilling or unable. This has been termed the “principle of complementarity” because states retain primary jurisdiction over a case and the ICC’s jurisdiction is only complementary, that is, it is the court of last resort.

¹⁰ Articles 5, 6 and 7 of the Rome Statute.

¹¹ Elements of Crimes, Official Records of the Assembly of States Parties to the Rome Statute of the International Criminal Court, First Session 3-10 September 2002, document ICC-ASP/1/3, paragraph 22 and Part II.B).

¹² I. Brownlie, *Principles of Public International Law*, 1990 edition, 512-515 at 513. Brownlie lists the least controversial examples of such rules as being the prohibition of the use of force, the law of genocide, the principle of racial non-discrimination, crimes against

humanity, the prohibition of trade in slaves, piracy, and probably permanent sovereignty over natural resources and the principle of self-determination.

¹³ M.C. Bassiouni, *The Sources and Theory of International Criminal Law: A Theoretical Framework*, Transatlantic Publishers Inc., 1999, p.42.

¹⁴ *Ibid.* at 39 (1999).

¹⁵ *Ibid.* at 40.

¹⁶ It is apparent from open sources that an emerging area of controversy is the development of a new category of “non-lethal weapons”, especially in operations other than war which do not fall clearly within the traditional understanding of law enforcement and domestic riot control. See, for example, the editorial in the September 2003 issue of this *Bulletin*.

¹⁷ Chemical terrorism has also been explicitly covered by the 1997 International Convention for the Suppression of Terrorist Bombings by defining “Explosive or other lethal device” as “A weapon or device that is designed, or has the capability, to cause death, serious bodily injury or substantial material damage through the release, dissemination or impact of toxic chemicals ...” (Article I(2)(b)). The Terrorist Bombings Convention entered into force in 2001 and now has 120 parties.

¹⁸ *North Sea Continental Shelf cases* (Germany v Denmark; Germany v the Netherlands), 1969 ICJ Reports 3.

¹⁹ Article 18 of the Vienna Convention on the Law of Treaties.

²⁰ Including Angola, Antigua and Barbuda, Barbados, Democratic People’s Republic of Korea, Egypt, Iraq, Lebanon, Niue, Solomon Islands, Somalia, Syrian Arab Republic, and Vanuatu.

²¹ Angola, Antigua and Barbuda, Barbados, Democratic People’s Republic of Korea, Egypt, Iraq, Lebanon, Solomon Islands, and Syrian Arab Republic.

²² Angola, Democratic People’s Republic of Korea, Egypt, Iraq, Lebanon, Somalia, and Syrian Arab Republic. Final Declaration of the Conference of States Parties to the 1925 Geneva Protocol and

Other Interested States on the Prohibition of Chemical Weapons, annex to UN document A/44/88 of 20 January 1989, reproduced in *International Legal Materials*, vol 28 (1989), p. 1020.

²³ See: L. Tabassi (ed.), *OPCW: The Legal Texts*, TMC Asser Press, 1999, pp.117-203.

²⁴ *The CBW Conventions Bulletin* no 60 (June 2003) p. 49.

²⁵ For excerpts from the plan, see *Chemical Disarmament* (OPCW) vol 1 no 4 (December 2003), p.16.

²⁶ Australia, France, Germany, Italy, Japan, the Netherlands, Poland, Portugal, Spain, the United Kingdom, and the United States.

²⁷ Adopted in September 2003. Available at www.state.gov or www.fco.gov.uk.

²⁸ Chairman’s Statement at the First Meeting of the PSI, Madrid, Spain, press release 12 June 2003, available at www.state.gov.

²⁹ Press statement issued on 12 February 2004, available at www.state.gov.

³⁰ The next meeting of the Legal Committee will be held at the IMO 19-23 April 2004.

³¹ UNSC resolutions 1267 (1999), 1333 (2000), and 1390 (2002).

³² Treaty on the Non-Proliferation of Nuclear Weapons, entered into force 5 March 1970.

³³ Security Council resolutions 612 (1988) and 620 (1988).

³⁴ Paragraphs 24 and 27 of Security Council resolution 687 (2 April 1991).

³⁵ P. Rubenstein, *State Responsibility for Failure to Control the Export of Weapons of Mass Destruction*, 23 California Western International Law Journal (1993) 319-372.

³⁶ Anonymous, cited by J. Rautenbach, Deputy Legal Adviser of the OPCW, during his lecture delivered at the Conference on the Obligations *inter se* of the Signatories of the Chemical Weapons Convention and on the OPCW, Utrecht University Faculty of Law, 2 July 1997.

Developments in the Organization for the Prohibition of Chemical Weapons

The OPCW continued to see its membership grow during the period under review, from mid-December to mid-March, with Libya and Tuvalu acceding to the Chemical Weapons Convention (the CWC or Convention) in January and Chad ratifying the Convention in February. As at 1 March, the CWC had 160 states parties with Chad soon to join on 14 March.

Libya acceded as a possessor state party which is, of course, of historical and geopolitical importance. As an initial step towards full chemical weapons disarmament, the destruction of over 3,300 unfilled aerial bombs for chemical weapons delivery took place using bulldozers between 27 February and 3 March, under the supervision of OPCW inspectors. On 5 March, a high-level delegation from the Libyan government submitted to the Director-General of the OPCW a complete initial declaration of all Libya’s chemical weap-

ons, chemical weapons production capacity and any declarable commercial industrial activity. The declared stockpile includes some 23 metric tons of mustard gas and two Chemical Weapons Storage Facilities (CWSFs), however, no filled munitions were declared. Libya also declared an inactivated Chemical Weapons Production Facility (CWPF). Further to Libya’s accession to the Convention, the Executive Council’s attention will be brought to an agreed detailed plan for the verification of destruction of Category 3 chemical weapons at the Al-Jufra STO-002 Chemical Weapons Destruction Facility (CWDF) in Libya (concerning the 3,300 aerial chemical bombs mentioned above), at its 36th session.

The other major event at OPCW Headquarters during the period under review was the convening of the thirty-fifth session of the Executive Council during 2-5 December. The

Council was able to reach consensus only on a few matters, including the adoption of decisions approving a facility arrangement with the Republic of Korea for a Schedule 1 protective purposes facility, approving a list of new validated data for inclusion in the OPCW Central Analytical Database, and concluding four privileges and immunities agreements. Results-based budgeting (RBB) was discussed at great length and will be a topic for consultations throughout 2004, especially because the 2005 budget is expected to be prepared in RBB format. A workshop on RBB was held during 2-3 March.

Finally, the OPCW has a new Legal Adviser, Santiago Oñate Laborde from Mexico, as well as a new Director for the Office of Special Projects, Alexander Khodakhov from the Russian Federation.

Thirty-fifth session of the Executive Council

The Executive Council met for its thirty-fifth session during 2-5 December 2003. This session was chaired by Amb Petr Kubernát of the Czech Republic.

The Vice-Chairmen and coordinators for clusters of issues reported to the Council on informal consultations during the intersessional period as follows: Amb José Antonio Arróspide of Peru on chemical weapons issues; Amb Alexander Olbrich of Germany on chemical industry and other Article VI issues; Amb Hossein Panahi Azar of the Islamic Republic of Iran on administrative and financial issues; and Amb Priscilla Jana of South Africa on legal, organisational, and other issues.

In a long opening statement to the last session of the Council in 2003, the Director-General observed that this year was marked by the First Review Conference, which set the Organization's strategic priorities and agenda for the next five years. The year was also marked by important decisions such as the one on tenure policy.

The Director-General referred to present and future budgets and emphasised that member states must pay their 2004 assessed contributions fully and promptly in order for the Secretariat to avoid cash-flow problems. RBB was also discussed. In particular, attention was drawn to the need for member states to be involved in the learning process for RBB and for them to continue to support its implementation. Attention was also drawn to the fact that RBB is being introduced successfully throughout the UN system and in other international organizations. The Director-General added that preparing the 2005 budget in RBB format will be a major task and that it will require effort on behalf of member states, the policy-making organs and the Secretariat to be successful. He drew attention to a document that he had prepared which would serve as a blueprint for how RBB works.

The establishment of a stabilisation mechanism for financial operations and programme management was also discussed, in light of the failure to solve problems with surplus income and late receipt of Articles IV and V income. The Director-General noted contributions by the Facilitator and Advisory Body on Administrative and Financial Matters (ABAF) on this matter and the necessity of amending some Financial Rules as part of this process.

Implementation of the tenure policy was discussed. The Director-General noted that several contracts of staff mem-

bers subject to the policy were not renewed and that some of them are considering appealing these decisions to the International Labour Organisation Administrative Tribunal. He added that the Organization is engaged in recruiting new personnel, establishing an outplacement mechanism and strengthening the human resources and recruitment team as part of the tenure policy implementation process.

Regarding destruction of chemical weapons, Mr Pfirter noted that eight destruction facilities have been active since the last session of the Council and that 300 metric tonnes of agent have been certified as destroyed. He emphasised that India met its 45 percent destruction deadline for Category 1 chemical weapons six months ahead of schedule and is on the way to meeting its second deadline a year ahead of schedule for CWPFs. Destruction activities continue in the United States, in Tooele, Anniston, and Aberdeen as well as in the Russian Federation, including the destruction of 622 metric tonnes of mustard gas at the Gorny facility. The Director-General added that 37 percent of the chemical weapons stockpiles of a state party of withheld identity have been destroyed and that the destruction of a CWPF was completed in Bosnia and Herzegovina. The Council was also informed that Albania had submitted a plan for the destruction of its declared chemical weapons. The strain on human and financial resources that will result from the commencement of operations at new destruction facilities was discussed, a matter that was recognised by the First Review Conference and which has led to discussions with possessor states with a view to optimizing resources and ensuring compliance with what is expected from the Secretariat.

The Director-General briefed the Council on recent events in respect of international cooperation and assistance including the First Regional Meeting of National Authorities in Asia, which was hosted by the Singaporean government in October. The Director-General also referred to the Network of Legal Experts meeting, which was organised by the Office of the Legal Adviser and the ICA Division, and which took place at OPCW Headquarters in November. Mr Pfirter also discussed the regional seminar for Latin America and the Caribbean, hosted by Chile, on assistance and protection under Article X.

The recently approved Article VII and universality action plans were discussed. It was observed that both plans will require cooperation and coordination between and among the Technical Secretariat and member states. It was noted that the Director of External Relations will be the focal point for the plan on universality in the Secretariat. Chad's intention to ratify the Convention was noted and Mr Pfirter thanked France for supporting a technical mission to that country. Other universality efforts were discussed, including consultations with the Secretariat of the Commission of the African Union and a visit by the Director-General to Havana, Cuba, for the General Assembly of the Agency for the Prohibition of Nuclear Weapons in Latin America. Mr Pfirter also noted that relations with the OPCW's host country, the Netherlands, are excellent.

The Director-General concluded by addressing the effect of tenure policy on the Organization, including the feeling by some staff members that their work is not duly recognised. It was observed that the OPCW is a non-career organization,

however, and that the Organization would welcome new staff from the numerous countries that are now member states. On a final note, Mr Pfirter stated that Amb Alexander Khodakhov, the former Permanent Representative of the Russian Federation, would succeed Amb Sergei Batsanov as the next Director of the Office of Special Projects, and Amb Santiago Oñate Laborde, the Permanent Representative of Mexico, would join the OPCW as its next Legal Adviser.

Eight states parties made statements during the General Debate and touched upon, *inter alia*, the successful First Review Conference and the action plans on universality and Article VII obligations. Several delegations were pleased that the director of the External Relations Division had been designated as the Technical Secretariat's focal point for the implementation of the plan on universality. Emphasis was placed on the need for timely and accurate declarations as well as on the need for financial reform, including the importance of proceeding carefully with RBB. Some delegations also called for reform of the system by which Article IV and V costs are reimbursed. Destruction issues were addressed, including the deadline extensions for possessor states parties approved by the Conference of the States Parties at its eighth session and a statement by the Russian Federation on the progress of its destruction activities.

China noted that it had donated US\$20,000 to the Technical Secretariat to facilitate preparations for the Second Regional Meeting of National Authorities of States Parties in Asia, which it will host in 2004. Later in the session, the Republic of Korea announced that it would contribute US\$30,000 for the implementation of the universality and Article VII action plans.

Status of implementation of the Convention

The Council took note of a third report on the status of the project to assist member states to meet their declaration-related obligations under Article VI. There were two parts to the project: the first, initiated in 2001, involved the Secretariat assisting states parties which had not submitted any Article VI industry declarations, as at May 2001, to identify declarable facilities; in the second part, initiated in 2002, the Secretariat included those states parties which had previously submitted Article VI declarations, in order to assist them to identify any additional declarable facilities they had been unable to identify themselves. The report stated that, based on open source information and as at 30 October 2003, 60 of the (then) 156 states parties were unlikely to have any potentially declarable facilities under Article VI. Five states parties which had not yet been approached (out of a total of 13) would be contacted as soon as the project team had finalised its assessments. Of the remaining 83 states parties which had been approached, 11 submitted their first declarations of Article VI facilities, 12 confirmed that no additional declarations were required, 8 provided additional declarations, and 35 provided partial information or reported that they were working on providing information. For 5 states parties, it was too soon to respond because they had just received information packages. Twelve states parties had not responded. Since the beginning of the project in June 2001, when there were 51 declaring states parties, there was an increase to 62 declaring states parties by the cut-off date for the second report. It

was noted that the increase in the number of states parties submitting Article VI declarations has also led to an increase in the number of inspectable plant sites (mainly Other Chemical Production Facilities (OCPFs)). The report concluded with, *inter alia*, a recommendation that updates be provided on the project as part of or in conjunction with the reporting scheme for the Article VII action plan.

Destruction issues

A decision on the plan for the verification of destruction of chemical weapons at the Aberdeen Chemical Agent Disposal Facility was again deferred by the Executive Council until its next session.

Conversion and verification of chemical weapons production facilities

The Council considered several notifications from the Russian Federation on changes at former CWPFs being converted to purposes not prohibited under the Convention, two of which had been deferred for further consideration by the Council at its thirty-fourth session. The Council again considered the issue of the US objection to notification by the Russian Federation of changes to the conversion activity at the former CWPF at Open Joint Stock Company (OJSC) Khimprom in Volgograd (DF production). It decided to consider the issue further at its thirty-sixth session. The Council also considered again the issue of the US objection to notification by the Russian Federation of changes at the former facility for preparation for filling of non-chemical parts of chemical munitions at OJSC Khimprom in Volgograd. It decided to consider the issue further at the thirty-sixth session. Finally, the Council noted that no objections had been raised by any member state within 30 days of receipt of notification and evaluation of changes at the former aminomercaptan production facility at OJSC Khimprom in Novocheboksarsk.

The Russian Federation gave a brief presentation on the status of conversion at its former CWPFs, further to discussions during the Executive Council's thirty-third session on the need for such reports from relevant states parties (see the June *Bulletin*). The delegation noted that the OPCW had approved conversion requests for 16 former CWPFs and that destruction conditions had been met for 15 of them. The OPCW had certified that conversion was complete at six of the CWPFs and it was added that certification of the remaining facilities would be sorted out soon. With regard to the former CWPF OJSC Khimprom (production of a VX-type substance and filling it into munitions), Novocheboksarsk, it was indicated that conversion was still in progress and that destruction of the main building would not be completed until 2007 at the earliest.

Finally, the Council had before it two combined plans for destruction or conversion and verification of CWPFs and the related draft decisions. The combined plan relating to conversion and verification at OJSC Khimprom in Novocheboksarsk (production of a VX-type substance and filling it into munitions) was again deferred until the Council's next session. The Council also deferred until its thirty-sixth session consideration of a decision on a combined plan relating to destruction and verification of the CWPF (QL production and Fill Facility), Pine Bluff Arsenal, in the United States.

Facility agreements

As occurred with the detailed plan for destruction, the Executive Council again deferred a decision on the facility agreement relating to the Aberdeen Chemical Agent Disposal Facility until its next session. The same also occurred in respect of a new draft decision on a facility agreement with the Russian Federation regarding on-site inspections at the CWDF in Gorny, the Council deciding to return to this facility agreement at its next session.

The Council considered and approved the facility arrangement with the Republic of Korea for a Schedule 1 facility for protective purposes.

The Council also took note of the Technical Secretariat's note informing the Council of agreed modifications and updates to eleven facility agreements, relating primarily to three attachments, with the United States for CWSFs.

Chemical industry issues

The Council again decided to return to a draft decision submitted by the Facilitator on the clarification of declarations at a later session.

The Council took note of a discussion paper from the Technical Secretariat on discrepancies in reporting scheduled chemical imports and exports, which it had previously considered at its thirty-fourth session. See the December 2003 *Bulletin* for a further description of this report.

The Council again decided to delay further consideration of a draft decision on the understanding of the concept of 'captive use' in connection with declarations of production and/or consumption under Parts VII and VIII of the Verification Annex until its thirty-sixth session. The Council also decided that captive use of Schedule 1 chemicals is a matter that should be addressed separately in intersessional consultations.

Technical issues

The Council considered and decided to defer until its thirty-sixth session a draft decision recommending that the Conference of the States Parties at its ninth session approve for inclusion in the list of approved equipment an environmental temperature logger.

The Council also considered a note from the Director-General regarding proposed revisions to specifications for two items of approved inspection equipment (the OPCW sample-collection and GC-MS sample-preparation kits). Because states parties have 60 days to comment on such revisions under new procedures adopted by the Conference at its eighth session (see the December *Bulletin*), in this case through 14 December 2003, the Council requested the Secretariat to inform it of the results of this review in order to consider the matter for approval at its thirty-sixth session.

New validated data

The Council adopted a decision on a list of new validated data for inclusion in the OPCW Central Analytical Database (OCAD). The Council also noted the further report by the Director-General on a cost-effective manner for inclusion of CAS numbers in lists of new validated data. It had already been established that a computer-searchable file containing the structure of chemicals would be the most cost-

effective solution for identifying CAS numbers that had already been allocated. Until recently, the agreement between the OPCW Preparatory Commission and CAS only permitted CAS numbers to be made available within the Secretariat and to National Authorities, and they could not be distributed in the OPCW's periodic publication of the OCAD. In September 2003, the Secretariat and CAS updated this agreement. The Secretariat will now be allowed to search for existing CAS numbers twice a year for around EUR 5,000 and include them in OCAD without incurring copyright costs.

Financial issues

The Council received reports on the OPCW's income and expenditure for the months of August, September and October 2003. As at 31 October, 94.3 percent of the assessed contributions for 2003 had been received. Eighty-three states parties had fully paid their assessed contribution, and fourteen had paid in part. The amount out-standing was EUR 3,605,607. Of the 9 new member states in 2003, two member states had fully paid their assessed contribution and one had paid in part. The amount outstanding for these member states was EUR 16,949.

With regard to Articles IV and V verification costs for 2003, EUR 3.9 million in reimbursements had been budgeted for. As at 31 October, EUR 3,144,066 had been invoiced. Of that, EUR 1,614,620, or 51.4 percent, had been collected. Some delegations voiced concern during the Council session over delays in reimbursement of Articles IV and V costs.

The Council also considered and noted a report from the Technical Secretariat regarding the status of implementation of the SmartStream system—software which integrates core business processes. It was noted that it is 80 percent functional and should be fully implemented in early 2005. Reasons for the delay in implementation were discussed and it was added that the following modules are now operating: general ledger, accounts payable, obligations, procurement, funds control, staff administration, benefits, recruitment and training. Other modules are either planned or under development, including payroll and budget and supplies management. EUR 914,384 has been spent on the system thus far, over two-thirds of which has been for the initial purchase and annual licensing. Future costs will include a one-time consultancy (EUR 100,000), annual licensing and maintenance (EUR 62,000), and user training (EUR 15,000).

There was significant discussion during the Council session about the non-service-incurred death and disability insurance policy for OPCW staff. The Council considered a report prepared by the Secretariat on this matter, further to a request by the Council at its thirty-fourth session, and which was to include "options for a legally sound, phased transition to a new system of insurance coverage that respects acquired rights of staff, if any, that is consistent with the Staff Regulations and the Interim Staff Rules" and that could be implemented in 2004. An insurance consultant addressed two issues in respect of the policy in question: that the benefit is not explicitly provided for under the OPCW Staff Regulations and Rules and the premium level for the insurance. The consultant concluded that, *inter alia*, "failure to cover the gap in social security protection in cases of non-service incurred events by an appropriate insurance policy or other

mechanism would result in OPCW staff being disadvantaged by comparison with their colleagues in the UN Common System". It was also noted that the Office of the Legal Adviser had provided an opinion in which it had determined that the benefit was an "acquired right" and that changes could only be implemented prospectively. On the second matter, negotiations with the insurance provider resulted in an experience-related premium decrease of 12 percent. It was added that the premium could be further reduced by capping the level of the insurance, with staff members being allowed to purchase additional coverage if desired. The Council decided to return to the matter at its next session and requested the Secretariat to provide additional information, including again "options for a legally sound, phased transition to a new system of insurance coverage", before its next session.

The Council also received a note by the Director-General on the status of preparations for introducing RBB, which it decided to further consider during the intersessional period. RBB, which the First Review Conference encouraged the Director-General to implement in a 'stepwise' manner, is a programme budget process in which programme formulation and budget allocation revolve around pre-defined objectives and expected results, resource requirements are derived from and linked to such results, and actual performance in achieving results is measured by objective performance indicators. In the note, the Director-General brought particular attention to the following four points, namely: that the Secretariat has sought to keep member states informed about progress in implementing RBB and has valued their feedback; member states' participation and support as well as the joint endeavour in the learning and development process by the policy-making organs and Secretariat are necessary for RBB's success; only a preliminary indication of what the 2005 budget will contain is possible at this time; and, perhaps most importantly, the Medium-Term Plan will not prejudge coming budgets. A concept paper and glossary were included in the note in addition to the preliminary draft medium-term plan in RBB format. The plan indicates to member states how the core objectives and performance indicators might be defined, the external factors and pressures that might have an impact on the Secretariat's ability to deliver the OPCW's core programme, an assessment of the Technical Secretariat's current internal strengths and weaknesses and how RBB might best be applied initially, the main strategic issues and challenges the Secretariat faces, and the assumptions that the Secretariat will be working with to prepare the 2005 budget and options for consideration. The Council agreed and emphasized that it is important and necessary for the Secretariat and member states to continue consultations on this matter.

Lastly, the Council took note of the Director-General's note on the budget stabilization mechanism and Working Capital Fund.

Privileges and immunities agreements

The Council, following the decisions of the Conference, concluded agreements on the privileges and immunities of the OPCW with Bosnia and Herzegovina, the Republic of Burundi, the Republic of Cyprus, and the Slovak Republic. The Director-General was requested to enter into these agreements on

the OPCW's behalf.

Other business

The Executive Council considered and noted the Director-General's report on the OPCW's relationship with the Host Country, the Netherlands. *Inter alia*, the Director-General noted that institutions and agencies of the Host Country had cooperated with the OPCW with regard to discharging its functions and regarding the residence and movement of Technical Secretariat members and members of the OPCW's organs. It was observed that the Headquarters building had received adequate facilities and services and that its inviolability had been respected. Various privileges and immunities, exemptions and facilities were being respected although differences in the interpretation of certain provisions of the Headquarters Agreement, particularly with respect to taxes and duties, were noted. The Director-General noted that facilities for entry and stay in the Netherlands have largely been respected, except for a few difficulties for some Technical Secretariat staff and delegates from member states. It was noted that the OPCW has been meeting its obligation to forward a list of heads of delegations, Permanent Representatives, delegates of states parties and OPCW officials, and that such officials have received identification documents or cards. Finally, meetings between the Host Country and the Director-General and the senior management of the Secretariat were noted, at working and more senior levels. Discussions have taken place or continue on points of disagreement.

In other business, the Council decided that EC-37 will take place from 29 June to 2 July, 2004. The Council also agreed to the US request that intersessional consultations continue through July.

The Executive Council again considered a note from the Director-General on the request to reclassify two posts and referred the matter to ABAF for advice and comments.

New Member States

On 6 January 2004, Libya deposited its instrument of accession to the Chemical Weapons Convention with the United Nations. It became the 159th state party with entry into force occurring on 5 February. On 19 January, Tuvalu deposited its instrument of accession making it the 160th state party with entry into force on 18 February. Most recently, on 13 February, Chad deposited its instrument of ratification to the Convention. It will become the 161st state party to the Convention on 14 March.

There remain 21 signatory states which have not yet ratified the Convention and some 12 states which have not signed or acceded to the Convention.

Technical Secretariat

Declaration processing

As of 29 February 2004, 151 member states had submitted initial declarations, with Afghanistan, Belize, Cape Verde, Mozambique, Saint Vincent and the Grenadines, Sao Tome and Principe, Timor-Leste, Tonga and Tuvalu yet to do so. Ten states parties had submitted incomplete initial declarations:

Côte d'Ivoire, Kiribati, Libya, Nepal, Seychelles, Suriname, Turkmenistan and Yemen having failed to submit their Article VI initial declarations; and Nauru and Senegal, having yet to submit their initial declarations under Article III. Three states parties have submitted annual declarations of past activities for 2003, and 40 states parties are anticipated to submit annual declarations for 2004.

Inspections and verification

As at 12 March 2004, 1,666 inspections at 705 sites had been completed in 62 states parties since entry into force. The breakdown of inspections is as follows: 397 at CWDFs, 300 at CWPfFs, 221 at CWSFs, 8 at destruction of hazardous chemical weapons sites, 22 to ACW sites, 50 to old chemical weapon sites, 1 to an emergency destruction of chemical weapons site, 175 to DOC sites, 129 to Schedule 1 facilities, 241 to Schedule 2 plant sites, 121 to Schedule 3 plant sites, and 1 other.

Also, as at 12 March, 13 inspections at 4 sites were ongoing. 9 of these inspections are at CWDFs, 3 are at CWPfFs and 1 is at a CWSF.

Since 1 January 2004, 52 inspections have been completed at 42 sites. The breakdown of inspections is as follows: 17 at CWDFs, 2 at CWPfFs, 1 at a CWSF, 12 to DOC sites, 6 to Schedule 1 facilities, 8 to Schedule 2 plant sites, and 6 to Schedule 3 plant sites.

Destruction/conversion

Official figures reflect that, as at 29 February 2004, 8,514 metric tons of chemical agents out of a declared total of 71,267 metric tons, had been destroyed. Some 2,002,315 munitions/containers, out of a declared total of 8,678,847, had also been destroyed.

The number of chemical weapons destruction facilities in operation in February was five: four in the United States and one in the Russian Federation.

Libya submitted its partial initial declaration on 20 February 2004, leading to changes in the quantity of chemical weapons agent and items declared, as well as in the number of declared and inspectable CWSFs. Libya submitted its complete initial declaration on 5 March.

One CWPfF in the Russian Federation has been declared destroyed and a confirmation inspection is planned (Mustard and Lewisite Filling, Dzerzhinsk). Another CWPfF in the Russian Federation has been certified as converted (Aminomercaptan Production, Novocheboksarsk).

Implementation of Article VI A technical experts workshop on a proposed selection mechanism for OCPfFs took place at OPCW Headquarters on 5 February.

Implementation of Article X

A number of invitations have been issued in relation to assistance and protection training programmes to be held in 2004.

State party nominations are being sought by the Secretariat for medical experts to support the OPCW Assistance and Protection Programme. The Secretariat noted that expertise is still needed with respect to: diagnosis and treatment of chemical weapons injuries (clinical toxicology), post-mortem

examinations of possible chemical weapons fatalities (forensic pathology), investigation of the causes and features of outbreaks of symptoms and epidemiology of toxic chemical releases (epidemiology), and management of on-site medical support, resources and triage (disaster and mass-casualty management). Qualified medical experts nominated by member states will attend a meeting in The Hague from 5 to 6 April 2004 for the purpose of familiarizing themselves with the medical aspects of the Assistance and Protection Programme. There will also be discussions about methods for continuing to develop the programme's medical component.

In December, the OPCW, together with the government of Iran, issued an invitation to states parties to nominate candidates for the sixth annual course on the medical aspects of defence against chemical weapons. The course is currently scheduled to take place in Tehran during 17-21 April and is designed primarily for medical personnel and to assist member states in the implementation of programmes related to protection against chemical weapons.

Also, in December, an invitation was issued by the OPCW and Switzerland for participants to be nominated for the Swiss Emergency Field Training, Advanced Course (SEF-TRAD 2), to be held at the NBC Training Centre in Spiez, Switzerland. The course—which will provide training for up to 40 individuals in proper use of individual protective equipment; monitoring, detection and decontamination techniques; and sampling and detection methods using the mobile field laboratory—is scheduled to be held from 19 to 23 April. The course is only open to former participants in the Swiss Emergency Field Laboratory (SEF-Lab) or Chief Instructor Training Programme (CITPRO) courses, held at the NBC Training Centre.

Implementation of Article XI

In February, an invitation was issued by the Secretariat for twenty participants to take part in a course on analytical-skills development. The course is scheduled to be held at an as yet confirmed European academic institution on 25 June for qualified analytical chemists from developing member states or from those whose economies are in transition. The objectives of the course are for the participants to acquire further experience and practical knowledge; to facilitate the analysis of chemicals related to national implementation of the Convention; to enhance national capacities in states parties by offering training in analytical chemistry to chemists in industry, academia, and government; to facilitate the adoption of good laboratory practices; and to broaden the pool of candidates for National Authority or Secretariat positions. The two-week course will consist of two parts: first, focussing on basic training and gaining experience in gas-chromatography (GC) and, second, focussing on the preparation of environmental samples as well as their analyses using GC and gas-chromatography/mass-spectrometry (GC-MS).

This year's Associate Programme Course is scheduled to take place from 23 July to 1 October in The Hague and elsewhere in Europe.

Implementation support

A regional workshop on implementation of the Convention

took place in Saudi Arabia from 8 to 10 December. Jointly organized by the government of Saudi Arabia and the OPCW, it provided a forum to members of the Cooperation Council for the Arab States of the Gulf (GCC) to discuss issues related to implementation of the Convention.

A regional workshop on implementation of the Convention took place in Dakar, Senegal, from 24 to 26 February. Jointly organised by the government of Senegal and the OPCW, it was designed as a forum for personnel from National Authorities who are involved with national implementation of the Convention and related issues on a daily basis. It was intended, *inter alia*, to provide a framework within which the participants could review and discuss issues relating to the Convention's practical implementation, under topics such as the role of National Authorities in the implementation of the Convention, administrative requirements for the successful functioning of a National Authority, declaration- and inspection-related issues, implementing legislation and implementation support projects in the sub-region.

The fifth regional meeting of National Authorities in Latin America and the Caribbean was held in La Paz, Bolivia, during 10-12 March. The meeting focused on facilitating the exchange of information and experiences regarding implementation of the Convention and promoting cooperation among National Authorities, identifying common problems with implementation and how to resolve them through cooperation with other states parties and the Secretariat, helping National Authorities to develop their capacity for national implementation, and enhancing awareness of the Convention's provisions. There will be particular emphasis on implementation of Article VI of the Convention.

The third regional meeting of National Authorities in Eastern Europe will take place in Bucharest from 17 to 19 May. Jointly organized by the government of Romania and the OPCW, it is intended to provide a framework for review and discussion of issues relating to the practical implementation of the Convention, with a focus this year on transfers of scheduled chemicals. The meeting's objectives include forging a better understanding of the practical aspects of enforcing the Convention's transfers regime and contributing to the strengthening of the regional network for implementation support.

Universality

The OPCW, together with the government of Ethiopia, issued an invitation to African states parties and states not party to attend a workshop on universality and implementation of the Convention, in Addis Ababa during 20-22 April. Jointly organized by the Commission of the African Union and the OPCW, the workshop has the objective of helping to increase awareness of the Convention in Africa as well as to promote further its universality and to contribute to the Convention's full and uniform implementation in that region. In order to achieve these objectives, the workshop will include a review of the status of implementation of the Convention in Africa and any problems encountered; a discussion of practical measures to achieve full uniform implementation; and information sessions tailored to signatory and non-signatory states' needs. The workshop will also include sessions on the OPCW's in-

ternational cooperation, protection and assistance programmes as well as time for bilateral consultations.

Proficiency testing On 19 February, the Director-General released the schedule for the fifteenth and sixteenth official Proficiency Tests for laboratories. The samples for the fifteenth test will be dispatched on 12 April. The Laboratory of Analytical Chemistry at the Research Institute of Chemical Defence in China will prepare the test samples, with the Protechnik Laboratories (Pty) in South Africa assisting with the evaluation of the results. The samples for the sixteenth test will be dispatched on 8 October. The test samples will be prepared by the Lawrence Livermore National Laboratory at the University of California in the United States, and the Defence Science and Technology Laboratory, Porton Down, in the United Kingdom will assist with the evaluation of the results.

The Fourteenth Proficiency Test commenced on 27 February 2004.

New validated data

During 9-10 December, the Seventeenth Validation Group meeting took place. The report of the meeting stated that the seventh hard-copy version of the OPCW Central Analytical Database (OCAD), together with the fifth electronic version, is scheduled to be released in February 2004. The Group noted that, starting this year, assigned CAS numbers would be checked by the CAS for inclusion in the OCAD. This will not apply to the hard-copy and electronic versions mentioned above, however. The Group again considered naming rules, and corrected the names and schedule numbers of four Schedule 3 chemicals. A discussion of guidelines for removing existing data on the OCAD was postponed to the Group's next meeting. The group also considered Germany's November 2003 non-paper regarding the classification of salts of scheduled chemicals in OCAD and proposed that they be listed as protonated salts, not categorised as scheduled chemicals. The Validation Group is waiting for resubmission of 54 mass spectra from laboratory 22. The criterion for the scan range for recording mass spectra (*viz*, spectra have to be recorded to 50 amu above the molecular weight of the compound) was also discussed and the Group decided that it should be considered for revision. The differences in GC(RI) values of some compounds measured by Laboratory 7 and other laboratories were discussed. They may be due to the various makes of SE-54 types of columns. The Group decided to investigate the effect further. It was also noted that the Secretariat is making an inventory of data from several laboratories on unscheduled degradation products of scheduled chemicals and riot control agents, and that these laboratories would be contacted and asked to resubmit the data for the Group's eventual evaluation.

The Eighteenth Validation Group meeting is scheduled to take place from 30 to 31 March.

Financial figures and results-based budgeting (RBB)

As at 31 December 2003, 94.3 percent of the assessed contributions for 2003 had been received. Eighty-six states parties had fully paid their assessed contribution, and fourteen

had paid in part. The amount outstanding was EUR 3,573,605. Of the 11 new member states in 2003, two member states had fully paid their assessed contribution and one had paid in part. The amount outstanding for these member states was EUR 17,056.

In regard to Articles IV and V verification costs reimbursements for the year 2003, EUR 3.9 million in reimbursements had been budgeted for. Based on the most recent official information available, EUR 4,052,126 had been invoiced. Of that, EUR 2,251,820, or 55.6 percent had been collected. EUR 1,800,306, or 44.4 percent, remained outstanding as of 31 January 2004.

19.5 percent of the assessed contributions for the year 2004 (total assessed amount: EUR 68,653,390) had been received as at 31 January 2004. Twenty-four states parties had fully paid their assessed contribution, and nine had paid in part. With regard to 2003, 94.6 percent of the assessed contributions for that year had been received by 31 January.

In regard to Articles IV and V verification costs reimbursements for 2004, EUR 3.9 million in reimbursements had been budgeted for. Based on the most recent official information available, EUR 2,359,034 had been invoiced. Of that, EUR 1,693,092, or 71.8 percent had been collected.

From 2 to 3 March, a workshop took place at OPCW Headquarters on results-based budgeting (RBB). Presentations were given on RBB as a concept, the experience of the International Atomic Energy Agency with RBB, key features of RBB in the OPCW and in the Health and Safety Branch, examples of objectives and indicators for some of its divisions in the OPCW, the format of the RBB budget, and the role of the Information Systems Branch in RBB.

Legal issues

In January, the Office of the Legal Adviser issued a prioritised checklist of general obligations under the Convention for non-possessor states parties. The checklist identifies the basic obligations that all states parties must comply with in chronological order of priority, regardless of whether they possess chemical weapons or have a declarable chemical industry. The time frames for each obligation, along with Convention references and the names of relevant contact persons in the Secretariat, are provided in the checklist. This checklist was issued in light of the *Plan of Action Regarding the Implementation of Article VII Obligations*, which was adopted by the Conference of the States Parties at its Eighth Session in October 2003 (see the December *Bulletin*). The plan requires, *inter alia*, that states parties designate or establish a National Authority, enact the necessary implementing legislation and/or adopt administrative measures, and provide the Secretariat with the full text of their legislation, all by November 2005.

A report was issued by the Office of the Legal Adviser in January on the first meeting of the OPCW Network of Legal Experts, which took place from 4 to 7 November with experts from 42 states parties participating. The Network was inspired by the Network for Latin America and the Caribbean which was created in 2000 and is further to the *Plan of Action Regarding the Implementation of Article VII Obligations*. It has created an informal working mechanism for

facilitating the sharing of experience, the pooling of resources and information, the development of direct contacts among legal experts in member states and with the Secretariat, and the monitoring of progress regarding legislation drafting and other national implementation efforts. The Network also provides a framework for bilateral, regional and sub-regional cooperation.

The report notes that the first segment of the meeting included several presentations by the Secretariat on the Convention's legislative requirements, enforcement issues, the Article VII plan of action, the OPCW website's legal module, and privileges and immunities agreements. The next segment included national presentations by the participants on the status of legislation implementation in their countries as well as on problems encountered and assistance required. Problems include, *inter alia*, the lack of translation of the Convention into local languages; the absence of National Authorities or a lack of knowledge of the Convention's basic provisions; the lack of national implementing legislation for several treaties leading to competing legislative priorities; the complexity of drafting, adopting, and enforcing legislation; a lack of financial resources; the constitutional requirement of publishing implementing legislation before it comes into force in light of existing publication backlogs; a lack of logistical support enabling access to information (i.e. Internet access); internal political problems such as armed conflict; and competing political priorities or little political interest.

The national presentations were followed by a two-day legislation workshop which was conducted in four language groups: English, French, Russian and Spanish. The workshop included bilateral consultations and group work.

The report indicates that several conclusions were reached by the end of the meeting such as that the Secretariat will continue urging states parties who have not yet done so to nominate legal experts to the Network; members of the Network will be encouraged to maintain informal bilateral contacts with one another to discuss problems regarding legislation and implementation and enforcement of the Convention (i.e. through meetings at the OPCW or teleconferencing); a dedicated Internet tool will be set up to enable communication among the members of the Network; and members should report to the Secretariat on an informal basis regarding their activities and results, including any need for follow-up.

The report noted that the Secretariat would prepare a resource package for use by legal experts including documentary tools, PowerPoint presentation materials, and other useful information. To date, scenarios, speaking notes and PowerPoint materials are complete and being translated. Other kinds of assistance will be provided as well, from the Secretariat or between the states parties, including the referral of legal experts from the Network to provide on-site support; the development and exchange of relevant materials; the exchange of sample draft legislation; internships; the exchange of contact information; and the provision of deadline information for drafting legislation and assisting with implementation of the Convention. Assistance from regional and other organisations is also being sought. The report concluded by noting that large meetings in future should have

a workshop format while smaller ones should be focussed and organized around specific topics.

The *National Legislation Implementation Kit* is now available on the OPCW website in English, French, Russian and Spanish and in hard copy from the Office of the Legal Adviser. An Arabic version is due in early April.

Official visits

The Director-General met with the president of the Belgian Parliament 21 January. The Director-General, along with a team of experts from the Secretariat, met with senior Libyan government officials in Tripoli during 4-6 February with the aim of ensuring the effective and comprehensive implementation of the chemical weapons ban in Libya. The Convention entered into force for Libya on 5 February. The Director-General went to the United States from 8 to 12 March for visits to CWDFs in Pine Bluff, Arkansas, and Anniston, Alabama.

Staffing

There has been significant turnover in the Secretariat since 2003 as a result of the tenure policy. Between 1 September and 31 December 2003, there were 3 P-level fixed-term staff appointments as well as 34 P-level and above separations, including the Heads of the Infrastructure Support Services, Budget and Finance, and Support Services Branches, with the remainder mostly from the Inspectorate. Of these separations, 18 were tenure-related. Eva Murray (Canada) joined the Organisation as the new Head of the Human Resources Branch on 1 September 2003.

Between 1 January 2004 and 12 March 2004, there were 23 P-level or above fixed-term appointments, primarily in the Inspectorate. Alexander Khodakov (Russian Federation) joined the OPCW as the new Director of the Office of Special Projects on 26 January and Santiago Oñate Laborde (Mexico) joined as the new Legal Adviser on 1 March. There were also 2 separations during this period, both in January, including Sergei Batsanov, the former Director of the Office of Special Projects.

As at 12 March 2004, the OPCW actual personnel strength was reported as 519. Of these, 454 are on fixed-term contracts with 316 at the P-level or above.

Subsidiary Bodies

The Scientific Advisory Board (SAB)

The six following individuals were appointed in 2003 to the Scientific Advisory Board for three-year terms: Dr James Robert Gibson (United States), Professor Bjørn-Arne Johnsen (Norway), Dr Young-chul Lee (Republic of Korea), Dr Detlef Männig (Germany), Professor Miguel A. Sierra (Spain) and Dr Rolando A. Spanevello (Argentina). Nominations are being sought by the Secretariat to fill an additional twelve vacancies for members whose second and final terms will expire in July 2004.

A group of governmental experts met during 28-30 January at OPCW Headquarters to examine the report of the SAB to the First Review Conference and the recommendations of the Director-General on this report. The

meeting was chaired by the Chairman of the Executive Council, with Steve Wade from the United Kingdom acting as facilitator for the technical discussions. The Council chairman submitted a report to the 36th Council session for its consideration on the results of these discussions.

The Sixth Annual Meeting of the SAB took place at OPCW Headquarters during 16-18 February. The report on this meeting was expected to be published before the 36th Session of the Council.

The Advisory Body on Administrative and Financial Matters (ABAF)

ABAF is scheduled to meet for its sixteenth session from 14 to 18 June.

Future work: EC-36

The thirty-sixth session of the Executive Council was scheduled to take place after publication of the March *Bulletin*, accordingly, the outcomes of this session will be discussed in the June issue. Some of the major decisions to be taken at this session, during 23-26 March, include the approval of facility agreements with Spain and the Slovak Republic regarding on-site inspections at Schedule 1 facilities for protective purposes, and agreements with the United States regarding on-site inspections at the Pine Bluff Arsenal chemical agent disposal facility and the explosive destruction system, Dugway Proving Ground, Utah. The Council is also expected to take decisions regarding revisions to the specifications for two items of approved inspection equipment, amendments to the OPCW policy on confidentiality, and lists of new validated data for inclusion in the OPCW Central Analytical Database. With regard to destruction issues, the Council is scheduled to take decisions on an agreed detailed plan for the verification of destruction of chemical weapons at the Pine Bluff Chemical Agent Disposal Facility in the United States and combined plans for destruction and verification for the following CWPFs: DC Production Facility, Pine Bluff Arsenal, the United States, and OJSC "Kaproaktam-Dzerzhinsk", Dzerzhinsk, the Russian Federation (Phase 2)(Lewisite Production). The Council will also take a decision on an agreed detailed plan for the verification of destruction of chemical weapons at the explosive destruction system, Phase 1, Unit 2/3 located at the Dugway Proving Ground in Utah. Finally, the Council will receive and consider the first progress report on the plan of action on the implementation of Article VII obligations (national implementation), as well as a comprehensive annual document on planned universality-related activities as required under the plan of action on universality.

The Secretariat has confirmed that the Conference of the States Parties at its ninth session will take place in The Hague

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

What follows is taken from issue 63 of the Harvard Sussex Program CBW Chronicle, which provides a fuller coverage of events during the period under report here and also identifies the sources of information used for each record. All such sources are held in hard copy in the Sussex Harvard Information Bank, which is open to visitors by prior arrangement. For access to the Chronicle, or to the electronic CBW Events Database compiled from it, please apply to Julian Perry Robinson

1 November Portuguese Health Secretary Carlos Martins announces that Portugal has recently purchased a stockpile of smallpox vaccine as a precautionary measure against bioterrorist acts during the UEFA Euro 2004 [Football] Championship.

1 November In the USA, the University of Pittsburgh Medical Center launches its Center for Biosecurity, which brings together the faculty and staff formerly of the Johns Hopkins Center for Biodefense Strategies, established in 1998.

3 November In the UK, Hull Crown Court sentences a hoaxer to two years in a young offenders' institution for having claimed he was a former member of a terrorist organization which was planning to release hydrogen cyanide on the London Underground. On 26 December 2002, Andrew Bean, then 17, called an anti-terror hotline using a false name and a voice distortion device and demanded £10,000 – later £20,000 – for the names and addresses of those persons that he claimed were involved in the planned act. He subsequently sent a series of emails and made a number of telephone calls in which he provided some of the details of the planned attack, as well as posting details of the threat on the Internet.

3 November The US Department of Homeland Security announces the allocation to states of more than \$2.2 billion in federal grants with a view to better preparing state and local emergency personnel for responding to future terrorist attacks. The State Homeland Security Program will allocate \$1.7 billion to improve first responders' capabilities by conducting training exercises and by purchasing equipment. About \$500 million will be provided to states through the Law Enforcement Terrorism Prevention Program, which is intended to help law enforcement agencies improve their information-sharing capabilities and reduce the vulnerability of certain high-risk targets. In addition, \$35 million is being made available to aid in the development of Citizen Corps Councils, which are intended to help engage citizens in matters pertaining to homeland security. To speed the distribution of Homeland Security funding, states will be able to apply online with one form to all three programmes.

3 November The *Washington Post* reports former Iraqi deputy Prime Minister Tariq Aziz as saying that, in spite of his trying to persuade him to the contrary, former Iraqi President Saddam Hussein insisted the United Nations restrictions on long-range missiles applied only with respect to weapons of mass destruction. The report is based on the accounts of unnamed US 'officials' who have been involved in the interrogation of Aziz since his surrender on 24 April. These officials are also reported to have said that Aziz insisted that Hussein did not have chemical, biological or nuclear weapons nor weapons programmes, but that he had ordered the development of missiles with ranges beyond that permitted by the UN Security Council.

3 November In Lubbock, Texas, the trial of Dr Thomas Butler [see 19 Oct] commences. Butler, 61, is facing 69 criminal charges ranging from lying to federal agents about the whereabouts of thirty vials of *Yersinia pestis*, to carrying undeclared samples of biological agents in to the USA, to mishandling grant funds. Potentially, the charges carry a penalty of up to 469 years in prison and more than \$17 million in fines.

3-5 November In Hanoi, delegates from the USA and Vietnam meet to discuss strategies to eradicate dioxin contamination caused by the defoliant Agent Orange used during the Vietnam War. The meeting follows on from the agreement reached by both sides last year [see 03-06 Mar 02] to conduct joint research into the affects of Agent Orange. At its conclusion, an unnamed US official says the meeting made "excellent progress on the memorandum of understanding in the area of environmental monitoring, remediation and site characterisation".

Three days later, during an official visit to the USA, Vietnamese Defence Minister Pham Van Tra urges the USA to accept responsibility for the estimated two million Vietnamese nationals who are still suffering adverse affects from the use of the defoliant. It is the first official visit to the USA by a senior defence official since the end of the War in 1975.

4 November Turkish Defence Minister Vecdi Gonul says that Iran's conventional armament and its possibility to have activities in production of nuclear, biological and chemical weapons continued to be a risk for the security of region.

4 November The News Agency of Nigeria reports the World Customs Organisation (WCO) as having called on its member states to acquire new technologies to counter the threat from terrorism and cross-border crime. The agency says the WCO Secretary-General Michel Danet made the call in a publication for member states' customs administrations; a copy of which it has obtained. In the publication, Danet stresses the need to acquire a new wide-range of technology, e.g., X-ray scanners, radioactivity detection apparatus, etc, to aid risk assessment and management, as well as advance detection of, amongst other things, nuclear, chemical or biological materials.

4 November US Under-Secretary of State for Arms Control John Bolton says, during an interview with Arms Control Today, that the Proliferation Security Initiative (PSI) [see 15 Oct] is not aimed at targeting "states that are not within existing treaty regimes that possess weapons of mass destruction legitimately". Bolton makes the comment in response to a question put to him as to why, in addition to targeting 'rogue' states and terrorist groups, the remit of the PSI does not extend to intercepting shipments of WMD-related material to Israel, India and Pakistan.

As to the legality of the PSI under international law, Bolton says: "We think we have very substantial authorities under existing national and international treaties and export control regimes to do a lot of what we're doing, and we consider also that there are aspects of customary international law that give authority as well ... We understand that there are circumstances in which our authorities may be ambiguous or open to question, and there are almost certainly circumstances where authority under current national and international interpretation doesn't exist. And, under those circumstances, the 11 PSI countries have talked about the prospect for seeking additional authority, either to clarify an existing ambiguity or fill a gap where no authority exists." Bolton refuses to give an indication of the number of PSI interdictions effected to date, saying only: "There's nobody involved in PSI in the government who would be more eager to get some of these successes out in public than I would be. But the fact is, you have to recognize that that could actually be more damaging to the overall effort than simply carrying out the interdictions and keeping them necessarily confidential".

4 November In Washington, DC, there is a *Joint Non-Lethal Weapons Program Industry Day*, sponsored by the US National Defense Industrial Association. The purpose of the event is to impart information to industry representatives on current and future US military requirements with regard to non-lethal weapons.

5 November In Moscow, Dutch Ambassador to Russia Tiddo Hofstee and Russian Munitions Agency Director-General Viktor Kholstov sign an agreement under which the Netherlands is to provide EUR 4 million over the next year on electrical equipment to overhaul the power station at the Kambarka chemdemil facility. It is the second such contribution made by the Netherlands, it having previously contributed EUR 2 million to finance the installation of an external power-supply system at the Gorny chemdemil facility [see 21 Aug 02].

5 November In Pretoria, after a hearing lasting two days, the Constitutional Court of South Africa reserves judgment – to give both sides more time to submit further written arguments – with regard to the state's application for an order granting the possibility of a re-trial of the former head of the South African CBW programme, Wouter Basson. On the first day of the hearing, state prosecutor Wim Trengrove indicated to the court that the state had not yet decided whether or not to prosecute Basson again, should it be given leave to do so, and that it may decide to prosecute him on a limited number of charges. Pretoria High Court Judge Willie Hartszenberg acquitted Basson on 46 charges [see 11 Apr 02], refusing a request early in the trial by the state prosecutor to excuse himself on the grounds of his being biased towards the accused. In June, the Supreme Court of Appeal ruled that the state did not have the right to appeal against *inter alia* Hartszenberg's refusal to excuse himself since the refusal did not relate to an error of law on the part of Hartszenberg, rather one of fact. The application to the Constitutional Court is aimed at securing special leave to appeal the judgment of the Supreme Court of Appeal.

5 November In Rome, Italian Foreign Minister Franco Frattini and Russian Foreign Minister Igor Ivanov sign an agreement under which Italy is to grant EUR 720 million to Russia towards its chemdemil programme and decommissioning of its Soviet-era nuclear submarines. The grant will be used for, amongst other things, the construction of a new facility in Pochev [see 11 Mar], north-western Russia. The agreement is signed during Russian President Vladimir

Putin's three-day visit to Italy.

5 November The German government extends by one year the mandate of the Bundeswehr to operate under Operation Enduring Freedom, i.e. until November 2004. However, the unit of 800 deployed to Kuwait to assist in the event of a nuclear, chemical or biological attack is to be withdrawn. The total contingent will accordingly be reduced from 3,900 – the maximum number of Bundeswehr troops that can be assigned for international missions – to 3,100

5 November The London *Guardian* reports the UK government as having this year approved the export to Israel of, amongst other things, "chemical and biological agents such as tear gas". The report states that "the hitherto undisclosed arms sales" were revealed by a letter written by Minister for Export Controls Nigel Griffiths to Member of Parliament Menzies Campbell. In its annual human rights report the UK Foreign Office says: "The outbreak of the intifada, the continued Israeli incursions in the occupied territories and the breach of Israel's 2000 assurance that UK-originated equipment would not be used in the occupied territories, have all been factored into the UK government's export licensing policy."

5 November From Geneva, the World Health Organization (WHO) is unprepared to deal with a global bioterrorist attack involving an agent such as smallpox because of a severe lack of funding for surveillance and front-line defences, according to project manager for the WHO's Global Alert and Response Network Patrick Drury. He says – as reported in the *Washington Post* – that the recent bioterrorism exercise, Global Mercury [see 8-10 Sep], underlined the drawbacks of defending against bioterrorism threats on a nation-by-nation basis. "We'd like to see the United States engage in this as a multilateral effort", says Drury. "They seem to be unilateral or bilateral in what they are doing". US health officials refute the charge, saying that the USA is trying to balance domestic and international strategies.

6 November The Czech Ministry of Defence announces that its scientists are collaborating with their US counterparts – possibly to be joined later by scientists from other NATO countries – in developing long-distance detectors of chemical and biological weapons, under a project approved by NATO's scientific and military committees. The said detectors will use laser technology, a procedure related to previous research in detecting chemical substances. However, "expanding it to include long-range detection of biological materials is a problem that still remains to be solved", says Jaromir Cmiral, from the research and development section of the Ministry, during a NATO conference on military research in Prague. It is envisaged that the detection equipment should be able to detect the presence of toxic chemicals or biological substances at a distance from 50 metres to 2 kilometres, however, it will not determine their precise nature. "Presently, we are completing the chemical part and beginning with the biological part, and assume it to be complete by 2006", says Cmiral.

6 November The UK House of Commons Science and Technology Committee publishes its report *The Scientific Response to Terrorism*. It criticises the Government for being "far too preoccupied with the danger of alarming the public" with regard to providing information to the public which is already in the public domain. This, it says, has had the effect that "the government breeds cynicism and results in a public with even less confidence that adequate measures are in place or being put in place to protect it." The report calls for the introduction of an ethical code of conduct for scientists with a

view to heightening awareness of the potential misuse of their research by terrorists. It says that if the scientific community does not take stronger action to regulate itself, it risks having "ill-judged restrictions" placed upon it by politicians, due to mounting concern within the UK government. In this regard, it urges the research community to take the lead in setting up the new ethical code of conduct, and suggests researchers who failed to comply with it should be refused grants from the councils and memberships to relevant societies. The Committee expresses alarm that there has been very little new investment in research into countermeasures to chemical, biological, radiological, and nuclear attacks. It advises that there be established a Centre for Home Defence to address the lack of an "overall civilian counter-terrorism research strategy and a civil Government research facility". Following publication of the report, Chair of the Committee Ian Gibson says: "We need to follow the US example and put a lot of money into encouraging research right across the board to handle the potential terrorist threat."

6 November US Department of Defense (DoD) officials confirm reports that sometime between February this year until just days before the US-lead invasion of Iraq [see 20 Mar], a DoD analyst received a secret message from a Lebanese-American businessman indicating that Iraq wanted to make a deal to avert war. The Associated Press quotes the officials, speaking on condition of anonymity, as saying that the chief of the Iraqi Intelligence Service and other Iraqi officials had told the businessman they wanted the USA to know that Iraq no longer had weapons of mass destruction. They also offered to allow US troops and experts to conduct an independent search and to hand over a person suspected of having been involved in the 1993 World Trade Center bombing who was being held in Baghdad. Responding to the revelation, DoD spokesman Lawrence Di Rita says: "Iraq and Saddam had ample opportunity through highly credible sources over a period of several years to take action to avoid war and had the means to use highly flexible channels to do that. Nobody needed to use questionable channels to convey messages".

6 November From Austin, Texas, the Bioweapons and Biodefense Freedom of Information Fund – a Sunshine Project initiative to increase the public accountability of biodefense research – is launched. Its purpose is to promote the involvement of civil society in biological weapons control issues by increasing the public availability of government information on biodefense programs and other research on biological weapons agents. The Fund will use US federal and state open records laws to obtain primary documentation and support citizens groups and researchers by assisting them to obtain access to public records. Its website, www.cbwtransparency.org, will house an online library of released documents.

7 November In Berlin, the health ministers of Canada, France, Germany, Italy, Japan, Mexico, the UK, the USA, together with the Director-General of the World Health Organization and the EU Commissioner of Health and Consumer Protection, convene for the fourth [see 06-07 Dec 02] Ministerial Forum of the Global Health Security Initiative. The Ministerial Statement issued at the end of the Forum reads thus:

"One challenge we face is ensuring timely and effective communications among our national governments in order to deal with public health crises such as an outbreak of smallpox ... We commend the effort of all member countries and organizations in making *Exercise Global Mercury* a

success [see 8-10 Sep] ... From the outset of the Global Health Security Initiative we have attached considerable importance to strengthening our public health preparedness and response to a possible smallpox incident ... Since we last met in Mexico City in December 2002: The United States and the World Health Organization (WHO) have completed a model train-the-trainers course on containing a smallpox outbreak. We agreed that the training materials for this course will be made available to the international community. To this end, we approved a distribution plan to be implemented without delay. Italy has completed a report on strategies for isolation techniques for patients with smallpox and other highly contagious viral agents based on a meeting of experts, and we have decided that this report should be shared with other countries. We agreed to continue our collaboration in this area. Our countries have successfully evaluated and shared information on the effectiveness of our respective smallpox detection assays at a smallpox practical laboratory workshop hosted by the United States. We are pleased to report that all countries performed to an acceptable standard. We agreed to continue our collaboration in this area. We reaffirmed our commitment to strengthening the WHO smallpox vaccine reserve.

We have consolidated our effort on smallpox and risk management and communications by forming a new Working Group on Risk Management and Coordination ... Steps were taken to strengthen the coordination and collaboration among participating national high-level laboratories through the Global Health Security Action Group (GHSAG) Laboratory Network: We approved the Terms of Reference for the GHSAG Laboratory Network. We are addressing the challenges related to the issue of transporting diagnostic specimens and reference materials across international borders, and have agreed to work together to that end. We welcomed the external quality assurance program developed by Germany for the Network. We welcomed the smallpox laboratory training exercise developed by the US for the Network ... The UK will host an anthrax testing workshop in March 2004.

We approved the generic criteria for priority chemicals, developed by the working group led by Japan, to improve preparedness for and response to chemical events. We anticipate proceeding to the next steps, such as identifying those chemicals for international collaboration, developing the inventory of scenarios and research, as well as a study on the feasibility of an international exercise ... We approved the initiative by Mexico to improve the field epidemiology response to a public health emergency of international concern. Led by the European Commission, we will pursue better collaboration on research in order to, for example, facilitate the exchange of information, the identification of common interests and research gaps, and to consider opportunities for joint research. We have called for concrete progress in these areas for our 5th Ministerial meeting ... Furthermore, we recognize that preparedness for and response to bioterrorism have much in common with preparedness for and response to naturally occurring global health threats such as pandemic influenza. Much work needs to be done to enhance preparedness by member countries and globally by addressing critical issues for an effective pandemic response. To this end we have agreed to the Terms of Reference for the Technical Working Group on Pandemic Influenza Preparedness. The Technical Working Group will focus on critical gaps related to the rapid development, evaluation and availability of pandemic influenza vaccines; and, the optimal use of antiviral drugs. This group will carry out its work in conjunction with the WHO and other appropriate international organizations. We have accepted the

invitation of France to host the 5th Ministerial meeting in Paris in the autumn of 2004.”

7 November The US House of Representatives votes to repeal a ten-year moratorium on research into low-yield nuclear weapons [see also 7 Aug] under the FY 2004 Defense Authorization Bill, to be approved by the Senate next week. The move comes in response to President George Bush recently having argued that the USA must maintain the technology and skills required to develop new weapons to counter threats of chemical, biological and nuclear attacks. The FY 2004 Bill [see 2 Dec 02] – which allocates around \$410 billion to the US defence budget – would, amongst other things, provide US nuclear weapons laboratories with \$6 million to explore new nuclear weapons designs and \$15 million to conduct a study of the feasibility of modifying existing high-yield nuclear weapons to develop warheads capable of being used as ‘bunker-busters’. The Bill matches the President’s request by providing for \$450.8 million under the Co-operative Threat Reduction Program. Under the Program, \$57.6 is allocated to Russian chemdemil; \$54.2 million to biological weapons proliferation prevention in the former Soviet Union; and \$39.4 million to WMD proliferation prevention in the former Soviet Union. The Bill also allocates \$1.3 billion to the Department of Energy’s non-proliferation programmes, which amounts to \$8 million less than that requested by the President.

7 November In North Carolina, a district court rules that the manufacturing of methamphetamine does not constitute creating a weapon of mass destruction, and so dismisses fifteen cases against Watauga County individuals charged under North Carolina General Statute 14-288.21. Judge James Baker rules that the law is unconstitutional on its face in that it applies to methamphetamine manufacturers. The District Attorney’s office announces that it is to appeal the ruling to the North Carolina Court of Appeals. According to the District Attorney’s office, the WMD statute applies to methamphetamine producers because the process of ‘cooking’ methamphetamine creates toxic and potentially explosive chemicals.

8 November In Qiqihar, in the Chinese north-eastern province of Heilongjiang, a team comprising nearly 100 Chinese and Japanese chemical weapons and medical experts commence an operation to seal-up chemical munitions housed in a warehouse [see also 6 Sep]. The Japanese Imperial Army abandoned the munitions during its occupation of north-eastern China in the Second World War. According to local government official Guo Haizhou, officials from the United Nations will join the team of experts to monitor the destruction. The operation involves the disposal of a total of 724 chemical munitions, comprising 143 found in Qiqihar, 24 in Daqing City, 217 in Heihe City, 340 in Beian City, and the barrels of mustard gas recently uncovered at a building site in Qiqihar [see 4 Aug]. Three weeks later the operation is completed.

10 November The US Central Intelligence Agency submits its *Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions, 1 July Through 31 December 2002* [see 10 Apr] and for *1 January Through 30 June 2003* in accordance with S.721 of the FY1997 Intelligence Authorization Act. As in previous reports, both reports state that they have “excluded countries that already have established WMD programs, as well as countries that demonstrated little WMD acquisition activity of concern”.

Iraq: The report for the period 1 January to 30 June 2003 states: “Iran continued to vigorously pursue indigenous programs to produce WMD ... During the reporting period, Iran still focused particularly on entities in Russia, China, North Korea, and Europe.” Both reports state: “Iran is a party to the [CWC]. Nevertheless, during the reporting period it continued to seek production technology, training, and expertise from Chinese entities that could further Tehran’s efforts to achieve an indigenous capability to produce nerve agents. Iran likely has already stockpiled blister, blood, choking, and probably nerve agents – and the bombs and artillery shells to deliver them – which it previously had manufactured. Even though Iran is part of the [BWC], Tehran probably maintained an offensive BW program. Iran continued to seek dual-use biotechnical materials, equipment, and expertise. While such materials had legitimate uses, Iran’s biological warfare (BW) program also could have benefited from them. It is likely that Iran has capabilities to produce small quantities of BW agents, but has a limited ability to weaponize them.”

Iraq: The report for the period 1 July to 31 December 2002 states: Renewed UN inspections in Iraq produced no substantial evidence of continued efforts on Iraqi CW during 2002. However, it was likely that Iraq sanitized the ammunition dump at Taji for chemical weapons in November and December 2002, in anticipation of UN inspections. Iraq also bulldozed earth from large portions of the al-Musayyib chemical complex in July 2002, possibly in order to conceal evidence of CW. We believed that, since December 1998, Iraq increased its capability to pursue chemical warfare (CW) programs. After both the Gulf war in 1991 and Operation Desert Fox in December 1998, Iraq rebuilt key portions of its chemical production infrastructure for industrial and commercial use, as well as former dual-use CW production facilities and missile production facilities. Iraq attempted to purchase numerous dual-use items for, or under the guise of, legitimate civilian use. The suspension of UN inspections in December 1998 increased the risk of diversion of such equipment. In addition, Iraq admitted in December 2002 to repairing and installing equipment that had previously been destroyed under UNSCOM supervision. The equipment was reinstated at a civilian chemical plant and was also used at CW-related facilities, which produced chlorine and other chemicals. Some of these facilities could have been converted fairly quickly for production of CW agents ... The last part of 2002 that saw UN inspections renewed inside Iraq neither proved ongoing Iraqi BW work nor satisfactorily addressed any of the many outstanding BW concerns, but Baghdad continued to pursue a BW program during the second half of 2002. For example, imagery indicated that Iraq moved material out of the Amiriyah Serum and Vaccine Institute in November 2002 in anticipation of UN inspections ... US Secretary of State Powell presented to the UN Security Council [see 5 Feb] information from multiple human sources that indicated the existence of mobile biological agent production units.”

North Korea: Both reports state: “North Korea is not a party to the [CWC]. During the reporting period, Pyongyang continued to acquire dual-use chemicals that could potentially be used to support Pyongyang’s long-standing chemical warfare program. North Korea’s chemical warfare capabilities included the ability to produce bulk quantities of nerve, blister, choking and blood agent, using its sizeable, although aging, chemical industry. North Korea possesses a stockpile of unknown size of these agents and weapons, which it could employ in a variety of delivery means. North Korea has acceded to the [BWC], but nonetheless has pursued

biological warfare (BW) capabilities since the 1960s. Pyongyang acquired dual-use biotechnological equipment, supplies, and reagents that could be used to support North Korea's BW efforts. As of the first half of 2003, North Korea was believed to have possessed a munitions production infrastructure that would have allowed it to weaponize BW agents, and may have such weapons available for use."

Libya: The report for the period 1 July to 31 December 2002 states: "Libya also remained heavily dependent on foreign suppliers for CW precursor chemicals and other key related equipment. Following the suspension of UN sanctions, Tripoli reestablished contacts with sources of expertise, parts, and precursor chemicals abroad, primarily in Western Europe." The report for the period 1 January to 30 June 2003 states: "Following the suspension of UN sanctions, [Libya] reestablished contacts with sources of expertise, parts, and precursor chemicals abroad, primarily in Western Europe. Libya has indicated – as evidenced by its observer status at the April 2003 [CWC] Review Conference and previous Convention Conferences of States Parties – a willingness to accede to the CWC. Such efforts are consistent with steps that Tripoli is taking to improve its international standing." Both reports conclude by stating: "Tripoli still appeared to be working toward an offensive CW capability and eventual indigenous production. Evidence suggested that Libya also sought dual-use capabilities that could be used to develop and produce BW agents."

Syria: The report for the period 1 July to 31 December 2002 states: "Syria sought CW-related expertise from foreign sources during the reporting period. Damascus already held a stockpile of the nerve agent sarin, but apparently tried to develop more toxic and persistent nerve agents. Syria remained dependent on foreign sources for key elements of its CW program, including precursor chemicals and key production equipment. It is highly probable that Syria also continued to develop an offensive BW capability." The report for the period 1 January to 30 June 2003 repeats the aforementioned report *verbatim*, with the exception of replacing "Syria sought ..." with "Syria continued to seek ..."

Sudan: The report for the period 1 July to 31 December 2002 states: "Sudan has aspired to develop a chemical warfare capability since the 1980s and probably received technical assistance from Iraq. Allegations of CW activities in Sudan were not confirmed. Sudan is a party to the CWC, but has only declared the possession of riot control agents. Sudan may be interested in a BW program as well." The report for the period 1 January to 30 June 2003 states: "Although Sudan has aspired to a CW program, the US is working with Sudan to reconcile concerns about its past attempts to seek capabilities from abroad."

China as a 'key supplier': Both reports state: "Since 1997, the US imposed numerous sanctions against Chinese entities for providing material support to the Iranian CW program. Evidence during the current reporting period showed that Chinese firms still provided dual-use CW-related production equipment and technology to Iran."

Russia as a 'key supplier': The report for the period 1 July to 31 December 2002 states: "During the second half of 2002, Russian entities remained a key source of dual-use biotechnology equipment and expertise for Iran. Russia's biological and chemical expertise made it an attractive target for Iranians who sought technical information and training on BW and CW agent production processes." The report for the period 1 January to 30 June 2003 states: "During the first half of 2003, Russian entities remained a key source of dual-use biotechnology equipment, chemicals and related expertise for

countries of concern with active CBW programs. Russia's well-known biological and chemical expertise made it an attractive target for countries seeking assistance in areas with CBW applications."

Western European countries as key suppliers: Both reports state "Western European countries were still an important source for the proliferation of WMD- and missile-related information and training. The relatively advanced research of European institutes, the availability of relevant dual-use studies and information, the enthusiasm of scientists for sharing their research, and the availability of dual-use training and education may have shortened development time for some WMD and missile programs." The report for the period 1 July to 31 December 2002, however, concludes the paragraph with: "including those of terrorist organizations" after the words "WMD and missile programs".

10-11 November In Copenhagen, there is a workshop on *Restructuring Multilateral Export Controls: Towards a New Regime for the 21st Century*, hosted by the Center for International Trade and Security at the University of Georgia, USA. The objective of the workshop is to examine various models for restructuring multilateral export controls.

10-14 November In Geneva, delegates from 92 states parties to the BWC convene under the 'new process' to discuss the strengthening of national implementation measures, following consideration of the matter by experts from 83 states at the recent experts' meeting [see 18-29 Aug]. "In our view, the primary task of this meeting of states parties should be the adoption of an agreed final document, identifying those common elements and recommending them for national implementation," says German Ambassador Volker Heinsberg, in comments similar to those by New Zealand, Sweden and others. A statement issued by Pakistan states "It is our desire and hope that by the end of this week we would have arrived at some common understandings on the basis of the best practices, to be pursued on a voluntary basis." The US delegation, however, views the conference principally as an opportunity for exchanging information and encouraging states to take action at home regarding specific issues. "We do not believe we should try to negotiate an agreement by the parties at this annual meeting on sets of 'common elements' or 'best practices' relating to national implementing measures and/or biosecurity," says head of the US delegation Ambassador Donald Mahley. He says the conference should produce two outcomes: a determination to review, update or implement national measures and a commitment to help treaty parties meet their obligations. The final report adopted by the meeting reads thus:

"At the Meeting of States Parties, States Parties noted that notwithstanding the differing legal and constitutional arrangements among the 151 States Parties to the Convention, States have adopted similar basic approaches and share common principles. The States Parties stressed the need for undertaking activities at the national level in keeping with their obligations and responsibilities to strengthen and implement the Convention. The States Parties agreed, to that end, on the value of the following:

To review, and where necessary, enact or update national legal, including regulatory and penal, measures which ensure effective implementation of the prohibition of the Convention, and which enhance effective security of pathogens and toxins.

The positive effect of cooperation between States Parties with differing legal and constitutional arrangements.

States Parties in a position to do so may wish to provide legal and technical assistance to others who request it in framing and/or expanding their own legislation and controls in the areas of national implementation and biosecurity.

The need for comprehensive and concrete national measures to secure pathogen collections and the control of their use for peaceful purposes. There was a general recognition of the value of biosecurity measures and procedures, which will ensure that such dangerous materials are not accessible to persons who might or could misuse them for purposes contrary to the Convention.

States Parties considered that agreement on the value of these measures discussed at the Meeting constitutes an essential effort to facilitate more effective implementation and enforcement of the Convention, as well as providing a basis for review of progress at the 2006 Review Conference.”

The report also states that “a complete list of documents of the [meeting], including the working papers submitted by States Parties, is contained in [its] Annex I”.

11 November In Jerusalem, three members of Hamas indicted last year [see 020909] for planning to poison Israeli guests at a café – with a poison that they told police had no taste or smell and takes effect around fifteen hours after ingestion – are each sentenced to between five and ten years’ imprisonment. Utman Said Kianyeh, 23, who had been employed for three years by the café as an assistant chef is sentenced to five years; Moussa Mohammed Nasser, 23, is sentenced to seven-and-a-half years; and Sufian Bakri Abadi, 24, considered to be the main instigator, receives a ten-year sentence.

11 November In Geneva, at the Palais des Nations, there is a symposium on *Moving Beyond Treaty Regimes: The UNMOVIC Model*, which is being sponsored by the American Scientists Working Group on Biological and Chemical Weapons. Making presentations are Frank Ronald Cleminson, UNMOVIC Commissioner, UNSCOM Commissioner, and former Senior Advisor on Verification for the Canadian Department of Foreign Affairs; and Kay Mereish, head of UNMOVIC’s Biological Planning Operations, and former UNSCOM biological weapons inspector.

11 November In Brussels, the Council of the European Union adopts a *Council Common Position on the Universalisation and Reinforcement of Multilateral Agreements in the Field of Non-Proliferation of Weapons of Mass Destruction and Means of Delivery*. The document comprises eleven articles, the first of which sets out the objectives of the Common Position. These include the promotion of the universal ratification and adherence to the BWC and CWC. Article 2 states that in attaining the said objectives, member states should focus on reinforcing compliance of international agreements by enhancing the detectability of violations, and strengthening the enforcement of obligations under the agreements. It states that “particular emphasis will be placed on making best use of existing verification mechanisms and, where necessary, establishing additional verification instruments as well as strengthening the role of the UN Security Council” in this regard. Article 7 – relating to the BWC – states one of the objectives as being to “work towards identifying effective mechanisms to strengthen and verify compliance within the BTWC”. The adoption of the Common Position follows the adoption by the Political and Security Committee of the Council of the European Union of *Basic Principles of an EU Strategy against Proliferation of Weapons of Mass*

Destruction and the Action Plan for Implementation of the Basic Principles of an EU Strategy against Proliferation of Weapons of Mass Destruction [see 16 Jun].

11 November In Ieper, Belgium, there is a ceremony to commemorate the eighty-fifth anniversary of the end of the Great War. An OPCW press release states that poison gas was first used as a method of warfare on the battlefields of Ieper on 22 April 1915.

11 November The Canadian Press news agency reports a secret intelligence report distributed to key federal authorities by the Privy Council Office, which expresses concern that members of al-Qaida could use lethal substances such as ricin and botulinum in terrorist acts. The Canadian Press obtained a declassified version of the report dated February 2003 *Ricin and Botulinum: Terrorist Use of Toxins* under the Canadian Access to Information Act. Of the said agents, the report says: “[T]hey have considerable potential as terrorist weapons for isolated incidents causing small-scale casualties along with public panic and disruption”. It states that terrorist acts using ricin would likely involve the contamination of food or water, or dissemination as an aerosol. “Ricin is water-soluble, and water supplies can therefore remain contaminated for a considerable length of time”, it says. The study was prompted by the discovery in January of ricin at a flat in London [see 5 Jan] and the discovery last year of al-Qaida training manuals relating to the production and use of such toxins.

11 November At the New York Academy of Sciences, there is a symposium on *National Security and Biological Research: Where are the Boundaries?* Participants debate the changing relationships between science and law enforcement, and major initiatives to preserve scientific integrity whilst maintaining security interests, thereby facilitating better cooperation between scientists and government agencies. There is a consensus that regulations and institutional policies, as well as oversight from funding agencies, are already affecting laboratories involved in sensitive research. Ronald Atlas, co-director of the Center for the Deterrence of Biowarfare and Bioterrorism at the University of Louisville, Kentucky, and former president of the American Society of Microbiology says: “We need to take a bottom-up approach – looking at what we’re doing and deciding how we, as scientists, can best protect society while preserving scientific integrity.” He endorses the recently released National Research Council (NRC) report *Biotechnology Research in an Age of Terrorism* [see 8 Oct] also known as the Fink Report, which concluded that existing regulations and self-monitoring by scientists are sufficient to protect against misuse of research findings by ‘hostile individuals’. However, Elisa Harris, senior research scholar at the Center for International and Security Studies at Maryland (CISSM), says that the NRC approach has a number of “shortcomings”. Harris – who together with her colleagues at CISSM has been involved in the development of a biological research security system [see 11-12 May 01] – says there is a need for national licensing of researchers and institutions involved in potentially dangerous research; a global, rather than US-based regulatory scheme; and more powers of enforcement as opposed to guidelines. Other speakers address the difficulties in deciding whether to publish research that might be useful to bioterrorists, and the importance of a team approach – researchers working with public health officials and law enforcement – in identifying and containing potentially harmful outbreaks. William Zinnakis,

Weapons of Mass Destruction Coordinator for the FBI's New York office says that academic researchers need to "come out of their ivory towers" and be more aware of the possible real-world consequences of their work.

11-12 November In Moscow, there is the Fifth National Dialogue Forum [see 11-12 Nov 02] on the *Russian Implementation of the 'Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction'*, organized by Green Cross Russia, in coordination with Green Cross International and Global Green USA. The purpose of the forum is to provide updated information to the public on the status of Russian chemdemil; discuss current challenges; ask local, regional, national, and international stakeholders for input; and determine next steps for safe and environmentally sound chemdemil in Russia. Attending the forum are representatives from regions where chemdemil operations are taking place, federal ministries and agencies, states providing assistance to the Russian chemdemil programme, the OPCW, the US Cooperative Threat Reduction Program, academia and the media. Chairman of the Russian State Commission for Chemical Disarmament and representative of the federal district of Volga Sergei Kiriyyenko says that Russia is in a position to assist China in disposing of chemical munitions abandoned there by the Japanese Imperial Army during the Second World War. He says: "[Russia] had a wealth of expertise in the destruction of ammunition which had been lying in the ground over a long period and which does not require special complex technology to be made safe ... I happen to have taken part in Chinese-Japanese talks on the problem ... The difficulty is that procedural issues have not yet been resolved – the chemical weapons are Japanese but they are situated in China. There is also a technical aspect – the ammunition had been lying in the ground for too long."

Meanwhile, Ekho Moskvyy radio station reports former hostages and relatives of those who died during the Moscow theatre siege – who have formed a group called Nord-Ost – [see 26 Oct 02] as having asked participants "to pass a resolution on so-called non-lethal weapons and raise the issue of the need to check special arsenals used by security agencies". The message, it reports, argues that "there is no such thing as 'non-lethal' chemical weapons" and calls on the denunciation of their use.

13 November In Tokyo, delegates from Brunei Darussalam, Cambodia, Indonesia, Japan, the Republic of Korea, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam convene for the Asian Senior-level Talks on Non-Proliferation (ASTOP). Australian and US representatives also participate. The purpose of the talks is to discuss the non-proliferation of chemical, biological and nuclear weapons, their delivery means, and their related materials and technology. The delegates report on non-proliferation activities in their respective countries, and make proposals for strengthening regional co-operation in this regard. They discuss the need to further develop national authorities, legislation and capabilities in order to strengthen the non-proliferation mechanisms.

13 November In the USA, a research team has synthesized a virus from commercially available ingredients within a timeframe of two weeks, according to the journal *Nature*. The team, from the Institute for Biological Energy Alternatives, Rockville, Maryland, constructed the virus – known as phi-X174 – by following its published genetic

sequence. Genetically, one of the resulting virus strains was 100% identical to the natural virus, according to team-leader Craig Venter. It marks the second occasion that a virus has been synthesized from commercially available ingredients. However, the synthesis of the first, a poliovirus [see 11 Jul 02] took around three years to complete.

13 November In Tyler, Texas, a man pleads guilty to one count of possessing a dangerous chemical weapon after investigators discovered the components needed to make lethal cyanide gas at a rented storage facility [see 28 Aug]. William Krar, 62, was charged with, amongst other things, possessing sodium cyanide. Krar's co-defendant, Judith Bruey, 54, pleaded guilty to conspiracy to possess illegal weapons. Prosecutors said they found a large quantity of sodium cyanide and hydrochloric, nitric and acetic acids at the storage facility which Krar shared with Bruey. Investigators found the chemicals and other materials in April whilst investigating Krar on an unrelated incident in which a package he mailed to an address in New Jersey was accidentally delivered to a residence in Staten Island, NY, in January 2002. The package contained false identification documents and was reported to authorities. Krar faces nine to eleven years in prison and a \$250,000 fine. Bruey faces a maximum of five years in prison and a \$250,000 fine.

14 November In Russia, the chemdemil facility at Gornyy completes the disposal of its 622.3 tonne stockpile of mustard gas [see 19 Dec 02]. The decommissioning of equipment used for the operation commences immediately. Disposal of lewisite will commence upon completion of the decommissioning of the said equipment.

14 November The Czech Republic is to provide approximately EUR 60,000 towards the construction of an electricity substation at the Russian chemdemil facility in Shchuch'ye, where around 95 per cent of Russia's declared chemical artillery munitions stockpile is to be destroyed. The UK Ministry of Defence heads the project under which the money is to be used.

14 November The US Central Intelligence Agency's search for weapons of mass destruction in Iraq has found no evidence that Iraq tried to transfer chemical or biological technology or weapons to terrorists, according to a report authored by Anthony Cordesman, a senior fellow at the Center for Strategic and International Studies. The "only possibility" of a transfer of equipment to terrorists "was Saddam's Fedayeen and talk only", writes Cordesman. The report is based on briefings that have taken place over the past two weeks in Iraq by David Kay, US civil administrator Paul Bremer and military officials.

14 November The US Department of Homeland Security (DHS) announces that a \$60 million network to assist in detecting a biological attack has been set up in thirty-one cities across the USA. The BioWatch system is collecting air samples at around a dozen sites in each of the cities, which are then checked for pathogens, the aim being to discover if any bacteria or viruses have been released into the air as part of a biological attack. The system has been installed primarily in major urban areas such as Washington D.C., New York City and Houston. It will only identify harmful agents once they have been released, however, it is intended to allow officials to dispense drugs, ideally before any symptoms appear among those affected.

14 November The US Centers for Disease Control and Prevention (CDC) announces that the USA never launched a smallpox vaccination program this year, but, rather, worked towards an overall preparedness campaign. In January, a statement given by CDC Director Julie Gerberding before the Senate Health Committee had the title *The Smallpox Vaccination Plan: Challenges and Next Steps*. During the hearing, she said health officials were planning to establish 1,500 clinics to deliver the vaccine and state authorities had identified “over 3,300 health care facilities that will participate in the program.” Gerberding now says that the USA “didn’t actually have a vaccination program”, but a “comprehensive smallpox preparedness program”.

14 November In the USA, former Executive Chairman of UNSCOM Rolf Ekéus addresses the Monterey Institute of International Studies on the methods used to detect and assess weapons of mass destruction programmes in Iraq and the lessons that emerged from the twelve years of inspections. Ekéus says that during the said period the most beneficial source of surveillance information was the high-level reconnaissance flights begun in the summer of 1991. He says: “The U2 planes took two types of cameras... The first detected building activity and changes on the surface, and this gave us assurances and clearance of what was going on all over this very large territory. More dramatic, however, was the high-resolution camera, although this implies that we had to know what to look for. Eventually we did, and we started to get more and more interesting targets.” With regard to intelligence supplied to UNSCOM, he says that intelligence agencies routinely cleanse the information they provide in order to maintain the secrecy of their sources and their methods of information collection. “It is not easy to be a consumer of such secret information”, says Ekéus. “By the time you get the final product, there isn’t much left”. He notes that defectors were frequently unreliable, and their information was difficult, if not impossible, to verify without utilizing “unappetizing methods”.

15 November The UN Security Council sanctions committee on al-Qaida and the Taliban (established in 1999 pursuant to Security Council resolution 1267) says in a confidential report that the al-Qaeda network “have already taken the decision to use chemical and bio-weapons in their forthcoming attacks”, according to the Associated Press. The report, however, says “the only restraint they (al-Qaida) are facing is the technical complexity to operate them properly and effectively.” It does not cite any specific new evidence, noting only the recent discovery of several canisters of unidentified chemicals and possible residues of a “tetanus virus-carrying chemical” and a bio-terror manual in a police raid on a Jemaah Islamiyah hideout in the southern Philippines. “The risk of al-Qaida acquiring and using weapons of mass destruction also continues to grow”, it says.

15 November The US Central Intelligence Agency releases a document (dated 3 November 2003) by the Strategic Assessment Group, warning that recent advances in biotechnology could give life to “designer” biological weapons. Such weapons, the document says, could be made to target selected groups of people, to activate after a given period of time has elapsed, and to be activated by subsequent prophylaxis. The meeting of the Group, comprising a panel of life-science experts, was held in private at an undisclosed location and was organized by the US National Academy of Sciences at the behest of the CIA. The object of the meeting

was to devise strategies for dealing with the dangerous by-products of the so-called ‘genomic revolution’. The document warns, “the effects of some of these engineered biological agents could be worse than any disease known to man”, and that explosive growth in knowledge about genes and their functions could make traditional means of monitoring weapons of mass destruction obsolete, e.g., by the use of binary biological agents. “A particularly insidious example would be a mild pathogen that when combined with its antidote becomes virulent,” it says. The document cites, as an example, the possibility of designing a virus which, acting alone, would cause flu-like symptoms but that would turn deadly when its target takes an aspirin with the intention of relieving a headache. Other “designer” biological weapons could be created to resist antibiotics, evade an immune response and permanently destroy a person’s genetic make-up, according to the panellists.

17 November Russian Secretary of State and Deputy Director-General of the Russian Ammunition Agency Vyacheslav Kulebyakin announces that the chemical weapons facilities at Volgograd and Novocheboksarsk have been decommissioned. “All special equipment, buildings, and infrastructure that were used for producing chemical weapons have been disposed of”, says Kulebyakin.

17 November The *New York Times*, quoting “several” unnamed officials, reports that a broad reappraisal by the US government of intelligence relating to illicit weapons programmes around the world is prompting a softening of some earlier assessments. The reappraisal comprises “two parallel, highly classified reviews by the National Intelligence Council” and is based on a review of assessments made on the basis of old intelligence and on new information, when that is available. The article states that the officials said one key new judgment is that the chemical weapons assessment expresses less certainty than before regarding the status of China’s chemical weapons programme. Whilst China is still believed to possess chemical weapons, the officials are reported as claiming the new review concludes that current intelligence is not sufficient to support an earlier firm judgment that those weapons have been deployed with military units. Other than the reappraisal of China, the officials decline to specify which judgments were being revised, except to say that in the cases of a number of countries the judgments being reached would reflect less certainty than in the previous review. “The analysts are insisting that the judgments be backed up by hard evidence, not supposition”, an unidentified government official familiar with the process is quoted as saying.

18 November In London, a consortium of research institutes release the *Global Partnership Update*, which states that western governments and Russia are moving far too slowly to stop terrorists from acquiring weapons of mass destruction and related materials. The study – primarily funded by the Nuclear Threat Initiative (NTI) – concludes that of the total of \$20 billion pledged by the G8 last year [see 26-27 Jun 02] to secure stockpiles of nuclear, chemical and biological materials, “only a tiny fraction” has been spent or even allocated to specific projects. “The threat is outpacing the response” and the rate of success in securing such sites is too slow, according to the head of the NTI, Sam Nunn. “At the pace we’re going, you’re talking about 20 years ... I don’t think we’ve got that long”, says Nunn. Apart from money, the report says “Russian bureaucratic foot dragging” is also hampering progress. The consortium comprises sixteen countries – led by the

Washington-based Center for Strategic and International Studies. The study was primarily funded by the NTI.

18 November The US Agriculture Department's Office of Inspector General has found that security and oversight are lacking at many federally-funded US university laboratories containing hazardous biological agents, according to a report issued in September and made available today on the Office of Inspector General's Web site. The report surveyed 104 laboratories that receive departmental funding and found that only two had central databases for monitoring biological agent inventories, whilst only five had institutionalized procedures for reporting missing agents. It recommends that the Department of Homeland Security establish security guidelines for all federally-funded laboratories, which should include requirements to maintain central databases, improve security and create procedures for the reporting of missing biological agents.

18 November The US Army says that a twenty-two year-old reservist who died in April may have succumbed to a combination of vaccinations, including those for smallpox and anthrax. Making the announcement, John Grabenstein of the Army Surgeon General's office says that Rachel Lacy died from "a complicated illness, diagnosed as 'like lupus'", but whilst it was "a rare and tragic case", the military's vaccination policies would not change as a result. One month before she died, Lacy had received five shots to protect her against smallpox, anthrax, hepatitis B, typhoid, measles, mumps and rubella. She later became sick with aches and fever resembling the flu. Her condition deteriorated to the point where her symptoms resembled that of lupus. She died from bleeding of the lungs.

18 November The US National Institute of Allergy and Infectious Diseases (NIAID) announces the first test on humans of an experimental vaccine, administered by injection, against the Ebola virus. As part of a standard three-stage process, the first phase involves testing the vaccine's safety. Scientists also plan to measure immune responses among volunteers receiving the shots. The experimental DNA vaccine is synthesized using modified, inactivated genes from the Ebola virus. According to Gary Nabel, who directs the NIAID Vaccine Research Center, because the vaccine does not contain any infectious material from the virus, recipients cannot contract the virus. Researchers plan to test the vaccine on 27 people aged 18 to 44 over two months. They will then be monitored for a year.

18 November In Utah, officials from the Desert chemdemil facility, Tooele, declare that the last VX-filled M55 rocket has this week been destroyed. "It's a milestone for our nation", says depot commander Peter Cooper. "It shows the world we're serious about eliminating the US stockpile of chemical weapons and protecting Americans from an aging chemical stockpile". The depot commenced its operations in 1996. According to the facility's spokesperson, Alaine Southworth, about 7,510 tons of the original 13,617 tons of nerve and blister agent in the stockpiles remain to be destroyed, with an expected completion date of 2007. "Rockets were destroyed first in both the VX and GB agent campaigns because of concerns about the stability of the propellant in these munitions", says the facilities project manager Dale Ormond. Jason Groenewold, director of the public-interest group Families Against Incinerator Risk, says the Army "has attempted to burn everything before the final emissions data

has been submitted to the state. In this case, the Army failed part of their rocket trial burn and were asked to redo some of those tests. We're concerned."

18-19 November In Washington D.C., the Chemical and Biological Arms Control Institute (CBACI) commemorates its tenth anniversary by hosting a conference on *Anticipating Challenge: The Global Security Agenda to 2015 – Reviewing Lessons Learned and Looking to the Future*. Four themes dominate the conference: defining alternative futures; arms control, nonproliferation and threat reduction; terrorism and asymmetric conflict; and, the US role in global security. Giving the keynote address is Chairman of the Senate Foreign Relations Committee Richard Lugar.

In an interview during the second day of the conference, former Chief Inspector of UNSCOM Rolf Ekeus says he believes the international inspections conducted in Iraq immediately before the US-led invasion began would have been successful if they had been allowed to continue. He describes the efforts undertaken by UNMOVIC, however, as a "search job": UNMOVIC had not been structured to penetrate Iraqi WMD capabilities, which would have required more scientists and technicians working for the inspection teams.

19 November In Moscow, the UK and Canada sign a memorandum of understanding under which Canada is to provide approx. C\$33 million to construct an 18 kilometre railway for transporting chemical munitions from a storage depot to the Russian chemdemil facility at Shchuchye. The memorandum follows the signing of an agreement between Russia and Canada under which Canada is to contribute US\$1 billion over a ten-year period towards non-proliferation activities in Russia. The project will be managed as part of the UK Ministry of Defence's Russian assistance programme and will be implemented by the UK's principal contractor, Bechtel Ltd.

19 November The US Senate Governmental Affairs Committee holds a hearing on *Agroterrorism*. Witnesses include: Tom McGinn, North Carolina Department of Agriculture; Peter Chalk, RAND Corporation; Colleen O'Keefe, Illinois Department of Agriculture; Penrose Albright, Assistant Secretary for Science and Technology, Department of Homeland Security; Lester Crawford, Deputy Commissioner, Food and Drug Administration; Charles Lambert, Deputy Under-Secretary for Marketing and Regulatory Programs, Department of Agriculture; Merle Pierson, Deputy Under-Secretary for Food Safety, Department of Agriculture.

The US General Accounting Office (GAO) submits to the Committee a Statement for the Record on *Bioterrorism: A Threat to Agriculture and the Food Supply*. It provides an overview of the potential vulnerabilities of the food supply and agriculture sector to deliberate contamination, and summarizes four recent GAO reports that identify problems with federal oversight, which could leave the USA's agriculture and food supply vulnerable to deliberate contamination. The four recent reports are: *Foot and Mouth Disease: To Protect US Livestock, USDA Must Remain Vigilant and Resolve Outstanding Issues* (GAO-02-808), 26 July 2002; *Mad Cow Disease: Improvements in the Animal Feed Ban and Other Regulatory Areas Would Strengthen US Prevention Efforts* (GAO-02-183), 25 January 2002; *Food-Processing Security: Voluntary Efforts Are Under Way, but Federal Agencies Cannot Fully Assess Their Implementation* (GAO-03-342) 14 February 2003; and *Combating Bioterrorism: Actions Needed to Improve Security at Plum Island Animal Disease Center* (GAO-03-847) [see 19 Sep03]. The statement says: "the four recent GAO reports

found gaps in federal controls for protecting agriculture and the food supply. Thus, the United States would be vulnerable to deliberate efforts to undermine its agriculture industries, deliberate tampering of food during production, and the release of deadly animal diseases, some of which also affect humans.”

20 November In the UK House of Commons, Minister of State for the Armed Forces Adam Ingram responds to a request – addressed to the Secretary of State for Defence – to make a statement on UK policy on the use of non-lethal chemical agents by UK forces abroad, thus: “[UK armed forces] would only carry, and would only use, non-lethal chemical agents for protective purposes related to protection against chemical weapons and for ‘law enforcement including domestic riot control purposes’.”

In response to a request to list out-of-country missions in the last twenty years when British forces have (a) carried with them and (b) used non-lethal chemical agents and, in each case, what the agents were, in which amounts and which delivery devices were used, Ingram says: “Records of out-of-country operational deployments from 1983 to 2003 show only two deployments of ‘non-lethal chemical agents’ with UK Forces. These were to Bosnia in 1997, and to Kosovo between January and July 1999. UK troops in Bosnia and Kosovo were provided with CS or CR for activities relating to law enforcement activities. The delivery systems that could be used would be by shotgun cartridge or grenade. CS has also been taken overseas for defensive training purposes. This includes, for example, NBC training in Germany and testing of respirators onboard Royal Navy vessels”.

20 November The US House of Representatives approves the Syria Accountability Bill – approved earlier this month by the Senate – which authorizes the imposition of sanctions on Syria should it fail to end its suspected WMD activities and alleged support for terrorist organizations. It would prohibit US military and dual-use exports to Syria and would also require the President to impose at least two of six additional sanctions, such as a freeze on Syrian assets and a prohibition on US businesses operating in Syria. The sanctions could thereafter only be lifted upon the President certifying that four conditions have been met, including that Syria no longer provides support for terrorism and has ceased to develop chemical and biological weapons. The Bill abandons a provision granting the President authority to waive only the additional six sanctions, by also granting him authority to waive both the dual-use export ban and the additional sanctions for national security reasons. The Bill now passes to President George Bush for him to sign into law.

20 November The US Department of Homeland Security announces the introduction of new regulations intended to better identify cargo imported to, and exported from, the USA. The new regulations require electronic manifests identifying freight transported by road, rail, air and sea to be sent to Customs and Border Protection officials before the goods reach the frontier. Paper declarations will no longer be permissible. The electronic information will be compared with law enforcement and commercial databases to target potentially dangerous shipments requiring inspection. Congress ordered the changes last year in response to fears that terrorists could smuggle weapons of mass destruction into the country.

21 November At UN headquarters, the UNMOVIC College of Commissioners convenes for its fourteenth [see 28 May] session. As on previous occasions, observers from

the IAEA and the OPCW attend. Three oral presentations are made by technical experts on the subject of what was known to UNMOVIC with respect to a number of issues raised in the recent statement made by David Kay on the interim progress of the Iraq Survey Group [see 2 Oct]. The College reiterates its view that UNMOVIC should prepare a compendium of its experience and knowledge derived from its activities in Iraq, and in this regard welcomes the fact that that work had already commenced.

21 November The US Department of Homeland Security issues a memorandum to federal agencies stating: “Al-Qaida remains intent on using chemical or biological agents in attacks on the homeland. Terrorists have designed a crude chemical dispersal device fabricated from commonly available materials, which is designed to asphyxiate its victims.” A copy of the directive, marked “For Official Use Only”, was obtained by WorldNetDaily. Comprising five pages, the memorandum – citing “recent information” from al-Qaida sources – says the device produces cyanogen chloride gas and hydrogen cyanide gas, and can be placed near air intakes or ventilation systems in crowded open spaces or enclosed spaces. “These gases”, it says, “are most effective when released in confined spaces such as subways, buildings or other crowded indoor facilities”.

22 November A London-based organization attempted to buy 500 kilograms of saponin from Amersham Biosciences – a subsidiary of Amersham International – during the autumn of 2002, according to the company’s business director. Lennart Arlinger says the matter was reported to the police after the company having being put on alert by the size of the order. He says that it was possible to imagine that the organization, funded he says by “the Islamic community”, was looking to use the substance “as an enhancer of the efficacy of a biological weapon”.

23 November The London *Observer* reports thirteen members of the UK armed forces as having instituted legal actions against the UK Ministry of Defence over what it says is being called ‘Gulf War II syndrome’, with more claims expected to follow. The claimants say their illnesses have been caused as a direct result of their having received multiple vaccinations in the run-up to the conflict, which in turn has resulted in, amongst other things, chronic pains, stomach problems, rashes, swelling, fever, depression and anxiety. The report cites ‘lawyers’ and ‘medical experts’ as saying that the symptoms are identical to those which affected thousands of veterans following the first Gulf War in 1991.

24 November The Chechen Republic of Ichkeria’s Health Minister, Umar Khanbiyev, says he has personally examined Chechen civilians who have been taken to hospital with symptoms of chemical poisoning. Making his comments on the Kavkaz-Tsentr web site, he says the symptoms included headaches, nausea, general malaise, muscle spasms, and irregular behaviour. According to Khanbiyev, a few days before the civilians fell ill (during July and August 2000), Russian troops were withdrawn, road-blocks lifted and the daily movement of military supplies came to a halt. He therefore concludes that the Russian military used chemical munitions against the Chechen civilians.

24 November In Warrington, the UK, a coroner’s inquest into the death of an army officer who had claimed to have been suffering from Gulf War syndrome, finds that his service in the military “contributed” to his death. Coroner

Nicholas Rheinhardt says of Major Ian Hill, 54: "It is not for me to make sweeping conclusions based on a day's hearing on the existence of Gulf War syndrome. But I do not believe it would do justice to Ian Hill to describe his death as natural causes. I am going to describe his death as natural causes to which his military service in the 1991 Gulf war campaign contributed." The inquest heard that Major Hill was sent to the Gulf in January 1991, but within a week of arriving he developed a number of flu-like symptoms. Military doctors diagnosed him as having bronchopneumonia: a month later he was sent back to the UK. Hill, who died in March 2001, blamed his illness on nerve agent pre-treatment pills. He kept a detailed diary of illness.

25 November In Taiwan, director of the Taiwanese Army's chemical section says that Taiwan is unprepared for a non-conventional attack by China involving nuclear, biological or chemical weapons. During a Ministry of National Defence press conference, Major General Huang His says: "China has been emphasizing the importance of 'unrestricted warfare' in the future battlefield ... The use of nuclear and biochemical weapons is among the methods of conducting unrestricted warfare ... In response to this type of threat, the army will seek to enhance its capabilities against non-conventional warfare such as unrestricted warfare."

25 November In Russia, the Gorny chemdemil facility commences its destruction of lewisite [see also 14 Nov]. An unidentified official at the facility says: "The commissioning of the line intended for the destruction of lewisite, a first-class combat poison agent, took place in a regular way. The technological scheme involves real media; inspectors of the organization for the prohibition of chemical weapons controlled the new line's commissioning." A week later, the facility destroys its first tonne of the agent.

25 November In Ljubljana, the US Embassy announces that the USA is to grant Slovenia \$1 million for the purchase of chemical and biological detection equipment and a further \$950,000 towards the financing of international military training. The grant comes in spite of the USA having decided last July to freeze military aid to six future NATO members on the grounds of their not having signed bilateral agreements with it on the non-extradition of US citizens to the International Criminal Court. Four days ago the USA announced that it would offer military aid to these states, but that the aid would relate to specific projects related either to the support of the integration process of other countries to NATO or to co-operation in military operations in Afghanistan and Iraq.

25 November In the US Senate, Senator Jeff Bingaman introduces *Senate Resolution 278 – Expressing the Sense of the Senate Regarding the Anthrax and Smallpox Vaccines*. The resolution requests Defense Secretary Donald Rumsfeld to review the mandatory anthrax and smallpox vaccination programme of military personnel amid reports of serious side effects. [see also 18 Nov]. The resolution has no co-sponsors, and according to the UPI news agency prospects for the resolution being passed are not promising.

25 November The UK and France, with help from Russia, Canada and the European Union, are working on a way to convert UNMOVIC into an international inspection team for biological weapons and missiles, according to the Associated Press, quoting unidentified diplomats and UN officials. The USA is, however, said to oppose the idea along with some other states such as Pakistan and Syria. "We think

the Iraq experience has helped Americans recognize the potential utility of having someone other than themselves do this kind of work," said one senior Western diplomat. "The costs are high, the work is hard and even Congress has said the UN inspectors had some better intelligence than the CIA did". Details of the initiative were discussed on 23 October during a meeting of the UN General Assembly's First Committee on Disarmament and International Security and are loosely based on a declaration by the European Union on weapons of mass destruction [see 16 Jun]. Some countries, including Britain, have suggested a possible name change and relocating UNMOVIC from New York to Vienna where the IAEA is based. Pakistan and Syria, in opposing the idea, argue that UNMOVIC was created to deal with Iraq and that it should now be disbanded.

25-27 November In Slovenia, the largest crisis-management exercise – *Challenge 2003* – in the country since 1994 takes place. One of the three scenarios enacted involves a terrorist attack using biological weapons. More than 270 participants from 50 different state institutions and the newly established National Crisis Management Centre participate in the exercise. Amongst other things, the exercise is intended to contribute towards establishing a system of cooperation and comparability at the level of that of the crisis management system under the NATO Alliance. Head of the Slovene Defence Affairs Office at the Defence Ministry Igor Nered says the National Crisis Management Centre will officially commence operations on 1 January 2004. It will be operational for twenty-four hours a day, seven days a week. "We are about to complete the construction of the centre, but basically it has been in operation already since the start of the Iraq war," says Nered.

26 November At UN headquarters, the UN Secretary General submits to the Security Council the fifteenth [see 28 Aug] quarterly report of UNMOVIC, for the period of 1 September to 30 November 2003, in accordance with Security Council resolution 1284 (1999).

The report states: "During the period under review, no information was available to UNMOVIC on the results of the investigations of the United States-led Iraq Survey Group, other than the statement released to the public on the interim progress report made by the Group to the United States Senate Select Committee on Intelligence and other committees within the United States Congress. The actual report was not provided to UNMOVIC or to IAEA. The general impression from the statement released is that most of the findings outlined in the statement relate to complex subjects familiar to UNMOVIC, both from declarations and semi-annual reports provided by Iraq and from correspondence, meetings and the inspection reports of United Nations teams. In the absence of access to the full progress report and the findings, documents, interviews and materials supporting and underlying the report, the Commission is not in a position to properly assess the information provided in the statement."

It continues: "At the end of October, the Cyprus field office agreement with the Government of Cyprus was extended for another year ... On 13 October, the Government of Bahrain and UNMOVIC agreed to arrangements for closing down the UNMOVIC/IAEA field office in Bahrain and the transfer of the premises to the custody of the Government before the end of December 2003 ... By the end of the year, the core staff of UNMOVIC in the Professional grades at Headquarters will total 51 weapons experts and other staff (of 24 nationalities) ... This represents a further 10 per cent reduction since the last quarterly report ... At the same time, UNMOVIC is mindful of

the need to maintain a sufficient number of experts as a core staff at its headquarters to undertake ongoing activities and to maintain its preparedness to resume operations in Iraq and implement decisions of the Security Council ... The number of trained experts available to serve in Iraq therefore remains at the previously reported level of about 350 individuals from 55 Member States ... There have been some changes in the composition of the College of Commissioners. On 6 November 2003, Li Junhua (China) resigned as a Commissioner and, the Secretary-General has since appointed Chen Weixiong (China) and Susan Burk (United States of America) to serve on the College of Commissioners. On 13 November, another Commissioner, Kostyantyn Gryshchenko (Ukraine) tendered his resignation to the Secretary-General following his appointment as Minister for Foreign Affairs of Ukraine."

27 November Singapore Defence Minister Teo Chee Hean announces the creation of a new defence laboratory to advance the study of, amongst other things, the impact of chemical and biological agents used in conflict situations against the armed forces. The Defence Medical and Environmental Research Institute (DMERI) will now take over from the Defence Ministry's Defence Medical Research Institute (DMRI), which concentrated primarily on military physiology and medical matters. The formation of DMERI comes as current defence research into environmental factors, such as temperature and rainfall, are integrated with ongoing research on combating chemical and biological attacks. Teo says the Defence Ministry moved DMRI to Defence Science Organization National Laboratories (DSO) and gave it a new name to "signify the wider scope of its work". "With this move, our biological scientists and human factors engineers and scientists will be able to better interact and consult with their counterparts in the other engineering and scientific disciplines in DSO," says Teo.

27 November The US Department of State (DoS) is to launch a \$2 million fast-track programme to re-employ former Iraqi weapons scientists in an effort to rebuild Iraq's infrastructure, according to the journal *Nature*. Under the programme, a series of pilot projects will be initiated, which officials hope will form the basis of larger programmes to re-deploy weapons experts and civilian scientists in Iraq. An unidentified DoS official says that the scientists will work on projects of immediate need such as water desalination, agriculture and the rebuilding of Iraq's health system.

28 November The Japanese Environment Ministry releases a report of a nation-wide study which concludes that chemical munitions may have been abandoned at 138 sites in 41 prefectures by the Japanese Imperial Army at the end of the Second World War. The sites were categorized in accordance with the credibility of the information collected on each site in question. Four sites are classified as priority sites requiring measures aimed at ensuring safety, namely, Hiratsuka, Samukawa, Kamisu, and Narashino. Information that 16 other sites are contaminated was considered reliable, however, in these cases the information failed to specify exactly where the chemical munitions had been abandoned. These sites were accordingly placed in another category, as were a further 21 sites identified as possibly having abandoned chemical munitions, although in the latter cases officials classified the corroborating information as low. The Ministry says that it will continue to collect information and monitor these 37 sites. In addition, the study also found that 34 sites had facilities that produced and stored chemical munitions, 44 sites where chemical weapons were reportedly abandoned,

and 823 reported injuries related to chemical munitions. Akita, Yamanashi, Gifu, Mie, Tottori and Shimane are the only prefectures investigated where there are deemed to be no abandoned chemical munitions sites. Following the release of the report, Environment Minister Yuriko Koike says, "the government will consider appropriate measures to deal with (abandoned poison gas) as early as next month". The Ministry launched an investigation into the matter in June, following the linking of adverse health effects of a number of individuals to abandoned chemical weapons. In May a number of documents relating to a 1973 study came to light. In conducting the study, the Ministry sought information related to poison gas from other ministries, as well as from municipal governments. It also asked citizens to come forward with any information regarding the use and disposal of chemical munitions.

28 November In Mannheim, Germany, a district court finds an Iraqi-born US citizen guilty of having violated German export regulations in 1999 by shipping drills to Iraq that could be used to make a long-range cannon [see 8 Sep]. Judge Joachim Plass sentences Abd al-Amir al-Haddad, 60, to four years, nine months imprisonment. Earlier this year [see 31 Jan] the same court convicted two German businessmen for their part in the shipment, which prosecutors said was sent to Iraq through al-Haddad in Jordan. In October, another two Germans were sentenced to probation for helping organize transport for the shipment. The Prosecution had claimed the drills – about 10 metres long – are capable of boring cannon tubes for a 209mm cannon that could be used to fire biological and chemical weapons and corresponds to a cannon developed by Iraq called the Al Fao. Al-Haddad was extradited to Germany from Bulgaria earlier this year to face the charges.

28 November The UK House of Commons and House of Lords Joint Parliamentary Committee on the Draft Civil Contingencies Bill publishes its *Report and Evidence on the Draft Civil Contingencies Bill* [see 19 Jun]. The report states: "The draft Bill defines an emergency as an event which presents a 'serious' threat to: human welfare; the environment; political, administrative, or economic stability; and the security of the UK or part of it... An exceptionally wide range of events or situations may give rise to a threat within the meaning of the draft Bill, including political protests, computer hacking, a campaign against banking practices, interference with the statutory functions of any person or body, an outbreak of communicable disease, or protests against genetically modified crops, among many others. We believe that the definition is drawn too widely in both Parts (1 and 2), especially in Part 2, where it could trigger substantial emergency powers. We suggest that key terms, such as 'serious', 'essential' and 'stability' must be defined within the Bill and that there needs to be a clear and objective trigger for action under Part 1 and 2." The report further states: "No mention is made in the draft Bill about sites that have the potential to create emergencies, for example operators of ... major chemical factories or nuclear plants. Given their potential to cause, as well as their ability to respond to a major disaster, we recommend that the Government consider whether to include ... all operators of establishments subject to the Control of Major Accident Hazards (COMAH) Regulations and organisations that have an emergency response through national schemes, including the National Arrangements for Incidents involving Radioactivity (NAIR), RADSAFE and CHEMSAFE."

30 November The London *Independent on Sunday* reports a UK subject being held in Guantanamo Bay as having

claimed to have taken part in an al-Qa'ida plot to attack the House of Commons with anthrax in an attempt to kill UK Prime Minister Tony Blair. The lawyer of Moazzam Begg, 35, one of nine UK subjects being held at the US base in Cuba, however, says that his client's confession was obtained under duress. Clive Stafford-Smith says the confession was secured after months of interrogation and segregation in Camp Delta at Guantanamo Bay. "Moazzam has agreed to plead guilty to this absurd story that allegedly he was part of an al-Qa'ida plot to get a drone – an unmanned aircraft – and fly it from Suffolk over London to drop anthrax over the House of Commons," says Stafford-Smith. "The Americans must think we're incredibly stupid".

1 December In Tokyo, there is an emergency response and preparedness exercise based on the scenario of a terrorist group releasing the smallpox virus into the city's underground network. Around 170 people participate in the exercise, which is being organized by the metropolitan government. Details of the scenario had not been disclosed to the participants in advance of the exercise taking place.

1 December At NATO headquarters, there is a ceremony to mark the Initial Operational Capability of the NATO CBRN defence battalion. Inaugurating the new battalion, Secretary-General George Robertson says: "This new unit is a superb symbol of the transformed NATO. In the first two rotations we will see fifteen NATO countries and two of the invited members working together to provide a high-tech, multinational solution to today's threats. I am especially delighted to see the Czech Republic leading the first 6 month rotation. Only last November, NATO's leaders approved a series of new initiatives to combat the looming threat of biological and chemical weapons." The purpose of the new battalion will be to: conduct deployment operations; command and control NBC defence units; conduct NBC reconnaissance operations; conduct decontamination operations; conduct biological detection and monitoring operations; provide NBC assessment and advice to NATO commanders; provide confirmatory identification of NBC substances; plan, coordinate and conduct sustainable operations of the battalion; and force protect the battalion. The new battalion is part of a package of five chemical, biological and nuclear defence initiatives endorsed by member states at the Prague Summit [see 21 22 Nov 02].

1 December In Abidjan, Côte d'Ivoire, French troops fire tear gas into a crowd of around two hundred pro-government supporters who were laying siege to a French military base. The incident comes amid growing calls by groups loyal to President Laurent Gbagbo for French troops to withdraw so as to allow for the resumption of fighting between the rebels and government forces. French forces make up part of an international force of around four thousand deployed to Côte d'Ivoire last year following a failed coup d'état.

1 December Belize deposits its instrument of accession to the CWC with the UN Secretary General. In thirty days it will become the 158th party to the Convention.

1 December The US General Accounting Office submits to the Chairman of the Senate Committee on Governmental Affairs a report on *Smallpox Vaccination: Review of the Implementation of the Military Program*. It states that as of 13 October the Department of Defense (DoD) recorded 184 "noteworthy adverse reactions" among the 501,946 vaccinations administered, since the programme was

instituted [see 13 Dec 02]. Of these, the DoD reported "62 self inoculations (virus affected other parts of body); 34 mild cases of generalized vaccinia (blistering body rash); 58 acute myopericarditis (swelling of heart tissue or sac around heart); 1 encephalitis (swelling of the brain); 1 erythema multiforme major (serious skin reaction); and 28 inadvertent transfers of vaccinia."

1 December In Lubbock, Texas, a jury finds microbiologist Dr Thomas Butler guilty on 47 counts, including theft, fraud and illegally mailing plague samples overseas, but clears him of lying to federal agents, unlawfully transporting samples and tax evasion [see 3 Nov]. Earlier this year he had reported 30 vials of plague bacteria missing from his laboratory at Texas Tech University in Lubbock [see 15 Jan]. The next day, however, Butler signed a confession stating that he had destroyed the vials. He was charged on 69 counts, including lying to the Federal Bureau of Investigation (FBI), falsifying his tax returns, and transporting plague samples in his car to government laboratories. Most of his convictions concern his business dealings with drug companies, where around half of the payments were paid directly to him instead of the university. The jury did not accept the argument of Butler's lawyers that such "shadow contracts" are commonplace and not illegal. Butler is also found guilty of making a false statement and illegally exporting hazardous materials, by virtue of his having posted a package, labelled "laboratory materials", containing plague bacteria to Tanzania. He is, however, cleared of the most serious charges, including lying to the FBI, after his attorney had argued that interrogators coerced him into signing his confession. The jury also accepted his defence that he was unable to remember the complicated regulations concerning the transport and importing of plague bacteria. Butler has yet to decide whether or not to appeal the verdict. Following the verdict, Butler's lawyer Chuck Meadows says: "We are pleased that Tom was found not guilty of lying to the FBI. We are particularly pleased the jury found him not guilty of perpetuating a hoax regarding his report of the missing plague vials." Judge Sam Cummings has forty-five days to return a sentence.

2 December In Russia, the research team that set sail from the port of Arkhangelsk on a two-week expedition [see 5 Aug] to search for chemical weapons allegedly dumped – by the Soviet Union at the end of the Second World War – in the central sector of the White Sea have concluded that no such munitions exist. Head of the Arkhangelsk Region civil defence and emergencies directorate Yelizaveta Tsyvareva says the scientists reached their conclusion after examining the results of the expedition, which had been organized jointly by the Russian government and the Russian Academy of Sciences. "Samples taken from the seabed revealed levels of arsenic 10-30 times higher than permitted maximums, which could indicate the presence of toxic weapons", says Tsyvareva. "However, the scientists concluded that this was a natural anomaly. All other chemical readings from the sea water were within acceptable limits. The expedition also discovered 'man-made objects' on the seabed which need further investigation but there are no plans to do this in the next few years."

2 December The UK Foreign and Commonwealth Office releases its white paper *UK International Priorities: A Strategy for the FCO*, which sets out priorities for UK international policy over the next five to ten years. The paper states: "Preventing states from acquiring or spreading WMD will remain a top priority. The highest concern of all will be to

prevent international terrorist groups acquiring nuclear or biological weapons ... We expect a stronger international commitment to finding more effective and co-ordinated approaches to dealing with state failure, conflict prevention and post-conflict reconstruction. This will involve efforts to reach a clearer consensus on principles justifying the use of force for humanitarian purposes, conflict stabilisation and timely action against terrorism or threatening WMD capabilities."

2-5 December At OPCW headquarters, the Executive Council convenes for its thirty-fifth [see 23-26 Sep] regular session. [For further detail, see pages 7-11 above.]

3 December In China, the Information Office of the State Council issues a white paper on China's non-proliferation policy and measures relating thereto. The paper commences thus: "The proliferation of WMD and their means of delivery benefits neither world peace and stability nor China's own security. Over the years, with its strong sense of responsibility, China has step by step formulated a whole set of non-proliferation policies and put in place a fairly complete legal framework on non-proliferation and export control ... China does not support, encourage or assist any country to develop WMD and their means of delivery." Approximately half of the document analyses China's past and present participation in relevant international non-proliferation accords, with the other half focusing China's non-proliferation export control measures and procedures. On the latter theme, the paper states: "In order to effectively implement the export control regulations, China has established a system involving application, examination and approval, certificate issuance and Customs control, inspection and clearance, and this system applies to all interested exporters [see 14 Oct 02]. The Ministry of Commerce and other competent departments are formulating the Export Licensing Catalogue of Sensitive Items and Technologies ... To make it more convenient for export enterprises to apply for export licenses, the Ministry of Commerce plans to provide an online service for license application, examination and approval geared to the needs of the general public once the operation system is available. The Chinese government will also establish a corresponding export control information exchange network among the examining, approving and license-issuing organs and the Customs office."

3 December In Bhopal, India, around two thousand protesters converge outside an abandoned chemical plant to mark the nineteenth anniversary of the leak of methyl isocyanate from Union Carbide's pesticide plant in 1984. The protestors are demanding compensation and the extradition of Warren Anderson, a US national, from the USA to face trial in an Indian court. "In the last 19 years, the government has done precious little to live up to its obligation to the survivors of the Bhopal disaster", says Satinath Sarangi, convener of the Bhopal Group for Information and Action. Some 600,000 people have filed compensation claims with the Indian government. Union Carbide paid the Indian government US\$470 million as part of an out-of-court settlement in 1989. The government dropped the charges against the company and Anderson. However, victims' groups demanded a review of the settlement and India's Supreme Court reinstated the charges against Anderson and Union Carbide [see 3 Oct 91]. Survivors have complained of ailments including breathlessness, constant tiredness, stomach pain, cardiac problems and tuberculosis. Zahida Bee, 56, a resident of Shakinagar, a slum near the Union Carbide plant, said she was still suffering from dizziness, lack of appetite and had

gradually lost her vision. "We not only want suitable punishment for the perpetrators of this crime, but also adequate compensation", says Santo Bai, 48, another Bhopal resident.

3 December In Liberec, there is a ceremony to mark the launch of the new NATO CBRN defence battalion [see 1 Dec] in the Czech Republic. The battalion – which will be headed by the Czech Republic for the first six months – comes under the operational control of SACEUR, with delegated authority to the Joint Forces Command, AFNORTH in Brunssum and AFSOUTH in Naples. Command and location of the CBRN battalion will rotate among NATO member states. Germany takes command of the second rotation in six months. "We can't give in to terrorism," says Czech Defence Minister Miroslav Kostelka during the ceremony. "We have to fight against it. That is the reason this multinational battalion was established." The unit comprises some 500 soldiers from 12 NATO member states: Belgium, Britain, Canada, the Czech Republic, Hungary, Italy, Norway, Poland, Portugal, Spain, Turkey and the United States. Romania, which has been invited to join the alliance, also provided specialists for the battalion. The core of the new NATO force is formed of 160 personnel from the Czech anti-chemical warfare unit based in Liberec. Deputy Chief of Staff at the Supreme Headquarters Allied Powers Europe Roberto Cesaretti says: "Our ability to [face the new threats of the world's ever-changing security environment] will be seen as a token of our resolve and commitment to the success of the alliance's transformation and effort to improve our collective security. It will assure the relevance of the alliance in the 21st century". He later tells a news conference that NATO decided to create the unit because it recognized its lack of capability in responding to the use of weapons of mass destruction, especially biological.

4 December In Israel, an emergency response and preparedness exercise takes place at the Knesset, where the scenario is a chemical attack. Prior to the exercise getting under way, Police Assistant Commander Meir Ben-Yishai says the exercise is not being conducted as a result of any "general or specific threats" on the Knesset, but as part of the emergency forces preparations for the possibility of a large-scale terror attack.

4 December Tel Aviv University's Jaffee Center for Strategic Studies publishes *The War in Iraq: An Intelligence Failure?* The report states that demands for investigations into the US and UK intelligence failures on the eve of the war in Iraq "forgets there was a third senior partner to the assessment ... that third partner was Israel". Written by Shlomo Brum, a former deputy commander of the Israeli Defence Force Planning Branch, the report states: "Israeli intelligence was a full partner to the picture presented by US and British intelligence about Iraq's non-conventional capabilities ... [and] the failures in the war in Iraq point to inherent failures and weaknesses of Israeli intelligence and decision makers. Similar failures could take place in the future if the issue is not fully researched, and the proper conclusions reached". Brum says that as a result of the Yom Kippur War, Israeli intelligence officials prefer to predict the worst possible scenario, so that if they are proven right, they come out as heroes, and if they are proven wrong, everyone is so relieved that they simply forget the erroneous assessment. The lack of professionalism, says Brum is that Israel's national assessment claimed that it was threatened by Iraqi missiles, whilst its working assumption was that Iraq had very few long range missiles and launchers. "[N]o effort was made to examine whether attacking Israel would serve the interests of Saddam's survival or not ... the concept painted

all the information with one color and prevented any alternative interpretations of the intelligence,” says Brum.

4 December In Albany, New York, the Center for Immunology and Microbial Disease of the Albany Medical College announces the construction of an underground high-security research laboratory, the purpose of which will be to create a vaccine for tularaemia. The US National Institute of Allergy and Infectious Diseases (NIAID) is to fund the programme with a grant of \$8.3 million. Director of the Center Dennis Metzger says he and his team of thirteen scientists will spend a minimum of four years developing the vaccine with mice being used as study models.

5 December The Tokyo High Court upholds the death penalty for senior Aum Shinrikyo member Yasuo Hayashi for his role in two fatal sarin attacks and an attempt to spread cyanide gas at JR Shinjuku Station. Hayashi, 45, was convicted of crimes that include murder and attempted murder in the attack on the Tokyo subway system [see 20 Mar 95], the sarin gas attack in Matsumoto, Nagano Prefecture [see 28 Jun 94], and the cyanide gas attempt at Shinjuku [see 5 May 95]. The Tokyo District Court had earlier sentenced Hayashi to death [see 6 Jun 00]. “Even if we were to take all circumstances into account, considering the gravity and cruelty of his deeds and the effect they had on society, the death sentence is the only choice,” says presiding Judge Koshi Murakami. Following the decision, Hayashi announces his intention to appeal to the Supreme Court.

5 December The UK government releases its First Annual Report on The G8 Global Partnership: Progress Report on the UK’s Programme to Address Nuclear, Chemical and Biological Legacies in the Former Soviet Union. It reviews the progress since April 2001, when “substantial new funding was put in place and a robust programme management structure to implement a portfolio of projects ... to address the nuclear, chemical and biological legacies of the Former Soviet Union (FSU)”. It also summarizes project areas currently underway, achievements to date, and plans and priorities for the next twelve months and beyond. Jointly compiled by the Department of Trade and Industry, the Ministry of Defence and the Foreign and Commonwealth Office, the report states:

“Since the Kananaskis Summit [see 26-27 Jun 02], the Government has worked hard to translate its pledge into concrete projects that will help prevent the proliferation of weapons and materials of mass destruction. Many of the UK’s priority projects require complex preparations, including thorough risk assessments, and some will be carried out in remote and hazardous locations. The UK now has a wide range of non-proliferation projects either underway or at the final planning stages, with further projects to come. These projects include dismantling nuclear submarines, providing safe storage for spent nuclear fuel, helping to build a chemical weapons destruction plant, and providing employment for scientists formerly involved in the Soviet weapons programmes. The UK expects to sign up to at least £40 million of projects this year. Establishing this programme of support and delivering the projects has required close collaboration between the three Government Departments involved: the Department of Trade and Industry (DTI) is responsible for managing the nuclear elements of this support programme; the Ministry of Defence (MOD) is responsible for chemical and biological projects; the Foreign and Commonwealth Office (FCO) has a strong interest in all aspects of the programme, and UK Embassies in beneficiary countries provide essential support and expertise.

The successful implementation of the programme is a product of this team effort, as well as the strong relationships that have been developed with other donors, the Russian Federation and other FSU and CEE [Central and Eastern Europe] countries.

UK financial support for projects and related activities is being provided under the following international legal agreements and mechanisms: UK-Russian Federation Supplementary Agreement on Cooperation in the Peaceful Uses of Nuclear Energy; UK-Russian Federation agreement on chemical weapons destruction; Multilateral Nuclear Environmental Programme for the Russian Federation (MNEPR); Arctic Military Environmental Co-operation Declaration (AMEC); International Science and Technology Centre (ISTC); and European Bank of Reconstruction and Development (EBRD), e.g. Nuclear Safety Account and Northern Dimension Environmental Partnership Fund.

Under the chemical programme, the MOD has identified high priority projects and established the necessary arrangements for implementation in close consultation with the Russian Munitions Agency (RMA), which is responsible for safe storage and disposal of Russian chemical weapons. Following signature of a UK-Russian Federation Agreement in 2001, an ‘Implementation Arrangement’ was agreed between MOD and the RMA in 2002. It provides the overall arrangements for implementing projects, and Annexes set out the detailed arrangements for each project. The overall approach to managing the programme has been to appoint a ‘Principal Contractor’ to oversee work carried out by Russian companies. The Principal Contractor negotiates prices, payment schedules and timescales, monitors progress, submits regular progress reports to MOD, and ensures that payments are made only on the completion of agreed ‘stages’, thus ensuring value for money and accountability. MOD’s own project manager and technical advisers also regularly visit Russia to monitor progress. Our first project was construction of the water supply for the Russian chemical weapons destruction facility at Shchuch’ye, and the Principal Contractor was able to negotiate a 30% reduction in the initial price quoted. Russian sub-contractors will usually be used for practical work on site. This provides best value, and ensures that the equipment, works or services provided meet appropriate Russian standards.

For the biological programme, it is envisaged that individual projects will be carried out through the International Science and Technology Centre (ISTC) in Moscow, in order to take advantage of their existing legal agreements, and their mechanisms for monitoring projects and making payments direct to scientists. The ISTC’s oversight arrangements will be reinforced by additional oversight, to be provided by CPAC and Dstl Porton Down. In setting up the chemical weapons destruction and biological non-proliferation programmes, MOD consulted DTI, the Russian Federation, the US Government and other donors, in order to identify lessons learned and ensure the most appropriate and cost effective arrangements for implementing assistance. Detailed risk management plans are being implemented for each project.”

7 December In Tokyo, the police force and the metropolitan government officials announce that under joint co-operation they have developed a special kit to quickly diagnose smallpox following a bioterror attack. The device has been designed so as to allow those infected to be speedily quarantined, thus preventing the risk of secondary infection. If an infection is suspected, DNA will be taken from a patient’s blood or scabs and test to see if it matches the DNA extracted

in advance from the virus. It is envisaged that a smallpox case would be diagnosed within hours using the device. "The development is not just a little step but a big step" for the prevention of smallpox terrorism, says Isao Arita, a former chief of the smallpox eradication unit at the World Health Organization.

7 December An Iraqi colonel, who commanded a front-line unit during the build-up to the war in Iraq, claims to have informed the UK intelligence services that Saddam Hussein had deployed weapons of mass destruction that could be used on the battlefield against coalition troops in less than 45 minutes. In an interview with the London *Sunday Telegraph*, Lieutenant Colonel al-Dabbagh, who was the head of an Iraqi air defence unit in the western desert, says that cases containing WMD warheads were delivered to front-line units, including his own, towards the end of last year. He says they were to be used by Saddam's Fedayeen paramilitaries and units of the Special Republican Guard when the war with coalition troops reached "a critical stage". The containers, he says, which came from a number of factories on the outskirts of Baghdad, were delivered to the army by the Fedayeen and were distributed to the front-line units under cover of darkness. Al-Dabbagh says he believed he was the source of the British Government's claim, published last year in the intelligence dossier on Iraq's weapons of mass destruction [see 24 Sep 02], that Iraq could launch WMD within 45 minutes. "I am the one responsible for providing this information," said the colonel, who is now working as an adviser to Iraq's Governing Council. He also insisted that the information contained in the dossier relating to Saddam's battlefield WMD capability was correct. "It is 100 per cent accurate".

According to al-Dabbagh, the devices, which were known by Iraqi officers as "the secret weapon", were made in Iraq and designed to be launched by hand-held rocket-propelled grenades and could have been launched sooner than the 45-minutes claimed in the dossier. "Forget 45 minutes," says al-Dabbagh "we could have fired these within half-an-hour." He says that local commanders were told that they could use the weapons only on the personal orders of Saddam. "We were told that when the war came we would only have a short time to use everything we had to defend ourselves, including the secret weapon," says al-Dabbagh. The only reason that these weapons were not used, he says, was because the bulk of the Iraqi army did not want to fight for Saddam. He says he believes that the WMD have been hidden at secret locations by the Fedayeen and are still in Iraq. Al-Dabbagh, who spied for the Iraqi National Accord (INA), a London-based exile group, for several years before the war, says he provided several reports to British intelligence on Saddam's plans to deploy WMD from early 2002 onwards. Ayad Allawi, the head of the INA who is now a prominent member of the Governing Council in Baghdad, confirmed that he had passed al-Dabbagh's reports on Saddam's WMD to both British and American intelligence officers "sometime in the spring and summer of 2002". He says that apart from providing intelligence on Saddam's WMD programme, al-Dabbagh also provided details of Iraq's troop and air defence deployments before the war. Al-Dabbagh says that although he gave details of Iraq's battlefield WMD capability, he had no knowledge of any plans by Saddam to use missiles to attack British bases in Cyprus and other NATO targets.

Meanwhile, in an interview on the US network channel NBC, al-Dabbagh says that Iraqi troops were under orders from Saddam to use "primitive short-range biological and chemical warheads fired from rocket-propelled grenade launchers". Sections of the transcript of the NBC interview

that the network did not broadcast are later aired on the ITV News Channel. In one part of the interview, al-Dabbagh is asked by NBC's Baghdad correspondent why he was so sure that they were chemical or biological weapons. He replies thus: "We cannot determine exactly, but the procedures taken show that these were indeed WMD ... It might have been chemical or biological but it was definitely unconventional weapons." In another part, he says: "The instructions from Saddam were clear. When you get to a critical point where the survival of the country is at stake then you can use these weapons. All weapons starting from the common knife all the way up to nuclear weapons can be used. That was the instruction." [Note: The reference by al-Dabbagh to 'nuclear weapons' may raise questions as to his credibility, given that it is generally accepted that Iraq possessed no such weapons.]

8 December In China, the Sino-Japanese team of experts working to retrieve chemical munitions abandoned by the Japanese Imperial Army at the end of the Second World War have so far recovered around 36,000 such munitions. Agreement on how they are to be destroyed has yet to be reached. According to an unnamed Japanese official the munitions include "bombs, poisonous fume pipes and iron barrels containing chemical preparations". Work began on excavating the munitions in the eastern Jiangsu province and the northern Heilongjiang province around three years ago [see 21 Jun and 13-27 Sep 00], and later in the northern Hebei province [see 6 Sep]. Japan estimates that the Imperial Army abandoned more than 700,000 chemical weapons in China, however, Chinese experts say as many as two million such weapons remain buried.

8 December In Jakarta, Indonesian Foreign Minister Hasan Wirayuda informs Australian Foreign Minister Alexander Downer that Australia's participation in the US-led Missile Defence Programme (MDP) will be detrimental to efforts to reduce the development of nuclear and biological weapons. Hasan reasons thus: "Developing MDP momentum could spark off an arms race, even though it has been claimed that the programme is defensive. However, those countries with intercontinental ballistic systems will certainly develop a capability which will act as a deterrent to those with the same capability... In other words, this programme will not help efforts to stop the proliferation of weapons of mass destruction." He says it is right for Indonesia to be concerned about Australia's participation in the MDP because were a state to attack Australia with intercontinental missiles then retaliation by Australia could have adverse repercussions for Indonesia. Four days ago, Australian Defence Minister Robert Hill announced that Australia had agreed to participate in the US-led programme.

8 December In Baghdad, unidentified officials at the US-administered Ministry of Science say that all but eight Iraqi scientists who had been questioned or detained by US intelligence have now been released. According to the Associated Press, the Ministry now employs many scientists who used to work under Saddam Hussein's regime.

8 December In Israel, Channel 10 television station reports that since the end of last year an underground emergency national control centre – capable of withstanding chemical, biological or nuclear attacks, and earthquakes – has been under construction at an undisclosed location beneath the Judean Hills. Referring to details of the project released by the "military censor's office", the report says that the complex will be used to protect the prime minister and other

top governmental officials in the event of an emergency. Completion of the project, however, is not expected for a number of years. The Israeli Defence Force (IDF) has long had a number of underground or reinforced command centres in headquarters and air bases, built to withstand chemical, biological, and nuclear attacks. The most famous is the Bor (pit) at central IDF headquarters in the centre of Tel Aviv.

8 December US President Bush issues a waiver under section 1306 of the Department of Defense Authorization Act for Fiscal Year 2004 to release funds under the Cooperative Threat Reduction Program. In a memorandum sent to the Secretary of State, he certifies that “waiving the conditions described in section 1305 of the National Defense Authorization Act for Fiscal Year 2000 (Public Law 106-65) is important to the national security interests of the United States.” Each year [see 7 Aug 02], before funding can be provided under the Program, the President must certify that Russia has met a set of congressionally mandated conditions, such as making a substantial investment of its own resources for destroying weapons of mass destruction, and that it is complying with all relevant arms control agreements.

8-9 December In Alexandria, Virginia, there is a conference on *Transforming The Fight Against Weapons of Mass Destruction*, hosted by the United States Air Force Counterproliferation Center and the Defense Threat Reduction Agency, in partnership with the Headquarters of the US Air Force, the Air University Foundation, and the Air War College. The event commemorates the tenth anniversary of the 1993 Defense Counterproliferation Initiative.

11 December Sweden announces that it is to finance a new, independent, International Commission on Weapons of Mass Destruction, to be headed by former Executive Chairman of UNMOVIC Hans Blix. “I am convinced that the commission, under Hans Blix’s competent leadership, will contribute to the resuscitation of the global work against weapons of mass destruction, and that the commission will be able to offer new recommendations and suggestions on the subject,” says Swedish Foreign Minister Laila Freivalds. The Swedish government has committed the equivalent of EUR 1.4 million to the Commission, which is set to spend the next two years working on ways of limiting the proliferation of chemical, biological and nuclear weapons. According to Henrik Salander, the general secretary of the new commission, the idea of the Commission was originally conceived by UN Under Secretary-General for Disarmament Affairs Jayantha Dhanapala, and was taken forward by the late Swedish Foreign Minister Anna Lindh, who was murdered in May. Sweden is the only country financing the Commission’s work, however Salander says that other countries have committed to sponsoring seminars and meetings. It will comprise fifteen members, including Blix, from various countries. “This is a completely independent commission,” says Salander. “Sweden will not have any say in its work or its final report.”

11 December The UK National Audit Office (NAO) reports that UK forces sent to Iraq under Operation Telic were not supplied with the necessary equipment, including, amongst other things, protection against chemical and biological weapons. It says that the Ministry of Defence failed to provide enough protective suits and its entire stock of residual vapour kits, which tell soldiers when it is safe to unmask following a chemical attack, was deemed “unserviceable”. The NAO report found that soldiers were so desperate that they were driven to

carry out a “considerable degree of misappropriation” to obtain the necessary equipment. It cites one example of a front-line unit being sent back 3,400 miles to Bicester in Oxfordshire to try and find its WMD equipment, which it failed to do.

11 December In the USA, Trust for America’s Health releases a report *Ready or Not? Protecting the Public’s Health in the Age of Bioterrorism*. It finds that in the last two years and nearly \$2 billion of federal bioterrorism preparedness funding, states are only modestly better prepared to respond to health emergencies than they were prior to 11 September 11 2001. The report examines ten key indicators to assess areas of improvement and areas of ongoing vulnerability to prepare against bioterrorism and other large-scale health emergencies. Nearly 75 per cent of states earned positive marks for only half (five) or fewer of the ten possible indicators. California, Florida, Maryland and Tennessee scored the highest, earning seven of the ten possible indicators. Arkansas, Kentucky, Mississippi, New Mexico and Wisconsin scored the lowest, meeting just two of the indicators.

11 December In the US, J Clifton Spendlove, the 77-year old former director of the Project 112/SHAD programme [see 30 Jun 03] makes a sworn deposition in the *Vietnam Veterans of America v. McNamara* court case. The VVA and 21 Project SHAD veterans are suing former US Secretary of Defense Robert McNamara and several officials of both the Departments of Defense and Veterans Affairs for having participated in a decades-long cover-up of information related to the tests. In his testimony, Spendlove contradicts earlier assertions by Department of Defense officials by unequivocally stating that some SHAD veterans were used as “human samplers” and that nose swabs and gargle samples were taken from some. Spendlove also says that he personally kept written records and video footage of the tests as they were carried out. His deposition confirms that these records also include human dose information that can be correlated to specific internal areas of ships for specific times and durations. Spendlove believes that all of these records have been declassified and are still on file at the Desert Test Center Library.

12 December In Kupwara District, northern Kashmir, Indian police seize a small pen-shaped pistol and 25 cartridges marked ‘neroxin’ from a house they believe to be a rebel hideout. Sub District Police Officer Atlatf Khan says literature found with the cartridges has ‘BA’ marked in bold letters, which he says is a likely reference to biological agents. He says: “We are working on the possibility of the substance being nuclear, biological or chemical in nature ... If our apprehension ... turns out to be true, it is a dangerous development where militants are graduating from conventional weapons to weapons of mass destruction.” He says the cartridges – which have the appearance of typical 6.35mm rounds – have been sent to a forensic laboratory for analysis.

12 December The US Defense Threat Reduction Agency (DTRA) refuses a request under the Freedom of Information Act by the Federation of American Scientists to release an unclassified report on lessons learned from the 2001 anthrax attacks. The reason for the refusal is not based on national security, rather on exemption (b)(2) of the Act, which protects information, that “if disclosed, might be used to circumvent an agency rule or regulation”. No particular agency rule or regulation is however identified. The DTRA further states that the “document falls under the guidance of the US Attorney General memorandum, dated October 12,

2001, that restricts the public distribution of information related to homeland security and protection of critical infrastructure”.

12 December The US Food and Drug Administration introduces new regulations which require all US domestic and foreign facilities manufacturing, processing, packing or holding foodstuffs for human or animal consumption to register with the agency. Under the regulations, importers of foodstuffs must provide the agency with advance notice of shipments imported or offered for import. The requirements are intended to alert the agency to identify food processors linked to deliberate or accidental food contamination. The agency is working together with US Customs and Border Protection to implement the regulations.

13 December In Iraq, US occupying forces capture former Iraqi President Saddam Hussein near the town of al-Dawr, which is about fifteen kilometres south of Tikrit. He is found lying underground in a spider hole near to a rural farmhouse. Announcing the capture at a press conference the following day, US Administrator for Iraq Paul Bremer says: “Ladies and gentlemen, we got him... This is a great day in Iraq’s history... The tyrant is a prisoner.” Video footage released by the US military shows Saddam Hussein looking dishevelled, with a long black and grey beard and receiving a medical check-up. US military spokesman Major-General Raymond Odierno says the operation - involving various combined US units - was launched within twenty-four hours of receiving a tip-off from a member of Saddam Hussein’s inner circle. “Over the last 10 days we brought in about five to 10 members of these families, and finally got the ultimate information from one of these individuals”, says Odierno.

15 December The UK Department of Health releases *Guidelines for Smallpox Response and Management in the Post-Eradication Era (Smallpox Plan)* which update the *Interim Guidelines for Smallpox Management and Response in the Post-Eradication Era* [see 2 Dec 02]. The document provides information on the latest guidance for smallpox preparedness and is divided into two parts. Part 1, outlines the pre and post-event activities that need to be, or would be undertaken, in response to a smallpox emergency; Part 2 (Appendices) provides guidance on the criteria for national, regional and local health professionals, agencies, and OGDs, to assist in implementation. The appendices will continue to be updated as experience and discussions proceed. The Guidelines, however, are operational and would be implemented should a smallpox emergency occur. Implementation of the plan is being co-ordinated by the Health Protection Agency (HPA) regional leads. Alert levels have been identified to assist planning according to the actions required, i.e. no credible threat; case outside the UK; case inside the UK; outbreak occurring in the UK; large multiple outbreak; outbreak controlled; and no further cases.

15 December US Senator Bill Nelson says the Bush administration informed him and other senators last year that Iraq possessed both chemical and biological weapons, notably anthrax, with which it could attack cities off the East Coast of the USA using UAVs. Breaking the news during a press conference call, he says about 75 senators were informed thereof during a classified briefing before last October’s congressional vote, which authorized the use of force to remove Saddam Hussein from power. Nelson does not reveal who in the administration gave the briefing. “They have not found anything that resembles an UAV that has that capability,” says

Nelson. He does not disclose the original intelligence source, but says it contradicted other intelligence reports received by senators.

15 December The US Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction – also known as the Gilmore Commission – releases its fifth [see 15 Dec 02] and final report *Forging America’s New Normalcy: Securing Our Homeland, Preserving Our Liberty*. It states that the USA needs an improved homeland security strategy to strengthen security in communities facing the greatest risk, improve the use of intelligence, increase the role of state and local officials, and sharpen disaster response capabilities. In this regard, it suggests the creation of a White House-level entity that “must have some clear authority over the homeland security budgets and programs throughout the federal government.” The Commission opines that the existing Homeland Security Council is best equipped to craft a new strategic policy that could then be carried out by the Department of Homeland Security, other federal agencies and a host of state, local and private groups that also must be involved. The Homeland Security Council is made up of the secretaries and heads of federal departments and agencies with homeland security responsibilities, supported by its own staff in the White House. Since its inception [see 5 Apr 1999], the Commission – which will disband early next year – has made 144 recommendations, with 125 being adopted by the Congress and various government agencies.

16 December In the UK House of Commons, Minister for Europe Denis MacShane makes a statement on the outcome of the recent meeting of BWC states parties in Geneva on national implementation measures [see 10-14 Nov]. He says: “The commitment to assess progress at the Sixth Review Conference in 2006 on the extent to which States Parties have put in place the necessary legislation is, in our view, particularly important. The outcome of the November meeting represents a very positive start to the work programme that lies ahead of us. Success was particularly important this year, as it is to be hoped that a precedent has now been set for agreement on effective action to emerge from the further meetings under the Biological Weapons Convention, scheduled to take place in 2004 and 2005. The United Kingdom believes that the success of the meetings in 2003 has also helped to prove to the wider arms control community that this new process can be made to work. It has delivered a shared international analysis and a readiness to adopt practical measures. Most importantly, a co-operative spirit continued to prevail throughout the discussions in Geneva, which also augurs well for the future.”

16 December UK Prime Minister Tony Blair – in an interview with the British Forces Broadcasting Service – says: “The Iraq Survey Group has already found massive evidence of a huge system of clandestine laboratories, workings by scientists, plans to develop long-range ballistic missiles.” The Prime Minister’s spokesman later says that the statement is based on the findings in the interim report produced by the Iraq Survey Group [see 2 Oct].

16 December At UN headquarters, the USA presents to the other four permanent members of the UN Security Council a draft resolution that would prohibit the transfer of biological, chemical and nuclear arms to individuals and groups. The move follows US President George Bush’s

speech to the General Assembly [see 23 Sep], to lead international efforts at the UN to curb the trafficking of such weapons and is designed to close gaps in a series of international treaties aimed at limiting the spread of weapons. UN diplomats say it is unlikely that the resolution will be put to a vote before the end of the year. The draft resolution calls on UN member states to criminalize the proliferation of weapons and to “refrain” from providing support to non-state entities attempting to “acquire, manufacture, possess, transport” chemical, biological or nuclear weapons. It would also require all governments to establish “domestic controls” for tightening their borders and curbing the export and financing of such weapons. Although the text urges states to “combat by all means” the spread of such weapons, it contains no enforcement mechanism that would empower the Security Council to impose sanctions against countries that fail to comply. According to unnamed UN diplomats the UK and Russia had favoured the inclusion of a Chapter VII enforcement provision to give the resolution more teeth, however, the US was said to be concerned that it would vest too much power in the Security Council in monitoring the illicit trade.

16-17 December In Washington D.C., there is the fifth Proliferation Security Initiative (PSI) plenary meeting. Consistent with decisions from the fourth plenary meeting in London [see 8-10 Oct], the original eleven PSI states – Australia, France, Germany, Italy, Japan, the Netherlands, Poland, Portugal, Spain, the UK, and the USA – are joined by Canada, Denmark, Norway, Singapore, and Turkey. Two weeks previously, US Under-Secretary of State for Arms Control and International Security John Bolton announced that Canada, Denmark, Norway and Singapore would participate in the current meeting. Following the meeting, Bolton says military officers – along with some law enforcement and intelligence officials and representatives of Japan's coast guard – talked about lessons learned from several interdiction exercises that had already taken place. He says the group analysed and discussed maritime interdiction exercises led by Australia in the Coral Sea [see 12-14 Sep] and by Spain and France in the Mediterranean [see 14-17 Oct], and a ‘table top’ air interdiction exercise in London led by the UK [see 8-10 Oct]. There was also discussion, he says, of interdiction exercises to be held in the first four or five months of 2004, i.e. a US-led maritime exercise in the Arabian Sea in January; followed by ground interdiction exercises led by Germany and Poland; an air exercise and another Mediterranean Sea exercise led by Italy in the spring, followed by another one there led by France. “The purpose”, he says “of these exercises is to provide the military with experience of how to handle different scenarios when they get actionable intelligence about a particular shipment, whether it's by sea or by land or by air”. He says the exercises are “developing a command-and-control capability for all of the PSI participants that will then be transmitted ... across all the pertinent combatant commands, so that people can get the benefit of the exercises ... [and] when they're confronted with the possibility of an interdiction in the real world, they're not starting from scratch.”

Bolton says there will be another meeting of the plenary group of the original eleven PSI countries and perhaps a couple of others, in Portugal in early March, adding that Canada will host the next meeting of the operational experts group in the early part of next year. He says that over fifty countries have indicated that they endorse the statement of interdiction principles agreed to in Paris [see 03-04 Sep] and are prepared to co-operate thereon. This, he describes as “very, very substantial support” for the plan. Asked whether there

will be an attempt to widen membership of the PSI, he says: “PSI is an activity, not an organization. We're not going to have a secretariat and a headquarters building. We're going to try to build political support for the initiative and solicit countries that support the statement of interdiction principles to work with us in a variety of different capacities.”

In his address – on the second day of the meeting – US Deputy Secretary of Defense Paul Wolfowitz says: “For too long we relied on diplomacy, arms control, non-proliferation and export controls to stop the trade in weapons of mass destruction. Some major successes were achieved with that non-proliferation regime. But I think it was increasingly clear over time that certain nations lying outside that regime and terrorist groups definitely outside that regime were not going to be stopped by the normal standards of the Non-Proliferation Treaty or international agreements... We need to broaden PSI to include everyone with the capacity and the willingness to help in the fight to halt proliferation. We need to continue to improve operational information-sharing capabilities. We need to remedy gaps in legal authority. We need to act against proliferation-related trafficking.”

18 December The *New Zealand Herald* reports that plans are underway to create a dedicated new organization within the New Zealand Defence Force to deal with chemical, biological, radiological and explosives threats. The Government announced plans for a chemical and biological terrorism unit last year [see 13 Feb], however, it has not yet been formed partly because of a world-wide shortage of chemical and biological decontamination gear. The December Economic and Fiscal Update document indicates that a far bigger organization with more resources and a wider role was now proposed. The Government, it says, is considering a “more comprehensive and responsive approach” to dealing with the threats than originally envisaged.

18 December The US Department of State announces a two-year programme, to be launched next month, under which Iraqi scientists, technicians and engineers formerly working on weapons of mass destruction programmes will be transferred to work in the civilian sector and thereby discouraged from emigrating. The US-funded Iraqi International Center for Science and Industry (IICSI) in Baghdad will identify needs and provide funding for specific scientific projects that use the expertise of personnel formerly involved in Iraq's weapons of mass destruction programs. State Department Spokesman Richard Boucher said in a statement that the program has “two mutually reinforcing goals: to keep Iraqi scientists from providing their expertise to countries of concern; and to enable them to serve in the economic and technological rebuilding of Iraq.” The programme will include workshops on establishing science, technology and engineering priorities for national reconstruction and will fund research on the potential use of modern desalination technology to tackle Iraq's water problems. The US Nonproliferation Disarmament Fund will provide \$2 million to support IICSI projects.

19 December In Moscow, Polish Ambassador to Russia Stefan Meller and Russian Munitions Agency Director-General Viktor Kholstov sign a technical-executive agreement, the purpose of which is to implement the chemical disarmament project signed by plenipotentiaries of both states in Warsaw last year [see 17 Dec 02]. “The technical executive agreement is aimed at implementing the first project of technology development and creation of an experimental industrial facility for processing the materials obtained as a result of lewisite

destruction,” says Meller. Under the project, Poland is to provide Russia with technology for the chemdemil of lewisite [see also 25 Nov in Russia].

19 December Libya announces that – after more than a year of negotiations between itself and the UK and USA – it is to abandon all of its weapons of mass destruction programmes. A statement released by the Libyan government reads thus: “In view of the international environment that prevailed during the Cold War and the tension in the Middle East, the Great Socialist People’s Libyan Arab Jamahiriya (GSPLAJ) has urged the countries in the region to make the Middle East and Africa a region free of the weapons of mass destruction. As its calls have received no serious response, the GSPLAJ had sought to develop its defence capabilities. Libyan experts have conducted talks with experts from the US and the UK on GSPLAJ activities in this field. The Libyan experts showed their (US and UK) counterparts the substances, equipment and programmes that could lead to production of internationally banned weapons. These are centrifuging machine and equipment to carry chemical substances. According to the talks held between the GSPLAJ, the USA and the UK, which are two permanent members of the (UN) Security Council that is responsible for the preservation of international peace and security, Libya has decided, with its own free will, to get rid of these substances, equipment and programmes and to be free from all internationally banned weapons. Libya has also decided to restrict itself to missiles with a range that comply with the standards of the MTCR surveillance system. It will take all these measures in a transparent way that could be proved, including accepting immediate international inspection. In addition to that, we confirm that (Libya) will abide by the Non-Proliferation Treaty, the IAEA Safeguards Agreement and the Biological Weapons Convention as well as accepting the Additional Protocol of the IAEA Safeguards Agreement and the Biological and Chemical Weapons Treaty. GSPLAJ believes that the arms race will neither serve its security nor the region’s security and contradicts its (Libya’s) great concern for a world that enjoys peace and security. By taking this initiative, it wants all countries to follow its steps, starting with the Middle East, without any exception or double standards. GSPLAJ will inform the UN Security Council about this issue.”

22 December In Washington, DC, a district court directs the US Department of Defense to halt its compulsory anthrax vaccination programme in the absence of a presidential order. Judge Emmet Sullivan rules that the vaccination programme, which commenced five years ago [see 14 Aug 98], falls under a 1998 law prohibiting the use of certain experimental drugs unless persons being administered the drug consent, or the President waives the consent requirement. Congress passed the law following fears that the use of such drugs may have led to unexplained illnesses among veterans of the 1991 Persian Gulf War. “Absent an informed consent or presidential waiver, the United States cannot demand that members of the armed forces also serve as guinea pigs for experimental drugs,” says Sullivan. The case in question concerns claims issued by six anonymous individuals in March.

The next day, US Assistant Secretary of Defense for Health Affairs William Winkenwerder says: “The [Department of Defense] is reviewing the judge’s order. As a matter of pending litigation, I’ll have no further comment on that litigation at this time ... The anthrax vaccine [has] been licensed by the FDA since 1970 [and the] vaccine-manufacturing process

was carefully reviewed just two years ago by the FDA ... I categorically reject the use of [the term ‘guinea pigs’] with respect to our treatments or any health programs for our service members. We do not use service members as guinea pigs. It was an unfortunate use of terms, in my judgment.”

23 December On the UK BBC Radio 4’s Today programme, former UNMOVIC Executive Chairman Hans Blix says that Libya’s decision to abandon its weapons of mass destruction programmes [see 19 Dec] proves that Iraq could have been contained without “rushing to war”. He says: “Years of pressure has meant Gaddafi has gone a slow path to this result ... the country has been worn down... So, I think one could just as well say that the example shows that perhaps Iraq could also have been handled with continuous containment”.

25 December The Chinese Foreign Ministry announces that the Japanese Government has agreed to provide compensation amounting to around 300 million yen (\$2.74 million) to the survivors of the chemical-munitions contamination incident in the city of Qiqihar [see 4 Aug]. The announcement follows months of negotiations between China and Japan as to the level of compensation that should be payable by Japan. Five days later in Qiqihar, the compensation is handed out at a ceremony attended by Chinese Foreign and Defense Ministry officials. In the incident, one person was killed and forty-three injured when construction workers broke open a buried barrel of poison gas abandoned by the Japanese army.

28 December On the UK television channel ITV1, US administrator for Iraq Paul Bremer, contradicts a claim recently made by UK Prime Minister Tony Blair that the Iraq Survey Group have found “massive evidence of a huge system of clandestine laboratories” for making weapons of mass destruction [see 16 Dec]. “I don’t know where those words come from but that is not what (Iraq Survey Group chief) David Kay has said. I have read (Kay’s) reports so I don’t know who said that. It sounds like a bit of a red herring to me. It sounds like someone who doesn’t agree with the policy sets up a red herring then knocks it down.” When presenter Jonathan Dimbleby then informs him that it was Blair who had made the comment, Bremer backtracks, saying that the Iraq Survey Group had found “clear evidence of biological and chemical programmes, ongoing”. He adds: “Weapons of mass destruction or no weapons of mass destruction, it’s important to step back a little bit here, to see what we have done historically.”

29 December At UN headquarters, Syria submits to the Security Council a draft resolution for “freeing the Middle East region of all weapons of mass destruction”, less than seventy-two hours before it completes its two-year term with the Council. According to Syrian Ambassador to the UN Faysal Miqdad, the draft resolution (which dates back to April) “is applicable to everybody, but in fact Israel is the real address in this regard, whether we like it or not, because Israel has all these kinds of weapons and has not ratified most nonproliferation treaties.” He says that if the Council fails to vote on the resolution before Syria completes its term, the new Arab member in the Council, Algeria, which begins its two-year term as a non-permanent member of the Security Council on 1st Jan, “will continue to pursue the objectives of the resolution”. An unidentified diplomat of a southern nation, however, tells the Inter Press Service that the outcome of the

initiative is “highly predictable”. “As a close ally of Israel, the United States will block any attempts to adopt the resolution – even if it is called upon to exercise its veto powers,” says the official.

29 December The US National Institutes of Health (NIH) releases a second environmental impact statement, which says that the proposed BSL-4 laboratory at the Rocky Mountain Laboratories in Hamilton, Montana [see 16 Jul 02], would pose a “negligible” risk to the community. Valerie Nottingham, from the NIH says: “The project hasn’t been changed or anything, we just added the health and safety information that people wanted.” She says the NIH will take comments for 45 days on the latest report before preparing a final statement.

29 December In the USA, a team of researchers from the Harvard Medical School and the Beth Israel Deaconess Medical Center says they have discovered a protease inhibitor to disable the native protease enzymes that constitute the lethal toxin in the inhalational form of anthrax. Writing in the January issue of *Nature Structural & Molecular Biology*, the research team – led by Lewis Cantley, chief of the division of signal transduction at Beth Israel and professor of systems biology at Harvard Medical School – says that the discovery could help scientists develop drugs capable of fighting the toxin in a similar way to the protease inhibitors that suppress the AIDS virus.

30 December *The Ottawa Citizen* reports that a 17 January 2003 Defence Department memorandum states that the 880 Canadian troops sent to Afghanistan between February and August last year were equipped with faulty gas masks and received generally poor training in defending against biological and chemical warfare. Furthermore, the memorandum – written by Assistant Deputy Defence Minister Alan Williams – states that Canadian peacekeepers in Bosnia, as well as soldiers who provided security for meetings of world leaders on Canadian soil, were also not given the proper chemical and biological warfare training. Williams was responding to the annual report by the biological and chemical defence review committee, which had concluded that the Canadian Forces were not keeping pace with defending against biological warfare in the period following the 11th September 2001. In the memorandum, Williams says: “The report highlighted the fact that the NBCD (Nuclear Biological Chemical Defence) requirement in all areas has slipped and all aspects require re-investment... Training was rare if non-existent... Increased distribution, training and operations usage ... has created some unusual problems [such as] holes in the C4 Mask [discovered] during normal maintenance.”

1 January The President of the Cuban National Assembly, Ricardo Alarcon, says that US Undersecretary of State for Arms Control and International Security John Bolton, who has made a number of recent speeches accusing Cuba of pursuing weapons of mass destruction [see 30 Oct 03], is a “liar”, so reports the *Washington Times*. In an interview, Alarcon says: “The risk of [Cuba] being attacked at this time — when preventive attacks have become a new American doctrine — is a real, present danger for us.”

1 January In Jerusalem, Prime Minister Ariel Sharon meets with his “inner security cabinet” to evaluate the strategic situation in the Middle East following the capture of

Saddam Hussein, the agreement of Iran to allow IAEA inspections of its nuclear facilities and Libya’s decision to renounce weapons of mass destruction [see 19 Dec]. Unidentified sources are cited in the *Jerusalem Post* as saying that Israel might join the CWC if all states in the region dispose of their chemical and biological weapons.

Two weeks later, the *Jerusalem Post* again cites an unidentified official who denies reports that Israel may consider joining the CWC, saying that no decision on this matter has been taken. The official adds that Israel has not come under any serious diplomatic pressure to change its policy, noting that although the issue is raised more frequently, it is only mentioned “in conversation” and in order to sound out Israel’s position rather than to apply pressure.

1 January In the UK, *The Lancet Infectious Diseases* publishes a report by Stanford University researchers on “Human monkeypox: An emerging zoonosis”. The report notes that the disease, which is endemic to central and western Africa, has recently emerged in the US. The researchers warn that if monkeypox becomes established in the US it could complicate measures to defend against a potential smallpox outbreak because it is clinically indistinguishable from other pox-like illnesses, particularly smallpox and chickenpox. Regarding the potential use of monkeypox as a weapon of bioterror, the researchers write: “Although wild-type [monkeypox virus] has very low potential for use as an agent of bioterrorism, how readily the virus can be genetically manipulated to exhibit greater virulence or transmissibility for such use is less clear.” After referring to recent experiments with pox viruses in Australia and the US, the authors state: “These findings suggest that certain microbes judged to have limited bioterrorism potential in the past may need to be reassessed in the era of modern molecular biology.”

2 January In Baku, Azerbaijan, US Ambassador Reno Harnish and Azerbaijani Defense Minister Colonel General Safar Abiev sign an agreement on cooperation in preventing the proliferation of weapons of mass destruction, so it is reported. Under the agreement, the US is to provide Azerbaijan with \$10 million to strengthen its borders and to enhance its capability to detect such weapons and to prevent their transportation across or storage on Azerbaijani territory.

5 January From Japan, the Tokyo *Asahi Shimbun* reports an unidentified source as saying that the Japanese government wants to form a network of bilateral treaties across Asia to prevent materials related to weapons of mass destruction from reaching North Korea. The government hopes to have signed such agreements with Singapore and Hong Kong by February and then to sign agreements with Thailand and others in the region. Under the agreements, Japan will exchange data with its treaty partners on products and companies that have been denied export approval.

5 January In Singapore, there is a simulated chemical attack on the Raffles Place metro station. The multi-agency exercise simulates the 1995 sarin attack on the Tokyo subway and allows personnel from the 13 agencies involved to test their response procedures.

5 January In Basra, Iraq, UK Prime Minister Tony Blair tells British troops that the invasion of Iraq was a “test case” for dealing with the proliferation of weapons of mass destruction. He says: “No government that owes its position

to the will of the people will spend billions of pounds on chemical, and biological and nuclear weapons whilst their people live in poverty. And these threats together produce chaos, because in the world in which we live, if there is chaos then the whole world system economically and politically breaks down. And this conflict here was a conflict of enormous importance, because Iraq was the test case of that. Iraq was a country whose regime and proven record of the use of weapons of mass destruction, not just their development, and a regime so abhorrent that as you will now know better than you did before, literally hundreds of thousands of its citizens died in prison camps, in the ways of torture and repression. And if we had backed away from that, we would never have been able to confront this threat in the other countries where it exists." On the flight back to the UK, Prime Minister Blair tells journalists: "I believe as strongly as I ever have this is the security threat and if we don't deal with it we will rue the day we didn't."

5 January In the Netherlands, the Amsterdam *Telegraaf* reports that Iraqi chemical weapons were smuggled into Syria and are now hidden in three locations with the knowledge of the Syrian government. The claims are made by dissident Syrian journalist Nizar Najoeff who was given details by a senior Syrian intelligence official. The weapons are hidden in tunnels under the town of al-Baida in northern Syria, at a Syrian air force base near the village of Tal Snan and near the city of Sjinjar. According to Najoeff, the transfer of the weapons was facilitated by the commanders of the Iraqi Special Republican Guard, with the help of Assif Shoakat, the cousin of Syrian President Bashar Assad, who owns an import/export company. Najoeff repeats his allegations four days later on UK *Channel Five News* and another four days later on French website *proche-orient.info*.

However, speaking after Najoeff's appearance on UK television, US National Security Adviser, Condoleezza Rice says that "we don't, at this point, have any indications that I would consider credible and firm that that has taken place". She continues: "We're going to follow every lead on what may have happened here. ... I don't think we are at the point that we can make a judgment on this issue. There hasn't been any hard evidence that such a thing happened. But obviously we're going to follow up every lead and it would be a serious problem if that, in fact, did happen." Similarly, US Secretary of State Colin Powell states two weeks later: "That is always a possibility, but I have seen no hard evidence to suggest that is the case, that suddenly there were no weapons found in Iraq because they were all in Syria. I don't know why the Syrians would do that, frankly: why it would be in their interest. They didn't have that kind of relationship with Iraq, but it is an open question, but I've seen no hard evidence to suggest that's what happened."

5 January In the UK House of Commons, Secretary of State for Foreign and Commonwealth Affairs Jack Straw makes a statement providing more details of Libya's weapons of mass destruction programmes [see 19 Dec 03]. Regarding chemical and biological weapons, he says: "Libya provided to us evidence of activity in the chemical weapons field, including significant quantities of chemical agent and bombs designed to be filled with chemical agent. The team of British and American specialists was given access to scientists at research centres with dual-use potential to support biological weapons-related work." Secretary of State Straw continues: "Britain and the United States will now make progress with the practical issues of verification and of the

dismantling of the weapons, in partnership with Libya and with the International Atomic Energy Agency and the Organisation for the Prohibition of Chemical Weapons. We have committed ourselves to helping with the preparation of Libya's return to those two international organisations, and to helping to dismantle the programmes that Libya has agreed to destroy. Responsibility for verifying Libya's declarations lies with the IAEA and OPCW, within their respective remits, and it is for the Libyan authorities to inform those organisations about the details of their programmes."

6 January In an interview published in the London *Daily Telegraph*, President Bashar Assad says that Syria is entitled to defend itself by acquiring its own chemical and biological deterrent. In the interview, President Assad says: "We are a country which is [partly] occupied and from time to time we are exposed to Israeli aggression. It is natural for us to look for means to defend ourselves. It is not difficult to get most of these weapons anywhere in the world and they can be obtained at any time."

However, unidentified US and UK officials are later reported as stating that Arab states with weapons of mass destruction must first disarm, and then Israel. An unnamed senior British government source is quoted as saying: "Israel is in a unique position as the only state whose very existence is threatened. There is no point asking for a WMD-free Middle East [see 29 Dec 03] while there are countries parading missiles with a sign up the side saying 'Death to Israel.'" In contrast, Amr Moussa, the head of the Arab League, tells Dubai-based Al Arabiya television that: "Syria does not have weapons of mass destruction or nuclear weapons. We can't pressure Syria has nuclear weapons just like that, this is a mistake. There is just one state with WMDs in the Middle East - Israel. And in that case, perhaps in the near future, other states will try - and it is their right - to protect themselves against such weapons."

6 January At UN headquarters, Libya [see 19 Dec 03] deposits its instrument of accession to the CWC. In 30 days time, Libya will therefore become the 159th state party to the treaty.

6 January In the US, the Sunshine Project has obtained documents showing that elements of the US Army's Advanced Riot Control Agent Device (ARCAD) [see 3 Jun 92] programme, which was supposedly terminated in 1992 due to the completion of the CWC negotiations, has continued under the US Marine Corps Joint Non-Lethal Weapons Directorate (JNLWD). It appears that in late 2003 the Marine Corps accidentally released to the Sunshine Project three documents, "Demonstration of Chemical Immobilizers", "Antipersonnel Calmative Agents" and "Antipersonnel Chemical Immobilizers: Synthetic Opioids", which the Project had requested under the Freedom of Information Act in 2001. These documents are now posted on the Sunshine Project's website. They reveal how elements of the ARCAD programme have been folded into the JNLWD's activities and how, in 2001, the Directorate trained Marine Corps officers in the use of classified anti-personnel 'non-lethal' chemical weapons. In a press release, the Sunshine Project states: "The significance of the documents is far more than historical. ARCAD was terminated because, in 1992, the Pentagon determined that it would violate the Chemical Weapons Convention. But it is now clear that the weapons research did not end. As of 2002 ARCAD's legacy was being pursued with a new institutional base - the Joint Non-Lethal Weapons Directorate. The research appears to have

resulted in classified antipersonnel chemical capabilities, according to the JNLWD contract to train Marine Corps officers. US chemical weapons development deemed legally unacceptable in 1992 has found new life with the 'non-lethal' moniker."

7 January In Tirana, Albania, an unexploded shell containing a chemical substance is found in the centre of the city, according to Albanian newspapers. According to a report in the Tirana *Gazeta Shqiptare*, the shell was Yugoslav-made and contained nerve gas. The report also cited local police as saying that the bomb could have been triggered by remote control causing thousands of casualties. However, a report in *Korrieri* says that it was a mortar shell dating back to before the Second World War, while a report in *Shekulli* says that the shell posed no danger as it did not contain a detonator.

7 January In the US, the former chemical weapons production facility at the Rocky Mountain Arsenal has been certified as destroyed by the OPCW, so it is reported. The 5,000 acre area will now be transformed into a wildlife preserve [see 25 Jun 92].

7 January In Texas, federal and state authorities are still unsure as to the motives of William Krar, who pleaded guilty two months previously [see 13 Nov 03] to the possession of a chemical weapon. Krar and his partner, Judith Bruey, were the owners of three storage units in which police found 800 grams of almost pure sodium cyanide and containers of hydrochloric, nitric and acetic acids, alongside half a million rounds of ammunition, more than 60 pipe bombs, machine guns silencers and remote-controlled bombs disguised as briefcases. Authorities believe Krar was part of a domestic terrorist plot due to his links to far-right militias and the discovery of anti-semitic, racist and anti-government propaganda in the storage units. Brit Featherston, an assistant US attorney and the federal government's anti-terrorism coordinator in Texas' eastern district is quoted as saying: "There's no other reason for anyone to possess that type of device other than to kill people. The arsenal found in those searches had the capability of terrorizing a lot of people." Federal authorities are cited as saying that the chemicals found, if mixed, could have created a bomb powerful enough to kill everyone inside a 30,000-square-foot building. Krar and Bruey are expected to stand trial in February.

7 January In the US, the *Washington Post* publishes a long article based on interviews with Iraqi scientists which reports that Iraq's weapons of mass destruction programmes never recovered from the 1991 Gulf War, UN sanctions and the activities of UN inspectors. In addition, many of the programmes which Iraq was alleged to have reconstituted after UN inspectors were withdrawn in 1998 had never got past the planning stage. *Post* reporter Barton Gellman writes: "The remnants of Iraq's biological, chemical and missile infrastructures were riven by internal strife, bled by schemes for personal gain and handicapped by deceit up and down lines of command. The broad picture emerging from the investigation to date suggests that, whatever its desire, Iraq did not possess the wherewithal to build a forbidden armory on anything like the scale it had before the 1991 Persian Gulf War."

In the article, Gellman cites a "well-informed account" of the debriefing of Dr Rihab Taha, the British-educated microbiologist known in the West as 'Dr Germ'. According to the account, Taha acknowledged receiving an order in 1990 to develop a biological weapon based on a virus. The same year,

a virologist working for Taha, Hazem Ali, commenced work on camelpox. An unidentified analyst familiar with the debriefing report says that investigators believe this demonstrates an intent to use smallpox, since camelpox resembles no other human pathogen, and contradicts Iraq's claims that it had not undertaken offensive viral research. However, Taha claims that Iraq did not have access to smallpox and that Ali's work stopped after 45 days with the invasion of Kuwait, and did not resume. The article contains similar accounts of Iraqi work on genetic engineering with unfinished laboratories and facilities lacking the necessary equipment.

Gellman also refers to the defection of Hussein Kamal [see 8 Aug 95], Saddam Hussein's son-in-law and head of the Military Industrial Organization, and doubts since that Kamal had told his debriefers the whole truth. Gellman reports being provided with a copy of a letter written a few days after Kamal's defection by Hossam Amin, the head of Iraq's National Monitoring Directorate, to Qusay Hussein. In the letter, Amin lists "the matters that are known to the traitor and not declared" to UNSCOM, including the fact that Iraq had put biological agents into Scud missile warheads. Amin also reminds Qusay Hussein that, while Iraq had told UNSCOM it had not possessed biological weapons after 1990, "destruction of the biological weapons agents took place in the summer of 1991." The information in Amin's letter tallies with what Kamal had told his debriefers in Jordan, meaning that Kamal probably did not hold anything back and that Iraq might well have destroyed its biological weapons in 1991.

Gellman also reports an interview with Thair Anwar Masraf, who confirms that the "mobile biological production plants" [see 7 May 03], described by the CIA and DIA [see 28 May 03] as "the strongest evidence to date that Iraq was hiding a biological warfare program", were indeed mobile hydrogen generators for filling weather balloons as Iraqi engineers claimed at the time. The mobile hydrogen generators were bought from the UK in 1982 and were mounted on trucks. The trailers were refurbished in the late 1990s, some at Masraf's Saad Company.

In the article, Gellman refers to a phenomenon which ISG inspectors describe as "red-on-red deception". They have uncovered a number of cases in which scientists promised more than they could achieve and submitted false reports to the government. It is possible that some of these reports were seen by Western intelligence agencies, reinforcing their suspicions, or that Saddam Hussein even wanted his enemies to assume Iraq's weapons were more advanced than was actually the case. Gellman writes: "In every field of special weaponry, Iraqi designers and foreign investigators said, such deceit was endemic. Program managers promised more than they could deliver, or things they could not deliver at all, to advance careers, preserve jobs or conduct intrigues against rivals. Sometimes they did so from ignorance, failing to grasp the challenges they took on."

7 January In Washington, US District Judge Emmet Sullivan lifts his earlier [see 22 Dec 03] court order and allows the Pentagon to resume its policy of compelling service personnel to be vaccinated against anthrax. Judge Sullivan's decision to stay his previous order comes after the Administration filed a motion asking for the ban to be lifted in the light of a Food and Drug Administration ruling that the vaccine was safe for use in protecting troops against inhalational anthrax. The six plaintiffs in the original case are exempted from the decision to stay the order. The Department of Defense announces that the anthrax vaccination programme will resume immediately.

7 January In Uzbekistan, the uzland.uz website carries a report alleging that the US-financed operation to decontaminate Vozrozhdeiy Island in the Aral Sea "has not reduced the anthrax danger in the least". The report claims that, while workers from the company Raytheon Technical Services have destroyed a number of buildings, the 11 stainless steel containers that held the anthrax are still on the island, thus leaving one clause of the US-Uzbek agreement unfulfilled.

8 January In Mostar, Bosnia-Herzegovina, the former Yugoslav chemical weapons production facility is dismantled in the presence of representatives from the US Embassy in Sarajevo, the Armed Forces of the Federation of Bosnia-Herzegovina, the Federation Defence Ministry and the Foreign Ministry of Bosnia-Herzegovina. The demolition has been financially supported by the US government.

8 January In the US, the *New York Times* reports that the 400-strong Joint Captured Material Exploitation Group has been withdrawn from Iraq "because its work was essentially done", according to unidentified senior government officials quoted in the newspaper. One official is quoted as saying that the Australian-led group had "picked up everything that was worth picking up." The *New York Times* reports that some military officials have described the withdrawal as a sign that the Administration might no longer be expecting to uncover caches of chemical and biological weapons. However, the newspaper quotes an unidentified senior Defense Department official as saying that the search for weapons remains the "primary focus" of the Iraq Survey Group, although he acknowledges that most of the new linguists and analysts assigned to the ISG have been tasked with combating the growing internal unrest rather than with the weapons search. Another ISG team, Task Force D/E, which specializes in the disposal of chemical and biological weapons is still in Iraq but an ISG member says it is "still waiting for something to dispose of".

8 January In the US, the Carnegie Endowment for International Peace publishes a report on *WMD in Iraq: Evidence and Implications*. The 111-page report, written by Joseph Cirincione, Jessica Matthews and George Perkovich, was prepared from September to December 2003. In the preface, the authors write of the objectives of the report: "This report attempts to summarize and clarify the complex story of weapons of mass destruction and the Iraq war. It examines the unclassified record of prewar intelligence, administration statements of Iraq's capabilities to produce nuclear, biological, and chemical weapons and long-range missiles, and the evidence found to date in Iraq. It draws findings from this material and offers lessons and recommendations for the future."

On the possession of chemical and biological weapons by Iraq, the report finds that: "Iraq's WMD programs represented a long-term threat that could not be ignored. They did not, however, pose an immediate threat to the United States, to the region, or to global security. With respect to nuclear and chemical weapons, the extent of the threat was largely knowable at the time. ... The uncertainties were much greater with regard to biological weapons. ... It is unlikely that Iraq could have destroyed, hidden, or sent out of the country the hundreds of tons of chemical and biological weapons, dozens of Scud missiles and facilities engaged in the ongoing production of chemical and biological weapons that officials claimed were present without the United States detecting some

sign of this activity before, during, or after the major combat period of the war.

On Western intelligence analysis and the use made of it by politicians, the report finds that: "Prior to 2002, the intelligence community appears to have overestimated the chemical and biological weapons in Iraq but had a generally accurate picture of the nuclear and missile programs. The dramatic shift between prior intelligence assessments and the October 2002 National Intelligence Estimate (NIE), together with the creation of an independent intelligence entity at the Pentagon and other steps, suggest that the intelligence community began to be unduly influenced by policymakers' views sometime in 2002. ... Administration officials systematically misrepresented the threat from Iraq's WMD and ballistic missile programs".

On the effectiveness of the UN inspection regimes applied to Iraq, the report finds that: "The UN inspection process appears to have been much more successful than recognized before the war. In addition to inspections, a combination of international constraints - sanctions, procurement investigations, and the export/import control mechanism—also appears to have been considerably more effective than was thought. The knowledge, prior experience in Iraq, relationships with Iraqi scientists and officials, and credibility of UNMOVIC experts represent a vital resource that has been ignored when it should be being fully exploited. To reconstruct an accurate history of Iraq's WMD programs, the data from the seven years of UNSCOM/IAEA inspections are absolutely essential."

Among its recommendations, the report lists: "The United States and the United Nations should collaborate to produce a complete history and inventory of Iraq's WMD and missile programs. ... In this joint effort, particular attention should be paid to discovering which of the several international constraints on Iraq were effective and to what degree. The UN Secretary General should charter a related effort to understand the inspections process itself - an after-action report. ... If the findings in Iraq and of these studies warrant, the UN Security Council should consider creating a permanent, international, nonproliferation inspection capability. By treaty or Security Council resolution, make the transfer of weapons of mass destruction capabilities by any government to any other entity a violation of international law and a threat to international peace and security."

Responding to the claims made in the report, US Secretary of State Colin Powell says: "What the Carnegie report, which I have not read, but I'm familiar with it from press accounts this morning, it said that there was that capability within Iraq and they were doing these kinds of things. And they believe that we, perhaps, overstated it, but they did not say it wasn't there." Secretary Powell continues: "Now, in terms of intention, [Saddam Hussein] always had it. And anybody who thinks that Saddam Hussein, last year, was just, you know, waiting to give all of this up, even though he was given the opportunity to do so, he didn't do it. What he was waiting to do was see if he could break the will of the international community, get rid of any potential for future inspections, and get back to his intentions, which were to have weapons of mass destruction. And he kept the infrastructure. He kept the programs intact." On the use of intelligence, Powell says: "I am confident of what I presented last year [see 5 Feb 03]. The intelligence community is confident of the material they gave me; I was representing them. It was information they presented to the Congress. It was information they had presented publicly, and they stand behind it. And this game is still unfolding."

8 January In the US, the Chemical Materials Agency reports that low levels of VX have been detected in the former chemical weapons production facility at the Newport Chemical Depot in Indiana. The Agency says that there was no release of VX into the atmosphere and that such readings are not surprising given that the facility, which is now being dismantled, was used to manufacture VX during the 1960s.

9 January Near Qurnah in southern Iraq, Danish military engineers and Icelandic deminers find a number of mortar shells which initial tests reveal contain blister agent. The 36 120mm shells were found lightly buried and wrapped in plastic during a routine collection of older ammunition from a storage depot. The Danes called for a team of British NBC experts who also detected the presence of blister agent. A US team is also dispatched from Baghdad to examine the shells which the Danish commander in Iraq says are 10 or more years old. Colonel Henrik Friis says that laboratory tests will be needed to confirm whether the find is the first discovery of chemical weapons in Iraq since the US-UK invasion. Reports in the UK media that the weapons are of Soviet origin are strongly denied in Moscow. ITAR-TASS reports the vice president of the military expert collegium, Major General Aleksandr Vladimirov, as saying that "neither during the Soviet time, nor later did Russia supply foreign armies with chemical weapons, therefore there is no question about handing over Russian weapons through the third countries."

Four days later, it is reported that the ISG team which had been examining the shells has not been able to find traces of blister agent. One of the shells is taken back to Baghdad for further testing and an electronic assessment of the shells is sent to the US Department of Energy's Idaho National Engineering and Environment Laboratory (INEEL) for further analysis. Danish and US officials state that the tests are not conclusive and that a definitive assessment should be available in the next three to five days.

Another four days later, a statement by the Danish army reports that in its definitive analysis INEEL has also been unable to find any trace of blister agent, or any other chemical agent, in the shells.

9 January In New Jersey and surrounding states, environmental groups raise concerns about US Army plans to transport VX hydrolysate from the Newport Chemical Depot to DuPont's Chambers Works on the Delaware River for final treatment. The Army has recently abandoned a plan to send the waste products to a treatment facility in Ohio and New Jersey environmentalists fear that treatment at the Chambers Works facility would increase pollution levels in the Delaware River. A few days later, the governor of New Jersey, James McGreevey, writes to Acting Secretary of the Army, Les Brownlee, requesting an extension of the period for public comment on the proposal and asking for a public meeting on the subject. A similar request is made by four New Jersey members of Congress. Later in January, the Army agrees to extend the deadline by 60 days and to hold two information briefings on its proposals in February. The Chambers Works facility is already processing neutralized waste products from the destruction of mustard gas at Aberdeen Proving Ground.

9 January In Washington, an unidentified senior State Department official tells a group of reporters that Russia is still "playing a little hard to get" in response to US calls for it to join the Proliferation Security Initiative [see 16-17 Dec 03]. The official is quoted further as saying: "They are so far not ready to join the process. They are interested but

are raising lots of questions about what are the legal authorities that would permit this broader strategy of interdiction to go forward. We're trying to get them from this interrogatory mode into more active participation." When asked whether Russia is doing enough to prevent proliferation, the official responds: "Could they do more? The answer is yes."

10 January In France, the Paris *Le Monde* cites Interior Ministry sources as saying that a man arrested in an anti-terrorist operation a year ago was studying how to make poisons and had planned to produce ricin and botulinum toxin. Menad Benchellali, who was arrested in December 2002, had tested toxins on animals in Central Asia, according to one of the unidentified officials. French authorities do not know whether Benchellali succeeded in producing ricin and botulinum toxin but they suspect him of being involved in an operation to target Russian buildings in Paris, including the Russian Embassy.

Two days later, French magistrates launch an investigation into six people arrested in Lyon the previous week. Those arrested included Menad Benchellali's father, a controversial radical imam, Chellali Benchellali, one of his brothers, Hafed, and his sister Anissa. Another of Menad's brothers, Mourad, is among six French nationals held by the US at Guantanamo Bay. The arrests are part of the long-running French investigation into the so-called 'Chechen network'. An unidentified Interior Ministry official confirms the *Le Monde* reports that those arrested admitted that Menad was a chemicals expert who had been trained in al-Qaeda camps in Afghanistan. The London *Guardian* quotes an unidentified investigator as saying: "After last year's arrests we thought we were dealing with a group planning bomb attacks on Russian interests, and possibly supplying false papers, money and lodgings to Chechens. It now seems a cell around the Benchellali family was trying to manufacture chemical and biological weapons for attacks around Europe." Investigators are now exploring possible links with the ricin found in London a year earlier [see 5 Jan 03].

11 January In the Arabian Sea, there is the fifth exercise [see 14-17 Oct 03] under the umbrella of the new Proliferation Security Initiative (PSI), exercise *Sea Sabre 2004*. In the exercise, US and Spanish commandos board and search the USNS Saturn, a US supply ship which was simulating a merchant ship carrying concealed chemical and biological weapons. The US, France, Singapore, Spain, Australia, Italy and the UK contribute equipment or observers to the exercise. Denmark, Germany, Japan, the Netherlands and Turkey participate as observers.

11 January In the UK, Prime Minister Tony Blair states that he does not know if weapons of mass destruction will be found in Iraq. In an interview on BBC1 television, when asked whether weapons of mass destruction will be found, Prime Minister Blair replies: "I do not know is the answer. I believe that we will but I agree there were many people who thought we were going to find this in the course of the actual operation. ... We just have to wait and see."

12 January From Bogotá, it is reported that Colombian police have seized 50 cylinders containing a lethal gas that were going to be used by the Revolutionary Armed Forces of Colombia (FARC). The cylinders were found in the town of Sylvania 50 kilometres south of Bogotá. The Colombian authorities have accused FARC of using chemical weapons in the past against civilians as well as the police and army [see 15 May 02], but the guerrillas have always denied

the allegations. According to reports, similar cylinders were used by FARC in capturing the town of San Adolfo when 12 police officers died of asphyxiation [see 2 Sep 01]. The Colombian authorities do not specify the type of gas found in the cylinders discovered in Silvania.

12 January From Sofia, it is reported that evidence by international experts will be permitted in the trial in Libya of six Bulgarians and a Palestinian accused of deliberately infecting 426 children with AIDS in a Benghazi hospital see [4 May 02]. According to evidence from one such expert, the epidemic had started before the arrival of the accused.

12 January In the US Congress, the General Accounting Office publishes a report on *Export Controls: Post-Shipment Verification Provides Limited Assurance That Dual-Use Items Are Being Properly Used*. According to the report, the US Department of Commerce issued 26,340 licenses for the export of dual-use items between fiscal years 2000 and 2002. A total of 28 per cent of these involved dual-use exports to "countries of concern" such as China, India and Russia. However, between 2000 and 2002, the Department of Commerce conducted post-shipment verification checks on only 428, or about six per cent, of the dual-use licenses it approved for "countries of concern".

12 January In Canada, military ombudsman Andre Marin describes the exposure of volunteers to chemical weapons during the Second World War as a "blot" in the history books. More than 2,000 soldiers unknowingly took part in the tests at Canadian Forces Base Suffield and in Ottawa, but the military for decades refused to acknowledge the case. The military has now compiled a list of more than 1,700 men who took part in experiments at Suffield and 900 who were used as research subjects at the former Chemical Warfare Laboratories in Ottawa. A lawyer representing the families of 300 veterans is now planning to bring a class-action against the government seeking financial compensation. Marin intends to take their case directly to the Minister of National Defence in order to head off the lawsuit and to mediate a settlement with the government.

13 January In Boca Raton, Florida, it is announced that the AMI building that was contaminated with anthrax spores in late 2001 is to be decontaminated by Bio-ONE, a joint venture between Giuliani Partners and Sabre Technical Services, which will then occupy the building as its own offices. The company will decontaminate the building using chlorine dioxide gas pumped in through the ventilation system. The technique is the same as Sabre Technical Services used to decontaminate Senate and other offices in Washington and postal facilities in Washington and New Jersey.

13 January In the US, the President of the Vietnam Veterans of America, Thomas Corey, calls on Congress to investigate the continuing cover-up surrounding Project 112. The VVA is suing the Department of Defense on behalf of veterans exposed to chemical and biological agents during the tests. Corey argues that the earlier testimony [see 11 Dec 03] of the former Project 112 technical director, J Clifton Spendlove, "leaves absolutely no doubt that military veterans were used as 'human samplers' without their knowledge or consent and are victims of our own 'weapons of mass destruction' test program."

Five days later, it is reported that the Pentagon is still continuing to withhold documents related to Project 112 de-

spite telling Congress it had revealed all medically relevant information. The Defense Department acknowledges that it still has documents laying out the scope and methods of the tests. Detailed planning documents and reports for each of the tests are classified because they identify vulnerabilities of military vessels to chemical and biological warfare agents and capabilities for delivering the agents, the Pentagon says in a response to questions from the Associated Press.

13 January In the US, Fox News reports that resistance fighters in Iraq might be planning a chemical attack on Baghdad. The television channel reports that a up to 30 missile warheads have been smuggled into Iraq from Iran by Kurdish rebels, and that between 6 and 12 of these warheads are filled with chemical agent.

13 January In West Valley City, Utah, smallpox is suspected in a man being treated for flu-like symptoms and a skin rash at Pioneer Valley Hospital. Bioterrorism preparedness protocols are put into effect and swabs are sent for analysis to the Utah Department of Health. It is later reported that the man was suffering from chickenpox.

13 January In San Diego, two women, Astrid Tepatti and Ebony Woods, are remanded in custody after being arrested for attempting to kill Tepatti's husband with ricin in order to share his life insurance policy. The two are charged with attempted murder and possession of a biological weapon.

14 January In Japan, the Environment Ministry is calling on local authorities to cooperate in collecting more information on old chemical weapons abandoned by the former Japanese Imperial Army at the end of the Second World War. According to a nationwide survey in 2003, old chemical weapons may be buried at 138 places in 41 of Japan's 47 prefectures. Of the sites, 41 require some kind of security or safety measures to be taken. Regarding another 37 sites where the accuracy of information or the location is in doubt, the Ministry is asking local authorities to survey residents by the end of March.

14 January In the UK, a senior military doctor, Lt. Col. Graham Howe, says that the osteoporosis and acute depression suffered by Gulf War veteran Lance Corporal Alex Izett are attributable to multiple vaccines he received in preparation for being deployed to the Persian Gulf. Howe made his determination in part because Izett was never actually deployed to the region. In a medical report, Howe wrote: "It seems most likely certain that Mr Izett did in fact receive classified 'secret' injections prior to his expected deployment, and that in turn these have most probably led to the development of autoimmune-induced osteoporosis."

15 January In the Netherlands, the Amsterdam *Telegraaf* reports that terrorist cells in the Benelux countries have chemical and biological weapons. The newspaper's claims are based on alleged meetings briefings given by the Israeli security service Mossad to the Dutch security service, the AIVD, when AIVD officials visited Israel recently. A member of the Dutch parliament also claims to have received a similar briefing while on a recent visit to Israel. The AIVD tells the *Telegraaf* that on the basis of information from its own sources, there is no "immediate and pressing" threat to the Netherlands.

15 January In the UK, Lord Hutton announces that the report of his investigation into the circumstances sur-

rounding the death of Dr David Kelly will be sent to the printers on 19 January and published in Parliament on 28 January. The six parties represented at the inquiry (the Government, the BBC, Dr Kelly's family, the Speaker's Counsel, Andrew Gilligan and Susan Watts) will be given copies of the report 24 hours before its publication but will be required to sign an undertaking not to reveal its contents before publication. On the day of publication, Lord Hutton will make a televised statement summarizing the report and the report itself will be posted on the Hutton Inquiry website.

15 January In the UK, a documentary on the Moscow theatre siege [see 26 Oct 02] is shown on BBC2's *Horizon*. The programme speculates that Russia may have developed a fentanyl derivative which, by adding to it an experimental stimulant called BMU8, does not depress respiratory action.

16 January In the US, it is reported that David Kay, currently the head of the Iraq Survey Group, will not return to Iraq after his Christmas holiday in the US and that he is soon to stand down as leader of the ISG. An unidentified US government source is quoted as saying: "He has told the DCI [Director of Central Intelligence George Tenet] that he doesn't want to go back. They have been trying to get him to stay." Kay does not respond to media inquiries but speculation gives as his reasons family obligations or frustration that resources were being shifted from the hunt for weapons of mass destruction.

17 January In Russia, Dr Alexander Gorodnitski, a researcher at the Institute of Oceanic Studies, warns that the Baltic Sea is heading for ecological disaster in four or five years time due to leakages from ships containing Second World War-era German chemical weapons. Gorodnitski says that "The poisonous chemical is already leaking in microscopic doses into the sea through the crevices in the ship's hulls, produced by corrosion, and the process may become irreversible in a short while from now." He also says that the chemicals stored inside such as mustard gas could enter the food chain by accumulating in plankton. The Oslo Paris (OSPAR) Commission for the Protection of the Marine Environment of the North-East Atlantic is currently working on guidelines for fishermen who recover old chemical weapons in their nets. The guidelines are expected to be ready later in the year.

19 January In Libya, a team of US and UK experts arrive to begin work on the verification and destruction of Libya's weapons of mass destruction, according to a senior Bush Administration official cited in the *New York Times*. The 12-person team is reported to be headed by Don Mahley, the US Special Negotiator for Chemical and Biological Arms Control Issues. Plans are being laid by Libyan chemical weapons scientists to incinerate tons of mustard gas, the senior administration official tells the newspaper. Missile programmes and biological research efforts are still under scrutiny. In addition, an IAEA team is assembling in Tripoli to begin verifying Libya's nuclear weapons programme.

19 January In the UK, the Royal Society submits a response to the House of Lords Science and Technology Committee's consultation on science and international agreements in which it argues that the BWC is critically weakened because it lacks an international scientific body and does not contain any verification procedures to ensure that the Parties who have signed it comply. The Foreign

Secretary of the Royal Society, Professor Julia Higgins, says: "The absence of a formal scientific advisory panel is a major constraint to developing a more effective Biological and Toxin Weapons Convention. A significant problem in devising verification procedures for biological and chemical weapons is that laboratories and installations connected to biological weapons are more diffuse and difficult to monitor. There is also the consideration that many agents may have 'dual use' application, or in other words that some research unconnected with biological and chemical weapons, may also be used for military or terrorist purposes. An independent advisory panel of scientists could provide sound scientific advice to help negotiate these obstacles."

19 January At UN headquarters, Tuvalu deposits its instrument of accession to the CWC. In 30 days time, Tuvalu will therefore become the 160th state party to the treaty.

19 January-24 In Geneva, the Executive Board of the World Health Organization convenes for its 113th session. Among the items on its agenda is consideration of a report from the fifth meeting of the WHO Advisory Committee on Variola Virus Research. The Advisory Committee had repeated its recommendation that "chimeric viruses (prepared by recombination of variola viruses with other orthopoxviruses) held in the CDC collection should be destroyed." However, *US News* now reports that CDC officials have refused to comply with the recommendation, quoting a US Department of Health and Human Services spokesman as saying that the WHO recommendation is only "part of the process" and that the US views the chimeric viruses as part of the smallpox collection which the World Health Assembly decided to retain temporarily for research [see 18 May 02].

20 January In the US Congress, President George Bush delivers his annual State of the Union address. In the speech, President Bush says: "Already, the Kay Report identified dozens of weapons of mass destruction-related program activities and significant amounts of equipment that Iraq concealed from the United Nations. Had we failed to act, the dictator's weapons of mass destruction programs would continue to this day. Had we failed to act, Security Council resolutions on Iraq would have been revealed as empty threats, weakening the United Nations and encouraging defiance by dictators around the world."

On Libya's decision to renounce weapons of mass destruction, President Bush says: "Because of American leadership and resolve, the world is changing for the better. Last month, the leader of Libya voluntarily pledged to disclose and dismantle all of his regime's weapons of mass destruction programs, including a uranium enrichment project for nuclear weapons. Colonel Qadhafi correctly judged that his country would be better off and far more secure without weapons of mass murder."

21 January In the UK, BBC1's Panorama television programme broadcasts a documentary on the Hutton Inquiry, entitled *A Fight to the Death*. The programme's producers say that it "contains criticisms of the main parties to the Inquiry and will be fair, accurate and impartial including when dealing with difficult events involving the BBC."

The programme contains excerpts from a Panorama interview with Dr David Kelly in October 2002 which has never previously been broadcast. In the interview, Dr Kelly states his belief that Iraq's biological weapons did pose a threat to its neighbours: "We're talking about Iran and Israel, and

certainly he can use those weapons against them and you don't need a vast stockpile to have a tremendous military effect." However, Dr Kelly also said that Iraq did not pose the same threat it posed prior to the 1991 Gulf War: "Iraq's intrinsic capability has been reduced since 1990/91." He also contradicted the Government's claim [see 24 Sep 02] that Iraqi chemical and biological weapons could be launched in 45 minutes: "Even if they're not actually filled and deployed today, the capability exists to get them filled and deployed within a matter of days and weeks."

21 January In London, the International Institute for Strategic Studies publishes its second [see 9 Sep 02] "strategic dossier"; *North Korea's Weapons Programmes: A Net Assessment*. Launching the new publication, IISS Director, Dr John Chipman, says: "Overall, we believe that our Iraq Dossier stands up well when compared with other documents published at about the same time. Nevertheless, we intend to publish later in 2004 an independent assessment of that study. And we will also be devoting more research energies to analysing the particular intelligence challenges in the proliferation field."

On chemical and biological weapons, Dr Chipman says: "Estimates of North Korea's chemical and biological weapons programmes are extremely uncertain. On balance, we assess that North Korea has probably produced and stockpiled a variety of chemical weapons agents and munitions, including artillery shells, aerial bombs, rockets, and missiles, but we cannot hazard an estimate of the amount and type of agents and munitions. Presumably, chemical weapons would be attractive to Pyongyang as both a military instrument for battlefield use and as a strategic asset to threaten civilian casualties, and the perceived utility of chemical weapons may have increased over the past decade as North Korea's conventional capabilities declined and after its nuclear capabilities were limited by the Agreed Framework. Prudently, American and allied officials assume that North Korea is prepared to use chemical weapons against military and civilian targets in a general conflict. Information on biological weapons is even scarcer. There is general agreement that North Korea has conducted research and development on biological agents, but it is not known whether it has decided to produce and weaponise biological agents."

21 January In the US, the Federation of American Scientists posts on its website a 2003 report by the JASON advisory group on defence science and technology. The report, on "Biodetection Architectures", says that "it is not realistic to undertake a nationwide, blanket deployment of biosensors," but that "the most important component of an effective biodetection architecture" is already in place, that is, the American public. According to the report, the US population constitutes "a network of 288 million mobile sensors with the capacity to self-report exposures of medical consequence to a broad range of pathogens." The report says that reliance on public vigilance presupposes public access to relevant information: "There is an obligation to educate the public regarding biodefense because a prudent response by the public is critical to minimizing the consequences of a bioterrorism attack."

22 January In the UK House of Commons, the Government submits its response to the report by the Science and Technology Select Committee on *The Scientific Response to Terrorism* [see 6 Nov 03].

The Government's response clarifies the confusion identified during the Committee's hearings over the use by

Government of two lists of pathogens in monitoring the security of laboratories. The Government states: "When the Anti-Terrorism, Crime and Security Act 2001 (ATCSA) was drawn up it was decided to use the Australia Group List as the basis of Schedule 5. This was a familiar and logical starting point for this piece of UK counterterrorism legislation, and used in the absence of any other considered criteria. The Australia Group List primarily addressed State proliferation of chemical and biological weapons. A second list of agents (known internally as the Salisbury List) sought to identify those substances that were not captured by the Act but might be applicable in a terrorist context. The Salisbury List is currently not subject to enforcement under ATCSA, but a strengthening of protective security measures at sites handling substances on this List was taken forward effectively on a purely voluntary basis. The present situation in relation to the Anti-Terrorism Crime and Security Act is unsatisfactory and the Government is considering recommendations for extending the range of organisms that should be included in the legislation."

Addressing the Committee's belief that an ethical code of conduct for scientists "has value in promoting awareness and providing basis for better education of researchers" the Government responds: "The Government agrees that researchers should be aware of ethical considerations relating to science and its wider applications. The ethical code recommended by the Committee is an interesting proposal and we have already started consulting the research community on whether such a code is likely to deliver. ... Further consultations will take place in 2004 in preparation for the meetings in 2005, under the auspices of the Biological Weapons Convention, where the issue of a Code of Conduct is to be considered. The United Kingdom will chair the three weeks of discussion in Geneva."

On the Committee's criticisms of the Voluntary Vetting Scheme, the Government responds: "We tasked our counterterrorism experts to investigate the possibility of using the scheme effectively against acquisition by terrorists of WMD-related knowledge earlier this year (2003). They concluded it was not currently possible to put in place a mechanism that could distinguish a potential terrorist against the 'background noise' of other students. The Government agrees with the Committee that the VVS has shortcomings as a counter-proliferation tool. It is committed to addressing these problems and to improving participation in the Scheme. As the Committee acknowledges, the Cabinet Office is currently engaged, with other interested government departments, in finding a way forward for the Scheme that best meets the Government's counter-proliferation objectives."

22 January In the UK, the London *Times* reports that the Oxfordshire Coroner, Nicholas Gardiner, may open a full inquest into the death of Dr David Kelly. The coroner's original inquest was adjourned upon the appointment of Lord Hutton but Gardiner says that he wants to consider documents collected by Thames Valley Police but not handed to Lord Hutton and other evidence which he has received. The Police had interviewed 500 people and taken 300 witness statements, but fewer than 70 had been deemed relevant to the Hutton Inquiry. For legal reasons, the Coroner cannot make a formal announcement of his decision in court until 28 days after Lord Hutton's report.

22 January In the US, while being interviewed on National Public Radio, Vice-President Dick Cheney reasserts that Iraq possessed weapons of mass destruction and that it had links to al-Qaeda. Vice-President Cheney says: "There's overwhelming evidence there was a connection

between Al Qaeda and the Iraqi government. I am very confident that there was an established relationship there.” On weapons of mass destruction, he says: “We’ve found a couple of semi-trailers at this point which we believe were in fact part of [a WMD] program. I would deem that conclusive evidence, if you will, that he did in fact have programs for weapons of mass destruction.”

22 January In the US, Alan Shaffer, the director for plans and programmes in the US Defense Department’s Office of Defense Research and Engineering says that the Department plans to establish a new science and technology programme to develop ‘nonlethal’ methods that can be used to maintain order in civil-military and other operations. Shaffer is quoted as saying: “You don’t want to go into another person’s country with the only option being lethal force, because that will turn the populace against you.”

22 January In Washington, the Institute of Medicine and the National Research Council publish a joint report that calls for the establishment of a new agency within the Office of the Secretary of the US Department of Defense which would successfully develop drugs, vaccines and other medical interventions against biowarfare agents. The report, *Giving Full Measure to Countermeasures: Addressing Problems in the DoD Program to Develop Medical Countermeasures Against Biological Warfare Agents*, recommends that the Pentagon’s existing fragmented medical biodefence activities should be transferred to a new Medical Biodefence Agency along with their personnel and funding.

22 January In the US, the Air Force says that a study to be published in the February issue of the *Journal of Occupational and Environmental Medicine* has found an increased risk of prostate cancer and melanoma among Air Force veterans of the Vietnam War who sprayed the chemical defoliant Agent Orange. The study is to be reviewed by the National Academy of Sciences, which will report its results to the Veterans Affairs Department.

23 January In the US, CIA Director George Tenet announces David Kay’s resignation as his Special Advisor for Strategy regarding Iraqi Weapons of Mass Destruction Programs and leader of the Iraq Survey Group (ISG). Tenet also announces that Kay is to be replaced by former UNSCOM Deputy Executive Chairman, Charles Duelfer. In submitting his resignation, Kay says: “It has been my honor and privilege to work with a tremendous group of men and women in Iraq, Qatar, and Washington. Despite arduous working conditions and an inhospitable and often threatening environment, the ISG, led by General Dayton, has performed its important mission with great skill and the utmost integrity. While there are many unresolved issues, I am confident that the ISG will do everything possible to answer remaining questions about the former Iraqi regime’s WMD efforts.”

Kay’s replacement by Duelfer is seen as marking a transition in the search for weapons of mass destruction. Instead of searching for stockpiles, Duelfer will focus on when and how such stockpiles were eliminated. He tells reporters: “The goal here is to put together the most complete, credible and openly demonstrable picture of what Iraq had, what their programs were and where they were headed.”

The day after his resignation, Kay gives the first in a series of media interviews. In the telephone interview with Reuters, when asked what happened to the stockpiles of

chemical and biological weapons which Iraq was believed to possess, Kay says: “I don’t think they existed. I think there were stockpiles at the end of the first Gulf War and those were a combination of UN inspectors and unilateral Iraqi action got rid of them. I think the best evidence is that they did not resume large-scale production, and that’s what we’re really talking about, is large stockpiles, not the small.” He continues: “They had stockpiles, they fought the Iraqis with it, and they certainly did use it on the Kurds. But what everyone was talking about is stockpiles produced after the end of the last (1991) Gulf War and I don’t think there was a large-scale production program in the ‘90s.”

In an interview a day later with National Public Radio, Kay says that while he doubts that stockpiles of chemical or biological weapons will be found, the ISG’s investigations did uncover “program activities” which he defines thus: “Program activities meaning that there were scientists and engineers working on developing weapons or weapons concepts, that they had not moved into actual production, but in some areas—for example, producing mustard gas—they knew all the answers. They had done it in the past, and it’s a relatively simple thing to go from where they were to starting to produce it. But they had not made that decision to go ahead at the time of Operation Iraqi Freedom, at least that’s my conclusion.”

In an interview with the *New York Times*, Kay says that: “I’m personally convinced that there were not large stockpiles of newly produced weapons of mass destruction. We don’t find the people, the documents or the physical plants that you would expect to find if the production was going on. I think they gradually reduced stockpiles throughout the 1990s. Somewhere in the mid-1990s, the large chemical overhang of existing stockpiles was eliminated.” He also says that around 1997 and 1998 Iraq plunged into a “vortex of corruption” and Saddam Hussein became increasingly divorced from reality: “The whole thing shifted from directed programs to a corrupted process. The regime was no longer in control; it was like a death spiral. Saddam was self-directing projects that were not vetted by anyone else. The scientists were able to fake programs.”

24 January En route to Tbilisi, US Secretary of State Colin Powell is asked to respond to David Kay’s claims [see 23 Jan] that Iraq did not have stockpiles of chemical or biological weapons prior to the US-UK invasion. Secretary Powell responds as follows: “I think the answer to the question is I don’t know yet. ... The intelligence community studied it very hard and when I made the presentation [see 5 Feb 03] on behalf of the United States it reflected their best judgment. Now, I think their best judgment was correct with respect to intention, with respect to capability to develop such weapons, with respect to programs. I think where the question is still open, and we’ll just have to let ISG continue its work and let Charlie Duelfer get out there — He has also expressed opinions similar to Mr Kay. Let him get out there and see what he sees, go through the documents, finish the interviews, look at any other sites they have to. What is the open question is: how many stocks they had, if any? And if they had any, where did they go? And if they didn’t have any, then why wasn’t that known beforehand?”

25 January In the UK, the London *Sunday Times* reports testimony from refugees about chemical weapons experiments conducted on prisoners in North Korea. In 1990, Lee Sun-ok recalls seeing 150 women prisoners lying motionless and bleeding from their mouths while prison guards

in gas masks examined them. Human rights activists are collecting such testimony for possible future charges of crimes against humanity if the North Korean regime ever collapses.

A week later, BBC2 television broadcasts *Access to Evil*, a documentary about allegations of human rights violations in North Korea. Kwon Hyok, a former North Korean guard at Prison Camp 22 on the North Korea-Russia border who defected to South Korea in 1999 repeats similar allegations. Hyok claims to have witnessed chemical experiments being carried out on political prisoners in specially constructed gas chambers. Also interviewed is a human rights activist in Seoul who has been provided with so-called "Letters of Transfer" from Camp 22 which bear the name of a male victim, his place and date of birth. The text of each letter reads: "The above person is transferred from Camp 22 for the purpose of human experimentation with liquid gas for chemical weapons."

26 January In Malaysia, an al-Qa'ida programme to develop chemical and biological weapons was in the early "conceptual stages" when it was cut short by the US-led invasion of Afghanistan, according to unidentified US and Malaysian security officials, quoted by the Associated Press. The sources claim that the information was obtained through the interrogation of terrorist suspects captured in south-east Asia and from clues gathered in the Afghan battlefield. The programme, they say, was being developed in the southern Afghan city of Kandahar and was being run by Yazid Sufaat, a former Malaysian army captain and US-trained biochemist, under the direction of Riduan Isamuddin, or Hambali, an Indonesian accused of heading al-Qa'ida's operations in south-east Asia [see also 10 Oct 03]. Both men are suspected members of Jemaah Islamiyah, an al-Qaeda-linked Islamic extremist group. In mid-2001, Yazid was working on a programme in Kandahar "to equip al-Qaeda with the capability to launch a chemical attack," according to a Malaysian official. Yazid is said to have told the Malaysian authorities that the programme was in its "conceptual stages" when it was abandoned following the US-led attack on Afghanistan in October 2001. Malaysia has extended the imprisonment of Yazid for a further two years under the Security Act – which allows for the government to authorize indefinite detention without trial for two-year periods – on the grounds of his not having disclosed all information on terrorist operations which he has knowledge of. Yazid's first two-year period of detention is due to expire at the end of the month.

26 January In Kigali, Rwanda, a team of OPCW officials arrives for a two-day technical visit to assist in Rwandan efforts to ratify the CWC. Head of the OPCW delegation, Director of External Relations Huang Yu says: "The ratification of the chemical weapons convention demonstrates a political will in the implementation of peace and security of the country."

26 January In Washington, a federal judge rules that allowing a lawsuit by Steven Hatfill [see 26 Aug 03] to proceed will not endanger the FBI's investigation of the anthrax letters that killed five people in 2001. During a motions hearing, US District Judge Reggie Walton, expressing sympathy for Hatfill's claim that government leaks have ruined his career, says: "I totally understand how his life has been, at least at this point, virtually destroyed. I know I'm not inclined to give an open-ended stay [which would freeze the lawsuit indefinitely]". Assistant US Attorney Mark Nagle tells the court that later in the day the Justice Department would deliver to

him an affidavit containing secret additional information on the progress of the anthrax case to justify the delay. He refers to Hatfill as "an individual who by his own declaration is implicated in the investigation", but gives no indication of whether investigators still are interested in the former Army bio warfare expert.

27 January In Tokyo, officials from Japan and Iran meet for bilateral consultations on nuclear disarmament and non-proliferation. A summary posted on the website of the Japanese Ministry of Foreign Affairs states: "As for Chemical Weapons Convention (CWC)/Biological Weapons Convention (BWC), both sides stressed the importance of conventions' universalization, which gains a momentum in the wake of Libyan accession to CWC, and of strengthening their national implementation by all member states. The Iranian side explained the current status of its bills to implement CWC/BWC. The Japanese side appreciated Iranian positive and constructive stance in the BWC enhancement process based upon the three-year 'work programme', particularly in the Annual Meeting of the States Parties held in November 2003."

27 January In Strasbourg, the European Parliament's Environment and Public Health Committee unanimously adopts a proposal to set up a European Centre for Disease Prevention and Control, which would come into operation in 2005 and be funded from the EU budget. The Committee says that the Centre will "identify, assess and communicate current and emerging risks" to human health, whether of natural or criminal origin. It is not intended to take the place of national bodies but to provide them with independent and reliable technical assistance and scientific opinions, as well as playing a co-ordinating and planning role in joint projects. The Centre will have a team of 35 staff in its first year of operation (70 after two years) and a total budget of around EUR 48 million for the first three years. A reserve budget is also planned to enable it to respond swiftly in an emergency.

27 January In Paris, there is a summit meeting between French President Jacques Chirac and Chinese President Hu Jintao. In a subsequent joint declaration, the leaders agree to form a task force for arms control and proliferation prevention within the framework of bilateral strategic dialogue and to strengthen cooperation and exchanges in arms control, proliferation prevention and export controls on sensitive items. The statement includes the following: "China and France also reiterate that it is essential to observe strictly the Convention on the Prohibition of Chemical Weapons and the Convention on the Prohibition of Biological Weapons." In the joint statement, Presidents Chirac and Hu endorse, in principle, the convocation of a UN Security Council leadership meeting on issues of proliferation prevention. In addition, France welcomes China's formulation of national laws and regulations on controlling the export of sensitive items [see 14 Oct 02] and supports China's accession "in due course to other multilateral export-control mechanisms."

27 January In the UK, three medical experts write to the London *Guardian* stating that they "do not consider the evidence given at the Hutton inquiry has demonstrated that Dr David Kelly committed suicide." The letter continues: "We dispute that Dr Kelly could have died from haemorrhage or from Co-Proxamol ingestion or from both. The coroner, Nicholas Gardiner, has spoken recently [see 22 Jan] of resuming the inquest into his death. If it re-opens, as in our

opinion it should, a clear need exists to scrutinise more closely Dr Hunt's conclusions as to the cause of death."

27 January In Florida, the US government lodges an application with a federal court to delay a lawsuit filed by the widow of a journalist killed in the 2001 anthrax attacks on the grounds of national security. It claims that the suit could compromise the ongoing investigation and require the disclosure of sensitive information about such biological weapons as anthrax. Maureen Stevens is claiming more than \$50 million in damages [see 24 Sep 03], on the grounds that lax security at an Army laboratory in the autumn of 2001 caused her husband's death. Robert Stevens is believed to have contracted anthrax from a tainted letter sent to the Boca Raton headquarters of American Media Inc. He died on 5 October 2001 from inhalation anthrax.

27 January Texas Tech University and Dr Thomas Butler have reached an agreement allowing Butler to resign from the University's Health Sciences Center, according to his lawyer Floyd Holder and Health Sciences Center President Roy Wilson. Butler was convicted last month [see 1 Dec] on 47 counts, including theft, fraud and illegally mailing plague samples overseas. "We exchanged letters agreeing to terms agreeing to his departure from Tech and for us to pay money to Tech," says Holder, adding that he expects the deal to become official by the end of the month. In a written statement, Wilson says: "With this settlement, Texas Tech University Health Sciences Center considers all internal matters with Dr Butler resolved and will pursue no further actions. We wish Dr Butler well."

28 January In Moscow, Russian Munitions Agency Director General Victor Kholstov and Swiss charge d'affaires in Moscow Ann Boti sign an agreement by which Switzerland pledges to provide Russia with approx. \$12 million over five years toward its chemdemil programme. Switzerland is one of the non-G8 states participating in the Global Partnership against the Spread of Nuclear Weapons [see 030611]. Last year, the Swiss parliament approved spending more than \$13 million on global efforts to destroy chemical weapons [see 21 Mar 03]. At the signing ceremony, Kholstov announces that the chemdemil facilities at Shchuch'ye and Kambarka will open in late 2005 and that three further facilities, at Pochep, Leonidovka and Maradykovskiy, will be launched in 2006.

28 January In London, Lord Hutton's report into the circumstances surrounding the death of Dr David Kelly is delivered to the Secretary of State for Constitutional Affairs and published. Details of the report's conclusions had been leaked to the *Sun* newspaper ahead of publication and Lord Hutton announces an urgent investigation into the leak.

Setting out his terms of reference, Lord Hutton says that the wider issue relating to intelligence on Iraq's suspected possession of weapons of mass destruction "is not one which falls within my terms of reference." He continues: "The issue whether, if approved by the Joint Intelligence Committee and believed by the Government to be reliable, the intelligence contained in the dossier was nevertheless unreliable is a separate issue which I consider does not fall within my terms of reference." Lord Hutton also states that consideration of the "distinction between battlefield WMD and strategic WMD" "does not fall within my terms of reference." Instead, Lord Hutton focuses on the allegations made by BBC journalist Andrew Gilligan that "(1) the Government probably knew, before it de-

ecided to put it in its dossier of 24 September 2002, that the statement was wrong that the Iraqi military were able to deploy weapons of mass destruction within 45 minutes of a decision to do so" and "(2) 10 Downing Street ordered the dossier to be sexed up." Both of these allegations Lord Hutton finds to be "unfounded". Lord Hutton also states that "the BBC failed to ensure proper editorial control over Mr Gilligan's broadcasts on 29 May" and that "the BBC management was at fault in failing to investigate properly and adequately the Government's complaints". On the way in which Dr Kelly's identity was revealed to the media, Lord Hutton finds that "there was no dishonourable or underhand or duplicitous strategy by the Government covertly to leak Dr Kelly's name to the media."

There is widespread surprise at the decisiveness with which Lord Hutton exonerates the Government and with which he criticizes the BBC. Soon after the report's publication, the Chairman of the BBC Board of Governors, Gavyn Davis, submits his resignation. A day later the BBC Director-General, Greg Dyke, resigns. The reporter, Andrew Gilligan also tenders his resignation.

28 January In the US Congress, the Senate Armed Services Committee conducts a hearing into *Iraqi Weapons of Mass Destruction and Related Programs*. Testifying at the hearing, former senior US weapons inspector of the Iraq Survey Group David Kay [see 23 Jan] says: "Let me begin by saying we were almost all wrong ... I believe that the effort that has been directed to this point has been sufficiently intense that it is highly unlikely that there were large stockpiles of deployed militarized chemical and biological weapons there ... Is it theoretically possible, in a country as vast as that, that they're hidden? It's theoretically possible, but we went after this not in the way of trying to find where the weapons are hidden. When you don't find them in the obvious places, you look to see: Were they produced? Were there people that produced them? Were there the inputs to the production process? And you do that, and you eliminate – that's what I [call] ... unresolved ambiguity. When the ISG wraps up its work, whether it be six months or six years from now, there are still going to be people to say, 'You didn't look everywhere. Isn't it possible it was hidden somewhere?' And the answer has got to be, honestly, 'Yes, it's possible.' But you try to eliminate that by this other process ... We have discovered hundreds of cases, based on both documents, physical and the testimony of Iraqis, of activities that were prohibited under the initial UN Resolution 687 and that should have been reported under 1441, with Iraqi testimony that not only did they not tell the UN about this, they were instructed not to do it, and they hid material ... I regret to say that I think at the end of the work of the ISG there is still going to be an unresolvable ambiguity about what happened. A lot of that traces to the failure on April 9th to establish immediately physical security in Iraq. The unparalleled looting and destruction, a lot of which was directly intentional designed by the security services to cover the tracks of the Iraq WMD program and their other programs."

The next day, in a News Hour interview with Jim Lehrer on PBS TV, Kay says he believes an "over-reliance on technical intelligence [such as] spy satellites and communication intercepts" led the intelligence agencies to wrongly believe that Iraq possessed weapons of mass destruction [see also 2 Oct 03]. He says there was "a lack of [...] dedicated [US] secret agents [and] clandestine officers operating in Iraq". "I'm convinced the Iraqis tried to deceive us and they tried to deceive us and others into believing that they really did have those weapons," says Kay.

29 January In Stockholm, the new international, independent Weapons of Mass Destruction Commission [see 11 Dec 03] convenes for its first meeting. The Commission is chaired by former UNMOVIC Executive Chairman Hans Blix, who was recently awarded the Olof Palme Prize for his work "against proliferation of weapons of mass destruction and for common security in accordance with international law." The members of the Commission are: Dewi Fortuna Anwar, Indonesia; Alexei Arbatov, Russia; Marcos de Azambuja, Brazil; Alyson Bailes, UK; Therese Delpech, France; Jayantha Dhanapala, Sri Lanka; Gareth Evans, Australia; Patricia Lewis, Ireland; William Perry, USA; Vasantha Raghavan, India; Cheikh Sylla, Senegal; Prince El Hassan bin Talal, Jordan; and Pan Zhenqiang, China. Organized under an initiative of the Swedish Foreign Ministry, the commission will make specific proposals on a range of issues relating to weapons of mass destruction, including terrorism and missiles and other delivery vehicles. It is expected to publish its recommendations by the end of 2005.

29 January The US government announces that it will seek \$274 million next year to fight health threats such as bioterrorism, thereby more than doubling this year's spending. Health and Human Services Secretary Tommy Thompson says: "We'll be able to get information from hospitals, pharmacists and clinics across America on a daily basis. It is vital that we detect, monitor and treat any disease outbreak as quickly and efficiently as possible." He says that patients identities will remain protected, however, public health officials will have access to information such as patient records that have been off limits. Some of the money would be aimed at research and development of vaccines, including an augmented prevention and control effort against smallpox. Security patrols would be increased at airports and shipping docks. Homeland Security Secretary Tom Ridge says that the thirty cities now being monitored for biological pathogens under the BioWatch programme [see 14 Nov] would be increased to more than sixty in 2005.

30 January In Japan, the Tokyo District Court sentences former senior Aum Shinrikyo member Masami Tsuchiya to death for, amongst other things, his role in the production of sarin that was used in the 1995 Tokyo subway attack [see 20 Mar 95] and the attack in Matsumoto, Nagano Prefecture [see 28 Jun 94]. Tsuchiya is the eleventh Aum member to receive the death penalty, being the last remaining follower of Aum still being tried before the district court. The court rules that Tsuchiya had conspired with Aum founder Shoko Asahara and other senior cult members to carry out two sarin attacks and three VX gas attacks, and was involved in the illegal production of the hallucinogen PCP. Presiding Judge Satoru Hattori says: "The defendant, following Asahara's instructions, made all the chemical weapons used in the attacks. We must say that the cult's crimes using chemical weapons would not have occurred without the accused. In that sense, he was at the center of the crimes." Hattori says Tsuchiya deserves to die due to the cruelty of the two sarin attacks. He also says that Tsuchiya repeatedly heard the plight of the victims' relatives in the courtroom but showed no sign of remorse, and angered the next of kin by maintaining his allegiance to Asahara, as well as occasionally using abusive language toward prosecutors and the gallery.

30 January In Izhevsk, Russia, the Director General of the Russian Munitions Agency, Victor Kholstov, and the President of the region of Udmurtia, Aleksandr Volkov,

announce that 2.7 billion roubles (US\$ 94.5 million) will be spent in 2004 to construct a chemdemil facility at Kambarka in the region. The total cost of construction is likely to be 6 billion roubles. Construction is expected to be finished by the end of 2005, and destruction of lewisite to start in 2006.

30 January In Moscow, after bilateral US-Russia talks, a high-ranking Russian military expert says that commitment to the Proliferation Security Initiative (PSI) "raises more questions than it provides answers", according to ITAR-TASS news agency. The unidentified source says that during two days of talks, the US side had failed to give a satisfactory explanation as to how operations under the PSI accorded with international law [see 9 Jan]. "There is no comprehensible answer to the question of who will pay for the material and moral damage if WMD (weapons of mass destruction) components did not turn out to be on a seized ship (and) who would pay for using force and equipment to seize a vessel", the source is quoted as saying. Discussions between US Undersecretary of State for Arms Control and International Security John Bolton and Russian Colonel General Yuri Baluyevsky are said to have been dominated by US efforts to persuade Russia to join the PSI.

At a subsequent press conference, Undersecretary Bolton says: "We've discussed a variety of different aspects of PSI here in Moscow, trying to answer a number of questions that our Russian colleagues raised about it. And I believe they are certainly supportive of the objectives of PSI - reducing the trafficking in WMD materials - and they are considering exactly what their involvement in the initiative will be. ... I think the Russian side raised a number of questions about how PSI works in operation. We tried to respond to them. We encouraged further contacts on a military-to-military basis and among the intelligence services. And I hope that those will go forward promptly and we are prepared to have additional discussions with the Russian side. But we were quite encouraged with today's and yesterday's outcome and look forward to further consideration by the government here."

30 January In Geneva, there is an International Committee of the Red Cross (ICRC) Meeting with States on a Ministerial level Declaration in Support of the 1972 Biological Weapons Convention, tentatively entitled *On Preventing the Misuse of the Life Sciences for Hostile Purposes*. The aim of the meeting, hosted by ICRC President Jakob Kellenberger, is to begin a process to draft a ministerial level declaration, and follows on from the launch of the ICRC's Appeal on Biotechnology, Weapons and Humanity [see 23-24 Sep 02]. The first drafting meeting with States will be held on 27th February.

In his statement to the meeting, Kellenberger says: "For many years, practical efforts to prevent hostile use of the life sciences have been viewed by many not as universal responsibilities, but as something arranged by government experts at the Palais des Nations in Geneva. Although such efforts are essential, there has been a certain lack of urgency to effectively reduce the risk of hostile use. High-level political understanding and commitment has been fleeting, at best. We need to turn this situation around. The stark truth is that broader and deeper commitment is needed at a senior political level to tackle the difficult challenges involved in reducing the risk of hostile use of the life sciences. And, political leaders need to engage science and industry in this effort if preventive measures are to be successful. That's why the ICRC proposed a Ministerial level Declaration. It's clear that the Ministerial level Declaration and its preparatory process could (and should)

reinforce efforts in the Biological Weapons Convention process. This understanding was well reflected in the Agenda for Humanitarian Action adopted by the 28th International Conference of the Red Cross and Red Crescent last December, including by all States party to the Geneva Conventions represented at the Conference. This exercise is not – and must not – become a parallel exercise to the Biological Weapons Convention. With this in mind, the question we have asked ourselves – and which we urge your authorities to consider – is the following: *Is the BWC expert process more or less likely to succeed if it's accompanied by a high level affirmation of its noble purpose, and increased ministerial attention is paid to the challenges that the BWC regime faces?*

Our proposal is for a short, politically binding document to be adopted by Ministers at a well-publicised side-event during the 2004 UN General Assembly that would reaffirm existing international law norms, recognise the challenges they face and commit States to a range of preventive actions.”

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

Historical Note no.4

by John Hart

Information about the CBW weapons programmes of the USSR

Authoritative information on the development of chemical/biological-warfare (CBW) weapon activities in the USSR has, historically, proved difficult to obtain. Definitive and comprehensive published studies would be based on primary sources and would describe the evolution of organizations, activities and policies. They would also indicate how official policies and programmes were actually implemented. Many Russian-language accounts of the Soviet CBW weapons programme are based not on Soviet information, but instead summarize information published outside the country. Publicly-available non-Russian-language assessments of Soviet CBW weapons programmes may be based on intelligence information, most of which is not publicly available and whose integrity is difficult or impossible for outside observers to ascertain. This is partly because of efforts by governments to protect the sources and methods of their intelligence services. Political considerations can also affect the integrity of the information. Other sources of information on Soviet CBW-related activities include news items and the declarations that Russia has made to states parties to the Biological Weapons Convention as part of the agreed annual exchanges of information exchanges that are meant to serve as confidence-building measures to help strengthen the treaty regime.

In recent years, however, a number of semi-official histories have been published in Russia.^{1, 2} A major emphasis in these works has been to list individuals (including many who were arrested or executed during the purges of the 1930s) and to detail the evolution of the names of organizations (partly by citing government decrees). The histories reflect a desire to preserve the institutional memory of the Soviet and Russian CBW defence establishment. The work itself is described in general terms. Biological-weapon activities are either not discussed or treated in a very limited manner and no references are made to the offensive Soviet BW programme.

While it is undoubtedly true that classified, detailed histories have been compiled by the Soviet Union, it may

never be clear how their contents, if (or when) they are released, may have been affected by the political considerations at the time of their writing. It would seem, however, that more definitive accounts of Soviet CBW activities will gradually appear as political and other sensitivities lessen over time.

In the absence of authoritative accounts, one is left with varying degrees of ambiguity or doubt as to the nature and type of activities the Soviet Union undertook. Public availability of some types of information may not be necessary or desirable. However, a lack of information has, over the years, contributed to doubts and uncertainties. Such perceptions, which are by no means confined to former Soviet programmes, have the potential to undermine international norms against chemical and biological weapons. A better understanding of past programmes and activities would, partly for this reason, in fact strengthen the norms.

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2. Orlov, V N, *et al* (editors), *My Zashchity Rossiiu: Istoricheskii Ocherk o Sozdanii i Deyatel'nosti Nauchno-Tekhnicheskogo Komiteta, Upravleniya Zakazov, Proizvodstva i Snabzheniya i Upravleniya Biologicheskogo Zashchity UNV RKhB Zashchity MO RF* [We Defended Russia: Historical Outline on the Establishment and Activities of the Scientific-Technical Committee, the Directorate of Orders, Production and Supply and the Directorate of Biological Defence of the Directorate of Radiological, Chemical and Biological Defence Forces Command of the Russian Federation Ministry of Defence], Moscow: Ministry of Defence of the Russian Federation, 2000, 222pp.

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Forthcoming events

25-30 April

Spiez, Switzerland
CBMETS V, the 5th international CBW
Medical Treatment Symposium
details on the ASA Newsletter
website www.asanltr.com

1-2 May POSTPONED

(New date to be announced)
The Hague, Netherlands
21st Workshop of the Pugwash Study
Group on Implementation of the CBW
Conventions

25-27 May

St Petersburg, Russia
CWD2004, the International Chemical
Weapons Demilitarisation Conference
details on www.dstl.gov.uk

2-6 June

Gothenburg, Sweden
The 8th International Symposium on
Protection against Chemical and
Biological Warfare Agents
details on www.cbwsymp.foi.se

21-22 June

Washington DC
2004 Carnegie International Nonprolif-
eration Conference
details on www.ceip.org/files/nonprolif

29 June - 2 July

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19-30 July

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Second BWC 'new process' Meeting
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Open Forum on the Chemical Weapons Convention

With this issue of our *Bulletin*, HSP is also distributing its latest publication, which is a verbatim transcript of the *Open Forum on the Chemical Weapons Convention: Challenges to the Chemical Weapons Ban*. The Open Forum was organised by the Organization for the Prohibition of Chemical Weapons (OPCW) and took place at the Peace Palace in The Hague on 1 May 2003, on the occasion of the First Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention, 28 April – 9 May 2003. The Open Forum was moderated by Ian Kenyon, who was Executive Secretary of the OPCW Preparatory Commission throughout its existence and is now working with HSP as a Visiting Fellow of the University of Sussex.

The transcript as now published contains the presentations at the Open Forum, the panel discussion and the question-and-answer session. It has been slightly edited in consultation with the presenters and the moderator. The transcript is also available on the HSP website at http://www.sussex.ac.uk/spru/hsp_publications.

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