

The Biological and Toxin Weapons Convention and the Australia Group

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Introduction

The 1972 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (Biological and Toxin Weapons Convention, BTWC) and the Australia Group (AG), an informal export control arrangement established in 1985 to prevent the misuse of technology, equipment and materials for chemical and biological weapon purposes, share the goal of preventing biological warfare. There are, however, significant political and philosophical differences among countries on how the two entities should operate. In particular, some countries believe that AG activities are incompatible with technological assistance and cooperation provisions contained in Article X of the BTWC that states, *inter alia*, ‘The States Parties to this Convention undertake to facilitate, and have the fullest possible exchange of equipment, materials and scientific and technological information for the use of bacteriological (biological) agents and toxins for peaceful purposes...This Convention shall be implemented in a manner designed to avoid hampering the economic and technological development of States Parties to the Convention...’¹ Government policies towards the BTWC and the AG reflect, to varying degrees, an increased emphasis in the current international security environment on identifying and effectively meeting perceived threats posed by non-state actors (e. g., terrorists) that may wish to acquire and use chemical and biological weapons. Much of the effort to better meet this perceived threat is of a law enforcement or intelligence nature that is carried out on an ad hoc basis in which like-minded countries cooperate on specific areas of concern.

Biological and Toxin Weapons Convention

The BTWC was opened for signature on 10 April 1972 and entered into force on 26 March 1975. As of April 2003, 148 states were party to the BTWC. Thirty states have not signed the BTWC, while seventeen states have signed but not ratified the treaty.² Two major concerns affecting BTWC implementation have been allegations of violations, including alleged use of biological weapons, and the need to ensure that the treaty remains relevant in view of continuing (and accelerating) technological and scientific developments.

There are at least four multilateral mechanisms for investigating compliance concerns in relation to biological weapon development or use. In 1980 the United Nations (UN) Secretary-General was given the mandate to investigate allegations of use of chemical weapons by UN General Assembly resolution 35/144C without the prior approval of the UN Security Council. In 1982 his mandate was expanded to include possible violations of the 1925 Geneva

¹ BTWC, Article X.

² See Annexes 1 and 2.

Protocol, thereby including allegations of use of biological weapons.³ This authority, which was restricted in 1982 to allow for investigations of allegations raised by UN member states only, was exercised in the early to mid-1980s to investigate allegations of chemical and biological weapon use in Iran, Iraq and Southeast Asia.⁴ The authority has not been revoked. However, the international legal responsibility for investigating allegations of use of chemical weapons and, perhaps, toxins currently rests with the Organisation for the Prohibition of Chemical Weapons (OPCW), the body that implements the 1993 Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (Chemical Weapons Convention, CWC). Legal responsibilities in this area are based on the CWC, a relationship agreement between the UN and OPCW specifying the rights and obligations of both organisations, and other relevant legal instruments.

Under Article VI of the BTWC, parties may lodge a complaint with the UN Security Council if they feel that another BTWC party has violated the treaty.⁵ This mechanism has never been formally invoked. However, since the 1960s, Cuba has, for example, periodically issued statements at the UN and elsewhere to the effect that the United States has engaged in various forms of biological warfare against it. The United States never invoked the Article VI provisions with regard to its suspicion that the Soviet Union was pursuing an offensive biological weapon programme, in spite of the fact that the United States was fairly certain that a 1979 anthrax outbreak in the Ural mountain city of Sverdlovsk was evidence of a BTWC violation. A credible international investigation, including the carrying out of onsite inspections, was not possible at the time given the Cold War political climate. In addition, the procedures and technologies necessary to implement 'managed access' during onsite inspections were underdeveloped and largely untested.⁶ The outbreak was

³ The Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (Geneva Protocol, 1925); and UN General Assembly resolution A/RES/42/37, 30 Nov. 1987, URL <<http://www.un.org/documents/ga/res/42/a42r037.htm>>. The Geneva Protocol was the principal international agreement restricting the use of chemical and biological weapons before the entry into force of the 1972 BTWC and the 1993 Chemical Weapons Convention. Both the BTWC and CWC reaffirm the principles and objectives of, and obligations assumed under the 1925 Geneva Protocol.

⁴ E. g., see 'Perry Robinson, J. and Goldblat, J., 'Chemical warfare in the Iran-Iraq War', SIPRI fact sheet, May 1984, URL <<http://projects.sipri.se/cbw/research/factsheet-1984.html>>.

⁵ '1. Any State Party to this Convention which finds that any other State Party is acting in breach of obligations deriving from the provisions of the Convention may lodge a complaint with the Security Council of the United Nations. Such a complaint should include all possible evidence confirming its validity, as well as a request for its consideration by the Security Council...'. BTWC, Article VI.

⁶ Managed access is a term referring to procedures and techniques that allow inspected states to demonstrate compliance with treaty provisions without revealing sensitive military or civilian business information. Regular onsite inspections of military facilities in the US and Soviet Union were first implemented under the terms of the Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles (INF treaty), which entered into force on 1 June 1988. In Jan. 1988, the US established an onsite inspection agency, since folded into the Defence Threat Reduction Agency (DTRA), to host and conduct onsite inspections. The principle of managed access is now well established and is implemented under most arms control and disarmament agreements, including the 1970 Nonproliferation Treaty (NPT) and the CWC.

subsequently shown to have resulted from a Soviet offensive biological weapon programme in violation of the country's BTWC commitments.⁷

BTWC parties may also invoke a process to clarify compliance concerns regarding another party under the provisions of Article V.⁸ Specific procedures for the process were elaborated by the Third Review Conference. BTWC parties that wish to have a compliance concern addressed under this article submit a request to the treaty's three depositaries (the United Kingdom, United States and Russia) who, in turn, are to immediately inform all BTWC parties of the request. The depositaries are then to convene an informal meeting of interested parties to discuss the arrangements for the formal consultative meeting. The formal meeting must be held within 60 days of the receipt of the request. It may be preceded by bilateral and other consultations among 'those States involved in the problems' that have arisen.⁹ This option has been exercised once. On 30 June 1997, Cuba submitted such a request to Russia alleging that a US aircraft, used for anti-drug spraying operations in South America and the Caribbean and which had permission to overfly Cuba, deliberately sprayed *Thrips palmi*, an insect pest that originated from Asia, over Cuban territory. The formal consultative meeting was unable to show that a *Thrips palmi* outbreak in Cuba was caused by the aircraft.¹⁰ There is a widespread concern that such allegations are frivolous and that, partly for this reason, they have the potential to cause serious harm to the treaty by undermining its credibility.¹¹

Finally, both the BTWC and the CWC cover toxins. Investigations of alleged use of toxins or of their manufacture may be pursued through a challenge inspection under the CWC. As of April 2003, no challenge inspections or allegations of alleged use have been requested under the CWC.

The principal method by which technological and scientific developments may be taken into consideration by the BTWC is the 'general purpose criterion' (GPC) contained in Article I in which the parties undertake 'never in any circumstances to develop, produce, stockpile or otherwise acquire or retain: 1. microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes...'. The GPC allows for

⁷ Guilleman, J., *Anthrax: The Investigation of a Deadly Outbreak* (University of California Press: 1999), 339 pp.

⁸ 'The States Parties to this Convention undertake to consult one another and to cooperate in solving any problems which may arise in relation to the objective of, or in the application of the provisions of, the Convention. Consultation and cooperation pursuant to this article may also be undertaken through appropriate international procedures within the framework of the United Nations and in accordance with this Charter'. BTWC, Article V.

⁹ Final Document of the Third Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, Part II, Final Declaration, BTWC Third Review Conference document BWC/CONF.III/23, 27 Sept. 1991, p. 15.

¹⁰ Zanders, J. P. and Hart, J., 'Chemical and biological weapon developments and arms control', *SIPRI Yearbook 1998: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1998), pp. 479-480.

¹¹ Zilinskas, R., 'Cuban Allegations of Biological Warfare By the United States: Assessing the Evidence', *Critical Reviews in Microbiology*, vol. 25, no. 3, (1999), pp. 173-228.

the evaluation of an activity's purpose or intent. If a party intends to develop or use microbial or other biological agents, or toxins for 'hostile purposes' or for use in 'armed conflict', the activity is banned.¹²

Political and technical developments related to compliance

A number of efforts have been undertaken by BTWC parties to develop and implement measures to enhance compliance. Unlike the CWC, the BTWC has no secretariat to oversee treaty implementation.¹³ BTWC parties do not submit annual, legally binding declarations on activities relevant to parties' demonstrating treaty compliance to each other, and no 'visits' are conducted on either a routine or random basis to confirm the veracity of such declarations.¹⁴ There is also no BTWC inspectorate to investigate compliance concerns, such as allegations of use.

The Second Review Conference, held on 8-26 September 1986, agreed on a series of politically binding annual declarations to act as confidence-building measures (CBMs).¹⁵ Although the exercise has proved useful in a number of respects, data submissions have often been incomplete. Most parties have not made submissions. Parties that have made submissions have often done so intermittently. Partly for these reasons, the Third Review Conference, held on 9-22 September 1991, established an Ad Hoc Group of Governmental Experts to Identify and Examine Potential Verification Measures from a Scientific and Technical Standpoint (VEREX). This group identified twenty-one potential measures, both on and off-site, which could be used, in various combinations, to promote assurance of treaty compliance.¹⁶ These measures formed the basis of work for an ad hoc group of BTWC parties that met between January 1995 and August 2001 to negotiate a legally binding protocol to strengthen BTWC compliance. However, the Fifth Review Conference of the BTWC parties, which met on 19 November-7 December 2001, was suspended following the tabling of a motion by the United States to end the ad hoc group's mandate. The United States cited concerns that the draft protocol would, *inter alia*, risk divulging sensitive biodefence-related activities, and confidential business information. It rejected the draft protocol, a compromise clean text (i. e., containing no bracketed language) prepared by the ad hoc group chairman, and

¹² BTWC, Article I, para. 2.

¹³ The CWC is implemented by the Organisation for the Prohibition of Chemical Weapons (OPCW). The OPCW's Technical Secretariat is based in The Hague, Netherlands. See URL <<http://www.opcw.org>>.

¹⁴ The word 'visit' is generally used by national delegations when discussing onsite inspections. The term reflects the limited intrusiveness of such inspections, as well as the difficulties associated with uncovering information that would point to a violation.

¹⁵ The CBMs consisted of providing information on, *inter alia*, exchange of data on research centres and laboratories; exchange of information on national biological research and development programmes; exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins; encouragement of publication of results and promotion of use of knowledge, declaration of legislation, regulations and other measures; declaration of past activities in offensive and/or defensive biological research and development programmes; and declaration of vaccine production facilities.

¹⁶ Onsite measures included various types of onsite inspections and monitoring, while offsite measures included data exchanges, remote sensing and offsite testing of samples.

the appropriateness of the entire exercise. The rejection of the principle of having a protocol at all was largely unexpected, shocking and upsetting many in delegations and elsewhere.¹⁷ The current US administration has elected to, *inter alia*, seek harmonising and improving national implementing legislation against biological weapons, improving international disease surveillance and response, and addressing specific compliance concerns without reference to a BTWC protocol. It seeks to achieve this partly through bilateral contacts and various activities conducted in other fora such as the World Health Organisation (WHO). In 2002, for example, a Global Emergency Response Fund was established with US political and other support to ensure that the WHO will be able to send a field unit, part of the organisation's Global Outbreak Alert and Response Network, anywhere in the world within 24 hours after an infectious disease outbreak is reported whether due to natural causes or bioterrorism.¹⁸

The review conference was then adjourned to keep open the possibility continuing protocol negotiations. After reconvening in plenary session on 7 December 2002, the parties agreed to hold annual meetings of national experts followed by annual meetings of BTWC parties starting in July or August 2003 until the Sixth Review Conference of the BTWC parties is convened in 2006. The mandate for the annual meetings is to discuss, and promote common understanding and effective action on:

- i the adoption of necessary national measures to implement the prohibitions set forth in the Convention, including the enactment of penal legislation;
- ii. national mechanisms to establish and maintain the security and oversight of pathogenic microorganisms and toxins;
- iii. enhancing international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease;
- iv. strengthening and broadening national and international institutional efforts and existing mechanisms for the surveillance, detection, diagnosis and combating of infectious diseases affecting humans, animals, and plants;
- v. the content, promulgation, and adoption of codes of conduct for scientists.¹⁹

¹⁷ Significant differences existed among other BTWC parties over the protocol text. There was no guarantee that these differences would have been overcome had the United States elected not to oppose the protocol. The United States action has closed the possibility for negotiating a protocol for the foreseeable future.

¹⁸ World Health Organization, 'WHO-NTI establish a Global Emergency Outbreak Response fund', World Health Organization press release, 2 Dec. 2002, URL <<http://www.who.int/mediacentre/releases/pr92/en/>>.

¹⁹ Fifth Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) Weapons and on Their Destruction, BWC/CONF.V/17, Final Document (Geneva, 2002), pp. 3-4.

Although the ad hoc group mandate has not been revoked, negotiations on a legally binding protocol are suspended indefinitely. It is unclear how the new process, which will continue to take decisions on the basis of consensus, will differ from the work of the previous ad hoc group and whether BTWC parties will undertake the necessary preparations and be sufficiently flexible and cooperative in order to achieve useful outcomes. However, the newly-agreed plan of work will allow parties, political and technical circumstances permitting, to agree on future measures within the BTWC framework.

Australia Group

The AG is an informal export control arrangement that was established in 1985 in response to the use of chemical weapons during the Iran-Iraq War.²⁰ The AG currently has 34 participants.²¹ They cooperate in developing and coordinating national export controls through the sharing of information, including intelligence information. Participants have agreed to adopt common control lists which include licensing requirements for 54 chemical weapon precursors, all of which also have peaceful applications, as well as certain dual-use chemical and biological manufacturing equipment, technology, and biological agents and pathogens. Recent developments include: the adoption of additional transparency measures to describe AG activities and requirements (e. g., through the arrangement's website); the introduction and refinement of guidelines for transferring dual-use materials, equipment and technology; modification of control lists; and the implementation of measures to enhance exchange of information. In 2002, for example, the AG added eight toxins to the AG control list, lowering the volume threshold for fermenters from 100 litres to 20 litres.²²

Less than one-half of one percent of transfer requests are reportedly denied, while almost every denial involves one of four or five states: Iran, Iraq, Libya, North Korea and Syria. Partly in the interest of greater transparency, some of those involved in the implementation of AG guidelines have expressed support for clarifying and making public the exact number of requests denied, the nature of the denial and the identity of the countries involved.

It should also be noted that the AG is not a formal organisation. The right of a government to develop and implement national export controls and to communicate informally or privately with other states is not generally questioned by other governments. From an operational point of view, it is unclear where and how these two activities (the right to develop and implement national export controls, and the right to informally or privately communicate with other states) would become objectionable to AG opponents. In other words, if the AG did not exist as such, countries that share similar concerns would, to some extent, continue to coordinate their policies. It is

²⁰ See URL <<http://www.australiagroup.net/>>.

²¹ See Annex 3.

²² 'News Chronology', *The CBW Conventions Bulletin*, no. 57, (Sep. 2002), p. 36.

possible that AG participants may seek to establish an international code of conduct of the type adopted by the Missile Technology Control Regime (MTCR)²³ in November 2002. As with the MTCR, however, a number of countries would object to the establishment of an AG code of conduct that is not within a multilateral, UN-type framework. Second, it is unclear whether such a code would be legally or politically binding and whether transfers would require prior approval within the framework or whether transfers would simply be declared as a transparency measure. Further consideration of these and other, more operational-level matters could clarify and reduce the scope for disagreement between AG supporters and opponents.

Factors and trends affecting the work of the AG and BTWC

The current increased emphasis on attempting to more effectively extend international prohibitions against BW to non-state actors (e. g., terrorist groups) has resulted in an increased emphasis on ad hoc cooperation among like-minded countries on specific areas of concern. Much of this cooperation is of a law enforcement or intelligence nature which may not, in turn, fall under the traditional purview of multilateral arms control and disarmament agreements. The effective extension to non-state actors of prohibitions contained in such agreements depends on each member states' establishing and effectively enforcing national implementing legislation.

A closely related issue is the actual status of clandestine biological weapon programmes. In order to evaluate this question, it is necessary to consider the derivation and use of information, including that derived from intelligence, available to a country. Different countries have varying levels of such information, both in terms of amount and quality.

In general, the derivation and use of information to support an investigation within a multilateral framework can be problematic in cases where there is a tradeoff between revealing intelligence sources and methods versus providing sufficient and credible evidence of a violation to assist international inspectors. The information provided by states that believe a treaty violation may have occurred must also be politically convincing to other states. Some states may express scepticism about the reliability and interpretation of such information. A significant complication is the fact that most technologies, equipment and materials that may be used in an offensive biological weapon programme are dual-use. In addition, many of the activities conducted in an offensive programme may also be legitimately carried out as part of a defensive programme. Finally, intelligence information is usually of a type that would not be sufficient to allow for a conviction in a court of law. It is generally not possible for outside observers to determine the extent to which political considerations may affect the interpretation of ambiguous intelligence information as they do not have the necessary security clearances and access to the relevant information.

²³ See URL <<http://www.mtcr.info/>>.

There are also differences in the quality and amount of intelligence information available to AG participants. The United States is generally the major source of such information. The specific basis for some of the shared information is not necessarily clear to all AG participants as such information may consist of summarised conclusions oriented towards mid- to higher-level policy makers. Such information may also have been modified to protect intelligence sources and methods.

Scientific and technological developments

One of the most significant trends in the chemical and biotechnology industries is the fact that the difference between chemical and biological processes is increasingly blurred. This is partly reflected in the increasing use of biocatalysts (microbial metabolites) in the chemical industry, including for the largescale production of cosmetics, food products and plastics. Catalysts are often required to accelerate or induce desired reactions. The chemical and biotechnology industries have a growing interest in the research and development biocatalysts in that their use can significantly reduce production costs. Biocatalysts, usually enzymes or enzyme-based, are more selective than traditional chemical compounds. Processes involving the use of biocatalysts also generally involve fewer intermediate production steps than traditional chemical synthesis routes. Finally, the production and use of large volumes of highly toxic chemicals may often be reduced or eliminated in processes based on the use of biocatalysts.

The OPCW can carry out inspections of some facilities that an Organisation for the Prohibition of Biological Weapons (OPBW) might have sent inspectors to had a BTWC protocol been agreed. For example, OPCW chemical industry inspections of plant sites that 'produce by synthesis' certain discrete organic chemicals that may contain the elements phosphorus, sulphur or fluorine (DOC/PSFs) that are not listed in the treaty's Annex on Chemicals may include biological and biologically mediated synthesis. In practice production by synthesis involving biological and biologically mediated processes appear to have been largely excluded from inspections due to differing opinions among parties over whether such processes should be declared and inspected. The OPCW's Scientific Advisory Board has, based on the view that drawing a meaningful distinction between chemical, and biological and biologically mediated processes is increasingly problematic, recommended that biological and biologically mediated processes should be covered. However, final consensus on the matter has not been reached.

Conclusion

The BTWC can continue to play a useful and necessary role partly because it provides a forum in which countries can agree on politically sensitive matters which might not otherwise be agreed on in a bilateral or regional context.

Meetings of BTWC parties and the possible future existence of an OPBW Secretariat may also make available expertise and information on specific issues which countries may not otherwise have access to or may find it politically difficult to obtain from other countries bilaterally.

The current disagreement over the appropriateness of the AG will continue until such time as the relevant, broader geopolitical circumstances change. However, some misunderstandings or questions of a more operational nature can, in principle, be clarified and, perhaps, resolved.

Annex 1

Non-signatories to the BTWC

1. Andorra
2. Angola
3. Azerbaijan
4. Cameroon
5. Chad
6. Comoros
7. Cook Islands
8. Djibouti
9. Timor-Leste (formerly East Timor)
10. Eritrea
11. Guinea
12. Israel
13. Kazakhstan
14. Kiribati
15. Kyrgyzstan
16. Marshall Islands
17. Mauritania
18. Micronesia
19. Moldova
20. Mozambique
21. Namibia
22. Nauru
23. Niue
24. Palau
25. Sudan
26. Tajikistan
27. Trinidad & Tobago
28. Tuvalu
29. Western Samoa
30. Zambia

Annex 2

Signatories that have signed, but not ratified, the BTWC

1. Burundi
2. Central African Republic
3. Côte d'Ivoire
4. Egypt
5. Gabon
6. Guyana
7. Haiti
8. Liberia
9. Madagascar
10. Malawi
11. Mali
12. Myanmar
13. Nepal
14. Somalia
15. Syrian Arab Republic
16. Tanzania
17. United Arab Emirates

Annex 3
Australia Group participants

1. Argentina
2. Australia
3. Austria
4. Belgium
5. Bulgaria
6. Canada
7. Czech Republic
8. Republic of Cyprus
9. Denmark
10. European Commission
11. Finland
12. France
13. Germany
14. Greece
15. Hungary
16. Iceland
17. Ireland
18. Italy
19. Japan
20. Luxembourg
21. Netherlands
22. New Zealand
23. Norway
24. Poland
25. Portugal
26. Romania
27. Slovakia
28. South Korea
29. Spain
30. Sweden
31. Switzerland
32. Turkey
33. United Kingdom
34. United States