



# THE POWER OF PREVENTION

# STRENGTHENING THE BTWC

In 1972, nearly half a century after the 1925 Geneva Protocol banned the use of biological weapons, international delegates began signing the Biological and Toxin Weapons Convention (BTWC), an international treaty that further bans their development and possession, except for “prophylactic, protective, or peaceful purposes.” The BTWC was entered into force in 1975 and has since been ratified (or brought into law) by 143 countries and signed (or preliminarily agreed to) by an additional 18.

But even as the BTWC established an international agreement prohibiting biological weapons, it did not contain the threat, which has persisted through the years. The former Soviet Union, for example, had a massive and secret biological weapons program even as it vehemently denied allegations that it was cheating on the treaty. Only in 1992 did then-Russian Federation president Boris Yeltsin acknowledge the existence of the Soviet program, which is alleged to have been subsequently dismantled. Iraq is known to have developed biological weapons, and several Middle Eastern and Arab countries, including Israel, Sudan, and Algeria, have yet to sign the BTWC. Today the U.S. Department of



Defense estimates at least 12 countries are cheating on their treaty obligations.

There currently is no system for monitoring compliance among treaty members, a “black hole” that many experts see as the BTWC’s main shortcoming. “All the major arms control treaties have international secretariats that conduct inspections and mobilize pressure on nations that create problems,” says James F. Leonard, a former U.S. ambassador to the United Nations Conference on Disarmament who served as the BTWC’s

leading U.S. negotiator in 1972. “The BTWC has none of this reinforcing machinery to back it up, and that’s where it falls short.”

To close the loopholes in the convention and make it harder for countries to cheat, an ad hoc group formed in 1994 at a Special Conference of the state parties to the BTWC was directed to “strengthen the effectiveness and improve the implementation of the Convention . . . and identify and examine potential verification measures.” What the group finally produced after six years of deliberation is a protocol—a document of a couple hundred pages with an inspection regime at its core. The goal of the protocol is to increase the BTWC’s

effectiveness, in part by creating a legally binding framework for facility inspections.

At a 25 July 2001 meeting of the ad hoc group in Geneva, Switzerland, the United States stunned the international community when it became the only nation to reject the protocol. U.S. rejection of the protocol had a deep impact on stakeholders, some of whom see the decision as evidence that the United States is trying to kill the treaty altogether—a charge that U.S. negotiators deny.

On 19 November 2001, delegates convened in Geneva to begin the Fifth Review Conference of the state parties to the BTWC, a meeting scheduled to last three full weeks. Delegates will reaffirm the rules of the BTWC and the comprehensiveness of the prohibition, and supporters of the protocol hope the issue of the protocol will be decided once and for all. “The BTWC is hanging in the balance, and all eyes are on the review conference now,” says Barbara Hatch Rosenberg, chairperson of the Federation of American Scientists’ Working Group on Biological Weapons. “There are government officials out there who want to wreck the treaty because they don’t like the limitations it places on the United States. Now is the time to see if countries are going to do anything to save the ban or if they’re going to let it die.” No doubt, the recent spread of anthrax cases since 11 September 2001 will provide an ominous backdrop to the gathering, which occurs at a critical moment in the BTWC’s history. Delegates must answer many serious questions: Will they go ahead with the convention without the support of the United States? Will they postpone deliberations on the protocol? Or will they abandon the idea of an inspections protocol altogether?

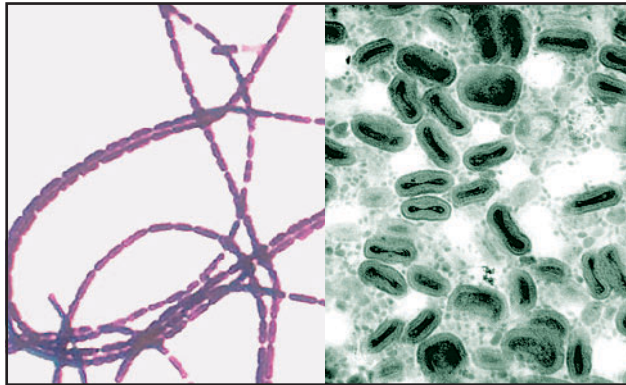
### The Mission and the Result

Three kinds of facility visits underlie the protocol’s verification system. First are random “confidence-building” visits to facilities that declare possession of biological agents of concern and/or heightened biosafety capabilities. Inspectors worried about anomalies, uncertainties, or data omissions can proceed to a higher-level clarification visit to address their suspicions. If the clarification visit fails to resolve these issues, a mandatory “challenge” visit is initiated, with the duration and level of intensity left to the inspector’s discretion.

The U.S. position on visits has always been marred by internal strife. On the one side are those who say that data declarations issued by facilities that could be used for bioweapons purposes, together with a

corresponding inspection regime, offer the best hope for deterring illicit activity. “In the absence of such a system, any country that wants to cheat on its obligations under the BTWC is basically given a free ride—they face very few impediments,” says Elisa D. Harris, who coordinated U.S. policy on biological weapons at the National Security Council from 1993 to 2001 and is now a research fellow at the University of Maryland in College Park.

On the other side are skeptics who counter that visits provide little value and pose unacceptable risks to U.S. economic and national security, regardless of their frequency. One of the main advocates for this viewpoint is the chief U.S. representative to



**Present threat—and future?** Recent outbreaks of anthrax (left) cause many to wonder whether the United States should reconsider its stance on the BTWC. Others wonder if smallpox (right) is next.

the ad hoc group, Ambassador Donald Mahley, who is special negotiator for chemical and biological arms control issues at the U.S. State Department. Mahley outlined the U.S. position at the July meeting of the ad hoc group. Biological weapons can’t be monitored the same way their chemical and nuclear counterparts are, he said. While chemical plants have obvious infrastructure requirements to manage toxic and corrosive agents, biological weapons could be prepared in any large-scale biology laboratory, of which there likely are tens of thousands in the United States alone. Meanwhile, he said, intrusive facility inspections could pose unacceptable risks to intellectual property in the pharmaceutical and biotechnology industries. Companies might have to release proprietary samples and disclose confidential technologies to prove their own legitimate activities aren’t somehow related to illicit weapons production.

Mahley’s position is backed by a number of knowledgeable scientists in the field. David Franz, deputy director of the Center for Disaster Preparedness at the University of Alabama in Birmingham, was chief inspector during multiple United Nations Special Commission biological weapons

missions in Iraq. He also served as a technical assistant for the Department of Defense during the Biological Weapons Trilateral Agreement inspections and negotiations in the former Soviet Union. Based on his own experience, Franz says any information gleaned from on-site inspections is likely to be unworthy of the fear and mistrust that typically grows among those on either side of the process. Suggesting that nations should rely on cooperative personal relations among scientists to deter treaty violations, Franz says inspectors have no way to measure the intent of facility operators to produce biological weapons. Furthermore, evidence of illicit activity can be quickly destroyed or removed, he says. This leaves him unwilling to “offer anyone a clean bill of health, knowing that shortly after the inspection they could be doing something else.”

Alan Zelicoff, a senior scientist with the Center for National Security and Arms Control at Sandia National Laboratories in Albuquerque, New Mexico, is also skeptical that inspections can enhance confidence in the treaty. In 1996, Zelicoff headed up a series of unpublished mock inspections corresponding to the protocol’s confidence-building, clarification, and challenge visits at three different locations in New Mexico. The inspections were performed on behalf of the Department of Energy. These visits left him with the impression that confidence-building and clarification visits are “worse than worthless.” Explains Zelicoff, “We actually found they *undermine* confidence because there are so many ambiguous indicators. For example, [standard laboratory inhalation equipment] could be used as part of an illegal offensive research program under the BTWC, and there’s no way to disprove that.” Ultimately, only challenge investigations into specific allegations of use had sufficient robustness to rule in or rule out a violation. “With challenge visits you might have a prayer of success if you ask precisely the right questions,” Zelicoff says.

### The U.S. Alternatives

Mahley spent much of October 2001 traveling through Europe, holding meetings with officials in London, Paris, Berlin, and Brussels to drum up support for a set of U.S. alternatives to the protocol. While U.S. officials refused to discuss specifics, sources say the United States will likely present four proposals at the November Review Conference. Among them is a requirement that governments who sign the treaty must pass laws to criminalize violations by individuals and

make violators subject to extradition. Additional measures include increasing import/export controls on biological materials, creating a global surveillance system to track suspicious disease outbreaks, and increasing the investigative authority of the United Nations Secretary-General.

Just how the international community will respond to these alternatives remains to be seen. Some of the more vociferous critics of the U.S. stance insist that only an inspections regime—even one so limited relative to the universe of weapons-capable facilities—can provide assurances of treaty compliance. “We need all the information we can get,” says Rosenberg. “Even if it’s not perfect, it’s better than nothing. The key thing is to confirm that a facility’s capabilities correspond to what they publicly say they’re doing.”

But other experts suggest the delegates will defer discussion on the topic so that U.S. proposals can be fully evaluated. One who knows the details of the BTWC as well as anyone is Graham Pearson, a visiting professor in the Department of Peace Studies at the University of Bradford in the United Kingdom. Pearson, who until 1995 headed the Chemical and Biological Defence Establishment in the U.K. Ministry of Defence, says that the November meeting is “not the time for recrimination.” The more important matter, he says, is to “reaffirm the norms of the convention,” in part by expanding the range of scientific advances (for example, genetic technologies) covered under the treaty. As far as the alternatives go, Pearson says he’s “encouraged the United States is coming out with some new ideas.” In Pearson’s view, any of the alternatives proposed by the United States could add incrementally to the BTWC’s effectiveness, but in the final assessment, an inspection regime would ultimately be necessary to build transparency and confidence in the treaty.

One difficulty likely to be faced by the United States is suspicion over its own domestic research activities. On 4 September 2001, *The New York Times* reported that the United States had developed a large-scale program of secret research on biological weapons that “pushes [BTWC] limits.” Article 1 of the BTWC bans biological agents intended for hostile uses but permits those used for “peaceful” purposes—a loophole that allows countries to engage in protective research for national defense.

The U.S. program, initially developed under the Clinton administration, mimics the steps a state or terrorist group might take to create a biological arsenal, with the aim of enabling the United States to better understand the threat. Specific projects involve a copy of a germ bomb, a germ factory made

of commercially available materials, and the development of a more potent anthrax organism. *The New York Times* refers to administration officials who claim that U.S. rejection of the inspections protocol was based in part on the need to keep these projects secret. According to *The New York Times*, these activities would “draw vociferous protests from Washington if conducted by a state the United States viewed as suspect.”

Another difficult issue for the United States is its proposal to enhance international legislation outlawing biological weapons among BTWC nations. Apparently, this U.S. proposal, which will be publicly revealed for the first time at the November conference, is based on draft language developed by Mathew Meselson, Thomas Dudley Cabot Professor of Natural Sciences at Harvard University and director of the Harvard Sussex Program on Chemical and Biological Weapons Armament and Arms Limitation. Meselson’s language seeks to strengthen Article 4 of the BTWC, which merely “prohibits” these activities rather than making them a crime.

Of great concern to Meselson are reports that the United States has modified his language such that it refers specifically to weapons of lethal intent. “Article 1 of the convention doesn’t say anything about lethal intent, only weapons intended for hostile use,” he says. “To refer specifically to lethal intent opens up a loophole that allows for nonlethal but nonetheless hostile applications. I don’t think we want to open up this Pandora’s box. The BTWC establishes a norm that we do not use biological weapons for hostile purposes, and that’s the way it should remain. If they stick to this view, it’s entirely in variance with the letter and the spirit of the BTWC, and I don’t think it’s going to fly.”

Clearly, delegates have a lot on their hands as they convene in the next few weeks. The world has changed in the wake of September 11—biological weapons are being used in the United States right now. At the same time, advances in biotechnology are exploding, potentially leading to the creation of genetically altered pathogens that could at the very least change the face of public health—or even alter the fate of the world. Pearson says these combined pressures make it imperative that the international community reaffirm the relevance of the BTWC in this new age. The events of September 11, he says, should be seen as a wake-up call. “The BTWC needs to be strengthened sooner than later,” he says, “and this review conference should promote anything that can take it forward.”

Charles W. Schmidt

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