Chapter 1
Introduction

A common practice in arms control talks, indeed in many negotiations, is to reach agreement on overarching principles and leave many of the bothersome technical details to be settled later. This practice is reinforced by the widespread belief that technology and ingenuity can overcome even the most monumental challenges. "If they can put a man on the moon," goes the frequent refrain of this faith, "then surely they can find a way to do [fill in the blank]." More often than not that faith is rewarded as cures are found for crippling diseases, tunnels are built beneath seas, and people on opposite sides of the globe communicate instantaneously through cyberspace. Until the drug is discovered and passes extensive clinical trials, until the underwater tunnel withstands immense pressure and dike-plugging maintenance procedures are proven, and until computers mature from card-programmed behemoths to handheld thinkpads with microchip modems, there is reason to hope for the technical miracle, but there is also reason to doubt that it will materialize. Time, diligent effort, and out-of-the-box thinking may yield the desired objectives. Until that occurs, prudence should predominate, especially when a great deal is at stake.

Such were the circumstances in 2001 as the international community embarked on a push to conclude a monitoring protocol for the Biological and Toxin Weapons Convention (BWC). This 1972 treaty bans the development, testing, production, storage, and use of germ weapons. Chapter 2, which provides a summary of this treaty's lifespan, explains that the BWC lacks provisions to verify compliance with its prohibitions.[1] In 1995, members of the BWC set out to strengthen the treaty with an awful lot riding on their efforts. First, there was pressure to deliver a protocol that could detect programs illicitly perpetuating one of the most horrific warfare capabilities ever devised by man.[2] Given the USSR's systematic violation of the BWC spanning two decades, followed by the United Nations Special Commission's unearthing of Iraq's bioweapons program, the behavioral norm that the BWC sought to establish was perceived as crumbling.[3] Hope that a monitoring protocol could be fashioned could be

[1] Note that while the BWC includes a provision to refer matters to the United Nations Security Council, it is otherwise devoid of on-site inspection tools.

[2] Biological weapons can be used against humans, livestock, and crops to devastating effect. For more detail on the effects of various biological agents, see *Textbook of Military Medicine: Medical Aspects of Chemical and Biological Warfare, Part I: Warfare, Weaponry, and the Casualty*, ed. Frederick R. Sidell, Ernest T. Takafuji, and David R. Franz (Washington, DC: Office of the Surgeon General, US Department of the Army, 1997); and US Congress, Office of Technology Assessment, *Proliferation of Weapons of Mass Destruction: Assessing the Risks* (Washington, DC: US Government Printing Office, 1993).

[3] Suspicions that the Soviet Union was violating the BWC arose in 1979 following an unusual outbreak of anthrax at Sverdlovsk and continued throughout the 1980s. US Arms Control and Disarmament Agency, *Soviet Noncompliance with Arms Control Agreements* (Washington, DC: US Arms Control and Disarmament Agency, 1 February 1986); US Arms Control and Disarmament Agency, *Soviet Noncompliance with Arms Control Agreements* (Washington, DC: US Arms Control and Disarmament Agency, 2 February 1988). Uncertainties about Soviet BWC implementation were confirmed in 1992 when Russian President Boris Yeltsin admitted that the Soviet Union had maintained an offensive biological weapons program. John-Thor Dahlburg, "Russia Admits It Violated Pact on Biological Warfare," *Los Angeles Times*, 15 September 1992; Michael Gordon, "Russia and West Reach Accord on Monitoring Germ Weapon Ban," *New York Times*, 15 September 1992. The United Nations Special Commission on Iraq uncovered the details of Iraq's biological weapons program. For accounts of the scope of

drawn from the 1993 Chemical Weapons Convention (CWC), which contained intricate monitoring procedures to oversee the destruction of chemical weapons arsenals and production facilities, as well as to safeguard against a hidden offensive weapons program within commercial chemical plants.[4] Monitoring the BWC would prove an even tougher challenge, however, because nature is the source of the microorganisms that are the basis of these weapons, and diseases must be studied if cures are to be found. Moreover, technical advances have given scientists the ability to engineer new disease strains and clean an entire manufacturing facility's fermenters and pipelines within minutes, capabilities that a government set on cheating could use to great advantage. The BWC protocol negotiators, in other words, would need to stretch the horizons of monitoring technologies and strategies if they were to succeed in creating a meaningful and feasible protocol.

Also riding on the outcome of the negotiations, according to the US industry's main trade association, the Pharmaceutical Research and Manufacturers of America (PhRMA), was the viability of an industry responsible for discovering and manufacturing medications. Because medicines not yet on the market lack patent protection for many years, PhRMA asserted that BWC inspections could result in the loss of proprietary business data and have significant cost implications.[5] While the CWC's negotiators were able to find technical and procedural balances that would enable the inspectors to fulfill their monitoring goals and the host facilities to protect sensitive business data, PhRMA remained unconvinced that similar balances could be crafted for the BWC protocol, despite trial field inspections

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Iraq's germ warfare efforts, see Robin Wright, "Iraqis Admit to Broad, Virulent Germ War Plan," *Los Angeles Times*, 6 September 1995; R. Jeffrey Smith, "UN Says Iraqis Prepared Germ Weapons in Gulf War," *Washington Post*, 26 August 1995; Barbara Crossette, "Germ War Plan Underreported, Iraq Tells UN," *New York Times*, 23 August 1995.

[4] The CWC's articles consume forty-six pages, while the annexes detailing how to implement the treaty run over 140 pages. Underpinning the obligations that states take to destroy chemical weapons capabilities and forsake future weapons production, the CWC's verification annex specifies the inspection methods and procedures to be employed during routine inspections of chemical weapons defense, storage, production, and destruction facilities as well as at a variety of industrial facilities. Challenge inspection procedures are also spelled out in this annex, as are the safeguards that host facilities can employ to protect sensitive data unrelated to the treaty compliance. A separate annex lays out procedures to be used to protect confidential information. Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction.

[5] According to a PhRMA position paper on a BWC protocol, "The provision of information about some of our facilities and the possibility of opening these facilities to inspections under some circumstances will need to be elements to the strengthening of the treaty. However, these elements also entail risks to commercial facilities including the potential loss of proprietary information, risks to commercial reputations, and added regulatory expenses that ultimately affect the cost and availability of medicines and other widely-used products." Pharmaceutical Research and Manufacturers of America, "Summary of PhRMA's Position on a Compliance Protocol to the Biological Weapons Convention," July 1998. Available at http://srpub.phrma.org/phrma/Jul98.PhRMA.bwc.html. From 1974–1994, the US pharmaceutical industry was responsible for nearly half the new major global drugs. See Gillian Woollett, "Industry's Role, Concerns, and Interests in the Negotiation of a BWC Compliance Protocol," in *Biological Weapons Proliferation: Reasons for Concern, Courses of Action* (Washington, DC: Henry L. Stimson Center, January 1998), 42.

abroad that gave some evidence to the contrary.[6] Thus, the stakes riding on a BWC protocol were very high indeed.

Given the situation, it would be reasonable to assume that both the US government and the pharmaceutical industry would put forth considerable effort to ascertain the technical feasibility of monitoring the BWC and the possible costs attendant to such monitoring. While a procession of high-ranking US officials repeatedly stated that the conclusion of a BWC compliance protocol was a top nonproliferation goal and PhRMA reiterated support of efforts to strengthen the BWC,[7] little in the way of field research to put monitoring techniques and concepts to the true test followed. The US government held two full-scale field trials in the mid-1990s, but both produced indeterminate results indicating that inspectors may not be able to discriminate between legitimate and cheating facilities.[8] With only two inchoate data points upon which to base negotiating policy, again the reasonable assumption would be that the US government and industry would redouble their efforts to determine whether it was possible to monitor the BWC. Yet, neither the US government nor PhRMA moved forward with such field tests, despite 1999 legislation requiring them.[9]

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[6] Several countries have hosted trial inspections during the course of the protocol negotiations and submitted working papers on their outcomes. For example, the United Kingdom, Canada, Spain, Germany, Switzerland, Denmark, Finland, Iceland, Norway, Sweden, Austria, and Iran held trial inspections at a variety of facilities, including pharmaceutical research and production, biodefense, and vaccine production. Summaries of these exercises are available online at http://www.brad.ac.uk/acad/sbtwc/adhocgrp/wpindex.htm. Before the launch of BWC monitoring protocol talks, the United Kingdom held four "practice compliance inspections" at different facilities. Basic findings from these efforts and a discussion of the value of conducting trial inspections are contained in a Canadian report to the opening session of the Ad Hoc Group negotiators. United Nations, *Working Paper by Canada: The Role of Trial Inspections in Informing Arms Control Negotiations and Implementation, With Particular Emphasis on the Biological and Toxin Weapons Convention*, BWC/Ad Hoc Group/WP.1, 4 January 1995, 9–14.

[7] For official statements on the priority given the BWC protocol negotiations, see White House, Office of the Press Secretary, "Remarks by the President in Address to the 51st General Assembly of the United Nations," 24 September 1996; White House, Office of the Press Secretary, "State of the Union Address By the President," 27 January 1998; White House, Office of the Press Secretary, "Fact Sheet on the Biological Weapons Convention," 27 January 1998; Alexander Higgins, "Germ-Warfare Chairman Claims Progress Toward Tougher Treaty," *Associated Press*, 22 January 1999; Remarks by Samuel R. Berger, Assistant to the President for National Security Affairs, to the Carnegie International Non-Proliferation Conference, Washington, DC, 12 January 1999; Pharmaceutical Research and Manufacturers of America, "Summary of PhRMA's Position on a Compliance Protocol to the Biological Weapons Convention," July 1998. Available at http://srpub.phrma.org/phrma/Jul98.PhRMA.bwc.html.

[8] A three-day trial challenge visit occurred at a US vaccine plant in October 1995. The following March, a non-challenge exercise took place at a Department of Energy national laboratory. For the report of the latter, see *DOE Exercise to Determine the Potential Impact of a Legally Binding BTWC Regime on DOE Sites* (US Department of Energy, Pacific Northwest National Laboratories, June 1998). Both exercises are briefly described in Amy E. Smithson, "Man Versus Microbe: The Negotiations to Strengthen the Biological Weapons Convention," in *Biological Weapons Proliferation: Reasons for Concern, Courses of Action* (Washington, DC: Henry L. Stimson Center, January 1998), 120–1.

[9] The National Security and Corporate Fairness under the Biological Weapons Convention Act required the US government to conduct trial investigations and visits at a variety of government and private sector facilities. See Public Law 106-113, 29 November 1999. The Defense Department began training exercises in March 2001, none of which has approached the scale of full-fledged monitoring trials. Gail Kaufman, "Pentagon Conducts Biological Weapons Convention Training," *Stars and Stripes*, 23 March 2001.

Meanwhile, the inertia of several negotiating annual sessions propelled the draft protocol text forward to what some participating governments and outside observers have depicted as a window of opportunity not to be missed.[10] The articulated deadline for conclusion of the protocol text is November 2001, the occasion of the Fifth Review Conference of the BWC's membership. Before anyone puts pen to parchment, however, all should pause to appreciate not only the stakes riding on this agreement but the two elements essential to any success in arms control. First, participating nations must have the political will to negotiate, implement fully, and enforce compliance with the accord in question. Second, those charged with implementing the treaty's provisions, the inspectors, must have the technical means to do so reliably and effectively. With political will and a sound technical foundation, arms control can be a valuable mechanism to enhance national and international security. Absent either essential pillar, however, arms control can be a hollow endeavor.

No matter how worthy the goal, inertia is the wrong reason to wrap up a BWC protocol prematurely. With reflection should come the recognition that the necessary technical underpinnings of a BWC protocol are arguably lacking. Regrets would surely follow if the job were done fast, but in such a manner that the new protocol collapsed upon implementation. Just as surely, lamenting that sorry state of affairs would be poor cover for those who did not exercise patience when warranted and those who sat on the sidelines, not even expending the effort to craft a workable, meaningful accord.

PURPOSE AND METHODOLOGY OF THE REPORT

In the absence of US government-sponsored in-depth technical research, the Stimson Center's Chemical and Biological Weapons Nonproliferation Project turned to nongovernmental technical expertise to explore the vexing technical challenges associated with monitoring compliance with the BWC. With a grant from the John D. and Catherine T. MacArthur Foundation and additional support from the Ploughshares Fund and Mrs. Margaret Spanel, the Stimson Center invited some thirty-five scientists to a series of meetings to brainstorm the technical aspects of on-site monitoring of the BWC. As the resumes contained in the appendix attest, the people who gathered around the Stimson conference table are top experts in their respective fields.

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[10] Richard Norton-Taylor, "Britain Urges New Bio-Weapons Deal," *Guardian (London)*, 27 March 2000; Address by H E Leslie Luck, Ambassador and Permanent Representative to the United Nations and the Conference on Disarmament during the 19th Session of the BWC Ad Hoc Group, Geneva, Switzerland, 27 March 2000; "Political Decisions Needed Soon on Germ-Warfare Treaty: Chairman," *Associated Press*, 31 March 2000; "European Union Moves to Break Logjam on Anti-Germ Warfare Treaty," *Associated Press*, 29 June 1999. As one analyst noted, "Taken as a whole, it is evident that such outstanding issues are indeed soluble in such a way that different states-parties' concerns can be met while still achieving the goal of a protocol that strengthens the convention. It is simply a display of political will that is needed to go the final distance, and the window of opportunity for completion is indeed now." Graham Pearson, "The Protocol to the Biological Weapons Convention Is Within Reach," *Arms Control Today* (June 2000). Available online at: http://www.armscontrol.org/ACT/june00/bwcjun.htm.

The Stimson Center drew three groups of technical experts from the very types of facilities that would probably be subject to BWC monitoring: academic and research institutes, pharmaceutical and biotechnology companies, and defense contractors. The Stimson Center actively sought out arms control novices for the industry and academic and research institute groups.[11] Participants who were largely unaware of the BWC's verification dilemmas aside from any news they might have seen about the Soviet and Iraqi biological weapons programs were essential for the exercise's objective of securing assessments about BWC monitoring that were extremely well informed technically but not biased by preconceptions about whether a BWC protocol was a good or bad idea. In a fourth group, the Stimson Center sought the voice of experience from individuals who had taken part in several types of inspections in the early 1990s that were germane to a prospective BWC protocol. In the body of the report, the short-hand reference of "inspection veterans" is used to describe this group.

The Stimson Center's role throughout the project was that of convener and discussion facilitator. Two individuals seasoned by inspections in Iraq and the former Soviet Union, Lt.Col. Karen Jansen (USA, ret.) and Dr. David Franz, former commander of the US Army Research Institute of Infectious Diseases, provided technical expertise for the project.[12] Not only did Stimson opinions not matter one iota, Stimson personnel were explicitly barred from even entering the fray. Otherwise, the main ground rule was that the floor was wide open for the brainstormers to sort through the issues, identifying problems and developing solutions. This report reflects the conclusions each group reached, whether enthused or skeptical about the ability to monitor the treaty. The Stimson Center does not necessarily agree with their findings or recommendations.

The academic and industry participants each met twice during 2000.[13] Since these participants knew little about the specifics of running a bioweapons program, their first meetings began with "biological weapons 101" briefings about the former US germ warfare program, as well as the Iraqi and Soviet weapons efforts. After a brief review of the BWC's prohibitions, the brainstormers gained insight into how facilities like the ones they worked in were relevant to BWC monitoring. For example, the academic and research group learned from Dr. P.C. Trexler, a scientist at the University of Notre Dame during the 1940s and 1950s, about the crucial role US universities played in the US offensive program.[14]

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[11] Those in the veterans group had, of course, been exposed to the debate for and against a protocol. Given their interactions with US government officials, several individuals in the defense contractors group were also well aware of the debate surrounding the protocol negotiations.

[12] Jansen participated in six United Nations Special Commission on Iraq inspections, leading four of those teams. Franz had field experience in both Iraq and the former Soviet Union. The appendix contains their biographies.

[13] The academic group met on 6–7 January 2000 and 16–17 August 2000. The industry group's first meeting was 29–30 June 2000, and the second was 23–24 August 2000.

[14] Dr. Trexler explained candidly the nature of the research his laboratory conducted and how agents were actually produced there. He also regaled the group with harrowing tales of how he and his colleagues hauled batches of tularemia in the back of a Nash Rambler station wagon from Notre Dame to the Ft. Detrick, Maryland, where the US offensive weapons program was located.

Likewise, Dr. Ken Alibek briefed industry participants about how the Soviet Union masked much of its massive offensive biological weapons program behind an extensive network of front companies known as Biopreparat.[15]

Proceeding with an appreciation that governments have utilized facilities like their own to research, develop, test, and produce biological weapons, participants began to progressively work through a series of thought exercises, led by Stimson personnel. The general flow of the exercises can be understood from the sample questions in box 1.1, although during the meetings Stimson facilitators formulated many permutations of these questions to make sure that individual and group viewpoints were clear and that consensus statements indeed represented the position of all present. The participants' first chore was to contemplate on-site inspection activities from the vantage point of an inspector. They were invited to express what would catch their attention, what would make them as inspectors ask questions about the equipment or activities at a facility similar to their own.

As chapters 3 and 4 relate, the brainstormers cited worries about such things as equipment and waste treatment practices that did not correspond to a facility's stated purposes. Then, the participants were asked to mull over the monitoring techniques and steps they would take as inspectors to clarify ambiguities, to figure out whether a site was engaged in legitimate or prohibited activities. They suggested monitoring tools, usually employed in combination.

Having tackled the problem as inspectors, the brainstormers were then asked to explain how they would react if the very monitoring tools and strategies that they had proposed were employed at their own facilities. High on the participants' list of concerns, for example, was loss of confidential data and productivity. After the academic and industry brainstorming groups had created their own monitoring frameworks, they returned for a second set of meetings in which the Stimson staff pressed them harder on all fronts. Functioning as inspectors, they were asked to debate the strengths and weaknesses of each monitoring tool in given situations and ultimately to assess the technique's expected level of effectiveness. Stimson facilitators then instructed the participants to elaborate the impact that each of the techniques would have at their sites during the inspection itself and perhaps afterward. During this phase of the exercise, participants in both groups reflexively worked from their lengthy experience with all manner of regulatory inspections, pragmatically and creatively devising ways to meet an inspector's need for clarification while still averting the compromise of sensitive data and equipment.

The Stimson staff conducted a one-day trial inspection at a biosafety level 3 laboratory using the group's proposed monitoring techniques, which informed the views of the academic and research institute group about monitoring effectiveness, burdens, and possible work-arounds. Franz and Jansen conducted

[15] Dr. Alibek, who rose to the rank of deputy director of Biopreparat, illustrated vividly how a full-fledged weapons program can be hidden within the supposedly civilian sector. Dr. Alibek's account can be found in the book he co-authored with Stephen Handelman, *Biohazard* (New York: Random House, 1999).

Box 1.1: Example Questions Posed to Brainstormers During Meetings

Identifying Concerns On-Site

- What are the distinct differences between legitimate work and offensive bioweapons work?
- What would be done in a parallel setting with an offensive inclination?
- What would be considered inappropriate or unjustifiable work with pathogens?
- Which concerns should the inspectors know about before reaching the facility?

The Inspector Perspective

- How can the inspectors ascertain whether a particular item's use is legitimate, consistent with its stated purpose, or offensive in nature?
- What would that monitoring technique show the inspectors? What does it not show inspectors?
- Could other monitoring techniques be used instead or in combination?
- How would inspectors verify equipment is being used for its stated purpose?

The Host Perspective

- How could a host facility show an inspector that a given activity is consistent with the stated purpose?
- What items or activities might be misinterpreted as possibly offensive in nature?
- How can compliance be demonstrated?
- Does the use of certain monitoring techniques pose problems? How so?
- How could that problem be resolved?
- What area of work or of a facility should be considered off limits?

Debating Effectiveness and Burdens

- If facilities were trying to evade a particular monitoring technique, what would they do? How could this be detected?
- What is the technical feasibility of these monitoring techniques?
- What would be the burden to host facilities if these techniques were used?
- How would BWC inspections differ from what other regulatory/oversight inspections?

Big Picture

- Is there an acceptable monitoring strategy that would contribute meaningfully to compliance verification?
- What would be the key essentials of such a strategy?
- What is the likelihood that such a strategy would arrive at an unambiguous assessment of the activities taking place at a given site?
- What is the likelihood that such a strategy would uncover violations of the BWC?
- To what degree would such a strategy provide conclusive proof that a site was not engaged in prohibited offensive activities?
- If a site is determined to be compliant, how quickly could that change?
- What is the likelihood that the monitoring strategy would risk national security? Proprietary information? Professional reputation?
- Is the burden or risk of BWC monitoring acceptable?

this trial, described in detail at the end of chapter 2, at the Tuberculosis Center at the Public Health Research Institute in New York City. For their part, the industry brainstormers agreed that real-world field tests of BWC monitoring techniques were certainly necessary, and some were quite amenable to assisting with such exercises. A full-scale field trial at a manufacturing plant outstripped the project's resources.

The final three chapters of this report were compiled from verbatim transcripts of the brainstorming meetings and extensive notes taken during the trial inspection. Participants in the academic and industry groups reviewed the pertinent draft segments of the report for accuracy, after which they were given the choice of being identified by name and affiliation or by a general characterization of their skills and work history. The handful who declined to be identified by name fully agreed that the report accurately reflects the proceedings and their specific views, but cited worries about a possible backlash from their employers or the media. All brainstormers, it should be noted, volunteered their time for this project.

The insights from the defense contractors and inspection veterans are interspersed throughout the report to accentuate and contrast points made by the academic and industry brainstorming groups. The defense contractors and inspection veterans each met for one day.[16] Stimson personnel jump-started the discussion of the defense contractors by showing them charts summarizing the monitoring tools and strategies proposed by the industry and academic groups. Their reactions to the feasibility of employing these monitoring techniques at their sites, the problems that might result, and their overall assessment of the possible utility of such monitoring appear in chapters 3, 4, and 5.[17]

All members of the inspection veterans group had under their belt at least one of the two full-scale BWC trial inspections that unfolded in the United States in the mid-1990s, not to mention experience with the inspections that took place under the 1992 trilateral agreement, United Nations Special Commission on Iraq inspections, or a series of mock visits at US defense facilities.[18] The Stimson Center assembled this unique corps to glean the technical lessons from their varied but extensive

[16] The inspection veterans and defense contractor meetings occurred on 27 April 2000 and 28 August 2000, respectively.

[17] Given the nature of biodefense work, the group did not need introductory briefings on biological weapons and the relevance of their facilities to BWC monitoring. Although this group's discussion was abbreviated in comparison to the industry and academic and research institute groups, their deliberations on monitoring effectiveness and impact were nonetheless thorough.

[18] The US, United Kingdom, and Russia concluded the trilateral agreement in September 1992 to improve confidence that Russia's offensive biological weapons program had indeed been mothballed and that it was living up to the terms of the BWC. The text of the Joint Statement on Biological Weapons by the Governments of the United Kingdom, the United States and the Russian Federation is available at http://www.stimson.org/cwc/trilats.htm.

inspection histories. The participants analyzed eight different categories of on-site activities,[19] discussing the problems they encountered in different locations, resolutions they worked out on-site to deal with those problems, and the lessons they took away from their experiences that could be applied to future inspection activities.

The report's final chapter highlights the similarities and differences with the draft BWC provisions that emerged during the independent discussions of the four brainstorming groups. Since the monitoring techniques themselves are not the only facet of BWC monitoring pertinent to the success of such efforts, this chapter also presents the brainstormers' thoughts on such matters as the qualifications that should be required of inspectors, the size of the inspection team, and the timeframe for inspection activities. Only after the groups had hashed out consensus positions on monitoring tools and strategies, as well as on these associated issues, did Stimson personnel show the academic and industry groups the corresponding proposals contained in the twelfth version of the BWC protocol rolling text.[20] Indicating a need for more technical research, development, and testing of monitoring techniques and strategies, the brainstormers' recommendations at times diverged significantly from the provisions contained in the composite text of the BWC protocol, which was the basis for the twenty-third round of negotiations, held from 23 April to 11 May 2001.[21]

[19] The eight categories were: 1) introductory briefings; 2) examining records; 3) access to certain areas or buildings at facility; 4) photography, video cameras, tape recorders; 5) interviewing facility personnel; 6) examining individual pieces of equipment; 7) viewing capabilities of facility (e.g., fermenter capacity, safety and containment set-up); and, 8) sampling.

[20] The draft BWC protocol provisions shown the brainstormers were roughly equivalent to those contained in the March 2001 composite text of the protocol.

[21] Ambassador Tibor Toth, the Chairman of the BWC protocol negotiations being held under the auspices of the Ad Hoc Group of the States Parties to the BWC, unveiled a compromise composite or "chairman's" text on 30 March 2001, a move that usually indicates that negotiations are entering their final phase. United Nations, *Draft Composite Text: Protocol to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction*, BWC/Ad Hoc Group/CRP.8 (Future), 30 March 2001.