# CBW: Nixon Initiative on Treaty Anticipates Congressional Critics

*. . . The Administration will submit to the Senate, for its advice and consent to ratification, the Geneva Protocol of 1925, which prohibits the first use in war of "asphyxiating, poisonous or other gases and of bacteriological warfare." The United States has long supported the principles and objectives of this protocol. We take this step toward formal ratification to reinforce our continuing advocacy of international constraints on the use of these weapons.*

—RICHARD M. NIXON,
25 November 1969

Judged solely on a quantitative standard, the United States, in Vietnam, is making the largest use of chemical "weapons" since World War I. These weapons (the form of tear gas known as CS and, some experts would add, chemical herbicides), although controversial in their uses and alleged potential long-term effects on humans, animals, and the Vietnamese ecology, are not in a technical sense either lethal or incapacitating. For this reason the United States, as a White House spokesman made clear on 25 November, does not consider their use governed by the Geneva Protocol. Thus the operationally significant fact about President Nixon's new policy on CBW is that it does not directly affect U.S. practices in Vietnam.

The Administration's interpretation of the Protocol, however, rests on a legal history that is at best ambiguous, according to George Bunn, former general counsel of the Arms Control and Disarmament Agency and now a visiting professor of law at the University of Wisconsin.* Although the United States has quite consistently held that first use of tear gas is not barred, it has never ratified the document. On the other hand, a number of nations adhering to the Protocol, including such major powers as Britain, France, and the Soviet Union, have agreed in the past that use of tear gas is forbidden. Indeed, as the State Department's legal office pointed out during the National Security Council review of CBW, a large majority of the nations which have expressed an opinion believe tear gas to be covered by the Protocol. The U.N. Secretary General's report on CBW, issued 2 July, recommended that all nations agree that the Protocol applies to all chemical and biological agents, including tear gas. (Herbicides were held by the State Department to be probably outside the treaty's scope, but this point is disputed by some experts who would like to see the document construed as broadly as possible.)

Thus Mr. Nixon is taking the risk that his Government will be judged by other adherents to be in violation of the Protocol he has asked the Senate to ratify. But the President would have faced another, probably greater political risk if he had failed to act when he did. Congressional pressure for ratification of the treaty is reflected in the fact that more than a fourth of the House and Senate are cosponsors of resolutions by Senator Vance Hartke (D–Ind.) and Representative Richard D. McCarthy (D–N.Y.) calling on the Administration to submit the Geneva Protocol for ratification. On 3 November, 12 Republican representatives, members of the liberal Wednesday Club, issued a paper on CBW questioning the wisdom of using tear gas and herbicides in Vietnam, and calling for elimination of all stockpiles of chemical and biological weapons. The principal sponsors of the study were representatives John Dellenback (Ore.), Charles A. Mosher (Ohio), Howard W. Robison (N.Y.), and Fred Schwengel (Iowa). Mosher said he felt that "there are strong reasons to eliminate all chemical weapons from the battlefield in Southeast Asia" in connection with the "de-Americanization" of the war. On 18 November, Representative Clement J. Zablocki (D–Wis.), a veteran congressional expert on Asian affairs, opened quiet hearings on the Geneva Protocol before the House Foreign Affairs Subcommittee on National Security Policy and Scientific Developments. The first witnesses, including several members of Congress, Bunn, and Ivan L. Bennett, Jr., director of the New York University Medical Center, all made the point that the Protocol would have to be considered in relation to the Vietnam war. Bennett, who served as the U.S. member of the panel of consultant experts who assisted in preparing the U.N. Secretary General's report on CBW, said on 20 November that, because of the war, "American credibility in discussions of the control of CBW has been compromised and we are being subjected to increasingly vigorous and bitter criticism by the representatives of many nations, by no means only those of the Eastern bloc."

### "Environmental Warfare"

Meanwhile the staff of the Senate Foreign Relations Committee was preparing for similar hearings. In the face of Administration inaction, these hearings inevitably would have focused public attention on the controversial aspects of CW in Vietnam. These include the alleged use of tear gas to increase enemy casualties by driving soldiers out of fortifications to make them more vulnerable to bombs, artillery, and small-arms fire, the use of herbicides to kill food crops, and the potential long-range effects of massive defoliation. Matthew Meselson, the Harvard biologist who has been a leading critic of past CBW policy, calls the defoliation campaign a form of "environmental warfare." Finally, the hearings would have looked into the potential toxic effects for humans and animals of the herbicides commonly used in Vietnam, including 2,4,5-T and 2,4-D. The Administration recently curtailed the use of 2,4,5-T in the United States and announced that it would be used in Vietnam only in "areas remote from population," after a study commissioned by the National Cancer Institute showed that heavy doses caused increased fetal malformations in mice and rats. The study also said that 2,4-D has "potentially dangerous" fetus-deforming effects and needs "further study" (*Science*, 21 November).

The Vietnam war, CBW, and environmental pollution are three of the most newsworthy political subjects around. Mix them together under television floodlights in the Senate Foreign Relations Committee's hearing room and the result could be explosive. Or so it may have seemed to the President and his advisers as they look for ways to dampen public opposition to the war.

The announcement of a new CBW policy, the plan to eliminate biological weapons, and the call for ratification of the Geneva Protocol probably came

* Bunn's analysis of the Protocol is set forth in the *Wisconsin Law Review*, **1969**, No. 2 (1969).

just in time to avert such a development. Now senators who favor ratification of the Protocol must judge whether making a fuss about CW in Vietnam will jeopardize the chances for favorable action. The informed guess is that the Senate Foreign Relations Committee will hold brief hearings this month or next. Then it will send the treaty to the floor for quick ratification, which will require the approval of two-thirds of the senators who vote on the question. The attitude of the Senate establishment was probably summed up by Majority Leader Mike Mansfield (D–Mont.), who promised speedy action when the President formally transmits the Protocol to the Senate. "I see no reason why there should be any controversy," he explained.

Zablocki, meanwhile, is continuing hearings before his House subcommittee, where he has provided a forum for some critics of the Government's practices in Vietnam. On 2 December, Yale biologist Arthur W. Galston estimated that pregnant Vietnamese women living near heavily sprayed areas might consume dosages of 2,4,5-T in water from cisterns that would come close to the amounts at which, the recent studies show, damage is done to animals. He also enumerated various harmful effects on the Vietnamese ecology that might result from the massive defoliation campaign, including soil erosion, soil lateralization, and the disturbance of breeding spots for shellfish. But the Zablocki hearings alone are not likely to have the political impact that might have come from a doubleheader capped by Senate hearings.

### Biological Weapons Ban

Aside from the decision to submit the 1925 Geneva Protocol to the Senate for ratification, the other major new policy announced by the President 25 November was a total ban on biological warfare, even in retaliation. (It has long been official U.S. policy to refrain from first use of chemical and biological weapons, tear gas and herbicides excepted.) The President also endorsed a draft convention, proposed by England, calling for elimination of stockpiles of biological weapons, said biological research will be confined to defensive measures such as immunization, and called on the Defense Department "to make recommendations as to the disposal of existing stocks of bacteriological weapons." As explained by a high White House source at a background briefing on the decision, the National Security Council concluded that biological weapons were "only primarily useful for first use; that the effect in retaliation would be long-delayed, the consequences would be too uncontrollable." Testimony before the House Appropriations Committee this year by Dr. Donald M. MacArthur, deputy director of research for the Defense Department, further illuminates the shortcomings of biological agents as strategic weapons. "You cannot prepare these agents for long periods of time before use," he said. "Also . . . light kills them and so to be effective you have to only disseminate them under cover of darkness." MacArthur calculated that a single attack could be effective only 100 to 150 miles downwind, far short of the continental coverage required by most strategic applications. Defense officials expect that the Pentagon's production facilities will be all but eliminated except for the small amount required to produce laboratory quantities for defensive research. Some of this research may be carried out under the Department of Health, Education, and Welfare instead of under Pentagon auspices.

—ANDREW HAMILTON

# Project Cambridge: Another Showdown for Social Sciences?

The current dispute over a Defense Department financed research project in the use of computers for social science at the Massachusetts Institute of Technology (M.I.T.) has the makings of a first-class university-government imbroglio. The plan, called Project Cambridge (or CAM), is a 5-year $7,600,000 proposal sponsored by the Defense Department's Advanced Research Projects Agency (ARPA) to develop new computer methods and programming techniques tailored to the needs of social scientists. ARPA has given M.I.T. $1,500,000 for the first year of the proposal, which was originally submitted by a joint committee of Harvard and M.I.T. professors. The genesis of Project Cambridge is a classic case of the convergence of the interests of academic entrepreneurs, disinterested scholars, and government bureaucrats. Its fate will have important ramifications for the university's relations with the Pentagon, for university research policy, and for the pattern of development of the social sciences.

As early as 1967, social scientists at Harvard and M.I.T. met together at a seminar chaired by Harvard psychologist George Miller (now of the Rockefeller Institute) to discuss the need for central computer facilities and better computer systems for the social sciences in the Cambridge area. In comparison with their colleagues in the physical sciences, social scientists were then, and still are, regarded somewhat as second-class citizens at the computing centers and by the developers of computer techniques. The group felt that many of the innovations in computer techniques available for the physical sciences ought to be adapted and made available to social scientists. Later a tentative proposal by the group to set up a joint project was turned down by the National Science Foundation (NSF), largely on the grounds that the foundation had only $300,000 a year to spend on computer applications in the social sciences.

In late 1968, M.I.T.'s Ithiel Pool, a successful pioneer in raising government funds for large-scale projects in social science research, had an idea that served to crystallize the project. The M.I.T. computing center had decided to retire two of its 7094 computers. These computers were used for the M.I.T.-developed CTSS, one of the better computer systems for processing social science data. Since Pool is a member of the M.I.T. political science department, which had led the field in the development of quantitative work in the social sciences, it occurred to him that the money to keep at least one of the machines in operation could be raised