chem. weapons book

Carnegie Endowment for International Peace

ext Wheaton Md

April 5, 1978

Professor Matthew Meselson
The Biological Laboratories
Harvard University
16 Divinity Avenue
Cambridge, Massachusetts 02138

Dear Professor Meselson,

Here is the revised proof of your introduction. The corrections indicated in red are being made. Please call me if you wish to make additional corrections. The book goes to press tomorrow afternoon, but last minute changes can be made if it is absolutely necessary.

I have sent along the revised version of Tom Hughes's introduction too and would appreciate it if you would look that over.

The back copy had this huge mistake in it which my assistant, bless her heart, caught. We all had missed it all along and I have no idea how it got there in the first place. I guess that someone's mind was wandering at the typewriter. The error was substituting "American Association for the Advancement of Science" for "American Academy of Arts and Sciences." A copy of the proof is attached.

Bill Kincade is trying to set up a Face to Face meeting that will grip the imagination of the new head of that program, Don Bandler. He was not too enthusiastic about chemical weapons and arms control as a subject on its own. Bill is trying to work out the details of a panel on chemical arms control and a CTBT as two fairly easy opportunities that the United States should take advantage of. I'll get in touch with you after Kincade and Bandler get done negotiating.

Sincerely yours,

Diane Bendahmane

Diane B. Bendahmane

-6925

11 Dupont Circle, N.W. Washington, D. C. 20036 / Phone (202) 797-6400 / Telex 248329

Preface

In the sixty years since the end of World War I—the first conflict involving widespread battlefield use of chemical agents—these weapons have eluded the persistent efforts of governments to ban their production and stockpiling through formally negotiated agreement. The difficulty of achieving a multilateral prohibition on the production and accumulation of these agents is all the more remarkable in view of the strong inhibitions which have made their actual employment in combat extremely rare, especially where lethal chemicals are concerned.

Thus, while practical considerations, such as the possibility of retaliation in kind and the difficulty of restricting effects to enemy combatants, have generally discouraged the initiation of chemical warfare and while over 110 nations have adhered to the Geneva Protocol of 1925 banning the use of chemical and biological weapons in war, nations have continued to manufacture and stockpile a variety of chemical warfare agents.

Questions of interpretation and definition have bedeviled the issue. For example, controversy has revolved around whether or not non-lethal or riot-control agents and herbicides are to be considered chemical weapons. Yet the general reluctance to forego the production and accumulation of these weapons appears to arise primarily from the concern that an adversary may find a way to employ chemical agents as useful instruments of war. The fact that chemical weapon stockpiles exist and are added to and modernized, of course, tends in itself to activate or lend credence to these fears and expectations. Out of such concerns grew American proposals to replace U.S. nerve gas munitions with "binary" weapons, where the nerve gas is not stored in the munition but instead is formed after the weapon has been launched against its target.

The problem of chemical weapons control began to appear somewhat less intractable in 1969, when, after several years of discussion and debate in the General Assembly of the United Nations, President Nixon announced that he would resubmit to the U.S. Senate for ratification the 1925 Geneva Protocol. At the same time, he reaffirmed the renunciation of "the first use of lethal chemical weapons," extended this renunciation to "the first use of incapacitating chemicals," renounced the use of all biological weapons and methods of warfare, and directed the disposal of existing American stocks of biological (or bacteriological) weapons. The renunciation of biological weapons was shortly thereafter extended to toxins—biologically produced substances which act like chemicals.

In the winter after President Nixon's declaration, the arms control program of the Carnegie Endowment sponsored a study of the problems involved in carrying out measures to limit chemical and biological warfare agents. Matthew Meselson, Thomas Buergenthal, David Brown, Stewart Blumenfeld, R. R. Baxter and Archibald S. Alexander prepared papers on these issues, which, after discussion with an advisory panel of legal, military and scientific experts, were published as *The Control of Chemical and Biological Weapons* (Carnegie Endowment, 1971).

Subsequently, it became possible to separate the formerly closely linked issues of chemical and biological warfare. In 1972 a convention was completed

banning the development, production and stockpiling of biological weapons, confining research to defensive measures, and providing for the destruction of existing stocks. Late in 1974, the Senate approved this convention and the Geneva Protocol; early in the next year, President Ford signed the instruments of ratification—nearly fifty years after the Protocol was first signed by the United States. Ratification of the Protocol included understandings within the United States government which restricted the use of herbicides and riot-control agents as combat weapons.

This left unresolved, however, the matter of limiting the production and accumulation of lethal chemical weapons, an issue exacerbated in 1974 and 1975 by American innovations leading to the development of binary chemical weapons, which reduced some of the handling problems associated with chemical munitions. In 1977, in order to assist again in elucidating the problem of chemical arms control, the Endowment, in cooperation with the American Academy of Arts and Sciences, which has also previously sponsored studies of chemical and biological weapons, organized a conference in which 27 legal, military, scientific, political and arms control experts participated. Three major papers were prepared for the conference and six of the participants provided written discussions of these papers. Professor Matthew Meselson, a participant in the earlier Endowment and Academy studies, chaired the proceedings and supervised preparation of this report, for which he has written the introduction. The conference papers are included in the present volume, together with the general discussion of the papers by the conferees, subsequent communications from the participants, and separate analyses, provided by Julian Perry Robinson, of Soviet and Warsaw Pact chemical warfare forces and U.S. and NATO chemical warfare forces.

The conference discussions compared chemical warfare doctrine and forces in Europe, treated the relationship of chemical weapons to conventional and nuclear weapons, examined the deterrent and escalatory potential of chemical weapons, and reviewed possible measures for limiting or eliminating chemical warfare forces. In general, no compelling military or security reason was advanced for retaining or expanding the limited Western chemical warfare capacity beyond the concern that the Warsaw Treaty Organization has such a capacity. While the Warsaw Pact chemical warfare forces appear to be larger than those of the NATO allies, it was noted that this condition portended significant advantages for the West, if a convention could be negotiated banning production and stockpiling of chemical weapons, due to the differential impact of an absolute prohibition on NATO and Warsaw Pact forces. Systematic analysis of the pros and cons of the various policy options rather than unanimity of views was the objective of these discussions.

The sponsoring organizations wish to express their appreciation to the Johnson Foundation of Racine, Wisconsin, the Ford Foundation, and the Program for Science and International Affairs at Harvard University for their generous financial assistance.

As always, sponsorship of the conference by the Academy and the Endowment and publication of the report by the Endowment implies a belief only in the importance of the subject. The views expressed are those of the authors and participants.

Comments or inquiries on this and other publications of the Endowment are

welcome and
Peace, 345
N.W., Wash

Thomas L. H
President
Carnegie End
Internation

welcome and may be addressed to the Carnegie Endowment for International Peace, 345 East 46th Street, New York City 10017 or 11 Dupont Circle N.W., Washington, D.C. 20036.

Thomas L. Hughes
President
Carnegie Endowment for International Peace

Victor Weisskopf
President
American Academy of Arts and Science