

THE TECHNICAL PROBLEMS OF ARMS LIMITATION: THE NTH NATION PROBLEM; WILLIAM C. DAVIDON, CHRISTOPH HOHENEMSER, MARVIN KALKSTEIN; UNDERTAKEN AS PART OF A PROGRAM SPONSORED BY THE AMERICAN ACADEMY OF ARTS AND SCIENCES, BRANDEGEE HOUSE, 280 NEWTON STREET, BROOKLINE, MASSACHUSETTS. (See attached outline)

On March 12, 1958, the Council of the American Academy of Arts and Sciences voted to sponsor a study of the Technical Problems of Arms Limitation. The President of the Academy, Kirtley F. Mather, Professor Emeritus, Harvard University, has appointed the following Committee to oversee the study: John T. Edsall (Prof. of Biology, Harvard), Chairman; Charles D. Coryell (Prof. of Chemistry, M.I.T.); Saville R. Davis, (Managing Editor, Christian Science Monitor); Bernard T. Feld (Prof. of Physics, M.I.T.); and Milton Katz (Prof. of Law, Harvard). This Committee has met and approved the following Working Committee: B. T. Feld (Prof. of Physics, M.I.T.), chairman; D. G. Brennan (Dept. of Mathematics, M.I.T.), secretary; C. D. Coryell (Prof. of Chemistry, M.I.T.); J. T. Edsall (Prof. of Biology, Harvard); D. H. Frisch (Prof. of Physics, M.I.T.); M. S. Livingston (Head, Cambridge Electron Accelerator Project, Harvard); L. S. Osborne (Lecturer in Physics, M.I.T.); D. Z. Robinson (Physicist, Baird Atomics Inc.), W. A. Rosenblith (Prof. of Electrical Engineering, M.I.T.).

The Working Committee is an outgrowth of a group, in the Greater Boston Branch of the Federation of American Scientists, which, since the summer of 1957, has been investigating the possibilities of such a study project. The Working Committee has circulated a proposal (November 21, 1957) among a group of some 50 natural and social scientists, dispersed throughout the country, for comments and suggestions. The replies varied over the entire range of reactions--from enthusiasm to pessimism. However, the overall reaction was sufficiently encouraging with regard (1) the need for independent, uncommitted consideration of technical questions of disarmament control; and (2) the feasibility for such a study to be carried out outside the government security system, that it was decided to initiate a number of "trial run" technical sessions on selected topics.

One of these topics selected for this summer is the present study, for which you will find an outline attached. Davidon will present the results of the study to an international conference (Pugwash III) on "The Dangers of the Atomic Age, and What Scientists Can Do About Them," to be held in Kitzbühel, Austria, in September 1958. It is hoped that the results may also be published in a current journal or magazine.

The authors plan to draw for information on various scientists and government officials other than those listed above. Financial support for the American Academy has been made available primarily by interested individuals. Hohenemser, originally working independently on arms control, is independently supported by a Ford Foundation grant administered by the faculty of Swarthmore College. Davidon and Kalkstein are supported through the Academy. The study must be completed, by and large, by August 15.

Davidon is a theoretical physicist at Argonne National Laboratory, Lemont, Illinois, a member of the National Planning Association Board on Security through Arms Control. He has written in the past for the Bulletin of the Atomic Scientists, and has spent some time speaking on arms control to various interested groups.

Hohenemser is a 1958 graduate of Swarthmore College, major in physics, and a founder of the Swarthmore Students for Disarmament, a student research group on arms control and related matters. He has testified before the Joint Congressional Committee on Atomic Energy on the recently passed "Atom Sharing Bill," in behalf of 300 Swarthmore Students, and has written and spoken on arms control in his association with student groups.

Kalkstein, a nuclear chemist, is associated with the Nuclear Studies Branch of the Atmospheric Circulation Laboratory, of the Air Force Cambridge Research Center, and is working on world-wide distribution of radioactive fallout.



AMERICAN ACADEMY OF ARTS AND SCIENCES

280 NEWTON STREET · BROOKLINE STATION · BOSTON 46, MASSACHUSETTS

September 4, 1957

Dr. Leo Szilard  
1155 E 57th Street  
Chicago 37, Illinois

Please return this upper portion with your payment . . . . \$5.00

---

Dues assessment for Non-Resident Fellows of the American Academy of  
Arts and Sciences for the year ending May 13, 1958 . . . . \$5.00

Checks should be drawn to the order of the *American Academy of Arts  
and Sciences* and mailed to the Academy office at 280 Newton Street,  
Brookline Station, Boston 46, Massachusetts.

If your name and address, as stenciled above, are not correct, please indicate  
changes.

The attention of the Fellows is called to the provision of the Statutes which  
permits the commutation of all annual dues by the payment of three  
hundred dollars (Chapter II, Article 7, paragraph 2).

# AMERICAN ACADEMY OF ARTS AND SCIENCES

280 NEWTON STREET • BROOKLINE STATION • BOSTON 46, MASSACHUSETTS • 622-2400

## INSTRUCTIONS TO PARTICIPANTS

This discussion of proposals for disarmament by a small group of American and Soviet citizens, not acting as representatives of their governments, has the purpose of exploring the area of possible agreement between the two nations on disarmament. The participants on each side have been selected so as to have both a technical knowledge of the problems of disarmament and an understanding of the concerns and views of their respective governments.

In their discussions, which will be informal, the participants will seek to understand each others' views about disarmament proposals that might possibly be workable. Both governments have agreed that the achievement of general and complete disarmament is a process which must proceed in steps. It is difficult to foresee at this time how the last stages of the process might work without some experience with the first stages. It is expected that the group will concentrate on the problems of the early stages of the disarmament program.

Ideally, the end product of the discussions would be an agreed proposal or a number of proposals for the first stages of a general and complete disarmament treaty. In fact, however, any such agreed proposal would contain a number of crucial variables such as, for example, the rate of arms reduction, the length of the stage and the number of stages, on which agreement or disagreement among the discussants would be of no great significance, since these variables would ultimately be a matter for political determination in the course of negotiation. What would be important, rather, would be discussion of, and agreement on, the considerations which are involved in the choice of these variables, such as, for example, the size of armed forces on each side needed for stability in the absence of complete disarmament.

The usefulness of the discussions does not depend on the two sides reaching agreement, even of a broad sort. If the participants, selected as they have been, fail to reach broad agreement and the nature of the disagreements is clear, this may be taken as a useful indication of the kind of difficulties that would be faced in any serious attempt at negotiation between the two countries.

It is understood that the participants on each side will explain to officials of their respective governments responsible for dealing with disarmament problems both the conclusions that are reached and the nature of the considerations that led to these conclusions. The composition of the delegations should facilitate this task.

6/12/63



American Academy of Arts and Sciences  
Proposed Revised Committee Arrangements

10/5/60

Committee on the Public Responsibility of Scientists

Overseeing Committee

John T. Edsall, Chairman

Hans A. Bethe  
Charles D. Coryell  
Saville R. Davis  
Paul Doty

David H. Frisch  
Milton Katz  
Eugene Rabinowitch  
Victor F. Weisskopf

1. Subcommittee for International Conferences

Eugene Rabinowitch, Chairman

Harrison S. Brown  
Paul Doty, Vice-Chairman  
John T. Edsall  
H. Bentley Glass

Alexander Rich  
Victor F. Weisskopf  
Jerome B. Wiesner

*Informal International among*  
2. Subcommittee on Conversations ~~between~~ Scientists  
~~of the USA and the USSR~~

Paul Doty, Chairman

Harrison S. Brown  
Richard S. Leghorn

*A. Rich*  
~~Alvin M. Weinberg~~  
Jerome B. Wiesner

Leo Szilard, Vice-Chairman

3. Subcommittee on the Technical Problems of  
Arms Limitation

David H. Frisch, Chairman

Donald Brennan  
Charles D. Coryell  
John T. Edsall  
Bernard T. Feld  
Marvin I. Kalkstein

W. J. Levison  
M. Stanley Livingston  
Louis Osborne  
D. Z. Robinson  
Walter A. Rosenblith

## AMERICAN ACADEMY OF ARTS AND SCIENCES

280 NEWTON STREET • BROOKLINE STATION • BOSTON 46, MASSACHUSETTS • JAMAICA 2-2400

17 October 1960

To the Members of the Committee on the  
Public Responsibility of Scientists:

The American Academy of Arts and Sciences has had three separate committees operating in the closely allied fields of world security problems and the responsibility of the scientist to an international public. These committees are: the Committee on the Public Responsibility of Scientists, the Committee on Technical Problems of Arms Limitation, and the Committee on World Security Problems Raised by Nuclear Weapons. Recent changes in personnel, over-lapping of functions, and changes in programs make it advisable to reorganize these committees, and you, as a member of one or more of them, will be interested in the attached sheet of revised arrangements approved by the Council of the Academy on 5 October 1960.

Formerly each of the above-mentioned committees was separated into an over-seeing committee and an operating committee. The new line-up provides for one supervisory committee, which would bear the name of the old Committee on the Public Responsibility of Scientists, and three operating committees working under its supervision. The three sub-committees essentially consist of the same personnel as before, with Walter Whitman (now in Washington) and Bernard Feld (in Geneva) relieved of their supervisory responsibilities, and Messrs. Weinberg and Rich added to fill the vacancies. At the same time the names of two of the committees are changed to describe more accurately their actual functions.

Let me take this opportunity to express my appreciation for your past participation in the work of these committees. They have been responsible for carrying forward a considerable fraction of the active contemporary program of the Academy and we anticipate noteworthy achievements in the future.

I trust that this reorganization of the committees and the place assigned to you in the new line-up will meet with your approval. I will assume that such is the case unless I hear from you to the contrary within the next few days.

Sincerely yours,

Kirtley F. Mather  
President

KFM:mgw  
601017LPRS31hD



American Academy of Arts and Sciences

10/5/60

Revised Committee Arrangements

Committee on the Public Responsibility of Scientists

Overseeing Committee

John T. Edsall, Chairman

Hans A. Bethe  
Charles D. Coryell  
Saville R. Davis  
Paul Doty

David H. Frisch  
Milton Katz  
Eugene Rabinowitch  
Victor F. Weisskopf

1. Subcommittee for International Conferences

Eugene Rabinowitch, Chairman  
Paul Doty, Vice Chairman

Harrison S. Brown  
John T. Edsall  
H. Bentley Glass

Alvin M. Weinberg  
Victor F. Weisskopf  
Jerome B. Wiesner

2. Subcommittee on Informal International  
Conversations among Scientists.

Paul Doty, Chairman  
Leo Szilard, Vice Chairman

Harrison S. Brown  
Richard S. Leghorn

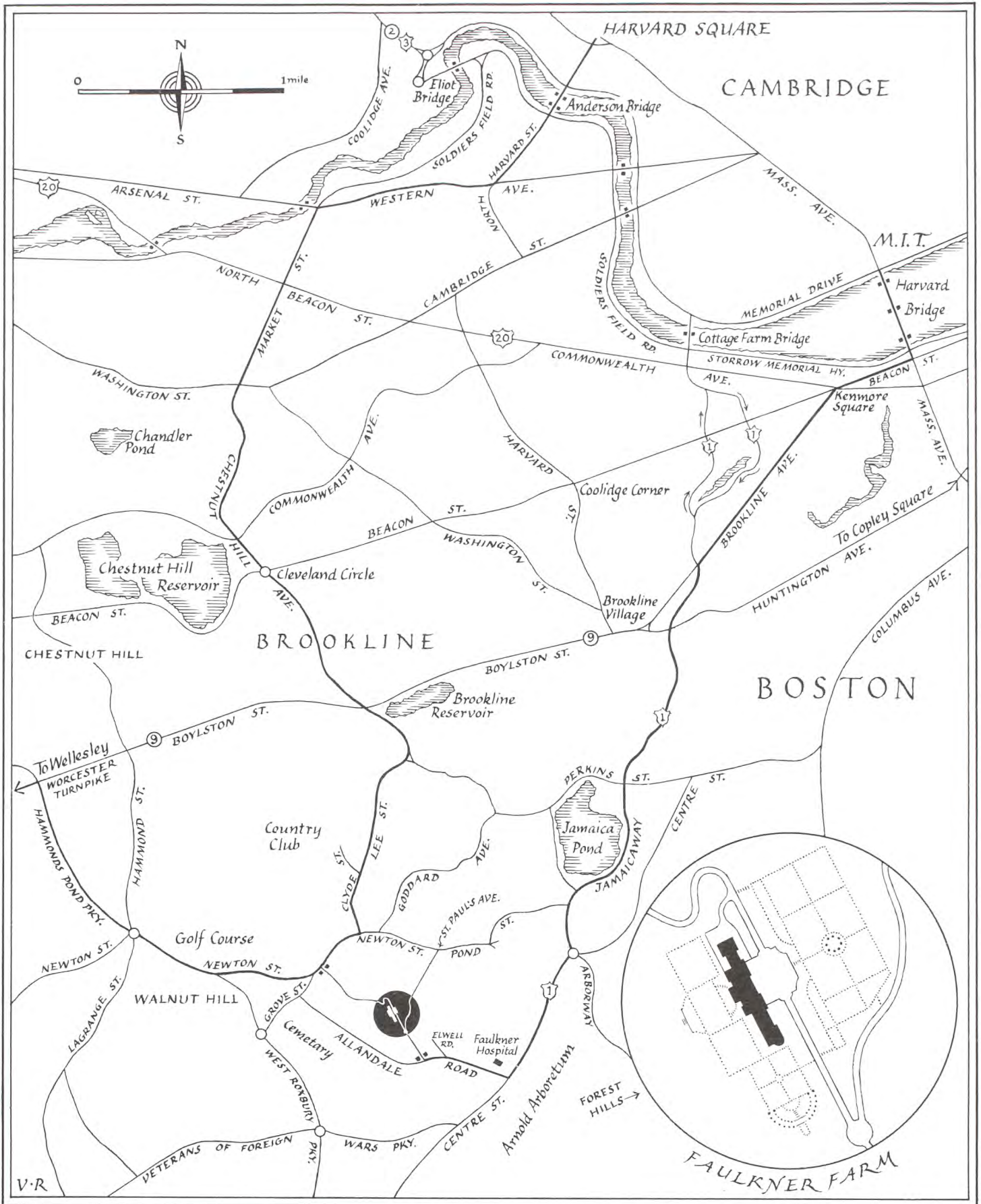
Alexander Rich  
Jerome B. Wiesner

3. Subcommittee on the Technical Problems  
of Arms Limitation

David H. Frisch, Chairman

Donald Brennan  
Charles D. Coryell  
John T. Edsall  
Bernard T. Feld  
Marvin I. Kalkstein

W. J. Levison  
M. Stanley Livingston  
Louis Osborne  
D. Z. Robinson  
Walter A. Rosenblith



❧ The House of the American Academy of Arts and Sciences ❧

280 Newton Street, Brookline Station, Boston 46, Massachusetts

*May 9, 1966*



American Academy of Arts and Sciences

Committee on the Public Responsibility of Scientists 1962-1963  
Subcommittee on Informal International Conversations among Scientists

Szilard, Leo -- CHAIRMAN -- Prof. Biophysics, University of Chicago

Office: University of Chicago, 1155 E. 57th St., Chicago 37, Illinois  
Residence: Hotel Dupont Plaza, Washington 6, D.C. -- Tel. HU 3-6000

Brown, Harrison S. -- Prof. Geochemistry at California Tech.

Office: Div. of Geol. Science, Cal. Tech., Pasadena, Calif.  
Residence: 5155 Stoneglenn Rd., La Canada, California

Coryell, Charles D. -- Prof. Chemistry at M.I.T.

Office: 6-427, M.I.T., Cambridge 39 -- Tel. ext. 4530 or 4528  
Residence: 5 Crawford Rd., Lexington 73 -- Tel. VO 2-3226

Feld, Bernard T -- Prof. Physics, M.I.T.

Office: Communications Lab., Physics Dept., Rm. 26-405, M.I.T.  
Cambridge 39 -- Tel. ext. 4235 or 2395  
Residence: 42 Arlington St., Cambridge 40 -- Tel. KI 7-9331

Leghorn, Richard S. -- President, ITEK Corporation

Office: ITEK Corp., 124 Spring St., Lexington 73 -- Tel. VO 2-7230  
Residence: 90 Chestnut St., Boston 8, -- Tel. CA 7-1767

Meselson, Matthew S. -- Associate Prof. Biology at Harvard

Office: Biological Labs. A-411, Harvard, Cambridge 38 -- Tel. Harv. ext.  
Residence: 58 Washington Ave., Cambridge 40 -- Tel. KI 7-8127 2264 or 2257

Rich, Alexander, -- Associate Prof. Biology at M.I.T.

Office: Rm. 16-735, M.I.T., Cambridge 39 -- Tel. ext. 715  
Residence: 12 Linnaean St., Cambridge 38 -- Tel. KI 7-1637

Note: The underlining shows the preferred address



*By committee*

AMERICAN ACADEMY OF ARTS AND SCIENCES

280 NEWTON STREET • BROOKLINE STATION • BOSTON 46, MASSACHUSETTS • JAMAICA 4-0303

May 11, 1959

Report on the Work of the Academy's Operating Committee  
on  
World Security Problems Raised by Nuclear Weapons  
for the  
Year 1958-1959  
by  
Leo Szilard, Chairman

Last year, Academician Topchiev, General Secretary of the Soviet Academy of Sciences, had set July 28 as a date for a meeting between Russian and American scientists in Moscow, in response to our suggestion that such a meeting be held not later than July. In July our discussions with the State Department had not sufficiently far progressed to enable us to accept. At our suggestion, another date was set by Academician Topchiev for September of last year. Even though we had received a letter from the State Department stating they had no objection to such meeting being held in Moscow, the attitude of the State Department was not positive enough to enable us to assemble a sufficiently large group of American scientists who were knowledgeable and influential enough to justify our holding such a meeting. Therefore (after consultation with Harrison S. Brown who was at that time in Moscow and in touch with Academician Topchiev), we decided to call off the meeting.

Subsequently, I explained the circumstances which induced us to call off the meeting to Academician Topchiev at the Third Pugwash Conference, in September of last year, in Austria. On that occasion Harrison Brown and I had a long conversation with Academician Topchiev. Topchiev assured us that he fully understood and appreciated our reasons for postponing the conference. He told us that he would endeavor to schedule the conference once more when we are ready to go ahead, and that the conference would be held in absolute privacy, preferably at some place outside of Moscow. He had a place in mind which would be suitable. He also told us that the Russians whom we would meet would be just as knowledgeable and influential as those Americans who participate, and that he would endeavor to match the American group as closely as possible. "If you bring Teller," he said, "we will produce the Russian Teller." He also assured us that if we should be able to clarify some of the relevant problems in the course of such a conference, we would have no difficulty in bringing such clarification to the notice of the Russian authorities at the very highest level; he gave us the impression that some of the Soviet Russian scientists are discussing such issues with the Russian Government at the very highest level and that their communications do not necessarily go through the Russian Department of State.

Report on the Work of the Academy's Operating Committee  
on World Security Problems Raised by Nuclear Weapons for  
the year 1958-1959, by Leo Szilard, Chairman

May 11, 1959

In the spring of this year we have begun to reappraise the situation and have taken steps to strengthen the Committee of the American Academy of Arts and Sciences by adding Professor Hans A. Bethe, Dr. Alvin M. Weinberg (Director of the Oak Ridge National Laboratory), and Dr. Roger Revelle (Director of Scripps Institution of Oceanography, and of the University of California in La Jolla). The full Operating Committee now consists of Leo Szilard (Chairman), Harrison S. Brown, Richard S. Leghorn, Roger Revelle, Walter G. Whitman, and Jerome B. Wiesner.

The full Oversight Committee for the Academy on this project consists of the following: John T. Edsall (Chairman), Hans A. Bethe, Saville R. Davis, Roger Revelle, Leo Szilard, Alvin M. Weinberg, Walter G. Whitman, and Jerome B. Wiesner.

At present, Revelle and I are actively exploring the possibility of scheduling a meeting to be held in Moscow.

A few weeks ago, Dr. Revelle had called a small meeting in Washington to discuss our plans in which Professor Victor F. Weisskopf, Mr. Richard S. Leghorn, Professor Jerome B. Wiesner, Professor E. P. Wigner, and Dr. Alvin M. Weinberg participated. (Previously, on April 28, Dr. Szilard had met in Washington with Dr. Harrison Brown, Dr. John T. Edsall, and Dr. Roger Revelle for a preliminary discussion.)

We are now considering holding a meeting in June on the East Coast in which fifteen American scientists might participate. We propose to discuss at this meeting substance, not procedures. The meeting would give us an opportunity also to see if we can assemble a sufficiently strong group of knowledgeable scientists to justify our proposing a meeting with the Russian scientists.

Recently, Revelle and I called at the Department of State and discussed our tentative plans for scheduling another meeting at Moscow. So far, we have met with a rather favorable response. We discussed on this occasion also what else we could do to keep the United States Government fully informed of our plans for carrying on this study.