# CALIFORNIA INSTITUTE OF TECHNOLOGY PASADENA, CALIFORNIA

GEOLOGICAL SCIENCES

April 6, 1961

To: All previous participants in Conferences on Science and World Affairs (Pugwash Conferences)

From: Harrison Brown

Plans are now being worked out for the Seventh Conference on Science and World Affairs, this one to be held in September in the United States. The arrangements which have thus far been formulated have been approved at a meeting of the International Continuing Committee which was held in London in early March. The National Academy of Sciences and the American Academy of Arts and Sciences will act as co-hosts of the meeting.

The meeting will be held in two parts. The first will be held in Woods Hole, Massachusetts, September 5 - 8 on the general subject of International Scientific Cooperation. The second part will be held in Aspen, Colorado September 10 - 17 on the general subject of Disarmament and Arms Control. A generous grant from the Ford Foundation will provide somewhat over one-half of the estimated funds needed for the Conference.

It was agreed in London that there will be approximately 50 participants distributed as follows: U.S.S.R. - 15, U.S.A. - 15, other countries - 20. Participants in the Woods Hole meeting may be different from those in the Aspen meeting.

A Conference Committee has been established by the American Members of the International Continuing Committee to handle the arrangements for the meeting as follows:

Harrison Brown (Chairman) Paul Doty (Vice Chairman) George Fischer Bentley Glass Richard Leghorn Eugene Rabinowitch

Dean Arthur Singer of M.I.T. has agreed to serve as full-time Conference Administrator.

Agenda Committees have been appointed for both parts of the Conference to make recommendations to the Conference Committee on matters connected with the agenda and participants. These Committees are as follows:

Woods Hole

Aspen

Eugene Rabinowtich (Chairman) Bentley Glass William Consolazio Richard Leghorn (Chairman) . Donald Brennan Amrom Katz Clearly with only 15 "spaces" available for American participants the task of selecting invitees will be a particularly difficult one. A total of over 60 Americans have thus far participated in the conferences, and it is our hope that a few persons who have not thus far participated in these conferences can be invited this time. The selection of the list of invitees will be made considering individual men in relation to the specific agenda topics agreed upon in London.

In order to provide all previous American Pugwash participants with the opportunity of meeting their colleagues from abroad again, the evening of Friday, September 8, and all day Saturday, September 9, are being reserved for special meetings in Boston. We hope to have travel funds available for this purpose so that all who wish can participate.

I would appreciate it if you would write to Ruth Adams, 935 E. 60th Street, Chicago 37, Illinois, and give her answers to the following specific questions:

1. If invited, would you be able to participate in the Woods Hole and/or Aspen meetings at the times specified?

2. Will you be willing and able to participate in the Boston discussions if funds are available for travel:

We are making every effort to make the September meeting a successful one. Given the full cooperation of all former participants, I feel certain that we will succeed.

With best regards,

Afartin Kons

Harrison Brown, Chairman Seventh Conference on Science and World Affairs

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# SEVENTH CONFERENCE ON SCIENCE AND WORLD AFFAIRS

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# Provisional Participants List

# Disarmament and Arms Control - September 10-17, 1961

# Australia

Sir Mark Oliphant

Research School of Physical Sciences Australian National University Box 4, G.P.O. Canberra

# Bulgaria

Prof. G. Nadjakov Academy of Science Sofia

# Canada

Prof. J. Polanyi Department of Chemistry Toronto University Toronto

# Federal Republic of Germany

Prof. G. Burkhardt Institut für Theoretische Physik der Technischen Hochschule Welfengarten 1 Hannover

# Franco

Prof. F. Perrin Commissariat a l'energie Atomique 69 Rue de Varenne Boite Postale 307 Paris VII

Prof. Pierre Rosensteihl 30 Boulevard Flandrin Paris 16

# German Democratic Republic

Prof. H. Barwich Dubna M.O. Uliza sowjetsjaja No.2/1 U.S.S.R.

# Hungary

Prof. B.F. Straub Department of Biochemistry Hungarian Academy of Sciences Budapest

Italy Dr. M. Bernardini C.E.R.N. Geneva 23, Switzerland Netherlands Prof. B.V.A. Roling Department of Criminal Law Rijksuniversiteit te Groningen Groningen United Kingdom Prof. P.M.S. Blackett Imperial College Prince Consort Road London S.W.7 Sir Edward Bullard Madingley Rise Madingley Road Cambridge Sir John Cockcroft Churchill College Cambridge Mr. M. Howard 63 Onslow Square London S.W.7 Rt. Hon. Philip Noel-Eaker 16 South Eaton Place London S.W.1 Sir William Penney U.K. Atomic Energy Authority Charles II Street London S.W.1 Prof. J. Rotblat 8 Asmara Road London N.W.2 Sir Solly Zuckerman Ministry of Defence Storey's Gate London S.W.1 U.S.A.

- 6 -

Prof. Hans Bathe Laboratory of Nuclear Studies Cornell University 4 Ithaca, New York Prof. R.R. Bowle Harvard University 6 Divinity Avenue Cambridge 38, Mass.

U.S.A. (continued) Dr. Donald Brennan Lincoln Laboratory Massachusetts Institute of Technology Cambridge 39, Mass. Prof. Harrison Brown Division of Geological Sciences California Institute of Technology Pasadena, California Prof. Paul Doty Conant Laboratory 308 Harvard University Cambridge 38, Mass. Prof. B.T. Feld (of MoloTo) at Villa Olga Daddi Schiapparello 57 Potoferraio Elba, Italy Dr. Amron Katz Rand Corporation Santa Monica, California Dr. Henry Kissinger Harvard University 6 Divinity Avenue Cambridge 38, Mass. Prof. George Kistiakovski Gibbs Laboratory 207 Harvard University Cambridge 38, Mass. Prof. Charles Lauritsen California Institute of Technology Pasadena, California Prof. Leon Lipson Yale University New Haven, Conno Prof. W. Panofsky High Energy Physics Laboratory Stanford University Palo Alto, California Prof. E.M. Purcell Department of Physics Harvard University Cambridge 38, Mass. Prof. I. Rabi 450 Riverside Drive New York 27, NoYo Prof. Louis B. Sohn

Department of International Law Harvard University Cambridge 38, Mass. Dr. M. Sands

Department of Physics California Institute of Technology Pasedena, California

U.S.A. (continued)

Prof. Leo Szilard University of Chicago Chicago 37, Illinois Dr. Charles Tounes Institute of Defence Analyses 1710 H Streat N.W. Washington 6, D.C.

# U.S.S.R.

Acad. A.P. Aleksandrov U.S.S.R. Academy of Sciences Bolshaya Kalufhskaya 11, Moscow

Acad. A.A. Arzumanyan Institute of World Economics and International Relations Kitalsky pr. 7 Moscow

Acad. A.A. Blagonravov U.S.S.R. Academy of Sciences Bolshaya Kalufhskaya 14 Moscow Acad. N.N. Bogolubov

Ateklof's Mathematical Institute 1 st. Academy pr. 28 Moscow

Acad. M.M. Dubinin U.S.S.R. Academy of Sciences Leninsky Prospect 14 Moscow

Acad. V.S. Emelyanov U.S.S.R. Academy of Sciences Bolshaya Kalufhskaya 14 Moscow

Acad. E.K. Fedorov U.S.S.R. Academy of Sciences Bolehaya Kalufhskaya 14 Moscow

Acad. P.L. Kapitza Institute of Physical Problems Vorbyevscoe shosse 2 Moscow

Acad. V.M. Khvostov Institute of History 1 Tcheremushkinskaja St. 19 Moscow

Prof. M.I. Rubinstein Institute of World Economics and International Relations Kitaisky pr. 7 Moscow

Acad. N.N. Samenov U.S.S.R. Academy of Sciences Bolshaya Kekufhskeya 14 Moscow U.S.S.R. (continued)

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Acad. N.M. Siasakyan U.S.S.R. Academy of Sciences Leninsky Prospect 11, Moscow

Prof. N.A. Talensky U.S.S.R. Academy of Sciences Bolshaya Kakufhskaya 14 Moscow

Acad. I.E. Tamm U.S.S.R. Academy of Sciences Bolshaya Kakufhskaya 14 Moscow

Acad. A.V. Topchiev U.S.S.R. Academy of Sciences Leninsky Prospect 14 Moscow

Acad. A.P. Vinogradov Institute of Geo-Chemistry and Analytical Chemistry Vorobjevscoe shosse d.47a Moscow

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Acad. V.M. Zhdanov U.S.S.R. Academy of Sciences Eolshaya Kalufhskaya 14 Moscow

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# The Seventh Conference on Science and World Affairs (formerly known as Pugwash Conferences)

Plans are now being worked out for the Seventh Conference on Science and World Affairs, this one to be held in September in the United States. The arrangements which have thus far been formulated have been approved at a meeting of the International Continuing Committee which was held in London in early March. The National Academy of Sciences and the American Academy of Arts and Sciences will act as co-hosts of the meeting.

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It was agreed in London that there will be approximately 50 participants distributed as follows: U.S.S.R.-15, U.S.A.-15, other countries - 20. Participants in the Woods Hole meeting may be different from those in the Aspen meeting.

A Conference Committee has been established by the American Members of the International Continuing Committee to handle the arrangements for the meeting as follows:

Harrison Brown (Chairman) Paul Coty (Vice Chairman) George Fischer Bentley Glass Richard Leghorn Eugene Rabinowitch

Dean Arthur Singer of M.I.T. has agreed to serve as full-time Conference Administrator.

Agenda Committees have been appointed for both parts of the Conference to make recommendations to the Conference Committee on matters connected with the agenda and participants. These Committees are as follows:

Woods Hole

Eugene Rabinowtich (Chairman) Bentley Glass William Consolazio Aspen

Richard Leghorn (Chairman) Donald Brennan Amrom Katz In order to provide all previous American participants in these conferences with the opportunity of meeting their colleagues from abroad again, the evening of Friday, September 8th, and all day Saturday, September 9th, are being reserved for special meetings in Boston. We hope to have travel funds available for this purpose so that all who wish can participate. A committee consisting of Hudson Hoagland (Chairman), Paul Doty and Alex Rich has been established to handle the Boston arrangements.

The agenda remains to be worked out in final form. This will be done in line with the agreements reached at the early March meeting in London of the Continuing Committee. Detailed agenda proposals will be prepared by the Agenda Sub-committee on Disarmament and Arms Control and the Agenda Sub-committee on Scientific Cooperation, and then approved and circulated by the Conference Committee before the end of April.

The topics suggested for discussion at the Woods Hole Conference include: 1) exchange of scientists and science students; 2) international research programs; 3) international research institutes; 4) cooperation in scientific and technical assistance to new nations; 5) organizational plans.

The agenda for the Aspen Meeting has been prepared thus far in somewhat more detail. Two major papers will be prepared well in advance of the conference. The first will be prepared by the Russians and will describe in detail what they mean by "general and complete disarmament" and will describe a specific disarmament plan in terms of substance, phasing and technical detail. The second paper will be prepared by the Americans and will describe in detail what might be considered an adequte inspection scheme and will outline a specific disarmament plan in terms of substance, phasing and technical detail. Discussion of "transitional deterrence" can in part be taken care of in this paper.

These papers will not be delivered orally at the Conference. Instead at the opening session on Monday, four critiques will be presented as follows: 1) an American critique of the Russian paper; 2) a Russian critique of the American paper; 3) a Western European critique of both papers; 4) an Eastern European critique of both papers. The balance of that day will be devoted to general discussion of the papers and the critiques.

A substantial part of the work at the Aspen meeting will be done in working groups consisting of from six to eight persons. These groups will start their meetings on Tuesday.

At the London meeting, the following areas of discussion were agreed upon, each insofar as possible, to be handled by a working group:

1) Problems of secession of production and elimination of weapons, including means of delivery and fissile materials.

2) Problems of prevention of militarization of space and possible agree-

3) Interdependence of international political settlements and arms reduction, including problems of disengagement, zonal elimination of nuclear weapons, tactical nuclear weapons and military bases.

4) Implications of an American-Soviet nuclear test ban agreement.

5) Measures to reduce dangers of unintended war.

6) Rules of peaceful coexistence. What will a disarmed world look like? International security forces. Methods of settlement of international disputes.

7) Preconditions to possible success of negotiations and initiation of disarmament measures. International behavior. Conditions for creating trust and confidence.

8) The role of the scientist.

At least the following Russians will participate in the American Conferences: Topchiev, Federov, Skobeltzyn, Tamm, Vinogradov, Bogolubov, Semonov, Sissakian, Emelyanov, Khvastov, Talensky, Arzumanyan, Rubinstein, and Blochin (President of the American Academy). Others may attend as well.

Likely British attendees are Zuckerman, Cockcroft, Blackett, Bullard, Noel-Baker, Michael Howard, Mott.

There will be participants from France, Federal Republic of Germany, Canada, Australia, India, Poland, Austria, Denmark, Italy, East Germany, Bulgaria, Hungary, Yugoslavia, and Czechoslovakia.

Discussions are now taking place to determine whether or not it might be possible for scientists from the Chinese Peoples Republic to participate.

# STATEMENT FROM THE SEVENTH CONFERENCE ON SCIENCE AND WORLD AFFAIRS STOWE, VERMONT, SEPTEMBER 5-9, 1961

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The Seventh Conference on Science and World Affairs was held at Stowe, Vermont, September 5-9, 1961. The forty-one scientists from twelve countries attending the Conference were:

> Sir John Crawford - Australia Professor Hans Thirring - Austria Professor C. Pavan - Brazil Professor G. Nadjakov - Bulgaria Professor G. Burkhardt - Federal Republic of Germany Sir Edward Bullard - Great Britain Professor A. Haddow - Great Britain Sir Ben Lockspeiser - Great Britain Professor J. Rotblat - Great Britain Professor F.B. Straub - Hungary Dr. G. Bernardini - Italy Professor T. Toyoda - Japan Professor B.V.A. Röling - Netherlands Academician A.A. Blagonravov - Soviet Union Academician N.N. Bogolubov - Soviet Union Academician M.M. Dubinin - Soviet Union Professor V.M. Khvostov - Soviet Union Academician N.M. Sissakian - Soviet Union Professor N.A. Talensky - Soviet Union Academician I.E. Tamm - Soviet Union Academician A.V. Topchiev - Soviet Union Professor Harrison Brown - United States Dr. William Consolazio - United States Professor Paul Doty - United States Professor Bentley Glass - United States Professor C. O'D. Iselin - United States Dr. Martin Kaplan - United States Professor Chauncey Leake - United States Professor Linus Pauling - United States Professor Jay Orear - United States Professor W. Pickering - United States Mr. Gerard Piel - United States Professor I. Rabi - United States Professor Eugene Rabinowitch - United States Dr. Roger Revelle - United States Professor Alexander Rich - United States Professor Walter Rosenblith - United States Dr. Eugene Staley - United States

Dr. Alvin Weinberg - United States Professor Eugene Wigner - United States Professor J.R. Zacharias - United States

### EIGHTH CONFERENCE ON SCIENCE AND WORLD AFFAIRS

Stowe, Vermont, U.S.A. Sept. 11-16, 1961

### Disarmament and World Security

# Participants

N.I. Bazanov (Observer) Institute of World Economics and International Relations, Moscow

Hans Bethe Laboratory of Nuclear Studies Cornell University Ithaca, New York

A.A. Blagonravov Academy of Sciences of the U.S.S.R. Moscow

P.M.S. Blackett Imperial College London S.W. 7

N.N. Bogolubov Steklow's Mathematical Institute Moscow

R.R. Bowie Center for International Affairs Harvard University Cambridge, Massachusetts

Donald Brennan Lincoln Laboratory Massachusetts Institute of Technology Cambridge, Massachusetts

Harrison Brown California Institute of Technology Pasadena, Californai

Edward Bullard Madingley Road Cambridge, England

G. Burkhardt Institute of Theoretical Physics Hannover, Germany

John Cockcroft Churchill College Cambridge, England Paul Doty Harvard University Cambridge, Massachusetts

M.M. Dubinin Academy of Sciences of the U.S.S.R. Moscow

B.T. Feld Massachusetts Institute Technology Cambridge, Massachusetts

Trevor Gardner Hycon Manufacturing Co. Monrovia, California

Bentley Glass Johns Hopkins University Baltimore, Maryland

Michael Howard 63 Onslow Square London S.W. 7

Amrom Katz (Observer) Rand Corporation Santa Monica, California

V.M. Khwostov Institute of History Moscow

Henry Kissinger Harvard University Cambridge, Massachusetts

George Kistiakowsky Harvard University Cambridge, Massachusetts

S.G.T. Korneev (Observer) Academy of Sciences of the U.S.S.R Moscow

Charles Lauritsen California Institute of Technology Pasadena, California

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Participants Eighth Conference

Leon Lipson Yale University New Haven, Connecticut

G. Nadjakov Academy of Science Sofia, Bulgaria

Philip Noel-Baker 16 South Eaton Place London S.W. 1

Mark Oliphant Australian National University Canberra, Australia

W. Panofsky Stanford University Palo Alto, California

V.P. Pavlichenko (observer) Academy of Sciences of USSR Moscow

William Penney U.K. Atomic Energy Authority London S.W.1

F. Perrin Commissariat a l'energie Atomique Paris

J. Polanyi Toronto University Toronto

E.M. Purcell Harvard University Cambridge, Mass.

I.Rabi 450 Riverside Drive New York 27

Eugene Rabinowitch University of Illinois Campaign

B.V.A. Röling Rijksuniversiteit te Gronigen Groningen, Netherlands Pierre Rosenstiehl 30 Boulevard Flandrin Paris XVI

J. Rotblat 8 Asmara Road London N.W. 2

Matthew Sands (Observer) California Institute of Technology Pasadena

W.M.Sissakian Academy of Sciences of the USSR Moscow

Louis B.Sohn Harvard University Cambridge, Massachusetts

F.B. Straub Academy of Sciences Budapest

Leo Szilard Hotel Dupont Plaza Washington,D.C.

N.A. Talensky Academy of Sciences of the USSR Moscow

I.E. Tamm Academy of Sciences of the USSR Moscow

A.V. Topchiev Academy of Sciences of the USSR Moscow

Charles Townes Massachusetts Institute of Technolo Cambridge, Massachusetts

Toshiyuki Toyoda Rikkyo University Ikebukurok Tokyo

Solly Zuckerman (Observer) Ministry of Defense London S.W. 1

# Participants, Eighth Conference

The following participants from the Seventh Conference are staying as observers for one or two days:

Ben Lockspeiser Farnborough, Hants England

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Jay Orear Cornell University New York, New York

Hans Thirring Strudelhofgasse 13 Vienna, Austria Disarmament and World Security September 11, 1961 Eighth Conference on Science and World Affairs September 11-16, 1961 Stowe, Vermont, U.S.A.

### BACKGROUND MATERIALS

- I. Submitted Papers by Participants: (as of Monday, September 11, 1961).
  - "Disarmament and the German Problems" by G. Burkhardt
  - "Problems of the Cessation of Production of Fissile Materials for Military Purposes and the Elimation of Weapons Stockpiles" by Sir John Cockcroft and Sir William Penney
  - 3. "Zones of Limited Armaments in Europe" by Micheal Howard
  - 4. "The Problems of the Clandestine Nuclear Stock" by Philip Noel-Baker
  - "'Climate of Opinion' and a Disarmed World" by Mark Oliphant
  - 6. "On Disarmament" by Leo Szilard
  - 7. "A Proposed Solution of the German Problem" by Hans Thirring
  - "A Possible and Effective Test-Ban Agreement" by Toshiyuki Toyoda

# II. Background Papers and Reports by Non-Participants

- 1. Commonwealth Prime Minister's Conference, March 1961
- Copy of a letter from the European Federation Against Nuclear Arms (Office: Munchen 15, Schwantalerstrasse 64) to the Representative of the U.S.A. (United Kingdom) at the Geneva Test Ban Conference, Arthur Dean (Sir David Ormsby-Gore), Munchen, 16. 6. 1961
- 3. "The Nature of a Demilitarized World" by Walter Millis
- "Critique of Some Contemporary Defense Thinking" by P. M. S. Blackett
- 5. Geneva Conference on the Discontinuance of Nuclear Weapon Tests, "History of Political and Technical Developments of the Negotiations from Octover 31, 1958 to August 27, 1960" by William J. Gehron

Background Materials continued/ 2

- 6. "Disarmament at a Glance" The Department of State
- 7. Soviet Disarmament Proposals: 1946 1958 The Department of State
- 8. Reprint of the Introduction to "World Peace Through World Law," Second Edition, (Revised) by Grenville Clark and Louis B. Sohn
- 9. Russian Translation of (8)
- 10. French Translation of (8)
- 11. "The Nth Country Problem and Arms Control;" a statement of the NPA Special Project Committee on Security Through Arms Control and A Technical Report by W. Davidon, M. Kalkstein, and C. Hohenemser
- 12. "The Nuclear Test-Ban Treaty; Gateway to Peace" The Department of State
- A Basic Bibiography; disarmament, arms control & national security United States Disarmament Administration, Department of State
- 14. Address by the Hon.crable Christian A. Herter, Secretary of State, Before the National Press Club, Wakhington D. C. Thursday, February 18, 1960, at 1:00 P.M. EST. "National Security with Arms Limitation"
- 15. "Disarmament, the Intensified Effort 1955-1958" The Department of State
- 16. Bulletin of the Atomic Scientists, September, 1961, Vol. XVII, No. 7.
- 17. H.R. 7936, In the House of Representatives, A Bill to Establish a United States Disarmament Agency for World Peace and Security Introduced by Mr. Morgan, June 29, 1961.
- 18. Three Documents of Current History: Report by Chairman N. S. Khrushchev on his Meeting with President John F. Kennedy in Vienna; The Soviet Memoranda on Ending Nuclear Weapons Tests and Signing a German Peace Treaty
- 19. "Inspection for Disarmament" (presented at European-American Assembly, 1961) by Jerome Wiesner

Background Materials continued/ 3

# III. Books for Distribution

- 1. Brennan, Donald G., ed. Arms Control, Disarmament, and National Security (George Braziller, New York, 1961).
- 2. Clark, Grenville, and Sohn, Louis B. World Peace Through World Law, Second edition (revised), (Harvard University Press, 1960, Cambridge, Mass.).
- 3. Frisch, David H. ed., Arms Reduction Program and Insues, (The Twentieth Century Fund, New York, 1961).

4. Schelling, Thomas C. and Halperin, Morton H., Strategy and Arms <u>Control</u>, (The Twentieth <u>Century</u> Fund, New York, 1961).

5. Szilard, Leo, The Voice of the Dolphins, (Simon and Schuster, New York, 1961).