

APPENDIX A

National Science Board, Staff, Committees, and Advisory Panels

NATIONAL SCIENCE BOARD

Terms Expire May 10, 1964

DETLEV W. BRONK (Chairman of the Board), President, The Rockefeller Institute, New York, N.Y.

LEE A. DUBRIDGE (Vice Chairman of the Board), President, California Institute of Technology, Pasadena, Calif.

ROBERT F. LOEB, Bard Professor of Medicine Emeritus, Columbia University, New York, N.Y.

KEVIN McCANN, President, The Defiance College, Defiance, Ohio

JANE A. RUSSELL (Mrs. Alfred E. Wilhelmi), Associate Professor of Biochemistry, Emory University, Atlanta, Ga.

PAUL B. SEARS, Professor Emeritus, Conservation Program, Osborn Botanical Laboratory, Yale University, New Haven, Conn.

ERNEST H. VOLWILER, Consultant, Abbott Laboratories, North Chicago, Ill.

MALCOLM M. WILLEY, Vice President, Academic Administration, University of Minnesota, Minneapolis, Minn.

Terms Expire May 10, 1966

W. O. BAKER, Vice President-Research, Bell Telephone Laboratories, Inc., Murray Hill, N.J.

THE REV. THEODORE M. HESBURGH, C.S.C., President, University of Notre Dame, Notre Dame, Ind.

WILLIAM V. HOUSTON, Honorary Chancellor, William Marsh Rice University, Houston, Tex.

ROBERT S. MORISON, Director, Medical and Natural Sciences, The Rockefeller Foundation, New York, N.Y.

JOSEPH C. MORRIS, Vice President, Tulane University, New Orleans, La.

E. R. PIORE, Vice President for Research and Engineering, International Business Machines Corp., New York, N.Y.

WILLIAM W. RUBEY, Professor of Geology and Geophysics, Department of Geology and Institute of Geophysics, University of California, Los Angeles, Calif.

ERIC A. WALKER, President, The Pennsylvania State University, University Park, Pa.

Terms Expire May 10, 1968

HARVEY BROOKS, Gordon McKay Professor of Applied Physics and Dean of Engineering and Applied Physics, Harvard University, Cambridge, Mass.

RUFUS E. CLEMENT, President, Atlanta University, Atlanta, Ga.

HENRY EYRING, Dean, Graduate School, University of Utah, Salt Lake City, Utah

PHILIP HANDLER, James B. Duke Professor and Chairman, Department of Biochemistry, Duke University, Durham, N.C.

KATHARINE E. MCBRIDE, President, Bryn Mawr College, Bryn Mawr, Pa.

EDWARD J. MCSHANE, Professor of Mathematics, Department of Mathematics, University of Virginia, Charlottesville, Va.

EDWARD L. TATUM, Member, The Rockefeller Institute, New York, N.Y.

RALPH W. TYLER, Director, Center for Advanced Study in the Behavioral Sciences, Stanford, Calif.

Member Ex Officio

LELAND J. HAWORTH, Director, National Science Foundation, Washington, D.C.

STAFF*

Office of the Director

<i>Director</i> -----	LELAND J. HAWORTH
<i>Executive Assistant</i> -----	FRANK C. SHEPPARD
<i>Deputy Director</i> -----	JOHN T. WILSON
<i>Associate Director (Research)</i> -----	RANDAL M. ROBERTSON
<i>Associate Director (Scientific Personnel and Education).</i>	BOWEN C. DEES
<i>Associate Director (Planning)</i> -----	BOWEN C. DEES
<i>General Counsel</i> -----	WILLIAM J. HOFF
<i>Congressional Liaison Officer</i> -----	JAMES F. KING
<i>Public Information Officer</i> -----	CLYDE C. HALL

*As of November 1963.

Division of Biological and Medical Sciences

<i>Assistant Director</i> -----	HARVE J. CARLSON
<i>Deputy Assistant Director</i> -----	DAVID D. KECK
<i>Program Director for:</i>	
<i>Facilities and Special Programs</i> ----	JACK T. SPENCER
<i>Developmental Biology</i> -----	PHILIP GRANT
<i>Environmental Biology</i> -----	GEORGE SPRUGEL, Jr.
<i>Genetic Biology</i> -----	HERMAN W. LEWIS
<i>Metabolic Biology</i> -----	HOWARD J. TEAS
<i>Molecular Biology</i> -----	SAMUEL ARONOFF
<i>Psychobiology</i> -----	HENRY S. ODBERT
<i>Regulatory Biology</i> -----	DAVID B. TYLER
<i>Systematic Biology</i> -----	WALTER HODGE

Division of Mathematical, Physical, and Engineering Sciences

<i>Assistant Director</i> -----	GEOFFREY KELLER
<i>Section Head for Astronomy</i> -----	GERARD F. MULDER
<i>Program Director for:</i>	
<i>Optical Astronomy</i> -----	HAROLD H. LANE
<i>Radio Astronomy</i> -----	GERARD F. MULDER (Acting)
<i>Section Head for Atmospheric Sciences</i> —	EARL G. DROESSLER (On leave) EDWARD P. TODD (Acting)
<i>Program Director for:</i>	
<i>Aeronomy</i> -----	EDWARD P. TODD
<i>Meteorology</i> -----	FRED D. WHITE
<i>Solar Terrestrial Research</i> -----	ROBERT FLEISCHER
<i>Weather Modification</i> -----	EDWARD P. TODD (Acting)
<i>Section Head for Chemistry</i> -----	WALTER R. KIRNER
<i>Program Director for:</i>	
<i>Inorganic and Analytical Chemistry</i> —	OREN WILLIAMS (Acting)
<i>Organic Chemistry</i> -----	ALEX KOTCH
<i>Physical Chemistry</i> -----	ROBERT H. LINNELL

Section Head for Earth Sciences----- WILLIAM E. BENSON

Program Director for:

Geochemistry ----- RICHARD C. BADER

Geology ----- RICHARD G. RAY

Geophysics ----- ROY E. HANSON

Oceanography ----- JOHN LYMAN

Section Head for Engineering----- WILLIAM E. LEAR (Acting)

Program Director for:

Engineering Chemistry----- LEWIS MAYFIELD (Acting)

Engineering Energetics----- ROYAL E. ROSTENBACH
(Acting)

Engineering Materials----- ISRAEL WARSHAW (Acting)

Engineering Mechanics----- MICHAEL P. GAUS (Acting)

Engineering Systems----- WILLIAM E. LEAR

Section Head for Mathematical Sciences. ARTHUR GRAD (On leave)
ROBERT H. OWENS

(Acting)

Program Director for:

Computer Sciences----- DONALD T. LAIRD

Mathematics ----- MILTON E. ROSE

Probability and Statistics----- (Vacant)

Section Head for Physics----- WAYNE R. GRUNER
(Acting)

Program Director for:

Atomic and Molecular Physics----- WILLIAM N. ELLIS (Acting)

Elementary Particles Physics----- J. HOWARD McMILLEN

Nuclear Physics----- WILLIAM S. RODNEY
(Acting)

Solid State and Low Temperature Physics. HOWARD W. ETZEL

Theoretical Physics----- WAYNE R. GRUNER

Division of Social Sciences

Assistant Director----- HENRY W. RIECKEN

Program Director for:

Anthropology ----- ALLAN H. SMITH

Economics ----- HOWARD H. HINES

History and Philosophy of Science-- ROGER C. BUCK

Sociology and Social Psychology---- ROBERT L. HALL

Special Projects----- MURRAY ABORN

Division of Scientific Personnel and Education

<i>Assistant Director</i> -----	(Vacant)
<i>Deputy Assistant Director</i> -----	KEITH R. KELSON
<i>Section Head for Special Projects in Science Education.</i>	ARTHUR F. SCOTT
<i>Program Director for:</i>	
<i>Developmental Program</i> -----	LYLE W. PHILLIPS
<i>Science Education</i> -----	LYLE W. PHILLIPS (Acting)
<i>Secondary School Program</i> -----	HOWARD J. HAUSMAN
<i>Undergraduate Science Education</i> ---	LEWIS N. PINO
<i>Section Head for Course Content Im- provement.</i>	CHARLES A. WHITMER
<i>Program Director for:</i>	
<i>Life and Social Sciences</i> -----	RICHARD E. PAULSON
<i>Mathematics and Physical Sciences</i> ---	JOHN M. MAYS
<i>Engineering</i> -----	LAURENCE O. BINDER (Acting)
<i>Elementary School Science</i> -----	RICHARD W. VAN NORMAN (Acting)
<i>Section Head for Institutes</i> -----	C. RUSSELL PHELPS
<i>Program Director for:</i>	
<i>Summer Institutes</i> -----	WILLIAM E. MORRELL
<i>Academic Year Institutes</i> -----	REINHARD L. KORGEN
<i>College and Elementary Program</i> ---	HAROLD A. IDDLES
<i>Section Head for Scientific Personnel and Education Studies.</i>	THOMAS J. MILLS
<i>Program Director for:</i>	
<i>National Register of Scientific and Technical Personnel.</i>	MILTON LEVINE
<i>Manpower Studies (Clearinghouse)</i> ---	ROBERT W. CAIN
<i>Section Head for Fellowships</i> -----	THOMAS D. FONTAINE
<i>Program Director for:</i>	
<i>Graduate Fellowships</i> -----	HARRY M. DOUKAS
<i>Summer and Cooperative Fellow- ships.</i>	HALL TAYLOR
<i>Foreign and Extramural Fellowships</i> ---	HOWARD D. KRAMER
<i>Graduate Traineeship Program</i> -----	FRANCIS G. O'BRIEN (Acting)

Office of Antarctic Programs

<i>Head</i> -----	THOMAS O. JONES
<i>Chief Scientist</i> -----	ALBERT P. CRARY
<i>Program Director for:</i>	
<i>Science</i> -----	ALBERT P. CRARY
<i>Field Requirements and Coordination.</i>	PHILIP M. SMITH (Acting)
<i>International Cooperation and Information.</i>	HENRY S. FRANCIS, JR. (Acting)

Office of Economic and Statistical Studies

<i>Head</i> -----	JACOB PERLMAN
<i>Program Director for:</i>	
<i>Foreign Studies</i> -----	LAWRENCE A. SEYMOUR
<i>Government Studies</i> -----	BENJAMIN L. OLSEN
<i>Industrial Economic Studies</i> -----	JOSEPH H. SCHUSTER
<i>National Trends and Projections</i> -----	KATHRYN S. ARNOW
<i>Science Organization and Management.</i>	ZOLA BRONSON
<i>Universities and Other Nonprofit Institutions Studies.</i>	OSCAR H. LEVINE
<i>Review Program</i> -----	VIRGINIA SHAPLEY

Office of Institutional Programs

<i>Head</i> -----	HOWARD E. PAGE
<i>Deputy Head</i> -----	DENZEL D. SMITH
<i>Section Head for Graduate-Level Research Facilities.</i>	JOSHUA M. LEISE
<i>Program Director for:</i>	
<i>Behavioral Sciences Facilities</i> -----	GEORGE W. BAKER
<i>Chemistry, Earth, and Atmospheric Science Facilities.</i>	RICHARD A. CARRIGAN
<i>Life Sciences Facilities</i> -----	LOYAL G. GOFF
<i>Mathematics, Physics, Engineering, and Astronomy Science Facilities.</i>	WILBERT ANNIS
<i>Section Head for Institutional Grants</i> __	DENZEL D. SMITH
<i>Program Director</i> -----	J. MERTON ENGLAND

Office of International Science Activities

<i>Head</i>	ARTHUR ROE
<i>Deputy Head</i>	PHILIP HEMILY
<i>Special Projects Officer</i>	HOWARD FONCANNON
<i>Program Director for:</i>	
<i>Cooperative International Science Activities.</i>	DUNCAN CLEMENT
<i>Regional Science Support</i>	RAY W. MAYHEW
<i>Program Management Officer</i>	ROBERT F. HULL
<i>NSF/Tokyo</i>	
<i>Chief Scientist</i>	ROBERT A. OETJEN
<i>NSF/Rio de Janeiro</i>	
<i>Chief Scientist</i>	HARLOW B. MILLS
<i>NSF/Paris</i>	
<i>Science Education Adviser</i>	RALPH J. STROM

Office of Science Exhibits

<i>Head</i>	Leonhard W. Nederkorn
-------------------	-----------------------

Office of Science Information Service

<i>Head</i>	BURTON W. ADKINSON
<i>Deputy Head</i>	(Vacant)
<i>Program Director for:</i>	
<i>Documentation Research</i>	HELEN L. BROWNSON
<i>Foreign Science Information</i>	ARTHUR J. SHANAHAN
<i>Research Data and Information Services.</i>	CHARLES M. STEARNS
<i>Support of Scientific Publications</i>	RALPH E. O'DETTE

Science Resources Planning Office

<i>Head</i>	LEONARD KAREL (Acting)
<i>Staff Members</i>	WILLIAM V. CONSOLAZIO WILLIAM A. JARACZ WALTER L. KOLTUN PAUL H. KRATZ

Administrative Services

<i>Head</i>	FRANK C. SHEPPARD
<i>Head, Contracts Office</i>	ROBERT D. NEWTON
<i>Head, Office Services</i>	HOWARD TIHILA
<i>Head, Grants Office</i>	WILLIAM E. FEE, JR.
<i>Personnel Officer</i>	CALVIN C. JONES

Comptroller

<i>Comptroller</i> -----	AARON ROSENTHAL
<i>Budget Officer</i> -----	LUTHER F. SCHOEN
<i>Finance Officer</i> -----	EDWARD B. GARVEY
<i>Head, Internal Audit Staff</i> -----	WILFORD G. KENER

ADVISORY COMMITTEES AND COUNCILS

Divisional Committee for Biological and Medical Sciences

Lawrence R. Blinks, Director, Hopkins Marine Station, Stanford University, Stanford, Calif.

Lincoln Constance, Department of Botany, University of California, Berkeley, Calif.

James D. Ebert, Department of Embryology, Carnegie Institute, Baltimore, Md.

E. A. Evans, Jr., Department of Biochemistry, University of Chicago, Chicago, Ill.

Paul J. Kramer, Department of Botany, Duke University, Durham, N.C.

William D. Lotspeich, Department of Physiology, School of Medicine and Dentistry, University of Rochester, Rochester, N.Y.

Conrad G. Mueller, Jr., Department of Psychology, Columbia University, New York, N.Y.

Frank W. Putnam, Department of Biochemistry, College of Medicine, University of Florida, Gainesville, Fla.

Marcus Rhoades, Department of Botany, Indiana University, Bloomington, Ind.

Kenneth V. Thimann (Chairman), The Biological Laboratories, Harvard University, Cambridge, Mass.

Divisional Committee for Mathematical, Physical, and Engineering Sciences

Paul F. Chenea, Vice President for Academic Affairs, Purdue University, Lafayette, Ind.

Walter M. Elsasser, Visiting Professor of Geophysics, Princeton University, Princeton, N.J.

Harry H. Hess, Department of Geology, Princeton University, Princeton, N.J.

Glenn Murphy, Head, Department of Nuclear Engineering, Iowa State University, Ames, Iowa

Sverre Petterssen, Chairman, The Department of Geophysical Sciences, The University of Chicago, Chicago, Ill.

John D. Roberts, (Chairman), Crellin Laboratory, California Institute of Technology, Pasadena, Calif.

Albert E. Whitford, Director, Lick Observatory, University of California, Mount Hamilton, Calif.

Raymond L. Wilder, Department of Mathematics, The University of Michigan, Ann Arbor, Mich.

Robert R. Wilson, Director, Laboratory of Nuclear Studies, Cornell University, Ithaca, N.Y.

Divisional Committee for Social Sciences

Leonard S. Cottrell, Social Psychologist and Secretary, Russell Sage Foundation, New York, N.Y.

Pendleton Herring (Chairman), President, Social Science Research Council, New York, N.Y.

Horace M. Miner, Department of Anthropology and Sociology, University of Michigan, Ann Arbor, Mich.

Frederick Mosteller, Department of Mathematical Statistics, Harvard University, Cambridge, Mass.

Joseph J. Spengler, Department of Economics and Business Administration, Duke University, Durham, N.C.

James Tobin, Department of Economics, Yale University, New Haven, Conn.

Dael Wolfe, Executive Officer, American Association for the Advancement of Science, Washington, D.C.

Divisional Committee for Scientific Personnel and Education

Arthur S. Adams, Washington, D.C.

Donald B. Anderson, Vice President, Consolidated University of North Carolina, Chapel Hill, N.C.

Gordon S. Brown, Dean, School of Engineering, Massachusetts Institute of Technology, Cambridge, Mass.

Carleton S. Coon, West Gloucester, Mass.

Bryce L. Crawford, Jr., Dean, The Graduate School, The University of Minnesota, Minneapolis, Minn.

Edward Creutz, Vice President, Research and Development, General Atomic Division, General Dynamics Corp., San Diego, Calif.

Mark Ingraham (Chairman), The University of Wisconsin, Madison, Wis.

Francis Keppel, Commissioner, U.S. Office of Education, Washington, D.C.

Edward McCrady, Vice Chancellor and President, The University of the South, Sewanee, Tenn.

Harold W. Stoke, President, Queens College, Flushing, N.Y.

W. Gordon Whaley, Dean, The Graduate School, The University of Texas, Austin, Tex.

Advisory Committee on International Science Activities

Ray H. Boundy, Board of Directors, Dow Chemical Co., Midland, Mich.

J. Douglas Brown, Dean of Faculty, Princeton University, Princeton, N.J.

Charles Dollard, North Bennington, Vt.

Carroll A. Hochwalt, Vice President, Monsanto Chemical Co., St. Louis, Mo.

Harry C. Kelly, Dean of Faculty, North Carolina State College, Raleigh, N.C.

Joseph B. Koepfli, Gates & Crellin Laboratories of Chemistry, California Institute of Technology, Pasadena, Calif.

Harold W. Stoke, President, Queens College, Flushing, N.Y.

Merle A. Tuve, Director, Department of Terrestrial Magnetism, Carnegie Institution of Washington, Washington, D.C.

Carroll L. Wilson, School of Industrial Management, Massachusetts Institute of Technology, Cambridge, Mass.

Science Information Council

*Burton W. Adkinson, Head, Office of Science Information Service, National Science Foundation, Washington, D.C.

Julian H. Bigelow, School of Mathematics, The Institute for Advanced Study, Princeton, N.J.

Gaylord P. Harnwell, President, University of Pennsylvania, Philadelphia, Pa.

Richard L. Kenyon, Director of Publications, ACS Journals, American Chemical Society, Washington, D.C.

Henry C. Longnecker, Manager, Science Information Department, Research and Development Division, Smith, Kline & French Laboratories, Philadelphia, Pa.

Thomas F. Malone, Director of Research, The Travelers Insurance Co., Hartford, Conn.

Herbert Menzel, Research Associate, Bureau of Applied Social Research, Columbia University, New York, N.Y.

*Foster E. Mohrhardt, Director, National Agricultural Library, U.S. Department of Agriculture, Washington, D.C.

Harry R. Most, President, W. B. Saunders Co., Philadelphia, Pa.

*L. Quincy Mumford, The Librarian of Congress, Washington, D.C.

J. R. Porter, Chairman, Department of Microbiology, College of Medicine, State University of Iowa, Iowa City, Iowa.

Derek J. de Solla Price, Professor of History of Science, Yale University, New Haven, Conn.

*Frank B. Rogers, Director, National Library of Medicine, Public Health Service, Department of Health, Education, and Welfare, Bethesda, Md.

*Ex officio members.

John W. Tukey, Department of Mathematics, Princeton University, Princeton, N.J.
Raymond K. Wakerling, Director, Technical Information Division, Lawrence Radiation Laboratory, University of California, Berkeley, Calif.
Joseph L. Vaughan (Chairman), Chancellor for Community Colleges, University of Virginia, Charlottesville, Va.

Advisory Committee for Economic and Statistical Studies of Science and Technology

Gerhard Colm, Chief Economist, National Planning Association, Washington, D.C.
Everett M. Kassalow, Director of Research, Industrial Unions Department, AFL-CIO, Washington, D.C.
John W. Kendrick, Professor of Economics, The George Washington University, Washington, D.C.
Wayne E. Kuhn, General Manager, Research and Technical Department, Texaco, Inc., Beacon, N.Y.
Charles E. Mack, Jr., Director of Research, Grumman Aircraft Engineering Corp., Bethpage, Long Island, N.Y.
Albert Rubenstein, Professor of Industrial Engineering, Northwestern University, Evanston, Ill.
Theodore W. Schultz, Professor of Economics, The University of Chicago, Chicago, Ill.
Herbert Stein, Director of Research, Committee for Economic Development, Washington, D.C.
Gardiner L. Tucker, Director of Research, International Business Machines Corp., Yorktown Heights, N.Y.
Ralph J. Watkins (Chairman), Vice President, Surveys and Research Corp., Washington, D.C.

Advisory Committee for the Office of Institutional Programs

E. C. Elting, Deputy Administrator, Agricultural Research Service, Department of Agriculture, Washington, D.C.
Ralph C. M. Flynt, Associate Commissioner for Educational Research and Development, U.S. Office of Education, Washington, D.C.
Joel D. Griffing, Chief Planning Officer, Selective Service System, Washington, D.C.
Albert Kay, Director of Manpower Resources, Department of Defense, Washington, D.C.
Thomas J. Mills (Chairman), Head, Scientific Personnel and Educational Studies Section, National Science Foundation, Washington, D.C.
Joseph Murtaugh, Chief, Office of Program Planning, National Institutes of Health, Bethesda, Md.
Richard A. Prindle, Chief, Division of Public Health Methods, Public Health Service, Washington, D.C.
George L. Simpson, Jr., Assistant Administrator for Technology Utilization and Policy Planning, National Aeronautics and Space Administration, Washington, D.C.
Oscar Smith, Director, Office of Industrial Relations, Atomic Energy Commission, Washington, D.C.
O. Glenn Stahl, Director, Bureau of Programs and Standards, Civil Service Commission, Washington, D.C.
Conrad Taeuber, Assistant Director, Demographic Fields, Bureau of the Census, Washington, D.C.
Seymour Wolfbein, Deputy Assistant Secretary for Manpower and Statistics, Department of Labor, Washington, D.C.

Advisory Committee for the Office of Institutional Programs

Fred Carrington Cole (Chairman), President, Washington and Lee University, Lexington, Va.
Bryce Low Crawford, Jr., Dean, Graduate School, University of Minnesota, Minneapolis, Minn.
John Ray Dunning, Dean, School of Engineering and Applied Sciences, Columbia University, New York, N.Y.
George Andrew Hawkins, Dean of Engineering, Purdue University, Lafayette, Ind.
Robert Worth Hiatt, Dean, Graduate School and Director of Research, University of Hawaii, Honolulu 14, Hawaii

- Frank William Putnam, Head, Department of Biochemistry, College of Medicine, University of Florida, Gainesville, Fla.
 Clarence Scheps, Vice President-Comptroller, Tulane University of Louisiana, New Orleans, La.
 Dael Wolfe, Executive Officer, American Association for the Advancement of Science, Washington, D.C.

ADVISORY PANELS

Advisory Panel for Anthropology

- David A. Baerreis, Department of Anthropology, University of Wisconsin, Madison, Wis.
 Joseph B. Casagrande, Department of Anthropology, University of Illinois, Urbana, Ill.
 Robert W. Ehrich, Department of Sociology, and Anthropology, Brooklyn College, Brooklyn, N.Y.
 Robert H. Lister, Department of Anthropology, University of Colorado, Boulder, Colo.
 Floyd G. Lounsbury, Department of Anthropology, Yale University, New Haven, Conn.
 Douglas L. Oliver, Department of Anthropology, Harvard University, Cambridge, Mass.

Advisory Panel for Astronomy

- Russell Grant Athay, High Altitude Observatory, University of Colorado, Boulder, Colo.
 Ronald N. Bracewell, Radioscience Laboratory, Stanford University, Stanford, Calif.
 Bernard F. Burke, Department of Terrestrial Magnetism, Carnegie Institution of Washington, Washington, D.C.
 Thomas Gold (Chairman), Center for Radiophysics and Space Research, Cornell University, Ithaca, N.Y.
 Allan R. Sandage, Mount Wilson and Palomar Observatories, Pasadena, Calif.
 Bengt G. Strömberg, Institute for Advanced Study, Princeton University, Princeton, N.J.
 Merle F. Walker, Lick Observatory, University of California, Mount Hamilton, Calif.

Advisory Panel for Atmospheric Sciences

- Robert G. Fleagle, Department of Meteorology and Climatology, University of Washington, Seattle, Wash.
 Herbert Friedman, Atmosphere and Astrophysics Division, Naval Research Laboratory, Washington, D.C.
 Richard M. Goody, Director, Blue Hill Meteorological Observatory, Harvard University, Cambridge, Mass.

- Francis S. Johnson, Graduate Research Center, Dallas, Tex.
 Verner E. Suomi (Chairman), Professor of Meteorology, University of Wisconsin, Madison, Wis.
 Arthur H. Waynick, Director, Ionosphere Research Laboratory, Pennsylvania State University, University Park, Pa.

Advisory Panel for Chemistry

- Robert E. Connick, Department of Chemistry, University of California, Berkeley, Calif.
 William von E. Doering (Chairman), Department of Chemistry, Yale University, New Haven, Conn.
 John D. Ferry, Department of Chemistry, University of Wisconsin, Madison, Wis.
 George Hammond, Department of Chemistry, California Institute of Technology, Pasadena, Calif.
 Werner Herz, Department of Chemistry, Florida State University, Tallahassee, Fla.
 Terrell L. Hill, Department of Chemistry, University of Oregon, Eugene, Oreg.
 Clyde A. Hutchison, Jr., Department of Chemistry, University of Chicago, Chicago, Ill.
 Jacob Kleinberg, Department of Chemistry, University of Kansas, Lawrence, Kans.
 Richard C. Lord, Department of Chemistry, Massachusetts Institute of Technology, Cambridge, Mass.
 M. S. Newman, Department of Chemistry, Ohio State University, Columbus, Ohio.
 Robert L. Pecsok, Department of Chemistry, University of California, Los Angeles, Calif.
 L. B. Rogers, Department of Chemistry, Purdue University, Lafayette, Ind.
- #### *Advisory Panel for Course Content Improvement*
- Ray E. Bolz, Head, Department of Mechanical Engineering and Engineering Science Curriculum, Case Institute of Technology, Cleveland, Ohio.

Samuel Eilenberg, Department of Mathematics, Columbia University, New York, N.Y.

Ralph Gerard, Director of Research, Mental Health Research Institute, University of Michigan, Ann Arbor, Mich.

William B. Shockley, Shockley Laboratory, Cleveite Transistor, Stanford Industrial Park, Palo Alto, Calif.

Robert R. Shrock, Department of Geology and Geophysics, Massachusetts Institute of Technology, Cambridge, Mass.

Harold Snyder, Department of Chemistry, University of Illinois, Urbana, Ill.

Richard H. Sullivan, President, Reed College, Portland, Oreg.

Donald W. Taylor, Department of Psychology, Yale University, New Haven, Conn.

S. L. Washburn, Department of Anthropology, University of California, Berkeley, Calif.

Advisory Panel for Developmental Biology

Anton Lang, Division of Biology, California Institute of Technology, Pasadena, Calif.

Clement L. Market, Department of Biology, Johns Hopkins University, Baltimore, Md.

David M. Prescott, Biology Division, Oak Ridge National Laboratory, Oak Ridge, Tenn.

M. N. Runner, Department of Biology, University of Colorado, Boulder, Colo.

John W. Saunders, Jr., Department of Biology, Marquette University, Milwaukee, Wis.

Herbert Stern, Department of Botany, University of Michigan, Ann Arbor, Mich.

A. Sussman, Department of Botany, University of Michigan, Ann Arbor, Mich.

Hewson Swift, Department of Zoology, University of Chicago, Chicago, Ill.

Advisory Panel for Earth Sciences

Wayne V. Burt, Department of Oceanography, Oregon State University, Corvallis, Oreg.

N. A. Haskell, A. F. Terrestrial Sciences Laboratory (CRZG), Waltham, Mass.

Charles B. Hunt (Chairman), Department of Geography, Johns Hopkins University, Baltimore, Md.

F. F. Koczy, Institute of Marine Science, University of Miami, Miami, Fla.

J. Hoover Mackin, Department of Geology, University of Washington, Seattle, Wash.

Jack E. Oliver, Columbia University, Lamont Geological Observatory, Palisades, N.Y.

Edwin W. Roedder, U.S. Geological Survey, Washington, D.C.

F. B. Van Houten, Department of Geology, Princeton University, Princeton, N.J.

John Verhoogen, Department of Geology, University of California, Berkeley, Calif.

Advisory Panel for Economics

O. H. Brownlee, Department of Economics, University of Minnesota, Minneapolis, Minn.

Werner Z. Hirsch, Department of Economics, Washington University, St. Louis, Mo.

Tjalling Koopmans, Department of Economics, Yale University, New Haven, Conn.

Stephen L. McDonald, Department of Economics, University of Texas, Austin, Tex.

Gerald M. Meier, Department of Economics, Wesleyan University, Middletown, Conn.

Ralph W. Pfouts, Department of Economics, University of North Carolina, Chapel Hill, N.C.

Advisory Panel for Engineering Sciences

Robert M. Drake, Jr., Head, Department of Mechanical Engineering, Princeton University, Princeton, N.J.

H. B. Gotaas, Dean, Technological Institute, Northwestern University, Evanston, Ill.

Walter R. Hibbard, Manager, Metallurgy and Ceramics Research Department, General Electric Co., Schenectady, N.Y.

Merk Hobson, Dean, School of Engineering and Architecture, University of Nebraska, Lincoln, Nebr.

Gerald A. Leonards, Department of Civil Engineering, Purdue University, Lafayette, Ind.

Ernest F. Masur, Department of Engineering Mechanics, University of Michigan, Ann Arbor, Mich.

Max S. Peters, Dean of Engineering, University of Colorado, Boulder, Colo.

John R. Ragazzini, College of Engineering, New York University, New York, N.Y.

C. M. Slipevich, Associate Dean, University of Oklahoma, Norman, Okla.

D. W. Ver Planck, Assistant Director, General Atomic Division, General Dynamics Corp., San Diego, Calif.

Walter G. Vincenti (Chairman), Department of Aeronautical Engineering, Stanford University, Stanford, Calif.
John Whinnery, Dean of Engineering, University of California, Berkeley, Calif.

Advisory Panel for Environmental Biology

George A. Bartholomew, Department of Zoology, University of California, Los Angeles, Calif.

Clifford Berg, Department of Entomology, Cornell University, Ithaca, N.Y.

W. Frank Blair, Department of Zoology, University of Michigan, Ann Arbor, Mich.

John Cantlon, Department of Botany and Plant Pathology, Michigan State University, East Lansing, Mich.

W. Thomas Edmondson, Department of Zoology, University of Washington, Seattle, Wash.

Donald S. Farner, Department of Zoology, Washington State University, Pullman, Wash.

Robert F. Inger, Division of Amphibians and Reptiles, Chicago Natural History Museum, Chicago, Ill.

Bostwick Ketchum, Woods Hole Oceanographic Institution, Woods Hole, Mass.

Charles F. Olmsted, Department of Botany, University of Chicago, Chicago, Ill.

Frederick E. Smith, Department of Zoology, University of Michigan, Ann Arbor, Mich.

Advisory Panel for Genetic Biology

William K. Baker, Department of Zoology, University of Chicago, Chicago, Ill.

Ellis Englesberg, Department of Biological Sciences, University of Pittsburgh, Pittsburgh, Pa.

John R. Laughnan, Department of Botany, University of Illinois, Urbana, Ill.

Richard C. Lewontin, Department of Biology, University of Rochester, Rochester, N.Y.

Dean R. Parker, Division of Life Sciences, University of California, Riverside, Calif.

Stanley G. Stephens, Department of Genetics, North Carolina State College, Raleigh, N.C.

Carl P. Swanson, Department of Biology, Johns Hopkins University, Baltimore, Md.

Robert P. Wagner, Department of Zoology, University of Texas, Austin, Tex.
Norton Zinder, Rockefeller Institute, New York, N.Y.

Advisory Panel for Graduate-Level Life and Social Sciences Facilities

Allan H. Brown, Department of Botany, University of Minnesota, Minneapolis, Minn.

Vernon H. Cheldelin, Dean of Science, Oregon State University, Corvallis, Oreg.

Donovan S. Correll, Chief Botanist and Head, Botanical Laboratory, Texas Research Foundation, Renner, Tex.

Abraham Eisenstark, Department of Bacteriology, Kansas State University, Manhattan, Kans.

Frank Finger, Department of Psychology, University of Virginia, Charlottesville, Va.

Chauncey C. Goodchild, Emory University, Atlanta, Ga.

Emil Haury, Department of Anthropology, University of Arizona, Tucson, Ariz.

Theodore L. Jahn, Department of Zoology, University of California, Los Angeles, Calif.

John L. Kennedy, Department of Psychology, Princeton University, Princeton, N.J.

Louis Levin, Dean of Science and Associate Dean of Faculty, Brandeis University, Waltham, Mass.

Bernard S. Meyer, Department of Botany and Plant Pathology, Ohio State University, Columbus, Ohio.

Drew Schwartz, Department of Biology, Western Reserve University, Cleveland, Ohio.

Advisory Panel for Graduate-Level Physical Sciences Facilities

Ray E. Bolz, Department of Engineering, Case Institute of Technology, Cleveland, Ohio.

Stanley J. Cristol, Department of Chemistry, University of Colorado, Boulder, Colo.

Malcolm Dole, Department of Chemistry, Northwestern University, Evanston, Ill.

William W. Havens, Department of Physics, Columbia University, New York, N.Y.

John W. Irvine, Jr., Department of Chemistry, Massachusetts Institute of Technology, Cambridge, Mass.

E. C. Jordan, Head, Department of Electrical Engineering, University of Illinois, Urbana, Ill.

A. Richard Kassander, Jr., Director, Institute of Atmospheric Physics, University of Arizona, Tucson, Ariz.

Arthur Kip, Department of Physics, University of California, Berkeley, Calif.

Carl Monrad, Head, Chemical Engineering Department, Carnegie Institute of Technology, Pittsburgh, Pa.

E. F. Osborn, Vice President for Research, Pennsylvania State University, University Park, Pa.

Kenneth G. Picha, School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, Ga.

D. J. Zaffarano, Chairman, Department of Physics, Iowa State University, Ames, Iowa.

Advisory Panel for History and Philosophy of Science

Erwin Hiebert, Department of the History of Science, University of Wisconsin, Madison, Wis.

Grover Maxwell, Center for the Philosophy of Science, University of Minnesota, Minneapolis, Minn.

Sidney Morgenbesser, Department of Philosophy, Columbia University, New York, N.Y.

Duane H. D. Roller, Jr., Department of the History of Science, University of Oklahoma, Norman, Okla.

Wesley Salmon, Department of Philosophy, Brown University, Providence, R.I.

Harry Woolf, Department of History, Johns Hopkins University, Baltimore, Md.

Advisory Panel for the International Years of the Quiet Sun

Kinney Anderson, Space Sciences Laboratory, University of California, Berkeley, Calif.

R. Grant Athay, High Altitude Observatory, National Center for Atmospheric Research, Boulder, Colo.

Joseph W. Chamberlain, Space Division, Kitt Peak National Observatory, Tucson, Ariz.

Herbert Friedman (Chairman), Atmospheric and Astrophysics Division, Naval Research Laboratory, Washington, D.C.

Fred T. Haddock, Jr., The Observatory, University of Michigan, Ann Arbor, Mich.

Joseph Kaplan, Department of Geophysics, University of California, Los Angeles, Calif.

William W. Kellogg, Rand Corp., Santa Monica, Calif.

Peter Meyer, Enrico Fermi Institute for Nuclear Studies, University of Chicago, Chicago, Ill.

Martin A. Pomerantz, Bartol Research Foundation, Swarthmore, Pa.

E. H. Vestine, Rand Corp., Santa Monica, Calif.

Arthur H. Waynick, Director, Ionosphere Research Laboratory, Pennsylvania State University, University Park, Pa.

Advisory Panel for Mathematical Sciences

R. H. Bing, Department of Mathematics, University of Wisconsin, Madison, Wis.

R. H. Bott, Department of Mathematics, Harvard University, Cambridge, Mass.

Herman Chernoff, Department of Statistics, Stanford University, Stanford, Calif.

M. M. Day, Department of Mathematics, University of Illinois, Urbana, Ill.

Gilbert Hunt, Department of Mathematics, Princeton University, Princeton, N.J.

Irving Kaplansky, Department of Mathematics, University of Chicago, Chicago, Ill.

Peter D. Lax, Courant Institute of Mathematical Sciences, New York University, New York, N.Y.

I. M. Singer, Department of Mathematics, Massachusetts Institute of Technology, Cambridge, Mass.

A. D. Wallace, Department of Mathematics, Tulane University, New Orleans, La.

Advisory Panel for Metabolic Biology

Ernest Bueding, School of Medicine, Johns Hopkins University, Baltimore, Md.

Martin Gibbs, Department of Biochemistry, Cornell University, Ithaca, N.Y.

Wayne C. Hall, Graduate School, Texas A. & M., College Station, Tex.

Aubrey W. Naylor, Department of Botany, Duke University, Durham, N.C.

James A. Olson, Department of Biochemistry, University of Florida, Gainesville, Fla.

Sydney C. Rittenberg, Department of Bacteriology, University of Southern California, Los Angeles, Calif.

Jack L. Strominger, Washington University, School of Medicine, St. Louis, Mo.

I. Zolitch, Biochemistry Department, Connecticut Agricultural Experiment Station, New Haven, Conn.

Advisory Panel for Molecular Biology

Samuel Aronoff, Department of Biochemistry, Iowa State University, Ames, Iowa.

Andrew A. Benson, Department of Marine Biology, Scripps Institute of Oceanography, University of California, La Jolla, Calif.

Walter D. Bonner, Jr., Professor of Physical Biochemistry and Plant Physiology, The Johnson Foundation, University of Pennsylvania, Philadelphia, Pa.

David S. Hogness, Department of Biochemistry, Stanford University, Stanford, Calif.

Shinya Inoue, Professor of Cytology, Dartmouth Medical School, Hanover, N.H.

William P. Jencks, Department of Biochemistry, Brandeis University, Waltham, Mass.

S. Jonathan Singer, Department of Biology, University of California, La Jolla, Calif.

Stuart W. Tanenbaum, Department of Microbiology, College of Physicians and Surgeons, Columbia University, New York, N.Y.

Daniel Tosteson, Department of Physiology, School of Medicine, Duke University, Durham, N.C.

Jonathan B. Wittenberg, Department of Physiology, Albert Einstein College of Medicine, Yeshiva University, New York, N.Y.

Advisory Panel for Physics

John G. Daunt, Department of Physics, The Ohio State University, Columbus, Ohio.

Leslie L. Foldy, Department of Physics, Case Institute of Technology, Cleveland, Ohio.

Hans Frauenfelder, Department of Physics, University of Illinois, Urbana, Ill.

Donald A. Glaser, Department of Physics, University of California, Berkeley, Calif.

Maurice Goldhaber, Brookhaven National Laboratory, Upton, Long Island, N.Y.

Kenneth Greisen (Chairman), Laboratory of Nuclear Studies, Cornell University, Ithaca, N.Y.

Emil J. Konopinski, Department of Physics, Indiana University, Bloomington, Ind.

Elliott Montroll, IBM Research Center, Yorktown Heights, N.Y.

Robert Novick, Department of Physics, Columbia University, New York, N.Y.

Advisory Panel for Psychobiology

Cletus J. Burke, Palo Alto, Calif.

Charles N. Cofer, Department of Psychology, University of California, Berkeley, Calif.

Vincent G. Dethier, Department of Zoology, University of Pennsylvania, Philadelphia, Pa.

Charles W. Eriksen, Department of Psychology, University of Illinois, Urbana, Ill.

Donald R. Griffin, Department of Biology, Harvard University, Cambridge, Mass.

Norman Guttman, Department of Psychology, Duke University, Durham, N.C.

Harold W. Hake, Department of Psychology, University of Illinois, Urbana, Ill.

Herschel W. Leibowitz, Department of Psychology, Pennsylvania State University, University Park, Pa.

Carl Pfaffmann, Department of Psychology, Harvard University, Cambridge, Mass.

Advisory Panel for Oceanographic Facilities

William M. Cameron, Director of Oceanography, Department of Mines and Technical Surveys, Ottawa, Canada.

Parke A. Dickey, Head, Department of Geology, University of Tulsa, Tulsa, Okla.

Joel W. Hedgpeth, Pacific Marine Station, Dillon Beach, Calif.

Gordon G. Lill, Corporate Research Adviser, Lockheed Aircraft Corp., Burbank, Calif.

Arthur E. Maxwell, Head, Geophysics Branch, Office of Naval Research, Washington, D.C.

Warren C. Thompson, Department of Meteorology and Oceanography, U.S. Naval Postgraduate School, Monterey, Calif.

Advisory Panel for Radio Telescopes

Ronald N. Bracewell, Radio Science Laboratory, Stanford University, Stanford, Calif.

Bernard F. Burke, Carnegie Institution of Washington, Washington, D.C.

Paul Chenea, Division of Engineering Sciences, Purdue University, Lafayette, Ind.

L. J. Chu, Department of Electrical Engineering, Massachusetts Institute of Technology, Cambridge, Mass.

Richard M. Emberson, Associate Universities, Inc., New York, N.Y.

William E. Gordon, Department of Electrical Engineering, Cornell University, Ithaca, N.Y.

David S. Heeschen, National Radio Astronomy Observatory, Green Bank, W. Va.

R. Minkowski, Radio Astronomy Observatory, University of California, Berkeley, Calif.

John R. Pierce (Chairman), Bell Telephone Laboratories, Inc., Murray Hill, N.J.

George W. Swenson, Jr., The Observatory, University of Illinois, Urbana, Ill.

James H. Trexler, Naval Research Laboratory, Washington, D.C.

Advisory Panel for Regulatory Biology

Albert E. Dimond, Department of Plant Pathology and Botany, Connecticut Agricultural Experiment Station, New Haven, Conn.

Carlos O. Miller, Botany Department, Indiana University, Bloomington, Ind.

Gilbert Mudge, Dartmouth College, Medical School, Hanover, N.H.

Erling J. Ordal, Department of Microbiology, University of Washington, Seattle, Wash.

George Sayers, Department of Physiology, Western Reserve University, School of Medicine, Cleveland, Ohio.

Per F. Scholander, Scripps Institute of Oceanography, La Jolla, Calif.

Robert D. Tschirgi, Department of Physiology, University of California, School of Medicine, Los Angeles, Calif.

Advisory Panel for Scientific Manpower Information

James W. Cole, Jr., School of Chemistry, University of Virginia, Charlottesville, Va.

Harold Goldstein, Chief, Division of Manpower and Employment Statistics, Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C.

Albert Kay, Director, Office of Manpower Supply, Department of Defense, The Pentagon, Washington, D.C.

Charles V. Kidd, Associate Director of Institutional Relations, National Institutes of Health, Bethesda, Md.

James C. O'Brien, Director of Personnel, Department of Health, Education, and Welfare, Washington, D.C.

Philip N. Powers (Chairman), Head, Department of Nuclear Engineering, Purdue University, West Lafayette, Ind.

M. H. Trytten, Director, Office of Scientific Personnel, National Research Council, National Academy of Sciences, Washington, D.C.

J. Fletcher Wellemeier (Private Consultant), Washington, D.C.

Dael Wolffe, Executive Officer, American Association for the Advancement of Science, Washington, D.C.

Advisory Panel for Sociology and Social Psychology

Robert P. Abelson, Department of Psychology, Yale University, New Haven, Conn.

David Gold, Department of Sociology, State University of Iowa, Iowa City, Iowa.

Edward E. Jones, Department of Psychology, Duke University, Durham, N.C.

Herbert Rubenstein, Operational Applications Laboratory, Bedford, Mass.

Leo F. Schnore, Department of Sociology, University of Wisconsin, Madison, Wis.

Karl F. Schuessler, Department of Sociology, Indiana University, Bloomington, Ind.

M. Brewster Smith, Department of Psychology, University of California, Berkeley, Calif.

Advisory Panel for Specialized Biological Facilities

A. Geoffrey Norman, Department of Botany, University of Michigan, Ann Arbor, Mich.

John L. Patterson, Department of Medicine, Medical College of Virginia, Richmond, Va.

William T. Peake, Department of Electrical Engineering, Massachusetts Institute of Technology, Cambridge, Mass.

E. Lowe Pierce, University of Florida, College of Arts and Sciences, Gainesville, Fla.

D. B. Polis, Naval Air Development Center, Johnsville, Pa.

Luigi Provasoli, Haskins Laboratories, New York, N.Y.

Carl D. Riggs, Department of Zoology, University of Oklahoma, Norman, Okla.

Murray D. Rosenberg, Rockefeller Institute, New York, N.Y.

Seymour Shapiro, Institute of Molecular Biology, University of Oregon, Eugene, Oreg.

Athelstan F. Spilhaus, Institute of Technology, University of Minnesota, Minneapolis, Minn.

William C. Steere, The New York Botanical Garden, New York, N.Y.

A. H. Stockard, Department of Zoology, University of Michigan, Ann Arbor, Mich.

- H. M. Tsuchiya, Department of Chemical Engineering, University of Minnesota, Minneapolis, Minn.
- Albert Tyler, Department of Embryology, California Institute of Technology, Pasadena, Calif.
- Arthur A. Ward, Jr., Division of Neurosurgery, University of Washington Medical School, Seattle, Wash.
- Karl M. Wilbur, Department of Zoology, Duke University, Durham, N.C.
- Sheldon Wolff, Biology Division, Oak Ridge National Laboratory, Oak Ridge, Tenn.
- George Anastos, Department of Zoology, University of Maryland, College Park, Md.
- Sanford S. Atwood, Provost, Cornell University, Ithaca, N.Y.
- Rolf L. Bolin, Hopkins Marine Station of Stanford University, Pacific Grove, Calif.
- Mary A. B. Brazier, Brain Research Institute, University of California, Los Angeles, Calif.
- S. F. Carson, Biology Division, Oak Ridge National Laboratory, Oak Ridge, Tenn.
- Jerome Cox, Jr., Central Institute for the Deaf, St. Louis, Mo.
- Charles F. Ehret, Argonne National Laboratory, Lemont, Ill.
- Robert K. Enders, Zoology Department, Swarthmore College, Swarthmore, Pa.
- George A. Feigen, School of Medicine, Stanford University, Stanford, Calif.
- H. O. Halvorson, Department of Bacteriology, University of Illinois, Urbana, Ill.
- Joel W. Hedgpeth, Pacific Marine Station, College of the Pacific, Marin County, Calif.
- Edwin P. Hiatt, Department of Physiology, Ohio State University, Columbus, Ohio.
- Theodore H. Hubbell, Museum of Zoology, University of Michigan, Ann Arbor, Mich.
- F. F. Koczy, The Marine Laboratory, University of Miami, Miami, Fla.
- William D. McElroy, McCollum-Pratt Institute, The Johns Hopkins University, Baltimore, Md.
- John P. Meehan, School of Medicine, University of Southern California, Los Angeles, Calif.
- Charles D. Michener, Department of Entomology, University of Kansas, Lawrence, Kans.
- Emil M. Mrak, Chancellor, University of California, Davis, Calif.
- William Duwayne Neff, Cambridge, Mass.
- Advisory Panel for Special Projects in Science Education*
- R. H. Bing, Institute for Advanced Study, Princeton, N.J.
- Marcus E. Hobbs, Dean of the University, Duke University, Durham, N.C.
- James H. Jensen, President, Oregon State University, Corvallis, Ore.
- Joseph L. McCarthy, Dean, The Graduate School, University of Washington, Seattle, Wash.
- Robert MacVicar, Dean, Graduate School and Vice President, Academic Affairs, Oklahoma State University, Stillwater, Okla.
- John W. Oswald, Vice President, Administration, University of California, Berkeley, Calif.
- Howard M. Phillips, Sr., President, Alabama College, Montevallo, Ala.
- Joseph B. Platt, President, Harvey Mudd College, Claremont, Calif.
- F. W. Sears, Department of Physics, Dartmouth College, Hanover, N.H.
- Oswald Tipppo, Provost, University of Colorado, Boulder, Colo.
- Samuel S. Wilks, Department of Mathematics, Princeton University, Princeton, N.J.
- Advisory Panel for Systematic Biology*
- Constantine J. Alexopoulos, Department of Botany, University of Texas, Austin, Tex.
- Frederick M. Bayer, Institute of Marine Science, Miami, Fla.
- George F. Edmunds, Division of Biology, University of Utah, Salt Lake City, Utah.
- Charles B. Heiser, Department of Botany, Indiana University, Bloomington, Ind.
- Harold W. Manter, Department of Zoology, University of Nebraska, Lincoln, Nebr.
- Alden H. Miller, Museum of Vertebrate Zoology, University of California, Berkeley, Calif.
- Bobb Schaeffer, American Museum of Natural History, New York, N.Y.
- Charles G. Sibley, Department of Conservation, Cornell University, Ithaca, N.Y.
- Franklin Sogandares, Department of Zoology, Tulane University, New Orleans, La.
- W. H. Wagner, Department of Botany, University of Michigan, Ann Arbor, Mich.

Advisory Panel for University Computing Facilities

Mary A. B. Brazier, Brain Research Institute, University of California, Los Angeles, Calif.

Joseph O. Hirschfelder, Department of Chemistry, University of Wisconsin, Madison, Wis.

Paul Horst, Department of Philosophy, University of Washington, Seattle, Wash.

Philip M. Morse, Department of Physics, Massachusetts Institute of Technology, Cambridge, Mass.

Martin Schwarzschild, Department of Astronomy, Princeton University, Princeton, N.J.

Herbert A. Simon, Professor of Administration and Head of Department of Industrial Management, Carnegie Institute of Technology, Pittsburgh, Pa.

Charles V. L. Smith, Head, Mathematics and Computer Section, Division of Research, U.S. Atomic Energy Commission, Washington, D.C.

Frederick T. Wall, Dean, Graduate School, University of Illinois, Urbana, Ill.

Advisory Panel for Weather Modification

Eugene Bollay, E. Bollay Associates, Inc., Santa Barbara, Calif.

Richard A. Craig, Department of Meteorology, Florida State University, Tallahassee, Fla.

Paul Klopsteg (Chairman), Glenview, Ill.

Victor K. LaMer, Department of Chemistry, Columbia University, New York, N.Y.

Stephen E. Reynolds, State Capitol, Santa Fe, N. Mex.

Bernard Vonnegut, Arthur D. Little, Inc., Acorn Park, Cambridge, Mass.