

## APPENDIX A

### National Science Board, Staff, Committees, and Advisory Panels

#### NATIONAL SCIENCE BOARD

*Terms expire May 10, 1958*

- SOPHIE D. ABERLE, Special Research Director, University of New Mexico, Albuquerque, N. Mex.
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- DETLEV W. BRONK (Chairman of the Board), President, National Academy of Sciences, Washington, D. C., and President, Rockefeller Institute of Medical Research, New York, N. Y.
- GERTY T. CORI, Professor of Biological Chemistry, School of Medicine, Washington University, St. Louis, Mo.
- CHARLES DOLLARD, President (retired), Carnegie Corporation of New York, New York, N. Y.
- T. KEITH GLENNAN, President, Case Institute of Technology, Cleveland, Ohio.
- ROBERT F. LOEB, Bard Professor of Medicine, College of Physicians and Surgeons, Columbia University, New York, N. Y.
- ANDREY A. POTTER, Dean Emeritus of Engineering, Purdue University, Lafayette, Ind.

*Terms expire May 10, 1960*

- ROGER ADAMS, Research Professor, Department of Chemistry and Chemical Engineering, University of Illinois, Urbana, Ill.
- THEODORE M. HESBURGH, C. S. C., President, University of Notre Dame, Notre Dame, Ind.
- WILLIAM V. HOUSTON, President, Rice Institute, Houston, Tex.
- DONALD H. McLAUGHLIN, President, Homestake Mining Co., San Francisco, Calif.
- GEORGE H. MERCK, Chairman of the Board, Merck & Co., Inc., New York, N. Y.
- JOSEPH C. MORRIS, Vice President, Tulane University, New Orleans, La.
- WARREN WEAVER, Vice President for the Natural and Medical Sciences, The Rockefeller Foundation, New York, N. Y.
- DOUGLAS M. WHITAKER, Vice President for Administration, Rockefeller Institute for Medical Research, New York, N. Y.

*Terms expire May 10, 1962*

- LAURENCE M. GOULD, President, Carleton College, Northfield, Minn.  
 PAUL M. GROSS (Vice Chairman of the Board and Chairman of the Executive Committee), Vice President and Dean, Duke University, Durham, N. C.  
 GEORGE D. HUMPHREY, President, University of Wyoming, Laramie, Wyo.  
 EDWARD J. MCSHANE, Professor of Mathematics, University of Virginia, Charlottesville, Va.  
 FREDERICK A. MIDDLEBUSH, President Emeritus and Director of Development Fund, University of Missouri, Columbia, Mo.  
 SAMUEL M. NABRIT, President, Texas Southern University, Houston, Tex.  
 JULIUS A. STRATTON, Chancellor, Massachusetts Institute of Technology, Cambridge, Mass.  
 EDWARD L. TATUM, Member, Rockefeller Institute for Medical Research, New York, N. Y.

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- ALAN T. WATERMAN (ex officio), Director, National Science Foundation, Washington, D. C.

#### STAFF

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<i>Associate Directors</i> -----	PAUL E. KLOPSTEG JAMES M. MITCHELL
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<i>Assistant Director for Biological and Medical Sciences.</i>	JOHN T. WILSON
<i>Deputy Assistant Director</i> -----	LOUIS LEVIN
<i>Program Director for:</i>	
<i>Environmental Biology</i> -----	GEORGE SPRUGEL, Jr.
<i>Developmental Biology</i> -----	EDGAR ZWILLING
<i>Genetic Biology</i> -----	GEORGE LEFEVRE
<i>Molecular Biology</i> -----	WILLIAM V. CONSOLAZIO
<i>Psychobiology</i> -----	JOHN T. WILSON
<i>Regulatory Biology</i> -----	LOUIS LEVIN
<i>Systematic Biology</i> -----	A. C. SMITH
<i>Anthropological and Related Sciences.</i>	HARRY ALPERT

<i>Assistant Director for Mathematical, Physical, and Engineering Sciences.</i>	E. A. ECKHARDT
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<i>Engineering Sciences</i> -----	E. E. LITKENHOUS
<i>Mathematical Sciences</i> -----	LEON W. COHEN
<i>Physics</i> -----	J. HOWARD McMILLEN
<i>Sociophysical Sciences</i> -----	HARRY ALPERT
<i>Assistant Director for Scientific Personnel and Education.</i>	HARRY C. KELLY
<i>Deputy Assistant Director</i> -----	BOWEN C. DEES
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<i>Fellowships</i> -----	BOWEN C. DEES
<i>Scientific Manpower</i> -----	THOMAS J. MILLS
<i>Academic Year Institutes</i> -----	URNER LIDDEL
<i>Summer Institutes</i> -----	J. ARTHUR CAMPBELL
<i>Assistant Director for Administration</i> -----	JAMES M. MITCHELL (acting)
<i>Comptroller</i> -----	FRANK C. SHEPPARD
<i>Grants Administrator</i> -----	FRANKLIN J. CALLENDER
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<i>Head, Office of Scientific Information</i> -----	ALBERTO F. THOMPSON*
<i>Program Director for:</i>	
<i>Foreign Science Information</i> -----	RALPH E. O'DETTE
<i>Government Research Information</i> ---	DWIGHT E. GRAY
<i>Scientific Communications Systems</i> ---	ROBERT L. BUTENHOFF
<i>Scientific Documentation</i> -----	HELEN L. BROWNSON
<i>Public Information Officer</i> -----	CLYDE C. HALL
<i>Head, Office for the International Geophysical Year.</i>	J. WALLACE JOYCE
<i>Executive Secretary, Interdepartmental Committee on Scientific Research and Development.</i>	NORMAN T. BALL
<i>Executive Secretary, President's Committee on Scientists and Engineers.</i>	ROBERT L. CLARK

\*Deceased, Thomas O. Jones designated as Acting Head, effective June 1957.

## ADVISORY COMMITTEES

*Divisional Committee for Biological and Medical Sciences*

- EDGAR ANDERSON, Curator, Museum of Useful Plants, Missouri Botanical Garden, St. Louis, Mo.
- Dr. MARSTON BATES (Chairman), Office of the Chancellor, University of Puerto Rico, Rio Piedras, P. R.
- FRANK BRINK, Jr., The Rockefeller Institute for Medical Research, New York, N. Y.
- BERNARD D. DAVIS, Chairman, Department of Pharmacology, Bellevue Medical Center, New York University, New York, N. Y.
- FRANK A. GELDARD, Office of Naval Research, Branch Office, London.
- WILLIAM F. HAMILTON, Department of Physiology, University of Georgia, School of Medicine, Augusta, Ga.
- Dr. C. N. H. LONG, Chairman, Department of Physiology, Yale University, School of Medicine, New Haven, Conn.
- C. PHILLIP MILLER, Department of Medicine, University of Chicago, Chicago, Ill.
- ESMOND E. SNELL, Department of Biochemistry, University of California, Berkeley, Calif.
- GEORGE WALD, The Biological Laboratories, Harvard University, Cambridge, Mass.

*Divisional Committee for Mathematical, Physical,  
and Engineering Sciences*

- DIRK BROUWER, Department of Astronomy, Yale University Observatory, New Haven, Conn.
- ROBERT R. McMATH, Director, McMath-Hulbert Observatory, University of Michigan, Pontiac, Mich.
- ALFRED O. C. NIER, Chairman, Department of Physics, University of Minnesota, Minneapolis, Minn.
- ELBURT F. OSBORN, Dean, College of Mineral Industries, Pennsylvania State University, University Park, Pa.
- ROGER REVELLE, Director, Scripps Institution of Oceanography, La Jolla, Calif.
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- FREDERICK E. TERMAN, Provost and Dean of Engineering, Stanford University, Stanford, Calif.

**G. T. WHYBURN**, Department of Mathematics, University of Virginia, Charlottesville, Va.

**J. H. VAN VLECK**, Hollis Professor of Mathematics and Natural Philosophy and Dean of Applied Science, Harvard University, Cambridge, Mass.

*Divisional Committee for Scientific Personnel and Education*

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**KATHARINE E. McBRIDE**, President, Bryn Mawr College, Bryn Mawr, Pa.

**ELVIN C. STAKMAN**, Chief, Department of Plant Pathology and Botany, University of Minnesota, St. Paul, Minn.

**HAROLD W. STOKE**, Dean of the Graduate School of Arts and Science, New York University, Washington Square, New York, N. Y.

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

**FRANK J. WELCH**, Dean and Director, College of Agriculture and Home Economics, University of Kentucky, Agricultural Experiment Station, Lexington, Ky.

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**J. W. BUCHTA** (Executive Secretary), Associate Dean, College of Science, Literature, and the Arts, University of Minnesota, Minneapolis, Minn.

**JAMES S. COLES**, President, Bowdoin College, Brunswick, Maine.

**HAROLD W. DODDS**, President, Princeton University, Princeton, N. J.

**CONRAD A. ELVEHJEM**, Dean, Graduate School, University of Wisconsin, Madison, Wis.

**T. KEITH GLENNAN**, President, Case Institute of Technology, Cleveland, Ohio.

**VIRGIL M. HANCHER**, President, State University of Iowa, Iowa City, Iowa.

**WILLIAM V. HOUSTON**, President, Rice Institute, Houston, Tex.

**CLARK KERR**, Chancellor, University of California, Berkeley, Calif.

**C. N. H. LONG**, Department of Physiology, Yale University, New Haven, Conn.

**DON K. PRICE**, Vice President, The Ford Foundation, New York, N. Y.

**JULIUS A. STRATTON**, Chancellor, Massachusetts Institute of Technology, Cambridge, Mass.

**HARRY A. WINNE**, Vice President in Charge of Engineering (retired),  
General Electric Co., Rexford, N. Y.

#### ADVISORY PANELS

##### *Advisory Panel for Anthropological and Related Sciences*

**MARSTON BATES**, Office of the Chancellor, University of Puerto Rico, Rio Piedras, P. R.

**LEON FESTINGER**, Department of Psychology, Stanford University, Stanford, Calif.

**EMIL W. HAURY**, Department of Anthropology, University of Arizona, Tucson, Ariz.

**WILLIAM W. HOWELLS**, Department of Anthropology, Harvard University, Cambridge, Mass.

**GEORGE P. MURDOCK**, Department of Anthropology, Yale University, New Haven, Conn.

**RUPERT B. VANCE**, Department of Sociology, University of North Carolina, Chapel Hill, N. C.

**SHERWOOD WASHBURN**, Center for Advanced Study in the Behavioral Sciences, Stanford, Calif.

##### *Advisory Panel for Astronomy*

**H. W. BABCOCK**, Mount Wilson and Palomar Observatories, Pasadena, Calif.

**G. M. CLEMENCE**, Head Astronomer and Director, Nautical Almanac, U. S. Naval Observatory, Washington, D. C.

**PAUL HERGET**, Cincinnati Observatory, Cincinnati, Ohio.

**GEOFFREY KELLER**, Perkins Observatory, Ohio Wesleyan University, Delaware, Ohio.

**W. W. MORGAN**, Yerkes Observatory, University of Chicago, Williams Bay, Wis.

**CELLIA PAYNE-GAPOSCHKIN**, Harvard Observatory, Harvard University, Cambridge, Mass.

**LYMAN SPITZER, Jr.**, Princeton Observatory, Princeton University, Princeton, N. J.

**JOEL STEBBINS**, Lick Observatory, University of California, Mount Hamilton, Calif.

**PETER VAN DE KAMP**, Sproul Observatory, Swarthmore College, Swarthmore, Pa.

##### *Advisory Panel for Chemistry*

**PAUL D. BARTLETT**, Department of Chemistry, Harvard University, Cambridge, Mass.

- RALPH A. BEEBE**, Department of Chemistry, Amherst College, Amherst, Mass.
- A. B. BURG**, Department of Chemistry, University of Southern California, Los Angeles, Calif.
- PAUL C. CROSS**, Department of Chemistry, University of Washington, Seattle, Wash.
- F. R. DUKE**, Department of Chemistry, Iowa State College, Ames, Iowa.
- KARL FOLKERS**, Merck & Co., Rahway, N. J.
- DAVID N. HUME**, Department of Chemistry, Massachusetts Institute of Technology, Cambridge, Mass.
- J. G. KIRKWOOD**, Department of Chemistry, Yale University, New Haven, Conn.
- H. F. LEWIS**, Vice President, Institute of Paper Chemistry, Appleton, Wis.
- F. A. MATSEN**, Department of Chemistry, University of Texas, Austin, Tex.
- PHILIP W. WEST**, Department of Chemistry, Louisiana State University, Baton Rouge, La.
- WILLIAM G. YOUNG**, Dean, Division of Physical Sciences, University of California, Los Angeles, Calif.

*Advisory Panel for Developmental Biology*

- FREDERIK B. BANG**, Department of Pathobiology, Johns Hopkins University, Baltimore, Md.
- DIETRICH H. F. A. BODENSTEIN**, Chemical Warfare Laboratories, Army Chemical Center, Md.
- RALPH O. ERICKSON**, Department of Botany, University of Pennsylvania, Philadelphia, Pa.
- \* **WILLIAM P. JACOBS**, Department of Biology, Princeton University, Princeton, N. J.
- A. M. SCHECHTMAN**, Department of Zoology, University of California, Los Angeles, Calif.
- NELSON T. SPRATT**, Department of Zoology, University of Minnesota, Minneapolis, Minn.
- \* **TAYLOR A. STEEVES**, Biological Laboratories, Harvard University, Cambridge, Mass.
- ALBERT TYLER**, Department of Embryology, California Institute of Technology, Pasadena, Calif.
- \*Served during part of fiscal year 1957.

*Advisory Panel for Earth Sciences*

- CHARLES H. BEHRE, Jr.**, Department of Geology, Columbia University, New York, N. Y.
- HUGO BENIOFF**, Division of Geological Sciences, California Institute of Technology, Pasadena, Calif.

- H. H. HESS, Chairman, Department of Geology, Princeton University,  
Princeton, N. J.
- M. KING HUBBERT, Chief Research Consultant, Shell Oil Co., Houston, Tex.
- HELMUT LANDSBERG, Chief, Division of Climatology, U. S. Weather Bureau,  
Washington, D. C.
- WALTER H. MUNK, Scripps Institution of Oceanography, La Jolla, Calif.
- BRYAN PATTERSON, Division of Geological Sciences, Harvard University,  
Cambridge, Mass.
- WILLIAM T. PECORA, U. S. Geological Survey, Washington, D. C.
- RICHARD J. RUSSELL, Dean of Graduate School, Louisiana State University,  
Baton Rouge, La.

*Advisory Panel for Engineering Sciences*

- A. B. BRONWELL, President, Worcester Polytechnic Institute, Worcester,  
Mass.
- GEORGE G. BROWN, Dean, College of Engineering, University of Michigan,  
Ann Arbor, Mich.
- PAUL CHENEA, Head, Division of Engineering Science, Purdue University,  
Lafayette, Ind.
- HARMER E. DAVIS, Director, Institute of Transportation and Traffic En-  
gineering, University of California, Berkeley, Calif.
- RALPH E. FADUM, Head, Department of Civil Engineering, North Carolina  
State College, Raleigh, N. C.
- JOHN HOLLOWOM, Manager, Metal Research Department, General Electric  
Co., Schenectady, N. Y.
- R. C. JORDAN, Head, Department of Mechanical Engineering, University of  
Minnesota, Minneapolis, Minn.
- FREDERICK C. LINDVALL, Chairman, Division of Engineering, California  
Institute of Technology, Pasadena, Calif.
- ABEL WOLMAN, Department of Sanitary Engineering, Johns Hopkins Uni-  
versity, Baltimore, Md.

*Advisory Panel for Environmental Biology*

- \*W. D. BILLINGS, Department of Botany, Duke University, Durham, N. C.
- MURRAY F. BUELL, Department of Botany, Rutgers University, New Bruns-  
wick, N. J.
- THEODORE H. BULLOCK, Department of Zoology, University of California,  
Los Angeles, Calif.
- GEORGE L. CLARKE, Biological Laboratories, Harvard University, Cam-  
bridge, Mass.
- W. J. HAMILTON, Jr., Department of Conservation, Cornell University,  
Ithaca, N. Y.

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\*Served during part of fiscal year 1957.



ARTHUR D. HASLER, Department of Zoology, University of Wisconsin, Madison, Wis.

ROBERT E. HUNGATE, Department of Bacteriology, University of California, Davis, Calif.

THOMAS PARK, Department of Zoology, The University of Chicago, Chicago, Ill.

\*C. LADD PROSSER, Department of Physiology, University of Illinois, Urbana, Ill.

PAUL B. SEARS, Conservation Program, Yale University, New Haven, Conn.

*Advisory Panel for Genetic Biology*

\*VERNON BRYSON, Institute of Microbiology, Rutgers University, New Brunswick, N. J.

EVERETT R. DEMPSTER, Department of Genetics, University of California, Berkeley, Calif.

H. BENTLEY GLASS, Department of Biology, Johns Hopkins University, Baltimore, Md.

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HERSCHEL K. MITCHELL, Department of Biology, California Institute of Technology, Pasadena, Calif.

MARCUS M. RHOADES, Department of Botany, University of Illinois, Urbana, Ill.

REED C. ROLLINS, Gray Herbarium, Harvard University, Cambridge, Mass.

JACK SCHULTZ, Institute for Cancer Research, Philadelphia, Pa.

*Advisory Panel for History, Philosophy, and Sociology of Science*

I. BERNARD COHEN, Harvard University, Cambridge, Mass.

PHILIPP G. FRANK, American Academy of Arts and Sciences, Boston, Mass.

JOHN F. FULTON, School of Medicine, Yale University, New Haven, Conn.

R. B. LINDSAY, Department of Physics, Brown University, Providence, R. I.

RICHARD H. SHYROCK, Institute of the History of Medicine, Johns Hopkins University, Baltimore, Md.

JOSEPH J. SPENGLER, Department of Economics, Duke University, Durham, N. C.

*Advisory Panel for Mathematical Sciences*

DAVID H. BLACKWELL, Department of Mathematics, University of California, Berkeley, Calif.

H. F. BOHNENBLUST, Department of Mathematics, California Institute of Technology, Pasadena, Calif.

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\*Served during part of fiscal year 1957.

- RICHARD BRAUER**, Department of Mathematics, Harvard University, Cambridge, Mass.
- W. L. MASSEY**, Department of Mathematics, Brown University, Providence, R. I.
- DEANE MONTGOMERY**, Department of Mathematics, Institute for Advanced Study, Princeton, N. J.
- MINA REES**, Dean, Hunter College, New York, N. Y.
- PAUL C. ROSENBLOOM**, Department of Mathematics, University of Minnesota, Minneapolis, Minn.
- R. L. WILDER**, Department of Mathematics, University of Michigan, Ann Arbor, Mich.

*Advisory Panel for Molecular Biology*

- BERNARD AXELROD**, Department of Biochemistry, Purdue University, Lafayette, Ind.
- STANLEY CARSON**, Biology Division, Oak Ridge National Laboratory, Oak Ridge, Tenn.
- MAX DELBRÜCK**, Division of Biology, California Institute of Technology, Pasadena, Calif.
- VINCENT DETHIER**, Department of Biology, Johns Hopkins University, Baltimore, Md.
- DAVID GODDARD**, Department of Botany, University of Pennsylvania, Philadelphia, Pa.
- IRVING KLOTZ**, Department of Chemistry, Northwestern University, Evanston, Ill.
- HENRY A. LARDY**, Enzyme Institute, University of Wisconsin, Madison, Wis.
- HOWARD K. SCHACHMAN**, Virus Laboratory, University of California, Berkeley, Calif.
- DAVID SHEMIN**, Department of Biochemistry, Columbia University, New York, N. Y.
- BIRGIT VENNESLAND**, Department of Biochemistry, University of Chicago, Chicago, Ill.

*Advisory Panel for Physics*

- ROBERT B. BRODE**, Department of Physics, University of California, Berkeley, Calif.
- DAVID M. DENNISON**, Department of Physics, University of Michigan, Ann Arbor, Mich.
- CECIL T. LANE**, Department of Physics, Yale University, New Haven, Conn.
- R. E. MARSHAK**, Department of Physics, University of Rochester, Rochester, N. Y.
- W. K. H. PANOFSKY**, Department of Physics, Stanford University, Stanford, Calif.

**JAMES RAINWATER** (Nevis Cyclotron Laboratories), Columbia University, New York, N. Y.

**JOHN C. SLATER**, Department of Physics, Massachusetts Institute of Technology, Cambridge, Mass.

**LLOYD P. SMITH**, President of Research and Advanced Development Division, Avco Manufacturing Corp., New York, N. Y.

**CLARENCE ZENER**, Westinghouse Electric Corp., Research Laboratories, East Pittsburgh, Pa.

*Advisory Panel for Psychobiology*

\***CARL HOVLAND**, Department of Psychology, Yale University, New Haven, Conn.

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**CONRAD G. MUELLER**, The Rockefeller Institute for Medical Research, New York, N. Y.

**W. D. NEFF**, Department of Psychology, University of Chicago, Chicago, Ill.

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**BENTON J. UNDERWOOD**, Department of Psychology, Northwestern University, Evanston, Ill.

**DELOS D. WICKENS**, Department of Psychology, Ohio State University, Columbus, Ohio.

*Advisory Panel for Regulatory Biology*

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**JACKSON W. FOSTER**, Department of Bacteriology, University of Texas, Austin, Tex.

\***RALPH W. GERARD**, Mental Health Research Institute, University of Michigan, Ann Arbor, Mich.

\***STERLING HENDRICKS**, Bureau of Plant Industries, U. S. Department of Agriculture, Beltsville, Md.

**RACHMIEL LEVINE**, Department of Metabolic Research, Michael Reese Hospital, Chicago, Ill.

**WILLIAM D. McELROY**, McCollum-Pratt Institute, Johns Hopkins University, Baltimore, Md.

\***ROLAND K. MEYER**, Department of Biology, University of Wisconsin, Madison, Wis.

**A. M. PAPPENHEIMER, Jr.**, Department of Microbiology, New York University, College of Medicine, New York, N. Y.

**SIDNEY ROBERTS**, Department of Physiological Chemistry, University of California, Los Angeles, Calif.

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\*Served during part of fiscal year 1957.

\*GEORGE SAYERS, Department of Pharmacology, Western Reserve University, Cleveland, Ohio.

BRADLEY T. SCHEER, Department of Biology, University of Oregon, Eugene, Oreg.

KENNETH V. THIMANN, Biological Laboratories, Harvard University, Cambridge, Mass.

C. B. VAN NIEL, Hopkins Marine Station, Pacific Grove, Calif.

*Advisory Panel on Scientific Manpower Information*

JAMES W. COLE, Jr., School of Chemistry, University of Virginia, Charlottesville, Va.

HAROLD GOLDSTEIN, Division of Manpower and Employment Statistics, Bureau of Labor Statistics, U. S. Department of Labor, Washington, D. C.

ALBERT KAY, Office of Manpower Supply, Department of Defense, Washington, D. C.

CHARLES V. KIDD, Research Planning Branch, National Institutes of Health, Bethesda, Md.

RAY W. MAYHEW, Owens-Illinois Glass Co., Toledo, Ohio.

JAMES C. O'BRIEN, Department of Health, Education, and Welfare, Washington, D. C.

PHILIP N. POWERS, Internuclear Co., Clayton, Mo.

M. H. TRYTTEN, Director, National Academy of Sciences—National Research Council, Washington, D. C.

J. FLETCHER WELLEMAYER, American Council of Learned Societies, Washington, D. C.

DAEL WOLFLE, American Association for the Advancement of Science, Washington, D. C.

*Advisory Panel for Social Science Research*

CLARK KERR, Chancellor, University of California, Berkeley, Calif.

CLYDE KLUCKHOHN, Department of Social Relations, Harvard University, Cambridge, Mass.

DONALD G. MARQUIS, Chairman, Department of Psychology, University of Michigan, Ann Arbor, Mich.

HAROLD W. STOKE, Dean, Graduate School of Arts and Science, New York University, New York, N. Y.

SAMUEL S. WILKS, Department of Mathematics, Princeton University, Princeton, N. J.

DONALD R. YOUNG, General Director, Russell Sage Foundation, New York, N. Y.

*Advisory Panel for Systematic Biology*

JOHN N. COUCH, Department of Botany, University of North Carolina, Chapel Hill, N. C.

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\*Served during part of fiscal year 1957.

ALFRED E. EMERSON, Department of Zoology, University of Chicago, Chicago, Ill.

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LIBBIE H. HYMAN, American Museum of Natural History, New York, N. Y.

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ROGERS McVAUGH, University Museums Building, University of Michigan, Ann Arbor, Mich.

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KARL P. SCHMIDT, Chicago Natural History Museum, Chicago, Ill.

WILLIAM C. STEERE, Department of Biological Sciences, Stanford University, Stanford, Calif.

NORMAN R. STOLL, Rockefeller Institute for Medical Research, New York, N. Y.

#### SPECIAL ADVISORY PANELS

##### *Advisory Panel for Astronomical Observatory*

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ROBERT R. McMATH, McMath-Hulbert Observatory, University of Michigan, Pontiac, Mich.

BENGT STROMGREN, Director, Yerkes and McDonald Observatories, University of Chicago, Williams Bay, Wis.

OTTO STRUVE, Berkeley Astronomical Department, University of California, Berkeley, Calif.

A. E. WHITFORD, Director, Washburn Observatory, University of Wisconsin, Madison, Wis.

##### *Advisory Panel for Hawaiian Geophysical Institute*

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CARL ECKART, Scripps Institution of Oceanography, La Jolla, Calif.

E. A. ECKHARDT, Gulf Research & Development Co., Pittsburgh, Pa.

LEO GOLDBERG, Department of Astronomy, University of Michigan, Ann Arbor, Mich.

CECIL GREEN, Geophysical Services, Inc., Dallas, Tex.

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- HARRY H. HESS, Chairman, Department of Geology, Princeton University, Princeton, N. J.  
M. KING HUBBERT, Shell Oil Co., Houston, Tex.  
SVERRE PETTERSSSEN, Department of Meteorology, University of Chicago, Chicago, Ill.  
W. W. RUBEY, U. S. Geological Survey, Washington, D. C.  
JOHN C. WARNER, President, Carnegie Institute of Technology, Pittsburgh, Pa.

*Advisory Panel for High Energy Accelerators*

- SAMUEL K. ALLISON, Department of Physics, University of Chicago, Chicago, Ill.  
LELAND J. HAWORTH, Brookhaven National Laboratory, Upton, N. Y.  
EDWARD J. LOFGREN, Radiation Laboratory, University of California, Berkeley, Calif.  
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ARTHUR ROBERTS, Department of Physics, University of Rochester, Rochester, N. Y.  
FREDERICK SEITZ, Department of Physics, University of Illinois, Urbana, Ill.  
ROBERT SERBER, Department of Physics, Columbia University, New York, N. Y.  
MELTON G. WHITE, Department of Physics, Princeton, N. J.  
JOHN H. WILLIAMS, Department of Physics, University of Minnesota, Minneapolis, Minn.  
JERROLD R. ZACHARIAS, Department of Physics, Massachusetts Institute of Technology, Cambridge, Mass.

*Advisory Panel on High Polymer Research*

- J. H. DILLON, Textile Research Institute, Princeton, N. J.  
J. D. FERRY, University of Wisconsin, Madison, Wis.  
PAUL J. FLORY, Mellon Institute for Industrial Research, Pittsburgh, Pa.  
FRANK R. MAYO, Stanford Research Institute, Menlo Park, Calif.  
THERALD MOELLER, University of Illinois, Urbana, Ill.  
CARL C. MONRAD, Carnegie Institute of Technology, Pittsburgh, Pa.  
CHARLES G. OVERBERGER, Polytechnic Institute of Brooklyn, Brooklyn, N. Y.

*Advisory Panel on Radio Astronomy*

- BART J. BOK, Harvard College Observatory, Cambridge, Mass.  
JOHN PETER HAGEN, Naval Research Laboratory, Washington, D. C.

- R. MINKOWSKI, Mt. Wilson and Palomar Observatories, Pasadena, Calif.  
 JESSE L. GREENSTEIN, California Institute of Technology, Pasadena, Calif.  
 JOHN D. KRAUS, Ohio State University, Columbus, Ohio.  
 E. M. PURCELL, Harvard University, Cambridge, Mass.  
 M. A. TUVE, Carnegie Institution of Washington, Washington, D. C.

*Advisory Panel for University Computing Facilities*

- HERBERT L. ANDERSON, Institute for Nuclear Studies, University of Chicago, Chicago, Ill.  
 JULE G. CHARNEY, Meteorology Department, Massachusetts Institute of Technology, Cambridge, Mass.  
 GERALD M. CLEMENCE, Director, Nautical Almanac, U. S. Naval Observatory, Washington, D. C.  
 JOSEPH O. HIRSCHFELDER, Department of Chemistry, University of Wisconsin, Madison, Wis.  
 RALPH E. MEAGHER, Department of Physics, University of Illinois, Urbana, Ill.  
 PHILIP M. MORSE, Department of Physics, Massachusetts Institute of Technology, Cambridge, Mass.  
 WALTER H. MUNK, Scripps Institution of Oceanography, La Jolla, Calif.  
 J. BARKLEY ROSSER, Department of Mathematics, Cornell University, Ithaca, N. Y.  
 MARTIN SCHWARZSCHILD, Department of Astronomy, Princeton University, Princeton, N. J.  
 EDWARD TELLER, Department of Physics, University of California, Berkeley, Calif.  
 S. M. ULAM, Department of Mathematics, Massachusetts Institute of Technology, Cambridge, Mass.

*Advisory Panel for University Research Reactors*

- HENRY GOMBERG, Assistant Director, Michigan Memorial Phoenix Project, University of Michigan, Ann Arbor, Mich.  
 LAWRENCE R. HAFSTAD, Vice President, General Motors Corp., Detroit, Mich.  
 J. B. PLATT, President, Harvey Mudd College, Claremont, Calif.  
 LAWRENCE REGINALD QUARLES, University of Virginia, Charlottesville, Va.  
 CHAUNCEY STARR, North American Aviation Co., Los Angeles, Calif.  
 JOHN ARTHUR SWARTOUT, Oak Ridge National Laboratory, Oak Ridge, Tenn.  
 E. P. WIGNER, Department of Physics, Princeton University, Princeton, N. J.  
 RAYMOND E. ZIRKLE, Department of Biology, University of Chicago, Chicago, Ill.