

DD/A Registry
79-3524

25X

OTR 79-1091

DD/A REGISTRY
FILE: Training

MEMORANDUM FOR:

[Redacted]

Executive Assistant to the DCI

SUBJECT:

External Training Opportunities for Agency Employees

1. This is in response to your request for information concerning external training opportunities for Agency employees. The criteria for sponsorship of training at non-CIA facilities are established by regulation [Redacted]. Training may be full- or part-time and may be obtained at interagency training facilities, military bases, universities and colleges, commercial firms, or by enrollment in the Agency's Off-Campus Program or correspondence courses. The opportunities are limitless.

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2. During Fiscal Year 1979, the Agency approved 4,161 requests for Agency employees from all Directorates to receive various types of external training. The duration of these programs varies from one day to an academic year. The number of facilities is vast, and the course offerings are extensive. It is literally impossible to list all the opportunities available, but I hope the attached samplings will indicate the scope of their possibilities.

Donald E. Smith
Director of Training

Attachments:
As Stated

cc: DDA, w/attns.

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SENIOR MANAGEMENT CAREER DEVELOPMENT PROGRAMS

<u>SCHOOL</u>	<u>DURATION</u>	<u>STUDENT GRADE</u>
A. <u>Senior Officer Schools</u>		
Air War College	10 months	GS-14 to GS-15
Army War College	10 months	GS-14 and above
Naval War College (College of Naval Command and Staff)	10 months	GS-11 to GS-13
Naval War College (College of Naval Warfare)	10 months	GS-13 to GS-15
National War College	10 months	GS-15 and above
Industrial College of the Armed Forces	10 months	GS-15 and above
Executive Seminar in National & International Affairs (State Department)	10 months	GS-16 and GS-17
B. <u>Senior Management Programs</u>		
<u>Brookings Educational Programs for Government Executives</u>		GS-16 to GS-18
Conference for Senior Executives on Public Policy Issues	2 weeks	
Conference on Business in Contemporary Society	1 week	
Conference for Science Executives	1 week	
Executive Leadership Forums on Critical Public Policy Issues	4 days	
<u>OPM Federal Executive Institute Programs</u>		GS-16 and up
Senior Executive Education Program	7 weeks	
Executive Leadership and Management Program	3 weeks	
Workshops (MBO, team-building, etc.)	1 week	
OPM Education for Public Management	Academic year	GS-12 to GS-14
OPM Executive Seminars	2 weeks	GS-14 and GS-15

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<u>SCHOOL</u>	<u>DURATION</u>	<u>STUDENT GRADE</u>
B. <u>Senior Management Programs</u> (Continued)		
Management Program for Executives, University of Pittsburgh	6 weeks	GS-14 and up
Executive Management Program, Penn State	4 weeks	GS-14 and up
Executive Development Program, Cornell University	5 weeks	GS-14 and up
Program for Senior Managers in Government, Harvard University	3 weeks	GS-17 and GS-18
Executive Program in National Security, JFK School of Govern- ment, Harvard University	2 weeks	GS-18
C. <u>Fellowships and Interchange Programs</u>		
OPM Fellowships in Congressional Operations	12 months	GS-13 to GS-16
D. <u>Other Full-time Programs</u>		
<div style="border: 1px solid black; width: 350px; height: 30px;"></div>	26 weeks	GS-11 and up
National Senior Intelligence Course, DIS	14 weeks	GS-13 and up
E. <u>Part-time Program</u>		
National Academy of Public Administration	6 one-day sessions	GS-13 to GS-15

FULL-TIME ACADEMIC TRAINING

To illustrate the kinds of full-time academic training approved each year for Agency employees, set forth below is training undertaken by GS-07 to GS-14 employees during Fiscal Year 1979.

<u>Facility</u>	<u>Program</u>	<u>Students</u>
		1
Georgetown University	Economics	1
George Mason University	Business Administration	3
	Economics	1
	World Geography	1
Johns Hopkins University	Economics	2
Montgomery College	Visual Communications	1
Indiana University	Management Program	1
Strayer College	Accounting	1
Benjamin Franklin University	Accounting	1
Harvard University	Midcareer Program	2
	International Relations	1
Towson State University	Geography	1
Vanderbilt University	Economics	1
Prince Georges Community College	General Studies	1
George Washington University	Geodetic & Cartographic Research Fellow (Soviet Studies)	1
	Engineering	1
	Political Science	1
	China/Asian Studies	1
	Economics	1

INTERAGENCY TRAINING

Agency employees participate in interagency training on a regular basis. Examples of facilities used and courses attended during Fiscal Year 1979 are indicated below. All grade levels are acceptable.

<u>FACILITY AND PROGRAM</u>	<u>DURATION</u>
<u>Office of Personnel Management</u> ADP and Computer Specialist Government Affairs Financial Management and Budgeting Management Analysis Personnel Management Equal Employment Opportunity Employee Development	1 day - 2 weeks
<u>Department of Energy</u> Nuclear Fuel Cycle and Technical Aspects of Nuclear Weapons	9 days
<u>General Services Administration</u> Records Management Procurement and Requisitioning Contracting Inventory Control	1 day - 2 weeks
<u>Department of Agriculture</u> Executive Development, Management and Supervision Interpersonal Communications Secretarial, typing, shorthand	1 day - 2 weeks
<u>Foreign Service Institute</u> Area Studies Language Economic and Commercial Training Political Training	1-54 weeks
<u>Department of Defense Computer Institute</u> Computer Systems & Management	1-2 weeks
<u>National Security Agency</u> Cryptology Language	1-44 weeks

DEPARTMENT OF DEFENSE TRAINING

Agency employees participate in Department of Defense training on a regular basis. Examples of facilities used and courses attended during Fiscal Year 1979 are indicated below.

<u>FACILITY AND PROGRAM</u>	<u>DURATION</u>	<u>STUDENT GRADE</u>
<u>Army</u>	1-2 weeks	
Military Packaging Training		GS-7 to GS-10
Armor Orientation		GS-9 to GS-14
Field Artillery		GS-9 to GS-14
Judge Advocate General		GS-12 to GS-15
<u>Defense Logistics Agency</u>		
Defense Petroleum	1 week	GS-9 to GS-15
<u>Air Force</u>	1 week	
Nuclear Weapons		GS-12 and above
Ballistic Missile Staff Course		GS-7 and above
Tactical Fighter and Tactics		GS-8 and above
Terrorism		GS-7 to GS-14
Systems and Logistics		GS-9 to GS-14
Engineering		GS-10 to GS-14
<u>Navy</u>	1-2 weeks	
Defense Contracting		GS-9 to GS-13
Missile Orientation		GS-9 to GS-13
ASW Operations		GS-9 to GS-13
Alcohol Orientation		GS-9 to GS-13
<u>Defense Intelligence School</u>	1 day-2 weeks	
Intelligence Indications and Warnings		GS-9 to GS-13
Operation DIALOGUE		GS-13 and above

NON-GOVERNMENT EXTERNAL TRAINING

Agency employees participate in non-Government external training on a regular basis. Examples of facilities used and courses attended during Fiscal Year 1979 are indicated below.

<u>FACILITY AND PROGRAM</u>	<u>DURATION</u>	<u>STUDENT GRADE</u>
Technology Service Corporation Antenna Design Missile Guidance	1-2 weeks	GS-7 to GS-15
IBM Mag Card Training Project Management	2 days 2 weeks	GS-2 to GS-7 GS-12 to GS-18
Capitol Institute of Technology Basic Electricity and Lab Introduction to Digital Computers Calculus	1-2 weeks	GS-7 to GS-15
American Management Association Strategic Planning Fundamentals of Management for Warehouse Supervisors Action Tools for the Middle Manager	1 week	GS-13 to GS-18
Rand Corporation Work Study Program	1 year	GS-12 to GS-15
University of Wisconsin Effective Supervision for Professional & Technical Personnel Conference on Indonesia	1 week	GS-13 to GS-16
Gallaudet College Beginning Sign Language Basic Manual Communications	3 weeks	GS-4 to GS-18
Rochester Institute of Technology Photographic Science	1-2 weeks	GS-9 to GS-14
Motorola Motorola Technical Training	1 week	GS-9 to GS-13

<u>FACILITY AND PROGRAM</u>	<u>DURATION</u>	<u>STUDENT GRADE</u>
M.I.T. Current Issues in Information Systems: Perspective for 80's Naval Surface Ship Design	1-3 weeks	GS-12 to GS-18
International Marketing Institute Market Management	1 week	GS-12 to GS-15
Federally Employed Women, Inc Tenth Annual National Training Program	3 days	GS-7 to GS-14

MISCELLANEOUS

Presidential Executive Interchange Program

STA With This program is open to GS-13-GS-15 employees. During 1978-1979, two GS-15 NFAC officers participated; one served. Both officers were in an LWOP status for the duration of the program, and their salaries were paid by the host organizations.

Sabbaticals

During 1978-1979, NFAC employees received sabbaticals as follows:

- a. One GS-16 officer attended the International Institute for Strategic Studies in London;
- b. One GS-15 was a Teaching Fellow at Georgetown University.

Other Approaches

Agency employees could request approval to attend programs at various independent research institutes (see attached listing) or at universities such as the following:

London Graduate School of Business Studies
(The London-Sloan Fellowship Programme)

School of Advanced International Studies
(Special Fellowships) at Johns Hopkins
University (in Washington, D.C., or
Bologna, Italy)

Educational Program for Federal Officials
at Midcareer at the Princeton University
Woodrow Wilson School of Public and
International Affairs.

LEARNED SOCIETIES, RESEARCH INSTITUTES

UNITED STATES OF AMERICA

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Institute of Food Technologists: 221 North La Salle St., Chicago, Ill. 60601; f. 1929; 15,000 mems.; Pres. Dr. H. E. BAUMAN; Exec. Dir. CALVERT L. WILLEY; publs. *Food Technology* (monthly), *Journal of Food Science* (bi-monthly).

Instrument Society of America: 400 Stanwix St., Pittsburgh, Pa. 15222; f. 1945; 20,000 mems.; Exec. Dir. R. A. SCHLEGEL; Pres. HUGH S. WILSON; conferences and symposia, exhibits, short courses, special interest divisions, films, audio and visual cassettes; publs. *Instrumentation Technology* (monthly), *ISA Transactions* (quarterly), *ISA Instrumentation Index* (quarterly), proceedings, standards, monographs, references, compendia, study guides.

International Communication Association: formerly National Society for the Study of Communications; f. 1950 to bring together academics and professionals concerned with research and application of human communication; 2,100 mems.; Exec. Sec. ROBERT L. COX, Balcones Research Center, 10100 Burnet Rd., Austin, Tex. 78758; publs. *The Journal of Communication*, *Human Communication Research*, *Membership Directory*, *Program* (annual), *The ICA Newsletter*, *The Communication Yearbook*.

Mining and Metallurgical Society of America: 230 Park Ave., New York, N.Y. 10017; Pres. KENNETH J. KUTZ.

National Association of Power Engineers, Inc.: 176 West Adams St., Suite 1411, Chicago 3, Ill.; f. 1882; 12,000 mems.; Pres. WILLIAM S. CODY; Sec. RAYMOND F. ARROW; publ. *National Engineer* (monthly).

Organization for Social and Technical Innovation: 1000 Wisconsin Ave., N.W., Washington, D.C. 20007; Pres. Dr. DONALD A. SCHON.

Society for the History of Technology: Dept. of History, UCSP, Santa Barbara, Calif. 93106; concerned with history of technological devices and processes, relations of technology with science, politics, social change, the arts and humanities, and economics; affiliated to the American Association for the Advancement of Science, the American Council of Learned Societies and the Engineers Joint Council; 2,000 mems.; Pres. EUGENE S. FERGUSON; Sec. Dr. CARROLL W. PURSELL, Jr.; publs. *Technology and Culture* (quarterly), Monograph Series.

Society of Automotive Engineers, Inc.: 400 Commonwealth Drive, Warrendale, Pa. 15096; f. 1905; 30,000 mems.; Sec. and Gen. Man. JOSEPH GILBERT; publs. *SAE Transactions*, *SAE Handbook* (annuals), *Automotive Engineering* (monthly).

Society of Naval Architects and Marine Engineers: One World Trade Center, Suite 1369, New York, N.Y. 10048; f. 1893; approx. 11,500 mems.; Sec. ROBERT G. MENDE.

Society of Rheology: f. 1929; Pres. J. R. KNOX; Sec. R. A. MENDELSON, 335 East 45th St., New York, N.Y. 10017; publs. *Rheology Bulletin* (quarterly), *Transactions of the Society of Rheology* (quarterly).

United Engineering Trustees, Inc.: 345 East 47th St., New York, N.Y. 10017; f. 1904 as a joint corporate agency of the major national engineering societies, to administer substantial trust funds for the advancement of the engineering arts and sciences, including ownership and administration of Engineering Societies Library, Engineering Foundation, United Engineering Center, and several awards; library of over 200,000 vols.; Pres. R. H. TAYLOR III; Sec. and Gen. Man. JOHN A. ZECCA.

RESEARCH INSTITUTES

More than 90 per cent of research in America is conducted by the universities and private industry. Most of the organizations listed below are independent, non-profit-making institutions.

AGRICULTURE AND VETERINARY SCIENCE

Agricultural Research Institute: 2100 Pennsylvania Ave., N.W., Washington, D.C. 20037; f. 1951; 150 mems.; Pres. RALPH J. MCCracken; publs. *Newsletter* (quarterly), *Proceedings* (annual).

Council for Agricultural and Chemurgic Research: 350 Fifth Ave., New York 1; f. 1935; to further the industrial use of agricultural produce and to devise and promote the raising of new crops for industry; 2,500 mems.; Chair. EDGAR FOGLE; Sec. Dr. HARRY J. PENNLYDA; publ. *Chemurgic Digest* (8 a year).

Forest Products Research Society: 2801 Marshall Court, Madison, Wis. 53705; f. 1947; 4,500 mems. from 62 countries; Pres. HOWARD E. OLSON; Exec. Vice-Pres. ARTHUR R. BROWNER; publs. *Journal* (monthly), *Wood Science* (quarterly).

BIBLIOGRAPHY AND LIBRARY SCIENCE

Institute for Scientific Information: 325 Chestnut St., Philadelphia, Pa. 19106; f. 1960; periodicals library of 5,000 titles; Pres. Dr. EUGENE GARFIELD; Vice-Pres. and Treas. MARVIN SCHROEDER; publs. *Journal*, *Citation Reports*, *Science Citation Index*, *Social Sciences Citation Index*, *Permuterm Subject Index*, *Index to Scientific Reviews*, *Automatic Subject Citation Alert (ASCA)*, *Ascatopies*, *Current Abstracts of Chemistry and Index Chemicus*, *Encyclopaedia Chimica Internationalis*, *Chemical Substructure Index*, *Index Chemicus Registry System*, *ISI's Who is Publishing in Science*, *ISI Magnetic Tapes*, *Scisearch*, *Social Scisearch*,

Automatic New Structure Alert (ANSA) and *Current Contents* in the following editions: *Agriculture, Biology and Environmental Sciences*; *Social and Behavioral Sciences*; *Physical and Chemical Sciences*; *Engineering, Technology and Applied Sciences*; *Life Sciences*; *Clinical Practice*.

National Federation of Abstracting and Indexing Services: University City Science Center, 3401 Market St., Philadelphia, Pa. 19104; f. 1958; 30-40 mems.; Pres. RUSSELL J. ROWLETT, Jr.; Exec. Dir. TONI CARRO BEARMAN; publs. *NEAIS Newsletter*, *Report Series*, *State-of-the-Art Publications*.

ECONOMICS, LAW AND POLITICS

Brookings Institution: 1775 Massachusetts Ave., N.W., Washington, D.C. 20036; f. 1927; 120 professional mems.; library of 50,000 vols.; research, education, and publishing in the fields of economics, government, and foreign policy; Pres. BRUCE K. MACLAURY; publs. *Brookings Bulletin* (quarterly), *Brookings Papers on Economic Activity* (3 a year), *Reprint Series* (irregular).

Center for the Study of Democratic Institutions: Box 4068, Santa Barbara, Calif. 93103; f. 1959; 85,000 mems.; Chair. MORRIS L. LEVINSON; Pres. ROBERT M. HUTCHINS; Sec. and Treas. PETER TAGGER; publs. *The Center Magazine*, *World Issues* (every 2 months).

International Research Institute: American Institutes for Research, 3301 New Mexico Ave., N.W., Washington, D.C. 20016; f. 1946; research on human resources in developing countries, role of attitudes and values in

PAUL SPICKER.

Marketing Science Institute: 11 Story St., Cambridge, Mass., 02138; f. 1962; to contribute to improved marketing performance by developing objective, factual information about marketing practices and their effects by devising and testing new methods for analysing these facts, and by appraising social and economic issues related to marketing; Pres. THOMAS B. McCABE, Jr.; Exec. Dir. STEPHEN A. GREYSER.

National Bureau of Economic Research: 261 Madison Ave., New York, N.Y. 10010; f. 1920; 50 Dirs.; Pres. MARTIN S. FELDSTEIN; Vice-Pres. VICTOR R. FUCHS; Exec. Sec. DOUGLAS H. ELDRIDGE; publs. *Annals of Economic and Social Measurement* (quarterly), *Explorations in Economic Research* (quarterly), etc.

Scripps Foundation for Research in Population Problems and Gerontology Center: Miami University, 218 Harrison Hall, Oxford, Ohio 45056; f. 1922; 8 mems.; library of 4,000 vols.; Dir. ROBERT C. ATCHLEY.

EDUCATION

American Educational Research Association: 1126 16th St., N.W., Washington, D.C. 20036; f. 1915; 13,000 mems.; Exec. Officer WILLIAM J. RUSSELL; publs. *American Educational Research Journal*, *Review of Educational Research*, *Educational Researcher*, *Review of Research in Education*, *Journal of Educational Statistics*.

Educational Research Corporation: 10 Craigie St., Cambridge, Mass. 02138; f. 1938; Pres. J. E. ALMAN.

HISTORY, GEOGRAPHY AND ARCHAEOLOGY

Center for Reformation Research: 6477 San Bonita Ave., St. Louis, Mo. 63105; f. 1957; microfilm library of original MSS. and printed materials of the 15th and 16th centuries; reference library; Exec. Dir. ROBERT KOLB; publs. *Newsletter*, *Sixteenth-Century Bibliography* (occasionally), *Sixteenth-Century Journal* (2 a year).

Leo Baeck Institute, Inc.: 129 East 73rd St., New York, N.Y. 10021; f. 1954; research and publication about the history of German-speaking Jews; library of 40,000 vols., archives; Pres. Dr. M. GRUENEWALD; Sec. F. GRUBEL; publs. *LBI Yearbook*, *Bulletin* (in German), *LBI News*, *Library and Archives News*.

Mississippi Geological, Economic and Topographical Survey: P.O.B. 4915, Jackson, Mississippi 39216; f. 1850; research into the resources of the State; library of 60,000 vols.; Dir. W. H. MOORE; publ. *Mississippi Geological Survey Bulletin*, map series.

National Oceanographic Data Center: National Oceanic and Atmospheric Administration, Washington, D.C. 20235; f. 1961; accessioning, processing and dissemination of marine data, referrals; 113 mems.; 40,000 technical reports; Dir. ROBERT V. OCHINERO; publs. *User's Guide for NODC's Data Processing Systems*†, manuals†, catalogues†, etc.

Paleontological Research Institution: 1259 Trumansburg Rd., Ithaca, N.Y. 14850; f. 1932; 350 mems.; library of 15,000 vols.; Dir. Dr. KATHERINE PALMER; publs. *Bulletins of American Paleontology*, *Palaontographica Americana*, etc.

School of American Research: Box 2188, Santa Fé, New Mexico 87501; f. 1907; conducts research in archaeology; grants to three resident scholars annually; advanced seminars in anthropology; anthropological publications; extensive collections in archaeology and art; 1,000 mems.; library of 6,000 vols.; Pres. PHILIP L. SCHULTZ; Dir. Dr. DOUGLAS W. SCHWARTZ; Vice-Pres. JASON W. KELLAHIN.

American Association for Cancer Research, Inc.: The Institute for Cancer Research, 7701 Burholme Avenue, Fox Chase, Philadelphia, Pa. 19111; f. 1907; 2,700 mems.; Pres. Dr. C. GORDON ZIMROD; Sec.-Treas. Dr. FREDERICK S. PHILIPS; publ. *Cancer Research* (monthly).

American Federation for Clinical Research: 6000 Grove Rd., Thorofare, N.J. 08086; f. 1940; 8,700 mems.; Pres. SAMUEL THIER, M.D.; publ. *Clinical Research* (5 a year).

Association for Research in Nervous and Mental Disease, Inc.: 100th St., at 5th Ave., New York, N.Y. 10020; f. 1920; 1,500 mems.

Association for Research in Vision and Ophthalmology, Inc.: Montefiore Hospital and Medical Center, 111 East 210th St., Bronx, N.Y. 10467; f. 1928; 2,100 mems.; Chair. LORRIN RIGGS, Ph.D.; Sec.-Treas. PAUL HENKIND, M.D., Ph.D.; publ. *Investigative Ophthalmology and Visual Science*.

Cleveland Psychiatric Institute: 1708 Aiken Ave., Cleveland, Ohio 44109; f. 1946; library of 7,400 vols.; Supt. RAYMOND J. BALESTER, Ph.D.

Eye Research Institute of the Rollin Foundation: 20 Stanford St., Boston, Mass. 02114; f. 1950; 150 mems.; Pres. CHARLES L. SCHEPENS, M.D.; Vice-Pres. H. MACKENZIE FREEMAN, M.D.; publs. *Biennial Report*, Monographs and Conferences.

Fols Research Institute: Livermore St., Yellow Springs, Ohio 45387; f. 1920; studies in all areas of human development and additional research projects in biochemistry, genetics, psychology, psycho-physiology, neurophysiology; Dir. FRANK FALKNER, M.D., F.R.C.P.

The Institute for Cancer Research: 7701 Burholme Ave., Fox Chase, Philadelphia, Pa. 19111; f. 1926; library of 20,000 vols. including 661 reference books and 492 scientific and medical journals; Pres. and Dir. ALFRED J. KNUDSON, M.D.; Sec.-Treas. F. J. MCKAY; publ. *Annual Scientific Report*.

The Institutes of Medical Sciences: 2340 Clay St., San Francisco, Calif. 94115; f. 1950; private research organization conducting patient-oriented research in heart disease, visual sciences, health research and neurology. Pres. F. L. A. GERBODE, M.D.

The Jackson Laboratory: Bar Harbor, Maine 04609; f. 1929; research in mammalian genetics; 37 staff mems.; library of 17,000 books; Dir. Dr. RICHMOND T. PRENN; publs. *Annual Report*†, *Training for Research* (annually), *JAX* (quarterly).

Lovelace Foundation for Medical Education and Research: 5200 Gibson Blvd., S.E., Albuquerque, New Mexico 87108; f. 1947 to aid, engage in, conduct and foster medical, surgical and scientific research and investigation; 207 mems.; library of 26,477 books and bound journals, with 481 current periodicals; Chief Exec. Officer DONALD E. KILGORE, Jr.; Dir. of Research Administration ROGER O. McCLELLAN; publs. *Annual Report*, research and educational reports.

Mayo Foundation: Rochester, Minn. 55901; f. 1919; clinical medicine, medical research and education; library of 200,000 vols. and 3,000 periodicals; Chair. S. F. KEATING; Sec. R. C. ROESLER; publ. *Mayo Clinic Proceedings* (monthly).

The Menninger Foundation: Box 829, Topeka, Kansas 66601; f. 1925 as a non-profit centre for treatment and prevention research and professional education in psychiatry; medical library of 35,000 vols.; Pres. ROY MENNINGER, M.D.; Vice-Pres. IRVING SHEFFEL; publs. *TPR*, *Menninger Perspective*, *Bulletin of the Menninger Clinic*.

National Institutes of Health: U.S. Department of Health, Education and Welfare, Public Health Service, Bethesda, Maryland 20014; principal agency of D.H.E.W. for biomedical research, research training, and biomedical communications; appropriations \$2,000 million; Dir. DONALD S. FREDRICKSON, M.D.

National Institute of Child Health and Human Development: f. 1963; supports, fosters and co-ordinates research and training in areas of maternal health, child health and human development, focusing on the continuing process of growth and development, biological and behavioural; Dir. NORMAN KRETCHEMER, M.D., PH.D.

National Institute of Arthritis, Metabolism and Digestive Diseases: f. 1950; conducts and supports research into diseases comprising the most crippling afflictions, including arthritis, diabetes and other hereditary errors of metabolism, digestive diseases, endocrine gland disorders, diseases of the blood and bone; also orthopaedics, dermatology and nutrition; Dir. G. DONALD WHEEDON, M.D.

National Heart, Lung and Blood Institute: f. 1918 as National Heart Institute, redesignated 1969 and 1976; performs and supports research in diseases of the heart, blood vessels, lungs (exclusive of pulmonary malignancies) and blood; Dir. ROBERT L. LEVY, M.D.

National Cancer Institute: f. 1937; supports broad research programmes into the causes, detection and diagnosis, and treatment of cancer; co-operates with State and local health agencies and voluntary bodies; Dir. GUY R. NEWELL, JR., M.D. (acting).

National Institute of Allergy and Infectious Diseases: f. 1955; conducts and supports research in microbiology aimed at solving new problems in allergic diseases and unresolved problems in bacterial diseases, and at developing a useful body of knowledge in the viral diseases; Dir. RICHARD B. KRAUSE, M.D.

National Institute of Dental Research: f. 1918; research concerned with problems of dental caries and periodontal disease, with special emphasis on treatment, control and prevention; Dir. DAVID B. SCOTT, D.D.S.

National Institute of Neurological and Communicative Disorders and Stroke: f. 1950; conducts, fosters, and co-ordinates research on the causes, prevention, diagnosis and treatment of the neurological, sensory, and communicative disorders; Dir. DONALD R. TOWER, M.D., PH.D.

National Institute of General Medical Sciences: f. 1963; supports a programme of research and training in the health sciences; Dir. RUTH L. KUSCHNETZ, M.D.

National Institute of Environmental Health Sciences: f. 1969; conducts, fosters and co-ordinates research on the biological effects of chemical, physical, and biological substances present in or introduced into the environment; Dir. DAVID P. RALL, M.D., PH.D.

National Eye Institute: f. 1968; conducts and supports research and training relating to blinding eye diseases and visual disorders, including research and training in the special health problems and requirements of the blind; conducts and supports investigations into the basic sciences relating to the mechanisms of sight and visual functions; Dir. CARL KUPFER, M.D.

National Institute on Aging: f. 1974; conducts and supports biomedical, social and behavioural research and training related to the ageing process and diseases and other special problems and needs of the aged; Dir. ROBERT N. BUTLER, M.D.

National Library of Medicine: (see National Libraries).

Naval Aerospace Medical Institute: Pensacola, Florida 32508; f. 1939; training in aviation and aerospace medicine; library of 20,000 vols.; Commanding Officer Capt. H. S. TROSTLE.

Pasadena Foundation for Medical Research: 99 North El Molino, Pasadena, Calif. 91101; f. 1952; oncology, cell biology, differentiated cell culture, prostatic cancer, educational and documentary films in biology; Dir. Dr. GEORGE S. SHARP; Admnl. WILLIAM OPEL; publ. *Annual Report*.

Radiation Research Society: 4720 Montgomery Lane, Bethesda, Md. 20014; f. 1952; 1,500 mems.; Pres. R. H. SCHULER; Exec. Dir. R. J. BURK, JR.; publs. *Radiation Research* (monthly), *Newsletter* (bi-monthly).

Sloan-Kettering Institute for Cancer Research: 410 East 68th St., New York, N.Y. 10021; f. 1945; research in physical and biological sciences relating to cancer; postdoctoral research training in laboratory investigations with scientific staff; graduate instruction through Cornell University; research unit of Memorial Sloan-Kettering Cancer Center; Dir. Dr. R. A. GOOD; publs. *Report, Progress Report*.

Society for Pediatric Research: f. 1929; Sec.-Treas. Dr. ROBERT E. GREENBERG, Dept. of Pediatrics, Charles R. Drew Postgraduate Medical School, 12012 Compton Ave., Los Angeles, Calif. 90050; publ. *The Society for Pediatric Research Program and Abstracts* (annually).

Southwest Foundation for Research and Education: P.O.B. 28147, San Antonio, Tex. 78284; f. 1941; basic research in biomedical sciences; Pres. MARTIN GOLAND; Sec.-Treas. E. F. FEITH; publs. *Progress in Biomedical Research* (quarterly), *Annual Report*.

NATURAL SCIENCES

General

Battelle Memorial Institute: 505 King Ave., Columbus, Ohio 43201; f. 1925 as a non-profit, public-purpose organization to engage in research, assist education, and to develop, license and dispose of technology; conducts research and development on a contract basis for industry, Government and individuals in the physical, life and social/behavioural sciences; 6,000 staff mems.; library of more than 150,000 vols.; major laboratories in Columbus (Ohio), Richland and Seattle (Washington), Frankfurt am-Main and Geneva, offices in London, Paris, Madrid, Milan, Washington (D.C.); Pres. S. L. FAWCETT.

Midwest Research Institute: 425 Volker Blvd., Kansas City, Mo. 64110; f. 1944; specialization in pure and applied science, industrial techniques and economic analyses; Pres. JOHN McKELVEY; Sec. MARTIN N. SCHULER; publs. *Annual Report, MRI Quarterly*.

New England Institute: 90 Grove St., P.O.B. 308, Ridgefield, Conn. 06877; f. 1951; interdisciplinary research and education in natural sciences, medicine, physics, environmental studies, social sciences, etc.; library of 5,000 vols.; Chair. of Board JOHN H. HELLER; Pres. EMILE G. BEZNAKOV; Sec. ROBERT T. TATE, JR.

Rand Corporation, The: 1700 Main St., Santa Monica, Calif. 90406; f. 1918; br. in Washington, research on matters affecting the public interest urban development, health, housing, energy, military strategy, etc.; funds from the Air Force, government agencies and private foundations; Pres. Dr. DONALD B. RICE; Chair. J. PAUL AUSTIN; publs. research reports, quarterly and annual indexes with abstracts of all publs., bibliographies of publs. in selected subject areas.

Southern Research Institute: 2000 Ninth Ave., South, Birmingham, Ala. 35295; f. 1941; applied research on chemotherapeutic agents and techniques, carcino-

UNITED STATES OF AMERICA

WORLD OF LEARNING

genesis, pollution control, instrumentation, analytical procedures, biomaterials and bioengineering, polymeric materials, films and fabrics, economic studies, other fields; technical library of 30,000 vols.; Pres. HOWARD E. SKIPPER; Exec. Vice Pres. R. D. OSGOOD, JR.; Sec. ANDREW WYKER, JR.; 575 employees; publ. *Southern Research Institute Bulletin*.

Virginia Institute for Scientific Research: 106 North Court, University of Richmond, Va. 23173; f. 1949; Dir. Dr. J. SAMUEL GILLESPIE, JR.; Sec. Dr. CHARLES H. WURTLER, III.

Biological Sciences

Boyce Thompson Institute for Plant Research, Inc.: 1080 North Broadway, Yonkers, N.Y. 10701; f. 1924; research on plants, including biochemistry, plant physiology, plant pathology, entomology, air and water pollution, pesticides; library of 33,000 vols.; Chair, WILLIAM T. SMITH; Man. Dir. RICHARD H. WELLMAN; Sec. DEWAYNE C. TORGERSON; publ. *Annual Reports*†.

Cold Spring Harbor Laboratory: P.O.B. 100, Cold Spring Harbor, New York 11724; f. 1890, chartered under present title 1902; library of 25,000 vols.; Dir. Dr. J. D. WATSON; Admin. Dir. W. R. UPRY; publs. *Symposia on Quantitative Biology* (annually), *C.S.H. Monographs* (irregular), *Abstracts of Papers, Annual Report*†.

Moss Landing Marine Laboratories: P.O.B. 223, Moss Landing, Calif. 95039; f. 1966; research, education and public service in the marine sciences, Dir. Dr. JOHN H. MARTIN.

Mote Marine Laboratory, Inc.: 9501 Blind Pass Rd., Sarasota, Fla. 33581; f. 1955; independent, non-profit organization with educational affiliation to Cornell University; marine research, bioacoustics, biomedical and elasmobranch biology, estuarine ecology, neurobiology and behaviour of sharks; 21 mems.; library of 600 vols., 15,000 reprints on marine biology; Pres. WILLIAM R. MOTE; Dir. PERRY W. GILBERT; publs. *Charlotte Harbor Estuarine Studies*†; *Contributions from the Mote Marine Laboratory*†; *Quarterly Newsletter*†.

New England Aquarium: Central Wharf, Boston, Mass. 02110; f. 1957; 12,000 mems.; library of 1,500 vols.; Pres. WILLIAM BREWSTER; Exec. Dir. JOHN H. PRESCOTT; publs. *Aquasphere* (3 a year), *Aqualog* (6 a year).

The New York Botanical Garden: Bronx, New York 10458; f. 1891; 6,400 mems.; 237 acres of gardens, plant collections and wild areas, including a National Landmark conservatory; museum building includes exhibit hall, 3.8 million specimen herbarium; library of 95,000 vols., 215,000 other items; Pres. Dr. HOWARD S. IRWIN; publs. *Garden Magazine*, *Economic Botany*, *Mycologia*, *Botanical Review*, *North American Flora*, *Memoirs, Brittonia*, *The Native Orchids of Florida*, and *Newsletter*.

Salk Institute for Biological Studies: P.O.B. 1809, San Diego, Calif. 92112; f. 1960; advanced biological research in cancer, neuro-endocrinology, behavioural neurobiology, developmental biology and language studies; library; Pres. Dr. FREDERIC DE HOFFMANN; Founding Dir. Dr. JONAS E. SALK.

Society for Experimental Biology and Medicine: 630 West 168th St., New York, N.Y. 10032; f. 1903; 3,500 mems., 3,500 subscribers; Sec. and Man. Editor M. R. NOCENTI; publ. *Proceedings* (11 issues a year).

World Life Research Institute: 23000 Grand Terrace Rd., Colton, Calif. 92324; f. 1950; research into marine biotoxicology, terrestrial phytochemistry and water pollution; Dir. BRUCE W. HALSTEAD.

Worcester Foundation for Experimental Biology: 220 Maple Ave., Shrewsbury, Mass. 01545; f. 1944; to carry out basic work in the biomedical sciences; emphasis on research in regulatory biology, in particular on research in normal and abnormal growth and development, endocrine and reproductive biology, and neurobiology. Total staff of approx. 250, including 42 faculty level scientists; Pres. and Scientific Dir. MAHLON B. HOWLAND, M.D.; Exec. Dir. and Vice-Pres. FREDERICK WELSCH, M.D., PH.D.

Physical Sciences

Arecibo National Radio Observatory: (see Cornell University).

Argonne National Laboratory: 9700 South Cass Ave., Argonne, Ill. 60439; f. 1940; research in all phases of science and engineering relating to nuclear and non-nuclear energy, with broad programmes of fundamental research in physical, biomedical and environmental sciences; library of 150,000 vols. and 750,000 technical reports; Laboratory Dir. R. G. SACHS, PH.D.; publ. *Report* (annually).

Arthur J. Dyer Observatory: Vanderbilt University, Nashville, Tenn.; f. 1952; specializes in research on local structure of the Milky Way, photo-electric photometry of eclipsing binaries and variable stars, external galaxies and galactic nebulae, and astronomical instrumentation; equipped with combination 60-cm. reflecting and Baker Schmidt telescope and 40-cm. Cassegrain reflecting telescope; Observatory Library contains 5,000 vols.; Dir. A. M. HEISER.

Association of Universities for Research in Astronomy, Inc.: Box 20732, Tucson, Ariz. 85720; f. 1957; operates the Kitt Peak National Observatory, Arizona, the Sacramento Peak Observatory, New Mexico, and the Cerro Tololo Inter-American Observatory, Chile; library of 30,000 vols.; Pres. G. L. LEE, JR.; Observatory Dir. Dr. L. GOLDBERG; Sec. C. M. BLACK (acting); publ. *Contributions from the Kitt Peak National Observatory and the Cerro Tololo Inter-American Observatory*.

Franklin Institute Research Laboratories, The: The Franklin Institute, Benjamin Franklin Parkway at 20th St., Philadelphia, Pa. 19103; research, development and engineering in the fields of science information services, systems science, physical and life sciences and engineering; Pres. Dr. W. B. LIGHT.

Goddard Institute for Space Studies: 2880 Broadway, New York, N.Y. 10025; astronomy, astrophysics, meteorology, planetary atmospheres; library of 15,000 vols.; Dir. Dr. ROBERT JASTROW.

Hale Observatories: see Carnegie Institution of Washington.

High Altitude Observatory: P.O.B. 3000, Boulder, Colo.; f. 1947; a Laboratory of the National Center for Atmospheric Research; 59 mems.; Dir. GORDON A. NEWKIRK, JR.; publs. scientific articles.

Institute of Polar Studies: Ohio State University, Columbus, Ohio 43210; f. 1960; geology, glaciology, atmospheric sciences, pedology, history; 35 mems.; library of 7,000 vols.; Dir. D. H. ELLIOT; publ. *Report*† (irregular).

Lick Observatory: Mount Hamilton, California; attached to the University of California, Santa Cruz Campus; f. 1888; Dir. D. E. OSTERBROCK, PH.D.

Lowell Observatory: Box 1269, Flagstaff, Ariz. 86002; f. 1894; library of 12,000 vols.; 25 staff; Dir. A. A. HOAG; publ. *Bulletin*.

Lunar Science Institute: 3303 NASA Rd. 1, Houston, Texas 77058; f. 1968 to promote and support research in lunar and planetary studies; library of 6,500 vols., 125

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- periodicals; bibliography of lunar literature; photo-map library containing all extra-terrestrial lunar photography and lunar cartography; Dir. T. R. McGETCHIN; publ. *Lunar Science Information Bulletin*.
- Maria Mitchell Observatory:** The Nantucket Maria Mitchell Asscn., Vestal St., Nantucket, Mass. 02554; f. 1902; research, research training, public lectures and viewings; library of 3,000 vols.; Dir. Dr. DORRIT HOFFLETT; publ. *Annual Report*.
- National Center for Atmospheric Research (NCAR):** P.O.B. 3000, Boulder, Colo. 80307; f. 1960; sponsored by National Science Foundation; operated by the University Corporation for Atmospheric Research; research in weather prediction, climatic trends, solar processes, convective storms, and atmosphere air quality; 650 staff mems.; library of 53,000 items, 600 journals received regularly; Exec. Dir. J. W. FROOK; Dir. F. P. BRETHERTON; publs. *Atmospheric Technology* (2 a year), *NCAR Newsletter* (monthly), *Annual Report*, *NCAR Technical Notes* (irregularly).
- National Radio Astronomy Observatory:** P.O.B. 2, Green Bank, West Virginia, and Edgemont Rd., Charlottesville, Virginia, and Suite 100, 2010 North Forbes Blvd., Tucson, Ariz., and P.O.B. O, Socorro, New Mexico; f. 1956; research in radio astronomy, using a variety of radio telescopes which include a 300-ft. transit radio telescope, a 140-ft. equatorial radio telescope, a 4-element interferometer and a 36-ft. millimetre-wave radio telescope; the 27-element Very Large Array is under construction near Socorro, New Mexico; operated by Associated Universities, Inc., under contract with the National Science Foundation of Washington, D.C.; 329 employees, of which 83 are scientists and engineers; library of 18,000 vols.; Dir. D. S. HEESCHEN.
- Rare-Earth Information Center (RIC):** Energy and Mineral Resources Research Institute, Iowa State University, Ames, Iowa 50011; f. 1966; emphasis on metallurgy and solid state physics; 20,000 vols., including reports, conference proceedings and journals; Dir. KARL A. GSCHEIDNER, JR.; publs. *Rare-Earth Information Center News* (quarterly), occasional bibliographies, compilations, and critical reviews.
- Sacramento Peak Observatory:** Sunspot, New Mexico 88349; f. 1952; conducts solar research; 50 employees, including 10 astrophysicists; library of 4,500 vols.; Dir. R. B. DUNN; publs. research papers.
- Smith Observatory:** Hobart and William Smith Colleges, Geneva, N.Y. 14456.
- Smithsonian Astrophysical Observatory:** 60 Garden St., Cambridge, Mass. 02138; administered by the Smithsonian Institution (see under Learned Societies); mem. of the Center for Astrophysics; research in radio astronomy, theoretical astrophysics, planetary and lunar science, atomic and molecular physics, geoastronomy, high-energy astrophysics, optical and infra-red astronomy, solar and stellar physics; Dir. G. B. FIELD, III.
- Sproul Observatory:** Swarthmore, Pa. 19081; f. 1911; attached to Swarthmore College; 61-cm. Long Focus Refractor; astrometric research; library of 6,000 vols.; Dir. SARAH LEE LIPPINCOTT; publs. *Sproul Observatory Reports* (irregular).
- United States Naval Observatory:** 34th and Massachusetts Ave., N.W., Washington, D.C. 20390; f. 1830; positional astronomy, astrometry, precise time measurement; library of 65,000 vols.; Superintendent Capt. JOSEPH C. SMITH; Scientific Dir. Dr. K. A. STRAND; publs. *American Ephemeris and Nautical Almanac*, *Nautical Almanac*, *Air Almanac*, *Astronomical Phenomena*, *NavObs Circulars*, *Astronomical Papers*, *Time Service Bulletins*.
- Warner and Swasey Observatory:** 1975 Taylor Rd., East Cleveland, Ohio 44112; f. 1920; astronomical research and education (observational facility of the department of astronomy at Case Western Reserve University); library of 15,000 vols.; Dir. PETER PESCH.
- Woods Hole Oceanographic Institution:** Woods Hole, Mass. 02543; f. 1930; research in physical, chemical and biological oceanography, marine geology and marine geophysics, acoustics and ocean engineering; conducts joint Ph.D. programme with Massachusetts Inst. of Technology, postdoctoral fellowship programme and summer student fellowship programme; joint library with Marine Biological Laboratory of 150,000 vols. and 4,500 periodical titles; Pres. PAUL M. FYE; Dir. JOHN H. STEELE; publs. *Collected Reprints* (annually), *Oceanus* (quarterly), *Woods Hole News* (bi-monthly).
- Yale Observatory:** Yale University, Box 2023, Yale Station, New Haven, Conn. 06520.
- Yerkes Observatory:** Williams Bay, Wis. 53191; Department of Astronomy and Astrophysics of the Univ. of Chicago; f. 1897; Dir. Dr. L. M. HOBBS.

PHILOSOPHY AND PSYCHOLOGY

- American Society for Psychical Research, Inc.:** 5 West 73rd St., New York, N.Y. 10023; f. 1885; 2,600 mems.; library of 6,500 vols.; Chester Carlson Research Fellow Dr. KARLIS OSIS; Exec. Sec. LAURA F. KNIFE; publs. *Journal*, *Newsletter* (quarterly).
- Eastern Pennsylvania Psychiatric Institute:** Henry Ave. and Abbotsford Rd., Philadelphia, Pa. 19129; f. 1956; library of 27,800 vols. relating to the behavioural sciences; Dir. CHARLES SHAGASS, M.D. (acting).
- Instituto for Philosophical Research:** 201 East Erie St., Chicago, Ill. 60611; f. 1952; for the study of philosophy from ancient Greek times to the present day; library of 10,000 vols.; Pres. and Dir. MORTIMER J. ADLER; Sec.-Treas. THERESA PANEK; publ. *Concepts in Western Thought*.

RELIGION, SOCIOLOGY AND ANTHROPOLOGY

- American Institute for Research in the Behavioral Sciences:** 135 North Belleneck Ave., Pittsburgh, Pa. 15213; f. 1946; Dir. Dr. MELVIN H. RUBOV; Pres. and Chief Exec. Officer Dr. S. RAISS WALLACE; Sec. Dr. FREDERICK B. DAVIS; publs. *Behavioral Sciences Newsletter* (fortnightly), *Creative Talent Awards* (annual monograph). Office in Palo Alto. 1701 Amstradero Rd.; Dir. and Chair. Dr. JOHN C. FLANAGAN.
- Office in Bangkok, Thailand; P.O.B. 11-45; Dir. Dr. PAUL A. SCHWARZ.
- Offices in Maryland: 10605 Concord St., Kensington, Md.; Dir. Dr. PRESTON S. ANNOTT; and 8555 16th St., Silver Spring, Md.; Dir. Dr. EDWIN A. FLEISHMAN.
- American Schools of Oriental Research:** 126 Inman St., Cambridge, Mass. 02139; f. 1900; approx. 2,000 mems.; Pres. PHILIP J. KISS; support activities of independent archaeological institutions abroad; The Albright Institute of Archaeological Research, Jerusalem, Israel and the American Centre of Oriental Research in Amman, Jordan; publs. *Biblical Archaeologist* (quarterly), *Bulletin* (quarterly), *Journal of Cuneiform Studies* (quarterly), *The Annual*.
- Center for Advanced Study in the Behavioral Sciences:** 202 Junipero Serra Blvd., Stanford, Calif. 94305; f. 1954. Dir. Dr. GARDNER LINDZEY.
- Middle American Research Institute:** Tulane University, New Orleans, Louisiana 70118; f. 1924; for research, education, and publications related to Mexico and Central America; supports publication, archaeological

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excavation and research in humanities and social sciences; small museum gallery; anthropological collections; Dir. E. WYLLYS ANDREWS V.

Middle East Institute: 1701 N St., N.W., Washington, D.C. 20036; f. 1946; to develop and maintain facilities for research, publication and dissemination of information, with a view to developing in the United States a more thorough understanding of the countries of the Middle East; holds an annual conference on Middle East affairs; 1,000 mems.; Pres. Hon. L. DEAN BROWN; publ. *Middle East Journal* (quarterly).

Social Science Research Council: 605 Third Ave., New York, N.Y. 10016; f. 1923; Pres. ELEANOR B. SHELDON; publ. *Social Science Research Council Items* (quarterly).

Wenner-Gren Foundation for Anthropological Research, Inc. (formerly The Viking Fund, Inc.): 14 East 71st St., New York, N.Y. 10021; inc. 1941; promotes and supports research in anthropology and related sciences; Dir. of Research LITA OSMUNDSON.

TECHNOLOGY

Brookhaven National Laboratory: Upton, Long Island, N.Y. 11973; f. 1947; basic and applied research by staff and visiting scientists in the fields of particle accelerators, physics, medicine, biology, chemistry, applied sciences, mathematics, energy and the environment, including the design, development, acquisition and operation of large-scale facilities too costly or complex for an individual university; training of scientists and engineers; dissemination of scientific and technical knowledge; library of 100,000 vols.; Dir. Dr. GEORGE H. VINEYARD.

Building Research Advisory Board: 2101 Constitution Ave., N.W., Washington, D.C. 20418; f. 1949 as a unit of the Nat. Academy of Sciences--Nat. Research Council, undertakes activities concerned with the development and application of technology to serve society's needs for housing, building and related community and environmental design and development.

Combustion Institute: 986 Union Trust Building, Pittsburgh, Pa. 15219; f. 1954; 2,500 mems.; Pres. R. S. LEVINE; Exec. Sec. MARGE C. SALAMONY; publs. *Combustion and Flame* (bi-monthly), *Proceedings of Symposium (International) on Combustion* (biennially).

Herty Foundation: P.O.B. 1963, Savannah, Ga. 31402; f. 1938; research and development of all fibrous materials, particularly forest and agricultural products and synthetic fibres; Dir. W. L. BELVIN.

Industrial Research Institute, Inc.: 100 Park Ave., New York, N.Y. 10017; f. 1938; 240 mem. companies; Exec. Dir. CHARLES F. LARSON; publ. *Research Management* (bi-monthly).

Institute of Textile Technology: P.O.B. 391, Charlottesville, Va. 22902; f. 1944; research, graduate education and information programmes for the textile industry; library of 50,000 vols.; Pres. C. G. TEWKSBURY; Dean R. A. BARNHARDT; publ. *Textile Technology Digest* (monthly).

National Aeronautics and Space Administration--NASA: 27 official addresses, of which the main research centres are:

National Aeronautics and Space Administration, Lyndon

B. Johnson Space Center: Houston, Texas 77058; f. 1961; the Johnson Space Center is responsible for the design, development and testing of manned spacecraft and associated systems, for the selection and training of astronauts and for the operation of manned space flights; Johnson Space Center Technical Library of 49,000 vols., 550,000 technical reports, 600 periodicals; Dir. C. C. KRAFT, JR.; Dir. of Engineering and Development M. A. FAGGT; Dir. of Data Systems and Analysis H. W. TINDALL;

Dir. of Space and Life Sciences RICHARD S. JOHNSON; Dir. of Flight Operations GEORGE W. S. AMBY; Dir. of Administration and Program Support P. H. WHITBECK; Dir. of Center Operations J. V. PILAND; Dir. of Safety, Reliability and Quality Assurance M. L. RAINES; Man. Program Operations Office DONALD D. ARABIAN; attached laboratories:

Earth Resources Laboratory: The Mississippi Test Facility, Bay St. Louis, Miss.; f. 1970; responsible for conducting investigations in the Mississippi-Louisiana-Gulf area in the application of remotely sensed data.

White Sands Test Facility: Las Cruces, New Mexico; f. 1965; conducts developmental and operational tests of spacecraft engines and associated propulsion systems, conducts tests in such areas as materials technology, contamination control, precision cleaning, conducts environmental evaluations of special components and systems, coordinates NASA test projects on White Sands Missile Range.

Goddard Space Flight Center: Greenbelt, Md. 20771; f. 1959; space research; 3,800 mems.; library of 45,000 vols., 35,000 periodicals; Dir. Dr. JOHN F. CLARK.

Amos Research Center: National Aeronautics and Space Administration, Moffett Field, Calif. 94035; Dir. Dr. HANS M. MARK.

John F. Kennedy Space Center: National Aeronautics and Space Administration, Fla. 32899; f. 1964; previously Launch Operations Center; space vehicle launch facility; library of 30,000 vols., 115,000 documents and reports, 600 periodicals; 180,000 specifications and standards; Dir. LEE R. SCHERRER.

Langley Research Center: National Aeronautics and Space Administration, Hampton, Va. 23665; Dir. D. P. HEARTH.

Lewis Research Center: National Aeronautics and Space Administration, 21000 Brookpark Road, Cleveland, Ohio 44135; Dir. R. T. LUNDIN.

George C. Marshall Space Flight Center: National Aeronautics and Space Administration, Alabama 35812; f. 1960; Dir. Dr. W. R. LUCAS.

National Bureau of Standards, The: Washington, D.C. 20234; f. 1901 by Act of Congress to provide assistance to industry, Government and educational institutes; Dir. Dr. ERNEST AMBLER (acting); publs. *Dimensions* (monthly), *Journal of Research of the National Bureau of Standards*.

Organized into five sub-divisions:

Institute for Basic Standards: to provide the central basis for a complete system of physical measurement; co-ordinates that system with measurement systems of other nations; furnishes essential services leading to accurate and uniform physical measurements in science, industry and commerce.

Institute for Materials Research: conducts materials research; produces standard reference materials; advisory and research services to other Government agencies.

Institute for Applied Technology: technical services to facilitate technological innovation in industry and Government; advisory and research services.

Institute for Computer Sciences and Technology: promotes development of standards for ADP equipment, techniques and computer languages; provides technical assistance and consultation for the use of computers in the Federal Government.

Office for Information Programs: provides information services and disseminates the scientific and technical data generated by the Bureau; co-ordinates the National Standard Reference Data System; produces and distributes NBS publications.

PYRGHT

RESEARCH INSTITUTES, LIBRARIES

UNITED STATES OF AMERICA

Stanford Research Institute: 333 Ravenswood Avenue, Menlo Park, California 94025; f. 1946; centre for diversified research into industry and pure and applied science; over 3,000 staff mems. and over 10,000 completed projects; brs. in Washington, D.C., Huntsville, Ala., New York, Chicago, Houston, Los Angeles; overseas offices in London, Stockholm, Zurich, Tokyo; reps. in Paris, Milan, Madrid, Teheran, São Paulo; Pres. CHARLES A. ANDERSON; Exec. Vice-Pres. WELDON B. GIBSON; publ. *Investments in Tomorrow*† (quarterly).

System Development Corporation: 2500 Colorado Ave., Santa Monica, Calif. 90406; f. 1957; design and development of information systems; library of 100,000 vols.; Pres. Dr. GEORGE E. MUELLER.

Textile Research Institute: Princeton, N.J. 08540; f. 1930; basic research and graduate education in the physical and engineering sciences relating to fibrous materials; 80 corporate mems., 100 individual mems.; library of 5,000 vols.; Pres. L. REBENFELD; publs. *Notes on Research*, *Textile Research Journal*.

LIBRARIES

There are many thousands of libraries in the United States, ranging from the small town library of a few hundred volumes to the library in the large city where the number may be reckoned in millions. As limitation of space makes it impossible to list all these, we give a selection classified as follows:

National Libraries.

Government Libraries.

Public Libraries (over 500,000 vols.).

Special Libraries.

State Libraries (over 400,000 vols.)

University Libraries.

NATIONAL LIBRARIES

Library of Congress, The: Washington, D.C. 20540; f. 1800; contains over 73 million items, including 18,240,295 books and pamphlets; the operations, activities and personnel of the library are divided into seven departments.—Administrative, Reader Services, Research, Congressional Research Service, Processing, Law Library and Copyright Office.

Librarian: Dr. DANIEL J. BOORSTIN.

Collections include:

Books for the blind and physically handicapped: 13,000 books in braille, on recorded discs, and on tapes, available in more than 150 co-operating regional and sub-regional libraries in the United States and its territories.

Cartography: 3,583,762 maps, atlases, globes, etc.

Law: over 1.7 million items, including material on American, British, Hispanic, European, Far Eastern, Near Eastern and African Law.

Manuscripts: 32,577,419 manuscripts relating to American history and civilization, including the papers of American Presidents from George Washington to Calvin Coolidge, other statesmen and diplomats, and men and women of letters

Microform: 2,808,203 microforms.

Music: 3,030,673 items of music and music literature; 676,266 sound recordings on discs, tapes, and wires.

Orientalia: more than 1.3 million vols. (173,030 in Chinese and Korean, 106,888 in Hebrew, 366,012 in Japanese, 101,523 from Near East, and 133,660 from Southern Asia).

Prints and Photographs: 217,167 motion pictures and 8,101,080 photographs, among them early daguerreotypes, Mathew Brady photographs, and the work of contemporary photographers.

Rare Books: over 350,000 items, including the largest collection of incunabula in the Western Hemisphere.

Periodicals: includes newspapers, Government Publications and other serial publications.

The Library's priority remains service to the Congress of the United States, but it now performs, in its role as the national library, services to other libraries which include: development of scientific schemes of classification (Library of Congress and Dewey Decimal), subject headings, and cataloguing embracing the whole field of printed matter; a centralized acquisition and cataloguing programme in which publications are acquired worldwide and cataloguing data distributed to other libraries by means of printed cards, machine-readable tapes,

and printed book catalogues; editing for publication a *National Union Catalogue, Pre-1956 Imprints*, which will have 11 million entries for significant holdings of major American libraries; publication of the *National Union Catalogue*, a record of acquisitions by American libraries since 1950; an inter-library loan system; the exchange of duplicates with other libraries; and the provision of advice on technical matters relating to the preservation and restoration of library collections.

Services to the public include: registration of creative work for copyright; use of 2 general and 13 special reading rooms; reference and bibliographic services; research and referral services in science and technology; photoduplication for a fee of items in the collections not subject to copyright or other restrictions; chamber music concerts and literary programmes; lectures and symposia, such as the series in observance of the Bicentennial of American Independence; publication of guides, catalogues, proceedings, facsimiles of rare items in the collections, etc.; sale of recordings of poetry and folk music; exhibits in Library buildings; guided tours. Publs. *Library of Congress Publications in Print* (annual), *Calendar of Events* (monthly), *Information for Readers, Special Facilities for Research* (available upon request).

National Agricultural Library: U.S. Dept. of Agriculture, Beltsville, Md. 20705; 1,500,000 vols.; agriculture and the related sciences; especially collection of botany, zoology, chemistry, veterinary medicine, forestry, plant pathology, general agriculture; Dir. RICHARD A. FARLEY.

National Archives and Records Service: National Archives Bldg., Pennsylvania Ave., Washington, D.C. 20408; the National Archives, created as an independent agency in 1934, was transferred in 1949 to the newly established General Services Administration, in which it became the National Archives and Records Service; it now consists of the Office of the National Archives, the Office of the Exec. Dir., the Office of Records Management, the Office of Educational Programs, the Office of Federal Records Centers, the Office of the Federal Register, and the Office of Presidential Libraries, all headed by the Archivist of the United States. NARS administers a Federal archive system of 23 institutions, including 15 national records centers and 7 Presidential libraries. It selects, preserves and administers Federal Records of enduring value and prescribes standards and methods for the efficient management of current records of the Federal Govern-

CANADA

RESEARCH INSTITUTES

RESEARCH INSTITUTES

(see also under Universities)

GENERAL

Alberta Research Council: 11315 87th Ave., Edmonton, Alberta T6G 2C2; f. 1921; scientific and technological research with the aim of assisting and developing industry in the province of Alberta; library of 7,000 vols., 12,000 reports, 400 periodicals, geological maps; Dir. of Research Dr. E. J. WIGGINS.

British Columbia Research Council: 3650 Wesbrook Mall, Vancouver, B.C. V6S 2L2; f. 1944; independent, non-profit organization; technical service and research in all branches of industry, ecology, economics, biology, etc.; library of 9,518 vols., 400 periodicals and 15,000 separates; Dir. P. C. TRUSSELL; publs. *Annual Report*, *Guidelines to Industrial Progress*, *Productivity Caseload*.

Nova Scotia Research Foundation Corporation: 100 Fenwick St., P.O.B. 790, Dartmouth, Nova Scotia B2Y 3Z7; f. 1947; 95 mems.; library of 11,000 vols.; assists economic development of Nova Scotia by promoting effective use of science and technology by government and industry; undertakes research and development to that end; Pres. Dr. J. E. BLANCHARD; Sec.-Treas. T. B. NICKERSON; publ. *Annual Report*.

Ontario Research Foundation: Sheridan Park, Mississauga, Ont. L5K 1B3; f. 1928; Chair. H. M. GRIFFITH; Pres. W. R. STADELMAN; Sec. J. N. MATTHEWS; library of 21,000 vols.; publs. *Annual Report*, *Newsletter* (monthly).

Saskatchewan Research Council: 30 Campus Drive, Saskatoon, Sask. S7N 0X1; f. 1947 to advance the development of the Province through research in chemistry, engineering, geology, physics, industrial services and management consulting; c. 150 staff; library (Saskatchewan Information Retrieval Centre) of 9,000 vols. and 400 periodicals; Exec. Dir. Dr. TOM PEPPER.

AGRICULTURE

Canadian Forestry Service: Ottawa, Ont. K1A 0H3; f. 1899; three main areas of activity: forest resource research and services (development and improvement of techniques for managing, protecting and harvesting the forests); forest products research and services (developing improved wood products and processing technology); support of university research; budget of approx. \$35 million; 1,400 personnel; Dir.-Gen. Dr. R. J. BOURECHER; publs. *Canadian Forestry Service Bi-Monthly Research Notes*, *Research News* (bi-monthly), reports, departmental publs., etc.

Research establishments:

Pacific Forest Research Centre: 506 West Burnside Rd., Victoria, B.C.; Dir. M. H. DRINKWATER.

Northern Forest Research Centre: 5320 122nd St., Edmonton 70, Alberta; Dir. Dr. G. T. SILVER.

Great Lakes Forest Research Centre: Box 400, 1180 Queen St., E. Sault Ste. Marie, Ont.; Dir. J. H. CAYFORD.

Laurontian Forest Research Centre: Box 3800, 1080 Route du Vallon, Ste. Foy, P.Q.; Dir. Dr. J. S. MAINI.

Maritimes Forest Research Centre: Box 1000, College Hill, Fredericton, N.B.; Dir. Dr. R. M. BAYLRA.

Newfoundland Forest Research Centre: Box 5430, Bldg. 104, Pleasantville, St. John's, Newfoundland; Dir. Dr. R. J. CARROLL.

Forest Fire Research Institute: Nicol Bldg., 331 Cooper St., Ottawa; Dir. D. E. WILLIAMS.

Eastern Forest Products Laboratory: Montreal Rd., Ottawa; Dir. (vacant).

Forest Management Institute: Majestic Bldg., 396 Cooper St., Ottawa; Dir. Dr. L. SAYN-WITTGENSTEIN.

Forest Pest Management Institute: 1210 Queen St. East, Sault Ste. Marie, Ont.; Dir. Dr. G. W. GREEN.

Western Forest Products Laboratory: 6620 N.W. Marine Drive, Vancouver 8, B.C.; Dir. Dr. R. W. KENNEDY.

Petawawa Forest Experiment Station: Chalk River, Ont.; Dir. R. F. ACKERMAN.

HISTORY, GEOGRAPHY AND ARCHAEOLOGY

Interuniversity Centre for European Studies: 1193 Phillips Square, Pavillon Philippe 8250, C.P. 8888, Montreal H3C 3P8; f. 1972 to promote contact between those working on European subjects in an historical framework, to augment the scholarly and teaching resources available to them, and to encourage individual and group research; 500 mems.; documentation centre of c. 20 periodicals and 20 bulletins, etc.; Dir. Prof. CHARLES L. BERTRAND; publ. *Newsletter* (2 a month during academic year).

MEDICINE

Canadian Dental Research Foundation: 1815 Alta Vista Drive, Ottawa, Ont. K1G 3Y6; f. 1920; Sec. Dr. W. G. McINTOSH.

Medical Research Council: Ottawa, K1A 0W9; f. 1960; function is to promote, assist and undertake basic, applied and clinical research in Canada in the health sciences; Pres. (vacant); Sec. Miss D. J. WRIGHT; publs. *MRC Newsletter* (quarterly), *Report of the President* (annually), *MRC: Grants and Awards Guide* (annually).

National Cancer Institute of Canada: 77 Bloor St. West, Suite 401, Toronto, Ont. M5S 2V7; Pres. Dr. L. G. ISRAELI; Exec. Dir. Dr. R. A. McBERTH.

Ontario Cancer Treatment and Research Foundation: 7 Overlea Blvd., Toronto M4H 1A8; f. 1943; treatment, diagnosis and research in cancer; Chair. J. R. H. KIRKPATRICK, D.S.C.; Medical Dir. K. J. R. WIGHTMAN, M.D., F.R.C.P.(C), F.A.C.P.; Sec.-Treas. J. H. BROUGHTON, B.COM., C.A.; publs. *Cancer in Ontario*, *Proceedings of the Clinical Conferences*.

NATURAL SCIENCES

General

Arctic Institute of North America: University Library Tower, 2020 24th Ave., N.W., Calgary, Alberta T2N 1N4; f. 1915; multi-disciplinary research on physical, biological and social sciences; 300 fellows, 1,500 mems.; library of 30,000 vols.; Exec. Dir. Dr. JONAS S. TENER; publs. Special publications, Technical publications, *Arctic* (quarterly).

International Development Research Centre: P.O.B. 8500, Ottawa, Ont., K1G 3H0; f. 1970 by Act of the Canadian Parliament; to support and conduct research in the developing regions of the world in the fields of agriculture, food and nutrition sciences; information sciences; population and health sciences; social sciences and human resources; Pres. Dr. W. DAVID HOPFER; Sec. JAMES C. PERIFER; publs. annual report, *IDRC Reports* (quarterly).

CANADA

WORLD OF LEARNING

National Research Council of Canada: Ottawa K1A 0R6; f. 1916; laboratory divisions of biosciences, building research, chemistry, Herzberg Inst. of Astrophysics, mechanical engineering, National Aeronautical Establishment, physics, electrical engineering; Prairie Regional Laboratory, Saskatoon and Atlantic Regional Laboratory, Halifax; Pres. W. G. SCHNIDER, M.Sc., Ph.D., D.Sc., LL.D., F.R.S.C., F.R.S.; publs. *Canadian Journals of Biochemistry, of Botany, of Chemistry, of Civil Engineering, of Earth Sciences, of Geotechnology, of Microbiology, of Physics, of Physiology and Pharmacology, of Zoology, Forest Research, Annual Report, NRC Science Dimension* (bi-monthly), brochures.

Biological Sciences

Huntsman Marine Laboratory: Brandy Cove, St. Andrews, N.B.; f. 1900 with the co-operation of universities, two Int. Foundations, Fisheries Research Board of Canada and the Province of New Brunswick Dept. of Fisheries; research and teaching in marine sciences; Pres. Dr. J. M. ANDERSON; Exec. Dir. Dr. W. B. SCOTT.

Physical Sciences

Algonquin Radio Observatory: Lake Traverse, Ont.; operated by the National Research Council; includes 150 ft.-diameter radiotelescope completed in 1966.

Astronomical Observatory: Quebec; f. 1854, reorganized 1941; operated by the Quebec Centre of the Royal Astronomical Society of Canada, with the co-operation of the Provincial Govt.; Dir. YVON DUFOR.

Atmospheric Environment Service: 4905 Dufferin St., Downsview, Ont. M3H 5T4; f. 1839; a service of the Federal Dept. of Fisheries and Environment; Canadian Meteorological Centre at Montreal; offices at Vancouver, Whitehorse, Edmonton, Regina, Winnipeg, Toronto, Montreal, Halifax and Gander; 60 civil Weather Offices and an Ice Forecast Central; Asst. Deputy Minister Dr. W. L. GODSON; Dir.-Gen. Central Services M. K. THOMAS; Dir.-Gen. Field Services L. T. CAMPBELL; Dir.-Gen. Atmospheric Research Dr. J. CLODMAN; publs. *Monthly Record of Meteorological Observations in Canada, Canadian Weather Review, Monthly Radiation Summary, Snow-Cover Data Canada* (annually), *Supplementary Precipitation Data* (2 a year), *Meteorological Summaries* (monthly and annually), *Meteorological Tower Bulletin, Ozone Data for the World, Annual Record of Operations*.

Canadian 220 MHz NMR Centre: Department of Medical Genetics, University of Toronto Medical Sciences Building, Toronto, Ont. M5S 1A8; f. 1970; a national centre for high field NMR spectroscopy; administered by the representatives of industry, universities and the Government; Dir. Dr. A. A. GREY.

David Dunlap Observatory of the University of Toronto: Richmond Hill, Ont.; f. 1935; 50 mems.; library of 25,000 vols.; Dir. D. A. MACRAE.

Dominion Astrophysical Observatory: RR7, Victoria, B.C. V8X 3X3; f. 1918; 40 mems.; 8,300 vols.; Dir. SIDNEY VAN DEN BUGH, A.B., M.Sc., DR. RER. NAT. (ASTRON.), F.R.S.C.; Sec. D. CROWE; publs. *Publications of the Dominion Astrophysical Observatory*†, *Contributions of the Dominion Astrophysical Observatory*†.

Earth Physics Branch, Department of Energy, Mines and Resources: 1 Observatory Crescent, Ottawa, Ont. K1A 0Y3; f. 1905 as Dominion Observatory, reorganized 1970; global and Canadian solid earth geophysics; 172 staff mems.; library of 52,000 vols.; Dir.-Gen. Dr. K. WHITHAM; publs. *Publications of the Earth Physics Branch, Contributions from the Earth Physics Branch, Seismological, Geothermal, Gravity Map, Geodynamics, Geomagnetic series*.

Geological Survey of Canada: 601 Booth St., Ottawa, Ont. K1A 0E8; f. 1842; geological research and investigations throughout Canada; branch Institute of Sedimentary and Petroleum Geology in Calgary, Alberta, Centre for Research on Geology of the Western Cordillera in Vancouver and Atlantic Geoscience Centre for Research in Marine Geology and Geophysics in Dartmouth, Nova Scotia; library of 150,000 vols. and maps; Dir. Dr. D. J. McLAREN; publs. *Memoirs, bulletins, economic geology reports and papers, open files*.

RELIGION, SOCIOLOGY AND ANTHROPOLOGY

Humanities Research Council of Canada: 151 Slater St., Ottawa, Ont. K1P 5H3; f. 1913 to promote research in the humanities and to represent the humanities community in Canada; Chair, JEAN PAPINEAU-COIFFURE; Academic Dir. DAVID W. STEEDMAN; publs. *Bulletin, Annual Report*.

Institute for Christian Studies: 220 College St., Toronto, Ont. M5T 1R4; f. 1967; sponsored by the Asscn. for the Advancement of Christian Scholarship; interdisciplinary teaching and research; Exec. Dir. ROBERT E. VANDERVENNEN.

International Center for Research on Bilingualism--Contro International de recherche sur le bilinguisme: Cité Universitaire, Sainte-Foy, Quebec G1K 7P4; f. 1967; basic research on bilingualism, biculturalism, and related phenomena; Exec. Dir. J. G. SAVARD.

Social Science Federation of Canada: 151 Slater St., Ottawa, Ont. K1P 5H3; Pres. J. DEBUCKA; Dir. J. J. LOUISER; publs. *Annual Report, Social Sciences in Canada* (quarterly).

TECHNOLOGY

Atomic Energy of Canada, Ltd.: 275 Slater St., Ottawa K1A 0S4, Ont.; f. 1952; development of economic nuclear power systems; research in nuclear science, exploitation of radiation sources and radio isotopes, nuclear power station marketing; Pres. J. S. FOSTER.

Establishments:

Chalk River Nuclear Laboratories: Chalk River, Ont.; f. 1944; nuclear reactors (NRU, NRU, Pool Test Reactor PTR and ZED-2), tandem Van de Graaff accelerator, equipment for nuclear research and engineering development; Vice-Pres. A. J. MOORADIAN.

Commercial Products Division: South March, Tunney's Pasture, Ottawa, Ont.; f. 1946; Radio isotopes and radiation resources; Vice-Pres. J. M. BEDDOES.

Power Projects Division: Sheridan Park, Ont.; f. 1958; Design, development, construction of nuclear power stations; consulting services; Vice-Pres. G. A. PON.

Whiteshell Nuclear Research Establishment: Pinawa, Man.; f. 1960; one nuclear reactor, equipment for nuclear research and engineering development; Vice-Pres. R. G. HART.

Canada Centre for Inland Waters: P.O.B. 5050, Burlington, Ontario, L7R 4A6; f. 1967; one of the principal research laboratories and survey centres of the Dept. of the Environment; undertakes physical, chemical, biological and social research for the purpose of improved fresh water management; also serves as a base for the conduct of surveys into water quality and quantity, and for hydrographic charting; library of 30,000 vols.; Dir. A. R. LE FEUVRE; publs. annual report and various papers.

Institute for Aerospace Studies: 4925 Dufferin St., Downsview, Ont. M3H 5T6; f. 1949; an interdisciplinary institute of the University of Toronto; research in applied and basic fields; serves industrial research and

development needs in government and industry; facilities include one of the best-equipped laboratories in Canada; 15 academic staff; library of 68,000 vols.; Dir. Prof. J. H. DE LEEUW, PH.D.; publs. *Progress Report* (annually), etc.

Pulp and Paper Research Institute of Canada: 570 St. John's Blvd., Pointe Claire, Que. H9K 3J9; f. 1925; pulp and paper research, contract research and technical services; postgraduate training programme in co-operation with McGill University; staff of over 250; library of 14,000 vols.; Pres. Dr. P. R. GENDRON; Sec.

K. E. VROOM; publs. *Annual Report, TREND Magazine* (1-2 a year).

Research and Productivity Council: P.O.B. 6000, Fredericton, N.B. E3B 5H1; f. 1962; independent organization providing scientific, engineering, technical and management services to governments and companies in primary, manufacturing and service industries; staff of 61; library of 4,500 reference vols., 300 periodicals; Exec. Dir. Dr. CLAUDE BURSILL, M.A., M.Sc., PH.D.; publs. *Records, Research Notes* (both irregular), *Annual Reports*.

LIBRARIES AND ARCHIVES

ALBERTA

Calgary Public Library: 562,180 vols.; 13 branches; special section on petroleum; Librarian E. LES FOWLIE.

City of Edmonton Archives: 10105 112th Ave., Edmonton T5G 0H1; f. 1971; reference library of 2,500 vols., also MSS., photographs and maps of the city; Man. HELEN LAROSE.

Edmonton Public Library: 7 Sir Winston Churchill Square, Edmonton; f. 1913; 700,000 vols., 18,000 audio-visual items; Librarian VINCENT RICHARDS.

Glenbow-Alberta Institute Library and Archives: 9th Ave. and 1st St. S.E., Calgary T2G 0P3; 35,000 vols., 125,000 photographs and a large collection of manuscript materials, chiefly on Western and Northern Canada; Librarian L. J. GOTTSSELIG; Archivist Miss S. S. JAMESON.

Legislature Library: 216 Legislature Bldg., Edmonton, Alberta T5K 2B6; f. 1906; parliamentary library of 100,000 vols. and documents; Librarian D. B. McDougall; publs. *Annual Report, Directory of Alberta Government Libraries* (irregular).

Provincial Archives of Alberta: 12845 102nd Ave., Edmonton; f. 1963; collections of non-current govt. records, private papers, municipal records, photos, taped interviews and maps pertaining to the history of Alberta; special collection of Western Canadian in Historical Resources Library (10,000 vols.); circulating and recent accession exhibitions; Provincial Archivist ALAN D. RIDGE; publs. *Information Leaflets, Publication Series*.

University of Alberta Library: Edmonton; f. 1909; 1,781,763 vols.; Librarian BRUCE BRADEN PEEL, M.A., B.L.S.

University of Calgary Library: f. 1966; 820,000 vols.; Librarian KENNETH M. GLAZIER, PH.D., M.L.S.

BRITISH COLUMBIA

Fraser Valley Regional Library: Headquarters: 2469 Montrose Ave., Abbotsford, B.C. V2S 3E2; f. 1930; 26 branches, 2 bookmobiles; 328,000 vols.; 1,300 films; maps; music scores; pamphlets; photographs; Dir. W. H. OVEREND.

Provincial Archives: Victoria; f. 1893; 50,000 vols.; Provincial Archivist ALLAN R. TURNER.

Legislative Library: Victoria; f. 1893; 500,000 vols.; Librarian J. G. MITCHELL.

University of British Columbia Library: Vancouver V6T 1W5; f. 1912; 1,650,000 vols.; Librarian B. STUART-STUBBS, B.A., B.L.S.

Vancouver Island Regional Library: Headquarters: 10 Strickland St., Nanaimo, B.C.; f. 1936; 25 branch libraries and bookmobile service; 280,000 vols.; Librarian FRED T. WHITE, M.A., B.L.S.

Vancouver Public Library: Vancouver; f. 1887; 700,000 vols.; 180,000 pamphlets; 12 hrs., one bookmobile; Librarian MORTON P. JORDAN.

Vancouver School of Theology Library: 6050 Chancellor Blvd., Vancouver, B.C. V6T 1X3; f. 1971; 55,000 vols.; Librarian Dr. GUENTER STROTHUTTE.

MANITOBA

Law Society of Manitoba Library: Law Courts, Winnipeg 1; f. 1877; 40,000 vols.; Librarian Mrs. DEIRDRE K. HARVEY.

University of Manitoba Libraries: Winnipeg R3T 2N2; 1,080,000 vols.; f. 1877; collections supporting 13 faculties and 7 schools, inc. arts, science, education, engineering, agriculture, medicine, dentistry, architecture, music, law and Icelandic studies; Dir. W. ROYCE BUTLER, M.L.S., M.A.

NEW BRUNSWICK

Bibliothèque Champlain: Université de Moncton, Moncton; f. 1965; 200,000 vols.; Librarian ALBERT LEVESQUE, B.A., B.BIBL., M.L.S.

Harriet Irving Library: University of New Brunswick, Fredericton; f. 1800; 700,000 vols. and 682,000 microforms; Librarian GERTRUDE GUNN, PH.D.

Legislative Library: Fredericton; f. 1841; 50,000 vols.; Librarian JOCELYNE LEBEL.

R. P. Bell Library: Mount Allison University, Sackville, N.B. E0A 3C0; 240,000 vols.; Librarian ELEANOR MAGEE, B.A., B.Sc., M.L.S.

NEWFOUNDLAND

Memorial University of Newfoundland Library: St. John's; 710,000 vols., 1.3 million micro-units; Librarian THEODORE D. PHILLIPS.

Provincial Archives of Newfoundland and Labrador: Colonial Bldg., St. John's; Provincial Archivist F. BURNHAM GILL.

NOVA SCOTIA

Acadia University Library: Wolfville; f. 1843; 310,000 vols.; Librarian ISOBEL HORTON, B.A., B.L.S.

Angus L. Macdonald Library: St. Francis Xavier University, Antigonish; 225,000 vols.; Librarian Rev. CHARLES BREWER; publ. *The Antigonish Review* (quarterly).

Dalhousie University Library System: Halifax, N.S. B3H 4H8; f. 1868; 454,438 vols., c. 8,000 periodicals; University Librarian Mrs. DOROTHY L. COOKE.

W. K. Kellogg Health Sciences Library: Dalhousie University, Halifax; f. 1868, reorganized 1915 and 1967; 108,014 vols.; Librarian ALAN H. MACDONALD.