

Locating Unclassified Government-Sponsored Research Reports

By R. E. Maizell

MANY physicists will recall Dwight Gray's article on unpublished research reports which appeared in *Physics Today* (June 1957, p. 18). This article showed that for the technical reports that contained publishable data, all such information is published within two to three years for only half of these reports. There are probably more reports today than when this study was completed. It therefore becomes a matter of increasing importance to obtain these reports promptly and, if possible, prior to publication in a journal. The problem is one which is particularly acute for those scientists who are not working on such government-sponsored projects and, hence, find it more difficult to obtain published government research reports, even if these reports are unclassified.

There are several agencies in the government today organized so as to make such reports available to physicists and other scientists, including those who are not on government-sponsored research projects.

Many physicists are already familiar with these channels for obtaining such reports. But for those who are not and for those who may not be familiar with the latest developments, the following suggestions may be helpful.

The National Science Foundation has taken the lead in helping make unpublished research reports more readily available to the scientist. Under the direction of Mr. Gregory Abdian, Program Director for Unpublished Research Information, the National Science Foundation maintains a continuing program designed to improve the availability of government research reports. One step in this program is the preparation of a series of bulletins describing, for each agency of the federal government, the broad subject areas in which research is conducted, the nature of the reports being issued, the availability of the reports, and the means by which copies of reports or other information about an agency's scientific information services can be obtained. This series, being published by the National Science Foundation, is entitled *Scientific Information Activities of Fed-*

eral Agencies, and the first two publications of the series, covering the Department of Agriculture and the Office of Naval Research, have already been issued. These booklets appear to be written more for the documentalist than the scientist.

An extensive reference center for reports on government-supported scientific research is maintained at the Science and Technology Division of the Library of Congress. Mr. John Sherrod is chief of this Division. Here many thousands of unclassified government research reports are placed under bibliographic control and are made available to the public for personal searching and review. The collection embraces reports of the Armed Services Technical Information Agency, the Atomic Energy Commission, other government agencies, and government reports from foreign countries. The maintenance of this report reference center is supported in part by funds from the National Science Foundation. Simple written requests to locate unclassified government reports on any given subject are handled without charge. Also, extensive bibliographies can be prepared on a contract basis. Pertinent government research reports found in a search of the Library of Congress catalogs may be purchased from the Office of Technical Services, which is described below.

The activities of the Office of Technical Services (OTS) of the Department of Commerce are noteworthy. Mr. John Green is director of the Office of Technical Services. One function of OTS is to collect unclassified research reports and to publicize the availability of such reports through its monthly catalog, *U. S. Government Research Reports*. The second function of OTS is to make these reports available for sale to the public. The Office of Technical Services is the principal government agency responsible for the dissemination of unclassified government research reports to scientists and organizations not affiliated with federally supported or sponsored research projects. OTS also provides a limited reference service on the reports in its collection. All reports handled by OTS are known as PB reports.

Under support from the National Science Founda-

Robert E. Maizell directs the American Institute of Physics' program of research on documentation and publishing in physics.

EXPLORE NEW AREAS AT IBM IN

Now under development at IBM are new, unusual electronic computing systems that will greatly strengthen man's understanding and control of his environment. In one project, for example, advances in acoustics, oceanography, and information theory are being coordinated to yield a data system that will sentinel the ocean's depths. Another group is applying a computer's logic and computational capabilities to analyze, correlate, and identify data input signals to data acquisition systems. In the late development stage is an extremely high-speed, large-capacity computing system which will automatically handle the large volumes of detailed records and communications required by a nationwide sales operation. To staff such efforts, scientists, mathematicians, and engineers of vision and imagination are needed.

Laboratory facilities are located in Endicott, Poughkeepsie, Kingston, Owego, and Yorktown Heights, N. Y.; Lexington, Ky.; and San Jose, California.

Qualifications: B.S. or advanced degree in Electrical or Mechanical Engineering, Physics, or Mathematics—and proven ability to assume a high degree of technical responsibility in your assignments.

COMPUTER SYSTEMS

CAREERS ALSO AVAILABLE IN THESE AREAS . . .

Acoustics	Inertial guidance
Applied mathematics & statistics	Information retrieval
Applied physics	Logical design
Circuit design & development	Magnetics
Component engineering	Microwaves
Computer analysis	Operations research
Cryogenics	Programming
Flight test analysis	Radar circuitry
Human factors	Transistor circuit design

For details, write, outlining background and interests, to:

Mr. R. E. Rodgers, Dept. 640L
IBM Corporation
590 Madison Avenue
New York 22, N. Y.

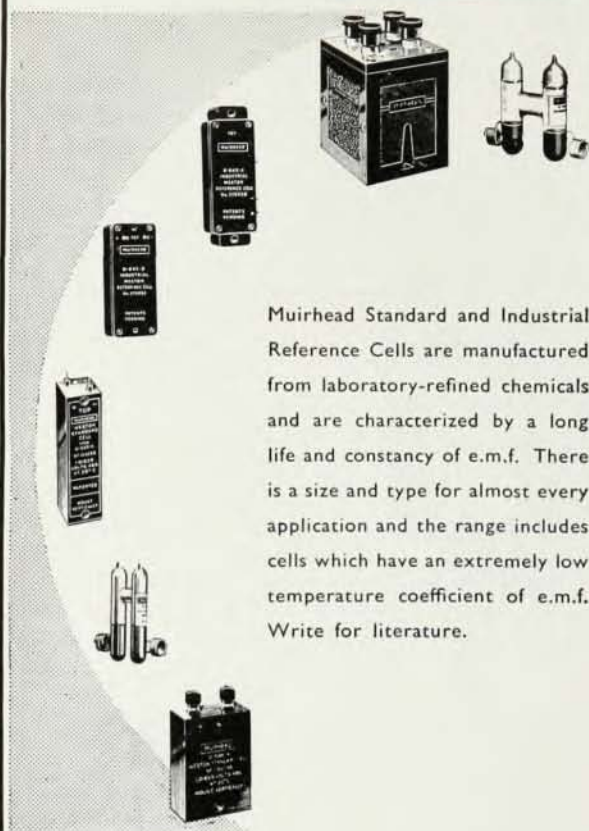
IBM®

INTERNATIONAL BUSINESS MACHINES CORPORATION

FOR LABORATORY AND INDUSTRY

a complete range of WESTON CELLS

by

MUIRHEAD

Muirhead Standard and Industrial Reference Cells are manufactured from laboratory-refined chemicals and are characterized by a long life and constancy of e.m.f. There is a size and type for almost every application and the range includes cells which have an extremely low temperature coefficient of e.m.f. Write for literature.

MUIRHEAD TECHNIQUE

A technical journal edited and published quarterly by Muirhead & Co. Limited. Free on request. In addition to articles by our own engineers, giving news about the latest designs, developments and applications of Muirhead products, there are also many articles by engineers outside the company, describing specialized projects in which Muirhead equipment plays its part.

415



MUIRHEAD INSTRUMENTS INC • 441 LEXINGTON AVE • N.Y.17 • U.S.A.
Phone: Murray Hill 2-8131
MUIRHEAD INSTRUMENTS LIMITED • STRATFORD • ONTARIO • CANADA
Phone: 3717-8
MUIRHEAD & CO. LIMITED • BECKENHAM • KENT • ENGLAND
Phone: BEC 4888

tion, the coverage of the collections of the Office of Technical Services is being extended to include information in the basic research fields.

A search of the published indexes to the unclassified report literature usually involves one or more of the following: *The Monthly Catalog* of the U. S. Superintendent of Documents; *Nuclear Science Abstracts*, issued by the Atomic Energy Commission, and *U. S. Government Research Reports*, issued by the Office of Technical Services. If these published sources fail, the scientist then should refer to the Library of Congress and the Office of Technical Services as previously described.

The largest number of reports of interest to physicists is handled by two government agencies: The Armed Services Technical Information Agency (ASTIA) and the Atomic Energy Commission.

ASTIA is the principal agency for the collection and dissemination of classified and unclassified reports issued by the Department of Defense and its contractors. ASTIA does not service organizations or individuals who are not contractors of the Department of Defense. However, many of the reports handled by ASTIA, known as AD reports, are available through the Office of Technical Services and the Library of Congress. Those reports available for sale to the public through OTS are listed in *U. S. Government Research Reports*.

With National Science Foundation support, the Office of Technical Services and the Library of Congress are cooperating in the preparation of correlation and subject indexes for approximately 40 000 unclassified ASTIA reports within the AD range from one through 75 000. In addition to subject analysis of the contents of the reports, the correlation index will give the so-called PB report number equivalent for each AD number, thus facilitating the ordering of copies of the report from the Office of Technical Services. These indexes will be offered for sale by OTS when completed.

Under its civilian application program, the Atomic Energy Commission makes available some of its report facilities to scientists who are not on government research contracts. AEC reports are first announced in *Nuclear Science Abstracts* and their availability for sale to the general public is announced in *U. S. Government Research Reports*.

Many unclassified government research reports are available in locations other than Washington. The depository libraries of the Superintendent of Documents of the Government Printing Office, the Field Offices of OTS and the depository libraries of the Atomic Energy Commission should be mentioned as sources of availability of government research reports.

With the increasing emphasis that the government is putting on the availability of unpublished research reports to scientists not on government research contracts, it is hoped that an increasing number of physicists will take advantage of these materials. The American Institute of Physics stands ready to help advise in this connection.

BEYOND THE RIM

Today mankind is embarked on the most exciting voyage of discovery since Columbus sailed beyond the rim of the known world.

In a physical sense, it is a voyage that ranges from investigation of the infinitesimal components of matter to exploration of the vastness of the cosmos.

But at Sandia Laboratory it is a voyage of the mind—a voyage beyond the rim of our present comprehensions, to unlimited destinations. Here at Sandia, we perform research and development pertaining to nuclear weapons and certain allied non-military projects for the Atomic Energy Commission. We need men with the knowledge, the experience, and the desire to venture beyond the rim in many fields of science and engineering. At present, we have challenging opportunities in many fields.

In particular, physicists at the PhD level will find many new and challenging front-

tiers of research in such fields as solid state physics, physical electronics, hydro-magnetics, radiation effects, combustion processes, high temperature physics, theoretical mechanics, and geophysics. Typical programs now being carried out include studies of electronic versus ionic nature of ferroelectricity, structural changes induced in polymers by radiation, the preheat zone in propellant combustion, charge exchange in gaseous discharge, and neutron-induced defects in semiconductors. Others concern the examination of physical phenomena involved in ferroelectric and ferromagnetic transducers under explosively-produced stresses, refraction of blast waves in the atmosphere, energy transfer at high altitudes, earth motion close to underground nuclear bursts, and neutron diffusion calculations.

Sandia Laboratory offers many advanced and specialized facilities to further work

of its scientists and engineers. Equipment available, or in the process of installation, includes an electron and positive ion Van de Graaff accelerator, a 5-megawatt tank-type heterogeneous nuclear reactor, a wind tunnel operating in subsonic through hypersonic ranges, digital and analogue computers, and various devices developed for specialized uses.

Liberal employee benefits, including generous vacations and holidays, insurance and retirement plans, educational aid program, add to Sandia's attractiveness as a place to work. And Albuquerque, a city of over 225,000 with a mild, dry climate and friendly Southwestern atmosphere, is a delightful place in which to live.

IF YOU ARE INTERESTED in a career at Sandia, our illustrated brochure will tell you more about the opportunities we offer to advanced scientists and engineers. Write to Staff Employment Section 559G.

SANDIA
CORPORATION



ALBUQUERQUE, NEW MEXICO