programs designed to help meet those needs.

At least ten other federal agencies are engaged in abstracting and indexing, translating, preparation of technical reports, and research related to information needs. These agencies are asked to cooperate in providing or arranging for acquisition and reference programs, clearinghouse functions, and evaluation studies of existing programs. Research on new and improved methods of information handling will be emphasized, and the Department of State will take the lead in encouraging cooperation among the United States, foreign, and international scientific information organizations.

**Subcommittee on Scientific Information**

The President's Science Advisory Committee considered the whole problem of such importance that earlier this year it appointed a special subcommittee to consider the subject at length. Headed by W. O. Baker, vice president (research), Bell Telephone Laboratories, the subcommittee comprises the following members: Curtis Benjamin, president McGraw Hill Book Company; Caryl P. Haskins, president, Carnegie Institution of Washington; Elmer Hutchisson, director, American Institute of Physics; Warren C. Johnson, dean, Division of Physical Sciences, University of Chicago; Don K. Price, dean of the School of Public Administration and Littauer professor, Harvard University; H. Scoville; and Alan T. Waterman, director, National Science Foundation.

In submitting its findings, the subcommittee paid special tribute to the work of individual scientists and engineers in selecting, interpreting, and abstracting scientific and technical information. It noted the fact that the services rendered by many of the scientific societies and professional institutions to the scientific community in the information field are world famous for their quality. It expressed the hope that such private groups would continue to cooperate with and assist the Federal Government in the achievement of long-range solutions to scientific information problems. The subcommittee's conclusions form the basis for the recommendations submitted to the President by the Science Advisory Committee.

## Pioneer III

The United States space probe rocket Pioneer III, which was fired from Cape Canaveral, Fla., on 6 December, reentered the atmosphere and burned up due to aerodynamic heating on 7 December, after a flight of 38 hours, 6 minutes. William H. Pickering, director of the Jet Propulsion Laboratory, operated by California Institute of Technology for the National Aeronautics and Space Administration, made the following statement about the results of the flight.

"Pioneer III . . . provided us with an unexpected dividend of information of great value. The Puerto Rico Tracking Station was in contact with Pioneer III . . . until it fell below the Puerto Rico horizon on its long journey back to earth. Puerto Rico lost the signal from the probe . . . when it was approximately at 2000 miles altitude above the earth over French Equatorial Africa.

"This means, of course, that the telemetry from the probe was heard by Puerto Rico as the probe passed through the radiation belt discovered by the Explorer satellites. The telemetry tapes from Puerto Rico for both the launch and the trip back to earth show solid data which will give us, for the first time, information as to some of the energy levels in the radiation belt as well as some idea of the physical limits of the belt.

"While the results of the launch of Pioneer were disappointing to the engineering specialists in that the probe did not reach the moon, the scientific benefit to be obtained from this dividend of two long instrumented passes through the Van Allen radiation belt more than compensates for this disappointment.

"I am greatly pleased with this significant result of the experiment, as well as by the evidence that the tracking network proved itself most efficiently. The large computer at the Jet Propulsion Laboratory in Pasadena was able to predict most accurately the time and place when Pioneer III would rise like a star on the horizon so that the tracking antenna at Goldstone and Puerto Rico could be positioned to receive the signal.

"Telemetry also shows that the method used by JPL to control the interior temperature of the instrumentation also worked perfectly. White paint was used on the outer surface of the probe to control the amount of heat received from the sun and the amount radiated to space. In order to preserve the instrumentation, it was necessary to control the temperature within 10 and 50 degrees Centigrade. Telemetry shows that the temperature reached 43 degrees Centigrade (100 degrees Fahrenheit) shortly after launch and remained at that level throughout the life of the probe."

## AAAS Board of Directors

The Council of the American Association for the Advancement of Science has elected Chauncey D. Leake, assistant dean of the College of Medicine at Ohio State University, as president-elect of the Association. Leake has been a member of the Board of Directors since 1955, a member of the Publications Committee since 1955, and chairman of the Committee on the Social Aspects of Science since 1957. In 1942 and 1954 he served as vice president and chairman of Section L—History and Philosophy of Science.

H. Bentley Glass, professor in the department of biology at Johns Hopkins University, was elected as a member of the Board of Directors, and Margaret Mead, associate curator of ethnology at the American Museum of Natural History, was elected to a second 4-year term on the board.

The new officers will begin their terms on 15 January 1959.

## Grants, Fellowships, and Awards

*General.* The National Academy of Sciences–National Research Council has announced a program of postdoctoral resident research associateships to be offered for 1959–60. The participating laboratories are the National Bureau of Standards (Boulder, Colo., and Washington, D.C.); the Naval Ordnance Laboratory (White Oak, Silver Spring, Md.); the Naval Research Laboratory (Washington, D.C.); the Navy Electronics Laboratory (San Diego, Calif.); and the U.S. Army Chemical Corps Biological Warfare Laboratories (Fort Detrick, Frederick, Md.).

The Air Research and Development Command is also participating in this program at four Air Force installations. These associateships are tenable at Air Force Cambridge Research Center (Bedford, Mass.); Air Force Missile Development Center (Alamogordo, N.M.); Rome Air Development Center (Rome, N.Y.); and Wright Air Development Center (Dayton, Ohio). In addition, the ARDC is sponsoring a program of postdoctoral university research associateships tenable at 21 universities in the United States.

The resident research associateships have been established to provide young scientists of unusual ability and promise an opportunity for advanced training in basic research in a variety of fields. Modern facilities are available in specified areas of the biological, physical, and mathematical sciences, and engineering. In addition to the above, research in certain areas of psychology is available.

Applicants must be citizens of the United States. They also must produce evidence of training in one of the listed fields equivalent to that represented by the Ph.D. or Sc.D. degree and must have demonstrated superior ability for creative research. Remuneration for these associateships is from $5985 to $7510 a year, subject to income tax.