

myself were kept quite busy recording our data and piloting our inner-space craft.

"At around 6000 feet we began to feel the chill creeping into the sphere and we took a few minutes out to change into our heavy clothing. . . .

"We inched our way from 5500 down to 6300 fathoms, a distance of some 4800 feet. The bottom was touched as lightly as a feather, though we did stir up a cloud of mud when the sphere touched. After about 20 minutes of data-taking on the bottom, we released shot and headed for the surface."

Geological Survey Reports

Accomplishments during 1959

Increased mapping activities, widespread investigations in geology and water resources, and new production highs from mineral and petroleum leases on public lands are described by the U.S. Geological Survey in its annual report for fiscal year 1959. During the year the survey marked its 80th anniversary (3 March 1959).

In topographic mapping, activities were carried on in every state, the District of Columbia, Puerto Rico, and the Virgin Islands. A total of 2439 maps were prepared for printing and distribution, of which more than 1600 constituted new mapping. A stock of some 30 million—about 21,000 different quadrangles—is available now, covering nearly half the total area of the United States.

Nearly 355 permanently marked triangulation stations were established to provide control for areas totaling more than 30,700 square miles. A new map of Tennessee was published, and maps of a number of other states are being compiled. Cooperative programs totaling \$4 million were in effect in 34 states, Puerto Rico, and the Virgin Islands, the federal government meeting half the cost.

Research Appraises Resources

Survey geologists, continuing investigations and appraisals of United States geologic and mineral resources through comprehensive research programs, carried on approximately 425 active projects. Results of geologic investigations were reported in 27 professional papers, 65 bulletins, 91 maps, and 2 circulars published by the Geological Survey, in 43 reports released in open file, and in approximately 250 articles published in scientific journals.

New geophysical data about various areas of the country were provided through airborne radioactivity and magnetic surveys. Several new geologic, geophysical, and geochemical studies were directed toward the discovery of concealed ore deposits. Geologic mapping and stratigraphic studies designed to aid exploration programs in the mineral fuels field were in progress in 30 states, and Survey scientists participated in a special study of the nation's productive capacity of petroleum through 1975.

Water-resources investigations included the systematic collection, analysis, interpretation, and publication of hydrologic and related geologic data. Stream-flow data were obtained from about 7100 gaging stations. Some 640 ground-water investigations were in progress, and sediment and chemical quality studies were being made throughout the country, covering the most important river basins and ground-water aquifers.

Survey conservation activities were aimed at assuring proper development and use of water and mineral resources on federally controlled lands. This work required field surveys; preparation of maps and reports dealing with water power, fuels, minerals, and chemicals; and on-site supervision of mining and drilling operations.

Approximately 33,623 cases concerned with mineral classification were handled; 400 miles of stream-channel surveys and nine dam-site surveys were investigated; the operation of 4018 mining properties, in 34 states, and of about 151,000 oil and gas properties was supervised. Yields from the oil and gas properties were appreciably higher than in the previous fiscal year.

Hospitalization Rate for Persons over 60 Years of Age

More men than women at age 60 and over go to the hospital, but the men stay a shorter time than the women, it is reported by statisticians of the Metropolitan Life Insurance Company. Experience among Metropolitan's personnel indicates that the hospital admission rates in 1957 and 1958 averaged 156 per 1000 annually for men and 98 per 1000 for women. However, the average stay was 16.8 days for men, and 27.8 days for women.

The group under study, all aged 60 and over, included office and field personnel at work, on disability pensions, or

retired. The statisticians point out that these persons are protected under a liberal hospitalization insurance program. The yearly hospitalization rate among males rose from 159 per 1000 at ages 60 to 64 to 185 per 1000 at age 75 and over. In each age group more men were hospitalized for nonsurgical than for surgical conditions. The two types of cases were about even for women.

The duration of hospitalization per case increased steadily with advance in age among both men and women, and for surgical as well as for nonsurgical conditions. Among males, the average stay per case for all causes combined increased from 13.3 days at ages 60 to 64 to 24.6 days at age 75 and over. Among the women, the average rose correspondingly from 16.3 to 37.5 days.

Among males, abdominal and urologic operations accounting for nearly three-fifths of the surgical cases. Heart disease accounted for one-third of the nonsurgical cases. Ranking next in order of frequency were digestive disorders, respiratory conditions, circulatory conditions other than heart, and diseases of the central nervous system. In general, the pattern of hospitalization for women resembled that for men, with abdominal operations the leading type of surgical condition and heart disease the most frequent cause of hospitalization for nonsurgical conditions.

AAAS Laurentian Hormone Conference

The 1960 Laurentian Hormone Conference of the AAAS will be held at Mont Tremblant Lodge, Mont Tremblant, Quebec, 4-9 September. Investigators interested in attending this conference should make application to the Committee on Arrangements of the Laurentian Hormone Conference, 222 Maple Ave., Shrewsbury, Mass., at as early a date as possible and in any event no later than 13 May. The conference rate is \$14 per day per person. Since the number of participants is necessarily limited by available accommodations, all applicants are screened; invitations to attend are issued by the second week in June.

The meeting is divided into five sections—on testes function, hormones and reproduction, aldosterone, hormones and electrolyte metabolism, and hormones and organic metabolism. The program includes work by the following investigators from Canadian and European institutions: H. Nowakowski and

W. Lenz, Univ.-Klinik und Poliklinik, Hamburg-Eppendorf, Germany; Robert L. Noble, University of Western Ontario, London, Canada; E. Diczfalusy and Carl Gemzell, Karolinska Institutet, Stockholm, Sweden; Jean Bertrand, Hôpital Edouard Herriot, Lyon, France; Claude J. P. Giroud, Montreal Children's Hospital, Montreal; Norman Kalant, Jewish General Hospital, Montreal; R. H. Despointes and D. Das Gupta, Montreal Children's Hospital.

News Briefs

Biophysics placement service. The fourth annual meeting of the Biophysical Society will be held at the Sheraton Hotel, Philadelphia, Pa., 24-26 February. A new feature will be the institution of a placement service. This service will be available to registrants free of charge. Rooms for interviews will be available. Further information and forms for registration by prospective employers and candidates prior to the meetings may be obtained by writing to: Irving Gray, 3504 Preston Court, Chevy Chase, Md.

Seamount. A submerged "island," which probably existed as a true island 8000 to 10,000 years ago, has been discovered in the South Atlantic, 550 miles west of the Cape of Good Hope, by Columbia University scientists aboard the university's research vessel *Vema*. The formation, a geological seamount, rises 15,980 feet from the ocean floor, higher than any peak in the United States, except in Alaska. Its top, in the form of a circular platform, is 210 feet below the surface of the ocean; one isolated knob rises to within 120 feet of the surface. The formation is about 35 miles across at the base and about 5 miles across at the top.

Computers. The Denver Research Institute of the University of Denver will hold a Symposium on Computers and Data Processing at the Stanley Hotel in Estes Park, Colo., 28-29 July. The continuing theme of this series of meetings is the advanced treatment of basic problems in computer technology. Papers will be presented in the fields of components and devices, logic design, and philosophy of computer design. Although the program will be comprised largely of invited papers, a limited number of others will be selected for presentation. Authors who wish to submit papers should send

abstracts of approximately 150 words, no later than 1 April to: W. H. Eichelberger, Denver Research Institute, University of Denver, Denver 10, Colo.

Draft deferment. A leaflet entitled "Critical Personnel and the Draft" has been prepared by the Scientific Manpower Commission (1507 M St., NW, Washington 5, D.C.). In the spring of 1959 Congress extended the draft act by 4 years, but with the knowledge that administration of the act by the Selective Service System is more liberal than it was previously with respect to the deferment of critical personnel. Among the latter are students and teachers of science, mathematics, and engineering and research workers and professionals in these fields. Queries about the operation of the law have been so numerous that the Manpower Commission has released the leaflet to help employers and Selective Service registrants.

Radioisotopes. An international symposium on radioisotopes in the biosphere was held recently at the University of Minnesota under the sponsorship of the Atomic Energy Commission, the National Science Foundation, and the Agricultural Research Service of the Department of Agriculture. Proceedings will be published by the University of Minnesota at cost. The hard-cover volume may be obtained at a prepublication price of \$6.50. Orders must reach the Center for Continuation Study at the university (Minneapolis 14, Minn.) before 1 April.

Atomic energy meetings. The Atomic Energy Commission has published a 29-page catalog, *Proceedings of Technical Meetings*, which is available, without charge, from the commission's Technical Information Service Extension, P.O. Box E, Oak Ridge, Tenn. The catalog lists and describes the published proceedings of 126 selected meetings, conferences, and symposia held during the past 10 years and sponsored, cosponsored, or participated in by the commission or its contractors. Information on the availability and price of the *Proceedings* for each of the meetings is also given.

Soviet spectroscopy. The Optical Society of America has recently undertaken the translation and publication of the Russian journal *Optika i Spektroskopiya*, with the help of a grant from the National Science Foundation. This translation journal is being dis-

tributed free to all OSA members; it is also available to nonmembers on subscribing to the *Journal of the Optical Society*, at \$25 per year. For nonmember subscriptions, write to the American Institute of Physics, 335 E. 45 St., New York 17, N.Y.

Chemical Society division. The American Chemical Society has announced the establishment of a Division of Public, Professional, and Member Relations at ACS headquarters in Washington. James H. Stack, managing editor of the ACS News Service, has been appointed director of the new division. Roy Avery, assistant managing editor of the News Service, becomes managing editor. The News Service has been made a part of the new division but will remain in New York.

Biological handbooks. The Federation of American Societies for Experimental Biology, Washington, D.C., has been awarded a 2-year grant by the National Science Foundation for partial support of the Office of Biological Handbooks, which is operating at the federation headquarters under the direction of Philip L. Altman. Other agencies supporting the Office of Biological Handbooks are the National Institutes of Health and the Department of the Air Force.

Dental journal. A new journal, *Dental Progress*, to be published by the University of Chicago Press, will seek to bridge the gap between the researcher and the clinician. The Institute of Dental Research of the U.S. Public Health Service has made a 5-year grant of \$137,000 to the University of Chicago to finance the undertaking. Rollin D. Hemens of the University of Chicago is executive editor, and George W. Teuscher, dean of the Northwestern University Dental School, has been selected as editor.

Mathematics. The Society for Industrial and Applied Mathematics has announced the first issue of volume 4 of *Theory of Probability and Its Applications*. This is a complete translation into English of the corresponding issue of the Russian quarterly journal *Teoriya Veroyatnostei i ee Primeneniya*. During 1960 the society will publish separate translations of all four issues of volume 4 (1959), will begin the translation of volume 5, and will publish in bound form full translations of volumes 1 (1956), 2 (1957), and 3 (1958). It is expected that by early