

News Notes

Cores Obtained from Beneath Deep Ocean Bottom for First Time

For the first time in history, man has taken cores from beneath the deep ocean bottom, according to an announcement by the National Academy of Sciences-National Research Council and the National Science Foundation. The cores were taken from under 11,700 feet of water near Guadalupe Island, off the western coast of Mexico.

Despite winds that averaged 25 miles per hour and 12-foot waves, the *CUSS I* drilling barge was held in position during the 61-hour drilling and coring operation.

The cores were obtained during experimental drilling for Project Mohole—a project set up to drill through the earth's crust to the mantle. Mohole is being carried out by the AMSOC Committee of NAS-NRC under grants from the National Science Foundation. The experimental drilling, under the direction of Willard Bascom, is being done by crews from Global Marine Exploration Company of Los Angeles, which owns and operates the *CUSS I*.

The diamond drilling bit first touched bottom at noon on 28 March. At 9 P.M. the first core, 53 centimeters long, was taken. The hole was then deepened to 234 feet below the ocean floor, and a second core, 60 centimeters long, was obtained. Both cores are firm, greenish-gray clay. They have been put aboard the *Spencer F. Baird*, oceanographic vessel of the Scripps Institution of Oceanography, University of California, for preliminary study.

The success of the experimental program demonstrates that scientists can now probe deep below the ocean floor to gain more knowledge about life as it existed many millions of years before man, and much more precise information about the age, composition, and structure of the earth.

U. S. and French Space Agencies Negotiate for Cooperative Research

In informal technical discussions in Washington, 20–21 March, representatives of the U.S. National Aeronautics and Space Administration and the French Comité des Recherches Spatiales affirmed their desire to cooperate in space science research of mutual in-

terest. A memorandum of understanding between the two agencies was released. It listed the following initial steps.

1) The Comité expects to make detailed proposals for experiments in the VLF, auroral and airglow, and biological fields, with the expectation that these experiments will be prepared by the Comité and flown, as mutually agreed, in appropriate scientific sounding rockets by NASA.

2) Further arrangements by the Comité are contemplated for the preparation of experiments to be incorporated in satellites to be launched by NASA, provided favorable results are obtained in rocket soundings.

3) The two organizations will exchange information regarding the design, equipment, and operation of a scientific sounding-rocket launching site. Such exchanges will include technical visits.

4) As an initial step toward mutual exchanges of personnel, NASA will accommodate, in its space science centers, technicians sponsored by the Comité.

What Is the Rate of Return on Investment in Education?

How much additional income does money spent on a college education yield? This fundamental question will be explored by the National Bureau of Economic Research with the aid of a \$75,000 grant from the Carnegie Corporation of New York. In the next 2 years the National Bureau will try to find out exactly how much all students, parents, alumni, corporations, foundations, governments (local, state, and federal), and others have spent on education—elementary, secondary, college, and on-the-job training—and how to calculate the rate of return on these investments in education.

From this and other information, Gary S. Becker, professor of economics at Columbia University and a member of the National Bureau's research staff, will attempt to determine what education contributes to a nation's economic growth. His conclusions are expected to be of particular value to new nations which face the problem of deciding whether to invest their limited funds in education or in industrialization.

In another phase, important to all nations, the study will investigate the

factors that influence college students in choosing a field of study and ways in which college courses govern their choice of occupation. Do students gravitate toward fields offering the highest earnings, the greatest opportunities for advancement, or the best opportunities for service?

News Briefs

Population of India. The population of India has been officially estimated at 438 million, according to a census completed in February. This represents an increase of about 21.5 percent in the last 10 years, a rise that is considerably above the most liberal of earlier estimates. By comparison, the population increase from 1941 to 1951 was 13.34 percent.

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Chartered plane to Europe. A group of AAAS members in the Boston area who are delegates to the International Pharmacology Congress in Stockholm and the International Chemotherapy Meeting in Naples, to be held next summer, plan to charter a plane for the round trip. The flight from Boston to Frankfurt will be on 17 August, and that from Paris to Boston, on 20 September.

There may be room on the plane for other conference delegates. Those interested in participating in the cooperative travel plan should communicate with Dr. Thomas C. Hall, Oncology Division, Medical Services, Lemuel Shattuck Hospital, 170 Morton St., Boston 30, Mass.

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Edison awards. At the Sixth National Mass Media Awards Dinner of the Thomas Alva Edison Foundation, held recently in New York, the following awards were among those presented.

Best science television program for youth. "Expedition!"; accepted by Henry Plitt, president, American Broadcasting Company Films.

Special citation in recognition of brilliant leadership in the conception of the radio and television science series. "The Nature of Things" and "Science Review," to the Canadian Broadcasting Corporation; accepted by Keith Morrow, director of Radio and Television English Networks, Canadian Broadcasting Corporation.

Best children's science book. *Animal Clocks And Compasses*; accepted

by Margaret Hyde, author, and by Edward Booher, president, McGraw-Hill Book Company.

Best science book for youth. *Saturday Science*, by scientists of the Westinghouse Research Laboratories; accepted by Andrew Bluemle, editor, and Elliott B. MacRae, president, E. P. Dutton and Company.

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Careers in science. A revised edition of *Careers in Science*, a selected bibliography for high school students, has been prepared by the AAAS Science Library Program. Compiled by program director Hilary J. Deason and William B. Blacklow, bibliographic assistant, the pamphlet lists 21 pages of publications helpful to high school students who plan to continue their education in a university or college, and more specifically, to those who are considering careers in the pure or applied sciences (including mathematics). The pamphlet, which costs 15 cents, may be obtained from the AAAS Science Library Program, 1515 Massachusetts Ave., NW, Washington 5, D.C.

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International cooperation. Surgeon General Luther L. Terry has announced the first Public Health Service grants to U.S. universities to establish international centers for medical research in cooperation with foreign medical institutions. The grants were made to the University of California, Tulane University, Johns Hopkins University, and the University of Maryland. The awards are authorized by Public Law 86-610, which seeks to "advance international status of the health sciences through cooperative enterprises." Five million dollars was provided by Congress to launch the program.

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Science in Antarctica. A comprehensive technical survey of geophysical, biological, and medical research in Antarctica has been prepared by the Committee on Polar Research of the National Academy of Sciences. In his foreword to the report, Laurence M. Gould, chairman of the committee and president of Carleton College, states that the purposes of the report are (i) to outline promising areas of scientific research in the Antarctic, (ii) to indicate the value and interest of antarctic studies to scientists throughout the nation, and (iii) to suggest the general importance of the United States antarctic research program as a national effort.

The work has been published in two

parts: part 1, *The Life Sciences in Antarctica*, and part 2, *The Physical Sciences in Antarctica*. A limited number of copies are available from the National Academy of Sciences, 2101 Constitution Ave., NW, Washington 25, D.C. (\$1.50 for each part).

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Suicide rate. About 18,000 persons die by their own hand in the United States each year, according to the Metropolitan Life Insurance Company. This is at least twice the number of homicides and about 12 times the number of people killed in aircraft accidents of all kinds. Suicide ranks 11th among the causes of death; among white males, who account for about three-fourths of all suicides in the United States, it ranks eighth.

The relative frequency of suicide is appreciably higher in the United States than in Canada; the rates in 1958 were 10.7 and 7.5 per 100,000, respectively. The U.S. rate is several times that of Ireland, Greece, or a number of Latin American countries. On the other hand, our suicide rate is only half that recorded for Austria, Hungary, West Germany, or Japan.

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Radioisotopes in industry. The Atomic Energy Commission has available for loan or for sale a new, 57-minute color motion picture, *Industrial Applications of Radioisotopes*. The 16-mm semitechnical film is a survey of the current uses of radioisotopes in American industry. It can be used for television projection, and is available from the commission's domestic and overseas film libraries.

Grants, Fellowships, and Awards

Crippling diseases. To make it possible for distinguished university professors to continue research activities after arbitrary retirement age, the Easter Seal Research Foundation of the National Society for Crippled Children and Adults, Inc., has announced creation of new awards to be known as Distinguished Service Awards for Professors Emeriti.

First recipient of one of the awards is the noted obstetrician Nicholson J. Eastman of Johns Hopkins University, who for 2 years will continue his study of the obstetrical background of cerebral palsy under an Easter Seal grant.

The new program is open only to retired full professors who devote substantial time to research and who will

have a continuing opportunity for research in a university or other major facility. Individuals in nonmedical fields related to rehabilitation of the crippled are also eligible for consideration. Further information may be obtained from the society's headquarters, 2023 W. Ogden Ave., Chicago 12, Ill.

North American fauna. The American Museum of Natural History has announced the establishment of the Theodore Roosevelt Memorial Fund to "help provide the necessary means of encouraging studies on the North American fauna to which Theodore Roosevelt, 26th President of the United States, devoted so much of his time and energy." Grants will be made to individuals conducting research in any phase of wildlife conservation or in related fields of North American natural history included in the activities of the American Museum.

Preferably, grants will be made to younger scientists, particularly to graduate students. Applications for grants for the current calendar year should be sent by 1 May to: Director, American Museum of Natural History, Central Park West at 79th St., New York 24, N.Y.

Scientists in the News

The Atomic Energy Commission has announced that five United States scientists have been selected to receive the Ernest Orlando Lawrence Memorial Award for 1961. The \$5000 awards will be presented on 28 April at AEC Headquarters in Germantown, Md., to the following men.

Leo Brewer, Lawrence Radiation Laboratory, University of California, Berkeley, for "singular contributions and leadership in the development of high temperature chemistry which have permitted major advances in reactor development."

Henry Hurwitz, Jr., General Electric Company Research Laboratory, Schenectady, N.Y., for "important contributions requiring unusual analytical skill and physical insight to the theory and design of nuclear reactors."

Conrad L. Longmire, Los Alamos Scientific Laboratory, Los Alamos, N.M., for "continued and original theoretical contributions, requiring unusual physical insight, to the development of nuclear weapons and the progress of plasma physics."

Wolfgang K. H. Panofsky, High Energy Physics Laboratory, Stanford

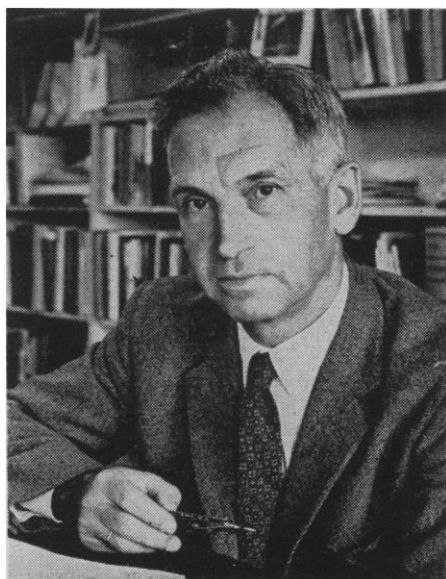
University, Palo Alto, Calif., for "outstanding contributions to nuclear physics and to the international control of nuclear testing."

Kenneth E. Wilzbach, Argonne National Laboratory, Argonne, Ill., for his "development of methods of tritium labelling of biologically important compounds which have permitted major advances in biology and medicine."

The commission is making the awards upon the recommendation of its General Advisory Committee and with the approval of the President. Assisting the Committee in the preliminary screenings of the nominations were the AEC Advisory Committee for Biology and Medicine and four panels of distinguished scientists and engineers in the fields of physics, chemistry and metallurgy, weapons, and reactors.

Ernst Mayr, Alexander Agassiz professor at Harvard University's Museum of Comparative Zoology, will succeed Alfred S. Romer as director of the museum on 1 July. Romer, who leaves the directorship after 15 years in the post, will continue to teach and to do research at Harvard.

George Cunningham, Sir William Collins professor of pathology at the Royal College of Surgeons, London, is spending the month of April as visiting professor of pathology at the State University of New York Downstate Medical Center in Brooklyn. He is particularly interested in the problem of lung cancer and is expected to lecture on this subject during his stay at the Medical Center.



Ernst Mayr

Luther L. Terry has been sworn in for a 4-year term as Surgeon General of the U.S. Public Health Service. Terry, whose appointment by President Kennedy was confirmed by the Senate last month, succeeds **Leroy E. Burney**, who resigned on 30 January.

The Silliman Memorial Lectures for 1961 at Yale University will be given by **René J. Dubos** of the Rockefeller Institute. The series, entitled "Medical Future of Human Populations," will be given at 5 P.M. on four successive days, 17-20 April.

The American Heart Association has named **Earl H. Wood** of Rochester, Minn., to the lifetime post of career investigator. Wood is professor of physiology at the Mayo Foundation, University of Minnesota Graduate School, and consultant in physiology to the Mayo Clinic. His appointment is the tenth in the career investigatorship category, which was established by the Heart Association 10 years ago.

Jesse L. Greenstein, of the California Institute of Technology, will discuss "Stellar Evolution and the Origin of the Chemical Elements" as a Sigma Xi national lecturer at a number of colleges during April and May.

The American Society of Zoologists has announced that the following corresponding members have been elected by the executive committee: **B. L. Astaurov**, Moscow, U.S.S.R.; **F. Baltzer**, Bern, Switzerland; **Louis Gallien**, Paris, France; **Giuseppe Montalenti**, Naples, Italy; **C. F. A. Pantin**, Cambridge, England; **B. Rensch**, Münster, Germany; **Paulo Sawaya**, São Paulo, Brazil; **Gunnar Thorson**, Helsingör, Denmark; **Nikolaas Tindbergen**, Oxford, England; and **Tohru Uchida**, Sapporo, Japan.

Cecil W. Mann, professor of psychology at Tulane University, will retire on 31 May. As of 1 September, he will be professor of psychology at Western Carolina College at Cullowhee, N.C., where he also expects to teach in the summer session.

J. Rubin, chairman of the department of soils and water, Israel National and University Institute of Agriculture, Rehovot, and associate professor at Israel Institute of Technology, is now on leave in the United States. He will be at the University of California, Berkeley, until June.

Recent Deaths

Harry L. Fisher, Claremont, Calif.; 76; an authority on rubber chemistry and technology, who for 4 years before his retirement in 1957 directed research at the Rubber Technology Foundation of the University of Southern California; in 1954, was president of the American Chemical Society; held 56 patents; taught at Columbia University, from 1912 to 1919; was a research chemist for the Goodrich Rubber Company for 7 years, and for the U.S. Rubber Company for 10 years; 9 Mar.

Norman Gilbert, Winter Park, Fla.; 86; emeritus professor of physics at Dartmouth College, where he taught for 42 years, beginning in 1903; visiting professor of physics at Rollins College until 1952; wrote two popular textbooks on physics; 21 Mar.

John F. Hennion, Piermont, N.Y.; Columbia University specialist in marine seismic refraction and reflection; was chief research scientist aboard the university's research ship *Vema*, now on an expedition off the west coast of South America; 17 Mar.

Isfred I. Hofbauer, Cincinnati, Ohio; 89; a leader in modern gynecology and obstetrics, who was one of the first to use hormones to avoid some dangers of childbirth (the Hofbauer cells in the placenta are named for him); conducted extensive research in endocrinology; was associate professor of obstetrics at Johns Hopkins University before accepting appointment, in 1933, as associate professor of obstetrics at the University of Cincinnati; 13 Mar.

Henry N. Kenwell, Buffalo, N.Y.; 60; chief surgeon at Millard Fillmore Hospital, Buffalo, and associate professor of surgery at the University of Buffalo Medical School; 13 Mar.

Esper S. Larsen, Jr., Washington, D.C.; 81; for 25 years taught mineralogy and petrography at Harvard University, retiring as professor in 1949; geologist with the U.S. Geological Survey from 1918 to 1923 and (upon his retirement from Harvard) from 1949 to 1958; a member of the National Academy of Sciences and recipient of many honors in geology; 7 Mar.

Max Mason, Claremont, Calif.; 83; mathematical physicist and a former president of the University of Chicago and of the Rockefeller Foundation; had taught at Massachusetts Institute of Technology, Yale University, the University of Wisconsin, California Institute of Technology, and Claremont Men's College; 23 Mar.