1923

CLARENCE R. OWENS and his wife were killed in a traffic accident in January. The news was reported to Caltech by their son, Frederick, Owens was retired and lived in Chino, Calif.

1925

LINUS PAULING, PhD, Caltech research associate in chemistry and a staff member of the Center for the Study of Democratic Institutions in Santa Barbara, recently became the first recipient of the Linus Pauling Medal. This award, established by the Puget Sound and Oregon sections of the American Chemical Society, will be given annually for outstanding achievement in chemistry.

1927

O. F. RITZMANN retired in December after 37 years with the Gulf Oil Corporation in Pittsburgh. In November he was awarded an honorary membership in the Society of Exploration Geophysicists in recognition of his distinguished contributions to geophysics and to the society.

1928

W. MORTON JACOBS has assumed the presidency of the Southern California Gas Company. He moves to this position from the Pacific Lighting Service and Supply Co., where he has been serving as president since 1961.

1929

LESLIE OWEN SCOTT died in November in Visalia, Calif., of a heart attack. Scott had been operating his own distributing company for engineering equipment—Valesco, Inc.—since 1955 when he retired as a colonel in the U. S. Army Corps of Engineers.

1930

WARREN N. ARNQUIST, PhD, is a research scientist in the advanced research laboratories of Douglas Aircraft Co., Inc., in Huntington Beach, Calif. He reports that he was leader of the company's solar eclipse expedition to Arequipa, Peru, last November.

GEORGE L. REYNOLDS is business manager of the Southern California Presbyterian Homes, which operates three retirement homes in the area.

ROBERT W. WILSON, MS '32, PhD '36, professor of paleontology and director of the Museum of Geology at the South Dakota School of Mines and Technology, has been awarded a Fulbright research award by the Austrian-American Educational Commission for a year at the University of Vienna. He will be doing paleontological

research of fossil vertebrate faunas of the Vienna Basin in an attempt to correlate them in time with the fossil faunas of the high plains area of the U.S. Wilson, who has been with the South Dakota school since 1961, will begin his sabbatical in September, 1967.

1931

RUSSELL L. BIDDLE, PhD, who retired recently from the City College of New York, is professor in the department of biological sciences at Florida Atlantic University in Boca Raton.

PERRY M. BOOTHE, MS '32, a captain in the U.S. Navy, is now serving on General William Westmoreland's staff in Saigon, Vietnam.

1933

E. R. KENNEDY, MS '34, PhD '36, an engineer of materials research for the Port of New York Authority, is heading a group recruited to undertake basic research to discover areas where chemistry and physics can aid civil engineers.

J. CLIFTON SPADE will return home from Germany in June after working for a year and a half on the F-104G airplane test program for Lockheed Aircraft Corp.

1934

ROBERT O. BOYKIN JR. is with Esso Chemical Inter-America in Coral Gables, Fla. He is working in construction management as a part of Esso's program for building fertilizer and chemical plants throughout Latin America.

1935

KENNETH S. PITZER, president of Rice University in Houston, Tex., has been elected a trustee of the Carnegie Foundation for the Advancement of Teaching.

VERNE LEON PEUGH died suddenly in October at his home in Belmont, Calif. He was 67. Peugh had been active in the engineering field for many years and had been lecturing at Stanford University since 1963. He is survived by his wife, a daughter, and four grandchildren.

1936

EUCLID V. WATTS, a vice president with the Mobil Oil Company, died in Houston in December. Watts joined Mobil in 1936 and became a vice president in 1959. Survivors include his wife, a son, and two daughters.

1937

ERNEST MONCRIEF has been appointed vice president of the Houston division of the Fluor Corporation, Ltd. Mon-

crief, who joined Fluor in 1937 as a project engineer, has served as vice president of project and design engineering at the company's headquarters in Los Angeles since 1962.

1938

SIDNEY BERTRAM, a staff scientist with the Bunker-Ramo Corporation in Canoga Park, Calif., was elected a fellow by the IEEE for "contributions to sonar and to the design of computer driven stereomapping systems."

MUNSON W. DOWD, MS '46, has been named to the new position of chief design engineer for the Metropolitan Water District of Southern California.

J. KNEELAND NUNAN, MS, has accepted an invitation to become assistant director of defense research and engineering in the office of the Secretary of Defense in Washington, D.C.

1940

ROBERT B. YOUNG, vice president of Aerojet-General Corp., has been elected a fellow in the American Institute of Astronautics and Aeronautics.

1941

GILBERT A. JONES announces his entry into private practice as a consulting engineer in Glendale, Calif. He will specialize in the planning, design, and construction of water pumping and distribution systems. Jones was previously chief electrical and mechanical engineer for Bookman-Edmonston Engineering, Inc., of Glendale.

1942

STEWART DAVIS has recently been elected vice president of the Syracuse Supply Co. in New York. He has been manager of the company.

1944

ROBERT J. PARKS, Surveyor Project manager at Caltech's JPL, recently received the Air Force Association citation as Aerospace Industry "Man of the Year."

1945

DUANE T. McRUER, MS '48, president of Systems Technology, Inc., in Hawthorne, Calif., has been elected a fellow of the Institute of Electrical and Electronic Engineers.

1946

WARREN W. BERNING, MS, chief of the ballistic measurements laboratory in the Ballistic Research Laboratories in Baltimore, was head of the joint U.S.-Brazilian effort to make atmospheric studies near Rio de Janeiro during the total solar eclipse last November. As technical director of the U.S. Defense Atomic Support Agency's solar eclipse expedition to South America, Berning organized and directed the launch of the Nike missile which gathered information about the eclipse.

JOHN S. SHOWELL, MS '49, has joined the National Science Foundation in Washington, D.C., as associate program director for organic chemistry. He has been senior research chemist at the Eastern Regional Research Laboratory in Philadelphia.

1947

CHARLES M. DUKE, MS '47, a brigadier general in the U.S. Army Corps of Engineers, has been assigned to Vietnam as deputy engineer and deputy commander of engineer troops. Duke and his wife, Vernice, have a son at the University of North Carolina and a daughter in junior high school in Washington, D.C.

DAVID P. SHOEMAKER, PhD, left this month for a half-year sabbatical at the Laboratoire d'Electrostatique et de Physique du Metal at Grenoble, France.

E. ARTHUR TRABANT, PhD, has been appointed vice president for academic affairs for the Georgia Institute of Technology in Atlanta. Prior to this appointment Trabant was dean of the school of engineering at the State University of New York in Buffalo.

1949

WILLIAM E. ARCHER and his family will leave their Portuguese Bend, Calif., home in February to sail around the world, via the South Seas, aboard their 60-foot staysail schooner Mytoy. The Archers and another family, co-owners of the Mytoy, will stop at La Paz and Honolulu. Archer plans to resign from his position as a mechanical engineer in research and development at Western Precipitation Inc., in Los Angeles.

BYRON C. KARZAS has been elected a vice president of Duff and Phelps, Inc., of Chicago, a public utility investment and financial analysts firm. Karzas joined the company in 1956 and has served as an assistant vice president since 1965.

1950

WILLIAM D. WARTERS, MS, PhD '53, has been promoted to director of the transmission systems research center of the Bell Telephone Laboratories in New Jersey. Since joining Bell Laboratories in 1953, Warters has been engaged in waveguide research. He has been head of the company's repeater research department since 1961.

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At AC Electronics the solar system is our workshop. Some of our work is far out. Like building the guidance/navigation system for Apollo and LM; or working on SABRE, the new Self-Aligning Boost and Reentry system for missiles; on the Manned Orbiting Laboratory (MOL); on the Titan III-C Space Booster; and on supersonic and subsonic aircraft of the future.

...the solar system.

Some of our work is more down to earth. Like the Ship's Self-Contained Navigation System (SSCNS) we're working on for the Navy; or the fire-control system for the new Main Battle Tank, a joint U.S.-Federal Republic of Germany program; and advanced digital computer development for other military, space and commercial applications.

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Ph.D.s, please note: positions are available in all three AC locations, depending upon concentration of study and area of interest.



1951

H. KENDALL REYNOLDS, MS, PhD '53, has returned from 18 months in Ecuador as advisor for basic sciences in the University of Houston's program of assistance to the University of Guayaquil.

ROBERT E. TRUDEL JR., MS, veteran aerospace manager, has been promoted to head a new section in the Lockheed Missiles and Space Co. He will manage the newly created advanced strategic programs in Lockheed's research, development, and missiles division at Sunnyvale.

WILLIAM W. WATKIN JR., MS, a colonel in the U.S. Army Corps of Engineers, is the new district chief for the Philadelphia district, which includes the entire Delaware River Basin.

1952

HENRY L. RICHTER JR., PhD '56, has been appointed development manager for UCLA's new Mountain Park research campus in the Santa Monica Mountains of California. Richter was formerly vice president and technical director of Electro-Optical Systems, Inc., in Pasadena, where he played a key role in the company's work on the Ranger, Mariner, and Gemini space programs.

WILLIAM L. WISE has joined Melabs in Palo Alto, Calif., as manager of the ECM systems engineering department. Prior to this he was with Philco on the multi-eject military satellite program. The Wises have three daughters, ages 12, 11, 6, and two sons 14 and 9.

1953

H. ROBERT HUNT, MS, is working for the Marathon International Oil Company as a geophysical interpreter-supervisor on foreign assignments. Although based in Findlay, Ohio, Hunt frequently travels to Bogota, Colombia, to oversee the company's jungle operations.

1954

WILLIAM D. HARKINS, AE, a commander in the U.S. Navy, has been appointed production manager for the overhaul and repair department at the Naval Air Station in Jacksonville, Fla.

L. WILLARD RICHARDS was married to Nancy Cutter on October 1.

DON E. ROGERS, AE, senior technical staff member at Aerospace Corp. in San Bernardino, has been promoted to director of the arms control office in the company's weapon systems division. Rogers joined Aerospace in El Segundo in 1962 and transferred to San Bernardino in 1963. Before joining the company, he was associate

professor of mechanical engineering and associate professor of aeronautical and astronautical engineering at the University of Michigan in Ann Arbor.

ROBERT L. SMITH, MS '55, has been promoted to director of the Minuteman program office in the weapon systems division of the Aerospace Corp., in San Bernardino. Formerly associated with the Minuteman office at TRW, Inc., Smith joined Aerospace in 1962 as a member of the technical staff.

1955

GEORGE T. JAMES JR., MS, AE, was recently promoted to lieutenant colonel in the U.S. Air Force and is currently in charge of system control at the Satellite Test Center at Sunnyvale, Calif.

1956

STUART W. BOWEN is assistant professor of aerospace engineering at the University of Michigan in Ann Arbor. He recently received his PhD in aerospace science from the university.

DONALD C. BROOKS is a newly appointed administrative engineer for the Municipal Water District of Southern California. He is based in Los Angeles.

BYRON B. JOHNSON JR. has been appointed director of public works for Palos Verdes Estates, Calif.

1957

JEROLD L. SWEDLOW, PhD '65, is assistant professor in the department of mechanical engineering at the Carnegie Institute of Technology, teaching and doing research in solid mechanics under the sponsorship of NASA.

GORDON R. WICKER, MS, has been appointed assistant manager of the Shell Chemical Company's laboratory-technology department in Denver. He was formerly a research engineer in the company's Emeryville, Calif., research center. This is his tenth year with Shell.

C. ALLEN WORTLEY, MS, has joined Warzyn Engineering and Service Company, Inc., in Madison, Wis., as chief engineer. The firm practices civil engineering with emphasis on structural and soils work. Wortley was formerly a partner in his own firm in Pittsburgh.

1958

JOSEPH M. KIERNAN JR., MS, a lieutenant colonel in the U.S. Army, has been in Vietnam since July, commanding the 1st engineer battalion of the 1st Infantry division.

HUGO B. FISCHER, MS '63, PhD '66, assistant professor of civil engineering at the University of California in Berkeley, is the first recipient of the University of Minnesota's Lorenz G. Straub Award, presented for a thesis of special merit in hydraulic engineering. Fischer's work is "Longitudinal Dispersion in Laboratory and Natural Streams.'

BRUCE McKEEVER, MS '59, has left the General Electric Computer Laboratory in Sunnyvale, Calif., to join Time/Data Corporation as manager—application engineering.

CHARLES R. PENQUITE, MS '59, was recently promoted to senior research chemical engineer in the inorganic division of the Monsanto Co., in St. Louis, Mo. He and his wife, Mary, have a daughter, Cheryl Ann, born last November.

ANDREW PERGA, MS '59, has been named section manager of the precise power department at Electronic Specialty Company's Connecticut division. Before this appointment Perga was technical director in charge of the division's precise power engineering organization.

JAMES I. VETTE, PhD, has been appointed director of the National Space Science Data Center located at the Goddard Space Flight Center, Greenbelt, Md. Vette leaves his position as staff scientist at the space physics laboratory of the Aerospace Corp., in Los Angeles.

T. REID WARRINER and his wife, Sargit, are presently living in Goteborg, Sweden, where Reid is a research fellow in sanitary engineering at the Chalmers Institute of Technology.

1959

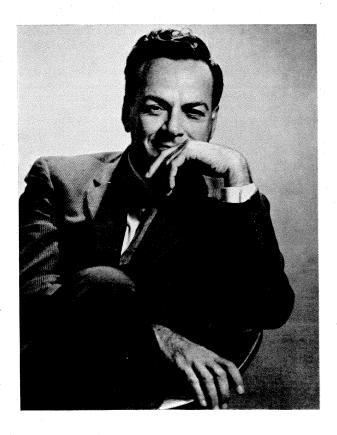
DOUGLAS R. CHRISTMAN is with the General Motors Manufacturing Staff in Warren, Mich., where he is involved in materials research and impact forming of metals. He was formerly with the General Motors Defense Research Labs in Santa Barbara, Calif.

JAMES H. HAVEY JR., a captain in the U.S. Air Force, has been graduated from the USAF Aerospace Research Pilot School at Edwards AFB, Calif. Havey was one of 13 students selected from military and civilian pilots for the 12-month course in experimental test and space research pilot training. He is currently assigned to the Air Force Systems Command's aeronautical systems division at Wright-Patterson AFB in Ohio.

1960

GERALD R. JANTSCHER has joined the office of tax analysis in the U.S. Treasury continued on page 34

CALTECH IS WONDER



"The imagination of nature is far, far greater
than the imagination of man.

For instance, how much more remarkable it is
for us all to be stuck
—half of us upside down—

by a mysterious attraction to a spinning ball that has been swinging in space for billions of years, than to be carried on the back of an elephant supported on a tortoise swimming in a bottomless sea."

—RICHARD P. FEYNMAN
Richard Chace Tolman Professor
of Theoretical Physics

Support your 1966-67 Caltech Alumni Fund

Personals . . . continued

Department as a financial economist, after spending a year as a NSF postdoctoral fellow at the University of Manchester in England.

JAMES C. SORENSEN is senior project engineer at Air Products and Chemicals, Inc., in Allentown, Pa.

1964

LESLIE B. ANDERSON III, MS, a first lieutenant in the U. S. Air Force, has entered squadron officer school at the USAF Air University at Maxwell AFB, Ala., where he will study military leadership, management, and use of aerospace forces.

CHARLES F. LEONARD has received a fellowship for research in neurophysiology from the Life Insurance Medical Research Fund. He is at the College of Physicians and Surgeons of Columbia University.

1965

EDWARD S. BAUER was married last December to Margaret Ann Cartwright in Durham, N.C. They are living in Arlington, Va. Bauer is a patent examiner in the U. S. Patent Office in Washington, D. C.

JAY L. FINKELSTEIN, MS, was recently appointed senior analyst at the Air Force Systems Command's new Navy space systems activity in Los Angeles.

ROBERT J. MACEK, PhD, a former captain in the U.S. Army, has been released from active duty and is with the physics department at the University of Pennsylvania in Philadelphia.

1966

WILLIAM L. GAVAN, MS, is with the Standard Oil Company of California in La Habra as an engineer in the offshore producing department.

LETTERS

Pasadena, California

EDITOR:

For my cultured neighbors, it's an odd mistake:

It has to do with *Finnegans Wake* In E
otin S on page twenty-four. That apostrophe I do deplore,

In the 48th line of Gell-Mann's particles,

Dropped among adjectives, nouns and articles.

In proofing I know you had to hurry, So I'll join in and we'll all blame Murray.

JANET LANSBURGH