

Letters

Pasadena, California

EDITOR:

Your article on the successful flight of Ranger IX (*E&S* - April '65) leaves readers with the impression that, now that JPL has provided home television viewers with pictures of Ranger's approach to the moon, it will "repeat this spectacular feat by providing home viewers with surface pictures of Mars, transmitted by the Mariner spacecraft as it approaches the planet in July."

In that it takes 8 hours and 20 minutes to transmit one picture to earth, it will be impossible to screen them for the home viewer as they are received. Actually it will take more than a week to receive all the pictures and process them. The pictures will be recorded on magnetic tape in the spacecraft as they are taken. The spacecraft will then be occulted by Mars and the tape will be

played back some 10 hours after occultation. It is interesting to note that the transmission distance for the pictures will be in excess of 135,000,000 miles.

FRANK BRISTOW
Public Education, JPL

April 24, 1965
San Marino, California

GENTLEMEN:

Frederick Bedell Burt '48
April 18, 1925 - April 19, 1965

The flags are at half-mast today at the University of California, Los Angeles, where our son, Fred, was recently advanced to the newly created position of Assistant Research Professor of Surgery/Urology.

The light was turned out on his desk where he would prepare no more bril-

liant medical papers. Forty years and a day seem all too short a life. However, as his colleague of a dozen years, Dr. Bruce Belt, said in tribute: "Fred was a skillful surgeon, a dedicated worker, a careful student. His research was creative and original. His discovery of a way to grow bits of human cancer in hamsters may enable us to test the ability of a wide variety of drugs to destroy a particular cancer from a particular patient. This is his immortal progeny for the benefit of all men. He was loved with faith, with loyalty, with a beautiful love."

Ulla, Eleanor and I are proud that his colleagues are establishing a Frederick Bedell Burt Medical Foundation to carry on his work. Contributions are being accepted by Dean Sherman M. Mellinkoff, School of Medicine, University of California, Los Angeles.

ROBERT C. BURT '26

Personals

1915

HAROLD A. BLACK writes that he and his wife are enjoying their new home at Wesley Palms, the Methodist retirement home in Pacific Beach, Calif. Last summer the Blacks made a 31,000-mile trip to Africa, visiting a number of missionary centers there, including Albert Schweitzer's Lambaréné.

1921

EDWARD L. CHAMPION, retired consultant for Gibbs & Hill, Inc., consulting engineers of New York City, died May 1 in Pasadena. He was vice president of the company from 1940 until his retirement in 1960, coming to the West Coast to direct the company's western activities in 1950. He is survived by his wife, Evelyn; a son, Edward, of Temple City; a daughter, Mrs. Dorothy Willis of Fresno; and four grandchildren.

1924

HOWARD M. WINEGARDEN, MS '27, PhD '31, has retired after 40 years at the Cutter Laboratories in Berkeley, where he was in charge of the research division.

1925

EDGAR M. DeREMÉR, vice president of La Jolla Properties, Inc., died early last month in La Jolla following a short illness.

He had been a project engineer for the Fluor Construction Company, and also had worked with the Southern California Gas Company.

1928

DOUGLAS G. KINGMAN, MS '29, has retired to his avocado grove in Poway, Calif., after 34 years with the Mobil Oil Co. and its predecessor, the General Petroleum Corp.

1932

WILLIAM C. ROCKEFELLER, MS '34, is vice president of SoniCo, Inc., a subsidiary of the Shell Oil Co. in San Diego, engaged in research and development on various phases of sonic devices. The company's principal product at this time is a sonic pile driver invented by ALBERT G. BODINE, '36.

1933

TED S. MITCHEL writes that he has now fully recovered from a mild coronary suffered last fall and has returned to his job as manager of technical recruitment, covering the eastern United States for the Shell Companies, with headquarters in New York City.

1935

ARTHUR N. ETZ, general engineering

contractor, is currently engaged in resort development and subdivision work. He is chairman of a 4-County Development Committee appointed by the supervisors of Kern, Los Angeles, San Bernardino, and Inyo counties. The Etz's live in Palm-dale, California.

1936

PAUL J. SCHNEIDER, MD, is now chief of plastic surgery at the Herrick, Merrick, and Children's hospitals in the San Francisco area.

E. MORTON HOLLAND writes: "As far as I know I am the only alumnus to have gone so far astray as to become a representative with a New York Stock Exchange member firm (A. G. Edwards & Sons)."

1937

JOHN HOWARD BLUE, Lieutenant Colonel, U.S. Marine Corps (Retired), was a candidate last month for his MS degree from Rollins College in Winter Park, Florida.

1938

SAMUEL E. WATSON, JR., senior geologist with the Iranian Oil Exploration and Producing Company in Tehran, has been transferred by his home company, Tex-

Personals . . . continued

aco, Inc., to "parts unknown," after eight years in Iran.

1939

CHARLES H. TOWNES, PhD, provost and professor of physics at MIT, and winner of the 1964 Nobel Prize in physics, was elected a trustee of the Carnegie Institution last month. Dr. Townes, who is developer of the laser-maser principle, is also serving as consultant to the National Bureau of Standards and the Brookhaven National Laboratories.

1940

JAMES E. LuVALLE, PhD, director of basic research for the Fairchild Space and Defense Systems division of the Fairchild Camera and Instrument Corporation in Syosset, New York, received an award last month for the best scientific paper published in the journal of the Society of Photographic Scientists and Engineers during 1964. The paper described research work on the chemical and spectral sensitization of silver halides. LuValle directs the operations of a Fairchild laboratory, which he was instrumental in establishing, for basic research on the interaction of light with solid state material.

ROY E. MARQUARDT, MS '42, chairman of the board of the Marquardt Corporation in Van Nuys, received the Gold Knight of Management Award last month at the 17th annual conference of the southern California area council of the National Management Association in Los Angeles. Known as the "father of the American ramjet engine," Marquardt rediscovered the basic principles of this propulsion system in 1942 when he was engineer in charge of naval research at Northrop Aircraft in Los Angeles. He established an aeronautical research laboratory at USC in 1943, with a Navy contract to develop a ramjet engine.

1942

S. KENDALL GOLD, assistant manager of the engineering and construction department of the California Texas Oil Corp. in New York City, writes that his family have become ski enthusiasts and have built a ski chalet at Stratton Mt., Vt.

1944

RICHARD E. KUHNS has completed 19 years with the Los Angeles County Engineer Department. His duties with the sanitation division now include waste water reclamation research and development.

HARRISON W. SIGWORTH is assistant to the president of the Standard Oil Company of California, Western Operations, in San Francisco. He reports that he oc-

asionally sees TONY SPAULDING '44, LAWSON JONES '43, JOHNNY NELSON '44, KEN POWLESLAND '43, GLENN BILLMAN '41, and BOB BOWLES '41.

ROBERT C. McANLIS sends word that he has been at Rocketdyne Edwards Field Laboratory in California for 18 months, and is now the safety engineer there. He was formerly with the Johns-Mansville Company in New Jersey.

1945

THEODORE B. TAYLOR is one of five U.S. nuclear scientists who received the Atomic Energy Commission's E. O. Lawrence Memorial Award in April at the National Academy of Sciences in Washington, D.C., for his "outstanding contributions to the design of nuclear weapons and for his significant role in the development of the TRIGA research reactor." Dr. Taylor, who is with the Defense Atomic Support Agency, was senior research advisor at the General Dynamics Corporation's General Atomic Division from 1956 to 1964.

1946

DONALD B. HICKS has been transferred from his position as resident sales engineer with the Kaiser Steel Corp. in Fresno to senior sales engineer at Kaiser Center in Oakland.

HOWARD E. JESSEN, assistant director of research and development of the Ceco Corporation in Chicago, has now been appointed manager of the firm's market research department.

ROBERT C. SIEGEL, president of Palomar Theaters, Inc., was made president of the Robjohn Corp. in January. He is also secretary of Siegel Bros. Inc., and of Margo Operating Co. — all Oceanside, Calif., corporations.

1948

ANDREW P. ROLLINS, JR., MS, formerly a colonel in the U.S. Army, has been appointed to the rank of temporary brigadier general by President Johnson, and named deputy director of military construction and special assistant to the chief of engineers for support of NASA.

BENOIT MANDELBROT, MS, AE '49, staff member of the IBM Research Center in Yorktown Heights, New York, was visiting professor of applied mathematics at Harvard University in 1963-64, and of economics in 1962-63.

1949

MALCOLM C. McQUARRIE, MS, patent attorney for the Kaiser Aluminum & Chemical Corp. in Oakland, was graduated from Georgetown University Law School in Washington, D.C. in 1963, and was ad-

mitted to the California Bar last year.

ROLF M. SINCLAIR and his wife announce the birth of their second child — first son — Andrew Caisley, on April 23. Rolf is on the research staff of the plasma physics laboratory at Princeton University.

PATRICK D. DOHERTY writes that he and DONALD P. MERRIFIELD '50, and ROBERT J. ARENZ, PhD '64, will be ordained Jesuit priests this month. Doherty and Merrifield began their studies for the priesthood after leaving Caltech, Doherty receiving his PhD degree at St. Louis University in Missouri, and Merrifield at MIT. Arenz, who entered the Jesuit Order before beginning his graduate work at Caltech, has been a research fellow on the aeronautics staff at the Institute for the past two years, directing research in photoviscoelasticity and investigating analytically the dynamics of solid propellant rocket materials. He also is a consultant on spacecraft structures for the Lockheed Missiles and Space Company.

1950

ROY P. CRAIG, MS, visiting lecturer at the University of Colorado in Boulder since 1961, has been appointed associate professor of physical science there. He has been a chemist with the Dow Chemical Co. near Boulder for eight years.

1951

ROBERT C. ALDER has been doing graduate work in chemistry at the University of California at Riverside this past year on a National Defense Education Act fellowship. He expects to be doing research in the field of carborane and boron hydride chemistry. He was formerly a senior chemist with the American Potash and Chemical Corp.

JAMES A. IBERS, PhD '54, writes that he recently left the Brookhaven National Laboratory to become professor of chemistry at Northwestern University in Evanston, Illinois.

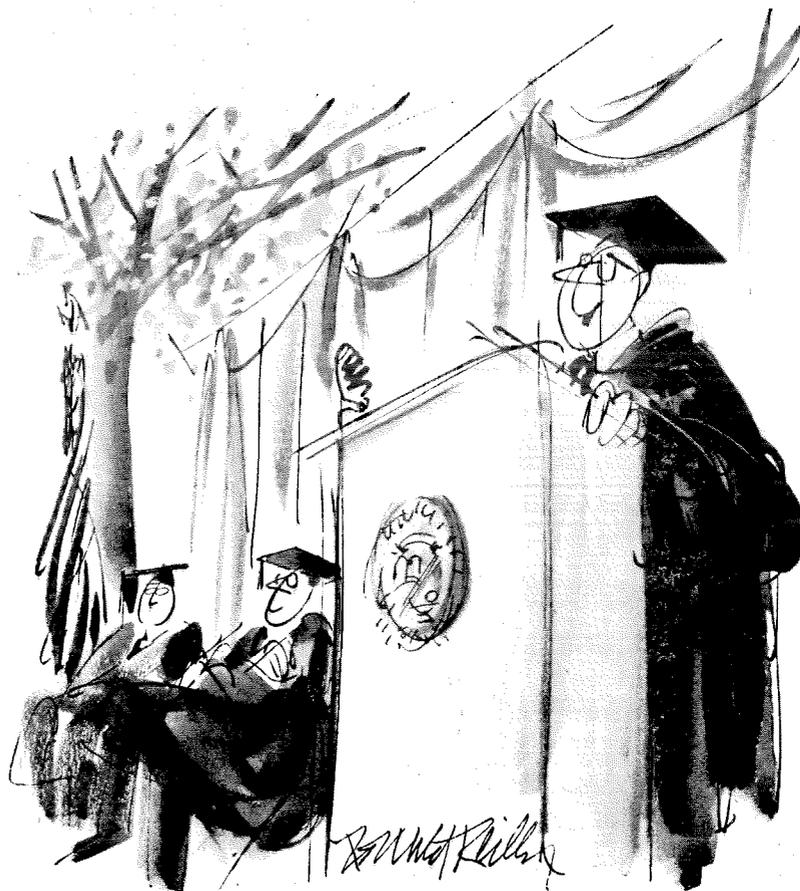
ALBERT E. VAN HISE, MS '52, sends this report of his activities: "Two years ago I gave up my rather lucrative profession at building war machines to start over — back down at the bottom — as an instructor at the Polytechnic Institute of Brooklyn, where I hope I am doing a little more 'good' in the world. I am now studying part time here toward a PhD in systems science. I don't make much money anymore, but I will be taking my third European vacation (3½ months) this summer."

1952

RICHARD R. DICKINSON writes that, after five years and five transfers, he has returned to Texaco's refinery in Long

NEED WE SAY MORE?

CALTECH
ALUMNI FUND



Drawing by Donald Reilly;
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*"... and now we, your teachers and mentors, wish you Godspeed,
and may each and every one of you make a bundle."*

Beach, California, where he is chief process engineer.

1953

DAVID J. MacDONALD, JR., MS '54, assistant professor of chemistry at the University of Nevada in Reno, writes that since leaving Caltech he has taken up skiing, mountain climbing, and the study of inorganic substitution reactions in chromium and nickel complexes. After receiving his PhD at UCLA in 1960, he was research chemist with the California Research Corporation for three years. He was married in 1962 and has two children.

THOMAS F. TALBOT, MS, is joining the faculty of Vanderbilt University in Nashville, Tennessee, as associate professor of materials science and mechanical design. He received his PhD in mechanical engineering from the Georgia Institute of Technology in Atlanta in June 1964.

1954

JOHN T. F. KUO, MS, geophysicist and associate professor of mining at the Henry Krumb School of Mines at Columbia University, is studying the earth's gravity from each of the 102 floors of the Empire State Building. He works from 7 p.m. to 3 a.m., when the building is quiet, with

his gravimeter, an apparatus that is sensitive to weight differences of one one-billionth of a pound. He says that extrapolations from his figures might help in the design of instruments measuring the gravitational acceleration on space vehicles. Kuo has been at Columbia since 1960.

1955

WILLARD V. T. RUSCH, MS, PhD '59, associate professor of electrical engineering at USC, is one of six USC professors to receive an award for excellence of teaching this year. Before joining the USC faculty in 1960, Rusch was a Fulbright scholar on electromagnetic theory in Aachen, Germany. A consultant to Caltech's JPL, he measured the temperature of the moon by radar during the December 1964 lunar eclipse.

1958

JAY B. CLEARWATERS, senior engineer at the missile components plant of the Aeronutronics Division of the Philco Corp., at Newport Beach, Calif., was killed May 29 when a twin-engine Beechcraft, of which he was copilot, crashed and burned a few minutes after takeoff from the Orange County Airport. Clearwaters worked at Caltech's JPL before going to

Aeronutronics in 1961.

1959

FRANK W. CHILDS III, project engineer at the Aerojet-General Corp. in Sacramento, is engaged in propellant development for liquid rocket engines in the advanced technology division. He was designing propellant pressurization for Aerojet in Azusa before going to Sacramento in 1963.

1960

ERICK L. LINDMAN, JR., is now assistant professor of physics at the University of Texas in Austin. He received his PhD degree from UCLA, is married, and has a daughter.

1961

ROBERT D. NASON is working on his PhD degree at the Scripps Institution of Oceanography in La Jolla. He married Louise Bowen of Pasadena in September 1963.

1962

MATTHEW M. COUCH, associate scientist with a Caltech research group, died on May 6 on the campus. He had been working with Alexander Goetz, Caltech professor of physics, on an atmospheric

physics research project supported by a U.S. Public Health Service grant. After his graduation from Caltech he was a graduate student at Yale in the Sterling Chemistry Laboratory. He is survived by his parents, Mr. and Mrs. George M. Couch and a brother, Michael, of Pasadena.

JAMES BROWN IFFT, PhD, is assistant professor of chemistry at the University of Redlands.

LESTER INGHER, graduate student at the University of California at San Diego studied nuclear physics at the Niels Bohr Institute in Denmark last summer. He has started a Karate school and club at UCSD, and writes, "true to form, have broken

another bone — left big toe."

1963

HAROLD R. HARRISON is a second-year graduate student in physics at Columbia University.

ROBERT W. SCHMIEDER and his wife have a daughter, born May 22. Schmieder received his MS degree in January from Columbia University and is working for his PhD degree there.

HARRY E. KELLER, graduate student in chemistry at Columbia University, was married on May 7 to Jayne Emily Schmidt. The Kellers are living at 35 S. Broadway, Irvington-on-Hudson, N.Y.

NICHOLAS J. TURRO, JR., PhD, is instructor of chemistry at Columbia University.

1964

GEORGE R. CANNON, JR. is on a two-year Mormon mission in Chile. He plans to enter graduate school in the U.S. upon completion of the mission.

JOHN C. SWONSON, JR., First Lieutenant in the U.S. Air Force, is a member of the first aircrews flying the Air Transport Service's new C-141 Starlifter in operational use from Travis AFB in California.

1965

MICHAEL J. COSGROVE is now a second lieutenant in the U.S. Air Force assigned to Chanute AFB in Illinois for training as a missile launch officer.

WERNER MUKATIS has joined the research laboratories of Rohm and Hass Company in Bristol, Pennsylvania.

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