APPOINTMENTS AND HONORS

R. E. Gibson, Director of the Applied Physics Laboratory, has been appointed to the editorial advisory board of the journal *Industrial Research.*

M. L. Hill, Supervisor of the High Temperature Materials Project of the Flight Research Group, recently captured the world endurance record for a radio-controlled model airplane. His time was 8 hrs, 52 min, surpassing the Russian time of 6 hrs, 13 min. Mr. Hill also holds the world altitude record for model aircraft of 13,320 ft (see *Digest,* July–Aug. 1963).

A. Kossiakoff, Associate Director of the Applied Physics Laboratory, has accepted appointment as a member of the Baltimore Association of Commerce, Science Industry Development Council.

F. T. McClure, Chairman of the Research Center, has been honored with an Overseas Fellowship at the Churchill College of Cambridge University. While in England Dr. McClure will devote his efforts to research in areas related to biology.

PATENTS

R. B. Kershner—*Satellite Rotation by Radiation Pressure,* Patent No. 3,145,948.

G. J. Pietrangeli and J. H. Walker—*Hypersonic Aircraft,* Patent No. 3,146,971.

R. R. Newton—*System for Gravity Orienting a Satellite,* Patent No. 3,148,846.

T. Wyatt—*Satellite Temperature Stabilization System,* Patent No. 3,152,774.

S. Kongelbeck—*Retractable Missile Shoes,* Patent No. 3,153,980.

C. M. Blackburn and J. Dassoulas—*Fuel Pressurization System,* Patent No. 3,154,093.

B. E. Amsler and T. W. Sheppard—*Aircraft Control System,* Patent No. 3,154,266.

APL COLLOQUIA

Dec. 4—"X-Rays from Supernovae," by H. Friedman, Goddard Space Flight Center.

Dec. 18—"Viruses and Cancer," by Sarah E. Stewart, National Cancer Institute.

Jan. 8—"Economics of Nuclear Power," by M. J. Deutsch, Consulting Engineer, Washington, D. C.

Jan. 15—"The Development and Application of Extra High Voltage Transmission in the United States," by M. D. Dubrow, Department of the Interior.

Jan. 22—"Quantum Effects in Solid State Plasma," by P. A. Wolff, Bell Telephone Laboratories.

ADDRESSES

The listing below comprises the principal recent addresses made by APL staff members to groups and organizations outside the Laboratory.

C. F. Meyer, "Scientists, Operations Research, and Military Systems Evaluation," *Tenth Annual and First International Meeting of the Operations Research Society of America,* Honolulu, Hawaii, Sept. 14–18, 1964.

M. C. Waddell, "Organization and Administration of Operations Research," *Tenth Annual and First International Meeting of the Operations Research Society of America,* Honolulu, Hawaii, Sept. 14–18, 1964.

L. M. Spetner and I. Katz, "Interpretation of Radar Measurements from the Moon and Earth," *U.R.S.I.-I.E.E.E., 1964 Fall Meeting,* University of Illinois, Urbana, Ill., Oct. 11–14, 1964.

S. J. Moss, "Controlled Thermonuclear Fusion: The Power Elite," *American Association of University Women,* Laurel, Md., Oct. 19, 1964.

L. M. Spetner, "Adaptive Sequential Linear Prediction," *I.E.E.E., National Electronics Conference,* Chicago, Oct. 19–21, 1964.

R. M. Fristrom, "Flame Structure and Flame Kinetics," *Illinois Institute of Technology, Institute of Gas Technology,* General Sciences Colloquium, Chicago, Oct. 21, 1964.

R. E. Fischell, "Magnetic Libration Damping for Gravity Gradient Stabilized Satellites," *I.E.E.E. Annual East Coast Conference,* Baltimore, Oct. 21–23, 1964.

R. E. Gibson, "Basic and Applied Research," *Joint Aberdeen, Edgewood, and Baltimore Reserve Officers,* Aberdeen Proving Ground, Md., Oct. 28, 1964.

J. R. Apel and A. M. Stone, "Experimental Investigations of Growing Waves in a Beam Plasma System," *American Physical Society,* New York, Nov. 4–7, 1964.

F. F. Hiltz, "Nerve Cell Stimulation," *National Institutes of Health, National Institute of Neurological Diseases and Blindness,* Bethesda, Md., Nov. 6, 1964.

E. Shotland, "Modern Methods of Analysis Applied to Communication Theory," *The Johns Hopkins University,* Electrical Engineering Department, Nov. 11, 1964.

J. O. Artman and J. C. Murphy (APL) and S. Foner (Massachusetts Institute of Technology), "A Revised Analysis of Magnetic Anisotropy in Antiferromagnetic Cr_2O_3," *Decennial Conference on Magnetism and Magnetic Materials,* Minneapolis, Nov. 17, 1964.

R. B. Kershner, "Control of Satellite Objects," *Rhode Island College,* 1964–65 Artist Series, James P. Adams Lectures, Nov. 23, 1964.

J. R. Apel and A. M. Stone, "Experimental Investigation of Growing Waves in a Beam Plasma System," *University of Maryland,* Institute for Fluid Dynamics and Applied Mathematics, Nov. 24, 1964.

R. E. Fischell, "Recent Developments with Earth Satellites," *Wheaton Rotary Club,* Wheaton, Md., Nov. 24, 1964.

PUBLICATIONS

The following list is a compilation of recently published books and technical articles written by APL staff members.

W. G. Berl, "A Brief Review on the Combustion of Boron Hydrides," *Progress in Astronautics and Aeronautics* (ed. Wolfhard, Glassman, and Green), *A.I.A.A. Series,* **15**, Academic Press, New York, 1964, 311–326.

S. D. Bruck, "Thermal Degradation of an Aromatic Polypyromellitimide in Air and Vacuum; I—Rates and Activation Energies," *Polymer,* **V**, 1964, 435–446.

S. J. Moss (APL) and W. T. K. Johnson (American University), "Automatic Liquid Nitrogen Filling System," *Rev. Sci. Instr.,* **35**, July 1964, 909–910.

C. B. Baker and N. de Haas, "Gas Thermal Conductivity Studies at High Temperatures. III. Results for SO_2," *Phys. Fluids,* **7**, Sept. 1964, 1400–1402.

B. G. Fonda, three-part series: "Johns Hopkins Develops Novel Uses for Xerographic Standard Equipment," May 1964; "Johns Hopkins Science Artists Make Wide Use of Xerographic Acetates," July 1964; and "Johns Hopkins Author Winds Up Series, Explains Benefits of Xerographic Uses," *Xerox Charger,* Sept. 1964.

J. G. Parker, "A Comparison of Experimental and Theoretical Vibrational Relaxation Times for Diatomic Gases," *J. Chem. Phys.,* **41**, Sept. 1964, 1600–1609.

G. F. Poggio (The Johns Hopkins University School of Medicine) and L. J. Viernstein (APL), "Time Series Analysis of Impulse Sequences of Thalamic Somatic Sensory Neutrons," *J. Neurophysiol.,* **27**, 1964, 517-545.

WITH THE AUTHORS

T. Thompson, a native of New York City, is the author of "Varactor Multipliers." Mr. Thompson received his B.S. degree in electrical engineering from Lafayette College in 1960, and is currently working in the M.S.E.E. degree program of McCoy College, APL division. He joined the Laboratory staff in 1960, as a specialist in solid-state transmitters (telemetry). He is assistant supervisor of the Satellite RF Systems Project in the Space Radio Frequency Systems Group. Mr. Thompson is a member of the Institute of Electrical and Electronic Engineers.

W. Seamone, author of "Feedback Technique Improves Efficiency of Hydraulic Servos," was born in Philippi, West Virginia, and received his B.A. degree in aeronautical engineering from Catholic University in 1950. Prior to joining the staff at APL, he was employed as a servomechanisms engineer at Bell Aircraft Corporation. Mr. Seamone came to APL in 1953, as a specialist in hydraulic servomechanisms, servo valves, and missile hydraulic systems. He is assistant supervisor of the Bumblebee Controls Group and is supervisor of the Autopilot Servos and Antenna Servos Projects. He is a member of the Society of Automotive Engineers.

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