

PUBLICATIONS

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

- A. I. Mahan, C. V. Bitterli, and S. M. Cannon, "Far-field Diffraction Patterns of Single and Multiple Circularly Symmetric Apertures," *Japanese J. Appl. Phys.*, **4**, Supp. 1, 1965, 276-285.
- R. M. Fristrom, "Flame Structure and Flame Processes," *Fire Research Abstracts and Reviews*, **7**, No. 2, 1965, 55-68.
- W. E. Wilson, "Inhibited Flame," *Fire Research Abstracts and Reviews*, **7**, No. 2, 1965, 69-71.
- D. Abraham and T. O. Poehler, "A Physical Description of CdSe TFT Operation," *International J. Electronics*, **19**, Aug. 1965, 165.
- S. D. Bruck, "Thermal Degradation of Piperazine Polyamides I: Poly (terephthaloyl trans-2, 5-dimethylpiperazine) and Poly (oxalyl trans-2, 5-dimethylpiperazine)," *Polymer (London)*, **6**, Sept. 1965, 483-495.
- L. B. Weckesser, "Evaluation of a Temperature Difference Method of Computing Convective Heat Transfer," *A.I.A.A. J.*, **3**, No. 10, Oct. 1965, 1978-1979.
- V. O'Brien, "Viscous MHD Flow About a Spherical Magnetic Quadrupole," *Quart. Appl. Math.*, **23**, Oct. 1965, 283-285.
- F. T. Heuring, "Comparison of Some Recently Defined Geomagnetic Field Models to the Vanguard 3 Data," *J. Geophys. Research*, **70**, Oct. 1965, 4968-4971.
- R. M. Rivello, "Preliminary Design Methods for Optimizing Insulated Structures," *J. Spacecraft and Rockets*, **2**, Nov.-Dec. 1965, 944-950.
- L. Monchick (APL) and E. A. Mason (University of Maryland), "Survey of the Equation of State and Transport Properties of Moist Gases," *Humidity and Moisture*, **3**, 1965, 257-272.

HONORS AND APPOINTMENTS

R. E. Gibson, Director of the Applied Physics Laboratory, has been appointed an Honorary Commander of the Most Excellent Order of the British Empire (C.B.E.). Dr. Gibson was one of 12 Americans given honorary ranks in the Order by Queen Elizabeth II in a special year-end list of honors. The award to Dr. Gibson was in recognition of his contributions to Anglo-American friendship and understanding.

W. G. Berl, Supervisor of the Chemical Research Group, has been appointed a member of the Committee on Fire Research, National Academy of Sciences, National Research Council.

On November 30, 1965, *The News* of the Applied Physics Laboratory received the Department of the Navy, Office of Information Merit Award. *The News* was named one of 30 exemplary military newspapers out of a field of 500 publications.

COLLOQUIA

Dec. 3—"New Thoughts About Old Platforms: Railroads and Sailboats," by B. Smith, U.S. Naval Weapons Laboratory.

Dec. 10—"New Approaches to Latin American Technical Development," by R. B. Panero, Hudson Institute.

Dec. 17—"The Interaction of the Solar Wind with the Geomagnetic Field," by N. F. Ness, Goddard Space Flight Center.

Jan. 7—"Research in Pattern Perception," by W. R. Garner, The Johns Hopkins University.

Jan. 14—"Inventions and Patents," by J. Rabinow, Rabinow Electronics.

Jan. 25—"Design Study for the 200-Bev Accelerator," by F. T. Cole, Lawrence Radiation Laboratory, University of California.

ADDRESSES

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

- R. E. Gibson, "Scientific Processes" (Part I) and "Research Methods in the Social Sciences" (Part II), *Course on Research Methods in Social Sciences*, Department of Agriculture Graduate School, Washington, D.C., Sept. 15 and 22, 1965.
- R. P. Rich, "Organization and Operation of a Medical Computing Center," *Symposium on Computers in Medicine*, Queen's University, Kingston, Ontario, Canada, Oct. 7-8, 1965.
- R. E. Gibson, "Impact of Accelerated Scientific and Technological Change on Foreign Affairs," *Course on U.S. in a Changing World Environment*, School of Advanced International Studies, Washington, D.C., Oct. 12, 1965.
- J. R. Apel, "Experiments on Wave Interactions Between Plasma and an Electronic Strain in a Magnetic Field," *NASA Goddard Space Flight Center*, Greenbelt, Md., Oct. 13, 1965.
- R. E. Kemelhor, "Feasibility and Cost-Effectiveness Studies of a Naval Surface-to-Surface Missile System," *U.S. Naval Academy*, Annapolis, Md., Oct. 14, 1965.
- L. Wilson, "Sublimation Components for Use with Aerospace Structures and Mechanisms," *Fall Meeting, American Institute of Mining and Metallurgical Engineers*, Detroit, Mich., Oct. 17-21, 1965.
- S. J. Kowal and L. W. Garrison, "Pre-Launch Checkout and Experiments of GEOS Satellite," *Two Groups of Civil Air Patrol Cadets*, Cape Kennedy, Fla., Oct. 23, 1965.
- M. H. Friedman, "Shock Tube Measurement of Explosive Sensitivity," *Meeting of Western States Section of the Combustion Institute*, Santa Barbara, Calif., Oct. 25-26, 1965.
- L. Monchick, "Quantum Effects in Transport Coefficients," *Maryland Seminar on Statistical Mechanics*,

ADDRESSES

(continued)

- University of Maryland, College Park, Md., Oct. 26, 1965.
- R. M. Fristrom, "Flames and Flame Chemistry," *Western Maryland Section American Chemical Society*, Allegany Ballistics Laboratory, Cumberland, Md., Oct. 26, 1965.
- R. D. Brown, "Attitude Control System for the Direct Measurement Explorer — A Satellite," *I.E.E.E. 12th Annual East Coast Conference on Aerospace and Navigational Electronics*, Baltimore, Md., Oct. 27-29, 1965.
- E. P. Gray and S. J. Moss, "Evolution of a Plasma Puff in a Longitudinal Magnetic Field," *American Physical Society*, San Francisco, Calif., Nov. 8-11, 1965.
- R. Turner, "A Theta-Pinch Plasma Gun," *American Physical Society*, San Francisco, Calif., Nov. 8-11, 1965.
- F. F. Hiltz, "Automatic Reduction and Analysis of Intracellular Neural-Electric Responses," *I.E.E.E. 18th Conference on Engineering in Medicine and Biology*, Philadelphia, Pa., Nov. 10-12, 1965.
- L. J. Viernstein and R. G. Grossman, "Correlation Analysis of Impulse Trains of Neurons of the Cochlear Nucleus," *I.E.E.E. 18th Annual Conference on Engineering in Medicine and Biology*, Philadelphia, Pa., Nov. 10-12, 1965.
- R. E. Gibson, "Horizons in Education," *Howard County Board of Education*, Howard County, Md., Nov. 19, 1965.
- W. E. Buchanan, "The Applied Physics Laboratory and Its Work," *Silver Spring Kiwanis Club*, Silver Spring, Md., Nov. 23, 1965.
- W. E. Hull, "Ingenious Devices in Space Applications," *Joint Meeting of the Science and Mathematics Clubs*, Tennessee A and I State University, Nashville, Tenn., Nov. 23, 1965.
- H. D. Black, "Satellite Attitude Determination," *Sixth International Symposium on Space Technology and Sciences*, Tokyo, Japan, Nov. 29-Dec. 4, 1965.
- F. F. Hiltz, "Computer Correlation of Intracellular Neuronal Responses," *Fall Joint Computer Conference*, Las Vegas, Nev., Nov. 30, 1965.
- R. A. Evans, "Why and What to Automate," *Special Libraries Association, Washington, D.C. Chapter Documentation Group*, Washington, D.C., Nov. 30, 1965.
- R. B. Kershner, "Satellite Navigation," *National Aeronautics and Space Council*, Howard County, Md., Dec. 14, 1965.
- R. E. Gibson delivered the principal address at the commissioning of the USS *Wainwright* (DLG-28) in Boston, Jan. 8, 1966.

WITH THE AUTHORS



R. B. Kershner, author of "Present State of Navigation by Doppler Measurements from Near Earth Satellites," was born in Crestline, Ohio. He received his Ph.D. degree in mathematics from The Johns Hopkins University in 1937. Dr. Kershner joined APL in 1946 as a member of the Launching Group and was engaged in the development of booster rockets and the analysis of launching problems. Since leaving the Launching Group, Dr. Kershner has served as Supervisor of the Guidance and Control Group, Supervisor of the Ter-

rier/Tartar Division, and until 1963, Supervisor of the Polaris Division. He is currently Supervisor of the Space Development Division which developed the APL Navy Navigation Satellite System. Dr. Kershner is a member of the Applied Physics Laboratory's Advisory Board and Technical Policy Board. He holds the Presidential Certificate of Award, for meritorious service during World War II, and has twice been the recipient of the Navy Distinguished Public Service Award. Dr. Kershner is a member of the American Association for the Advancement of Science, Philosophical Society of Washington, and the American Institute of Aeronautics and Astronautics.

P. T. Komiske, author of "Error Detection and Correction Codes," came to APL as a specialist in design and development of digital ground support equipment, systems engineering, and engineering management of hardware and software systems. A native of Platte, South Dakota, Mr. Komiske graduated from the South



Dakota School of Mines and Technology in 1958 with a BSEE degree in electronics. He received an MSE degree in engineering science from George Washington University in 1964. Before coming to APL, Mr. Komiske was employed by the Chrysler Corporation Missile Division as a design engineer. Mr. Komiske is currently working as a senior engineer in the Space Electronics Systems Group; he is a member of the Institute of Electrical and Electronic Engineers and the American Institute of Aeronautics and Astronautics.

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