

ADDRESSES

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

- J. P. Wagner, "Electric Charge Transport During Flow of Hydrocarbons Through Micro-Porous Media," *Static in Liquids Session, Second Conference on Static Electrification, Institution of Electrical Engineers*, London, England, May 8-10, 1967.
- R. B. Kershner, "Navigation and Geodesy with Satellites," *National Capital Section and Baltimore Section of AIAA, Applied Physics Laboratory*, Howard County, Md., May 16, 1967.
- F. F. Hiltz and C. T. Pardoe, "On-Line Equipments for Reduction and Analysis of Discrete Bio-Electric Epoch Developed by the Applied Physics Laboratory," *Fifth National Biomedical Sciences Instrumentation Symposium*, Albuquerque, N.M., May 17, 1967.
- S. M. Yionoulis, "The Use of Satellite Doppler Data for Geodetic Purposes," *International Colloquium on the Dynamic Methods of Geodesy by Satellites*, Paris, France, May 22-26, 1967.
- J. B. Oakes, "A High Stability Crystal Oscillator for the GEOS Spacecraft," *Conference on Frequency Generation and Control for Radio Systems*, London, England, May 22-24, 1967.
- H. B. Riblet, "Time and Frequency Control for a World-Wide Doppler Tracking Network for Satellites," *Conference on Frequency Generation and Control for Radio Systems*, London, England, May 22-24, 1967.
- I. Katz, "Probing the Clear Atmosphere with Radar," *International Scientific Radio Union 1967 Spring Meeting*, Ottawa, Ontario, May 24, 1967.
- S. Haberman, "A Class of Tests of Hypotheses of Components of Variance," *31st National Meeting of the Operations Research Society of America*, New York, N.Y., May 31-June 2, 1967.
- T. G. Konrad, "Radar Detection of Clear Air Turbulence (CAT)," *Reading National Maintenance and Operations Meeting*, Reading, Pa., June 9, 1967.
- M. H. Friedman and R. L. McCally, "An Application of a Thermal Explosion Criterion to the Initiation of Explosives by Rapidly Heated Wires," *Fifth Symposium on Electro-Explosive Devices, The Franklin Institute*, Philadelphia, Pa., June 13-14, 1967.
- J. R. Apel, "Nonlinear Effects in Beam-Plasma Interactions," *American Physical Society Meeting*, Toronto, Canada, June 20-23, 1967.
- A. A. Westenberg, "Applications of ESR to Gas Phase Chemical Kinetics," *Chemical Colloquium, University of Toronto*, Toronto, Canada, June 23, 1967.

PUBLICATIONS

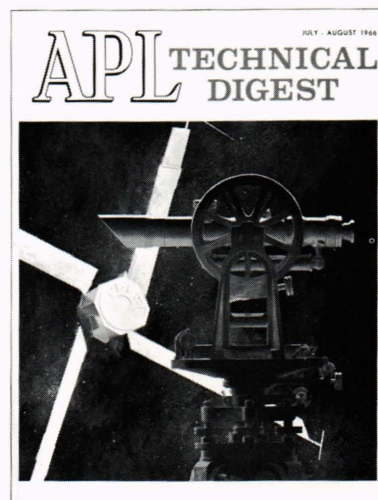
The following list is a compilation of recently published technical articles written by APL staff members.

- D. K. Anand and J. M. Whisnant, "Use of Malkin's Theorem for Satellite Stability in the Presence of Light Pressure," *Proc. IEEE*, **55**, No. 3, Mar. 1967, 444-445.
- F. K. Hill, H. J. Unger, and W. P. Dickens, "Spectroscopic Measurements of Combustion Gas Composition in Supersonic Flow," *AIAA J.*, **5**, No. 5, May 1967, 873-881.
- T. O. Poehler, J. R. Apel, and A. K. Hochberg, "Millimeter Wave Radiation from Indium Antimonide," *Appl. Phys. Ltrs.* **10**, No. 9, May 1, 1967, 244-245.
- T. O. Poehler, "Temperature Dependence of Microwave Emission from Indium Antimonide," *Appl. Phys. Ltrs.*, **10**, No. 12, June 15, 1967, 356-358.
- T. W. Pearce, A. K. Hochberg, and T. O. Poehler, "A Fast High Current Pulse Generator," *Rev. Sci. Instr.*, **38**, No. 6, June 1967, 835-837.

HONORS AND AWARDS

R. E. Gibson, Director of the Applied Physics Laboratory, has been elected a Fellow of the American Geophysical Union.

R. B. Kershner, Head of the Space Development Department and a team of scientists and engineers from that department have received a special citation from the Marine Technology Society for "... an outstanding meritorious contribution to the advancement of oceanography through the development and implementation of the Navy Navigation Satellite System."



S. G. Smith, a member of the Technical Reports Group, received a First Place Award at the 14th International Technical Communications Conference Art Show in Chicago, Illinois. His entry was the artwork used for the cover of the *APL Technical Digest*, Vol. V, No. 6, July-August 1966, which is reproduced above.

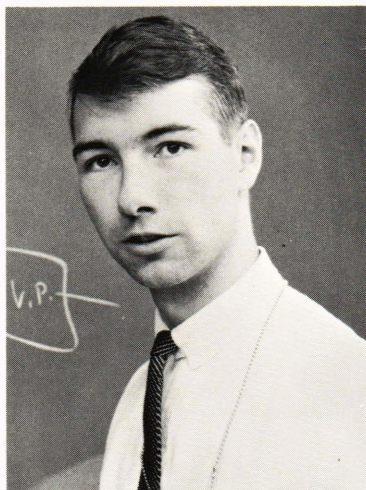
WITH THE AUTHORS



T. Thompson, author of "The DODGE Television System," is an earlier contributor to the *Digest*, having authored "Varactor Multipliers," in the November-December 1964 issue. A native of New York City, Mr. Thompson received a B.S. degree in electrical engineering in 1960 from Lafayette College and is currently doing graduate work at the Evening College of the Johns Hopkins University. Mr. Thompson joined the Laboratory in 1960 and was first involved with the design of solid state transmitters for satellite application. He has also been concerned with high frequency transistor evaluation, including a study of measurement techniques. He participated in the design of the telemetry transmitters for the 5E series, 5BN series, and the BE series of satellites and the Modular Telemetry Transmitters for the GEOS and DME-A satellites. Mr. Thompson is now Supervisor of the Satellite TV Systems Project of the Space Radio Frequency Systems Group and is responsible for design of the DODGE TV System, a second generation image dissector camera, and the DODGE TM and tracking

transmitters. Mr. Thompson is a member of the Institute of Electrical and Electronics Engineers.

R. C. Beal, author of "Design and Performance of the DODGE Cameras," was born in Boston, Massachusetts. He holds a B.S. degree in electrical engineering which he received in 1961 from the Massachusetts Institute of Technology and is continuing his studies leading to an M.S. degree in astronomy at the University



of Maryland. Mr. Beal joined the Laboratory in 1961 and his first assignment was concerned with the design of solid state VHF transmitters. He was responsible for the design of the 360 Mc transmitter used in the Ionospheric Beacon series of satellites. Mr. Beal has also been involved in the application of various types of sensors, such as the storage vidicon and image dissector. Currently, as a member of the Satellite TV Systems Project, he is involved in the preliminary phases of evaluating low light level secondary electron conduction image tubes to be incorporated into

future satellite applications. Mr. Beal is a member of the Institute of Electrical and Electronics Engineers.



F. W. Schenkel, author of "Photometric and Optical Considerations in the DODGE Satellite TV Camera Design," is a native of Jersey City, New Jersey. He received a B.S. degree in electrical engineering in 1958 from Fairleigh Dickinson University and has taken graduate courses at the University of Maryland and The Johns Hopkins University. A specialist in photosensitive devices, including special camera tubes, photomultipliers, thin films, and electron optics, Mr. Schenkel joined APL in 1963. While assigned to the Microelectronics Group he was engaged in the development of rare earth dielectric thin films. Presently, as a member of the Satellite TV System Project, he is involved in photosensitive and radiation sensitive device evaluation for satellite applications, spaceborne TV camera design, and in the development of techniques for implementing infrared imaging systems. Mr. Schenkel is a member of the Institute of Electrical and Electronics Engineers.