

WRITING AWARDS

As in the past four years, awards for meritorious technical publications were presented at the winter 1988 dinner meeting of the APL Principal Professional Staff. Two noteworthy changes were instituted: The large category that includes articles published in unclassified refereed technical journals or proceedings was divided into two sections, one dealing with research topics, the other with developmental topics in engineering and applied research; and awards were given to organizers of technical conferences who were also responsible for editing the published proceedings.

In view of the large number of awards given, I will mention only a few in detail. Lifetime Writing Achievement Awards are probably the most prestigious. In contrast to the awards for a noteworthy publication in a specific calendar year (the true significance and influence of which have yet to be demonstrated with the passage of time), the Lifetime Achievement Awards can be judged on a broader basis. William H. Avery was selected because of his singular contributions to solid propellant combustion, to the physical chemistry and structure of flames, to the engineering aspects of ramjet engines, and to the development of Ocean Thermal Energy Conversion (OTEC), all of which have led to important insights in new fields of science and technology. In addition, Avery persuaded his colleagues in the Aeronautics Department, which he supervised for many years, to present their findings in unclassified and classified journals, documenting hard-won discoveries so that the R&D community at large could make good use of them.

James E. Hanson's contributions were radically different. He devoted his professional career to electronic countermeasures. Since this is a field in which security considerations place severe limits on unrestricted publications, Hanson built up a meticulously detailed collection of in-house memoranda and reports, which he could share with his sponsors and colleagues. Within a year of his untimely death, he was able to publish, in the *Journal of Defense Research*, a broad review of his work (for which he received a second posthumous award in

the category that deals with papers in classified refereed technical publications). A more detailed discussion of the significance of Hanson's technical contributions will be presented in a forthcoming issue of the newly established classified *APL Technical Review*.

A Writing Award was given to Anthony T. Y. Lui for editing *Magnetotail Physics*, developed from conference presentations and published by The Johns Hopkins University Press. Robert C. Beal received Honorable Mention for editing the proceedings of the symposium, *Measuring Ocean Waves from Space*, published in the *Digest*. Also awarded Honorable Mention was Charles C. Kilgus, for editing the GEOSAT issue, developed from a research conference and published in the *Digest*. The awardees had the responsibility for organizing the meetings, selecting the contributors, and turning the printed proceedings into useful archival publications. All too often, conference proceedings are carelessly assembled and poorly refereed. Only a few dedicated editors are willing to invest the necessary time and effort to produce timely, well-written, and well-organized products that rival or even surpass those expected from professional journals of high standards.

Mention should also be made of the three awards for Outstanding Papers in a *Classified* Refereed Technical Publication. Persons responsible for substantial advances in classified technical fields funded by the Department of Defense have only a very limited number of vehicles for the publication of their findings. They must live with a retrieval system that barely allows them to stay on top of new developments, and must live with security regulations that impede access to and severely curtail distribution of their colleagues' work. Frequently they are not required to conform to the strict editorial review procedures that are taken for granted in unclassified technical publications. The articles selected for the 1987 APL Publication Awards in this category happily did not suffer from these difficulties.

Walter G. Berl

AWARDS RECOGNIZING PUBLICATIONS
BY APL STAFF MEMBERS (1987)

LIFETIME ACHIEVEMENT

William H. Avery “*in recognition of the extraordinary quantity and quality of his published works on chemistry, energy, and the environment.*”

James E. Hanson (presented posthumously) “*in recognition of the extraordinary quantity and quality of his written works on missiles and radar technology.*”

PAPERS IN THE *JOHNS HOPKINS*
APL TECHNICAL DIGEST

WALTER G. BERL AWARDS

Charles E. Schemm (APL), Laurence P. Manzi (Sachs Freeman), and Harvey W. Ko (APL), “A Predictive System for Estimating the Effects of Range- and Time-Dependent Anomalous Refraction on Electromagnetic Wave Propagation,” *Johns Hopkins APL Technical Digest* **8**, 394–403 (1987).

William J. Tropf, Michael E. Thomas, Terry J. Harris, and Steven A. Lutz, “Performance of Optical Sensors in Hypersonic Flight,” *Johns Hopkins APL Technical Digest* **8**, 370–385 (1987).

HONORABLE MENTION

Jack Calman, “Introduction to Sea-Surface Topography from Satellite Altimetry,” *Johns Hopkins APL Technical Digest* **8**, 206–211 (1987).

Frederick W. Schenkel and Bernard S. Ogorzalek, “Auroral Images from Space: Imagery, Spectroscopy, and Photometry,” *Johns Hopkins APL Technical Digest* **8**, 308–317 (1987).

RESEARCH PAPERS IN
UNCLASSIFIED REFEREED PUBLICATIONS

AWARDS

Barry H. Mauk, Stamatios M. Krimigis, Edwin P. Keath, and Andrew F. Cheng (APL), Thomas P. Armstrong (University of Kansas), Louis J. Lanzerotti (AT&T Bell Laboratories), and George Gloeckler and Douglas C. Hamilton (University of Maryland), “The Hot Plasma and Radiation Environment of the Uranian Magnetosphere,” *Journal of Geophysical Research* **92**, 15,283–15,308 (1987).

Kishin Moorjani, Joseph Bohandy, Frank J. Adrian, and Boris F. Kim (APL), and Robert D. Shull, Chwan-Kang Chiang, Lydon J. Swartzendruber, and Lawrence H. Bennett (National Bureau of Standards), “Superconductivity in Bulk and Thin Films of $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_{4-\delta}$ and $\text{Ba}_2\text{YCu}_3\text{O}_{7-\delta}$,” *Physical Review B* **36**, 4036–4038 (1987).

HONORABLE MENTION

James C. Spall, "A Stochastic Approximation Technique for Generating Maximum Likelihood Parameter Estimates," in *Proceedings of the 1987 American Control Conference*, pp. 1161-1167 (1987).

DEVELOPMENTAL PAPERS IN
UNCLASSIFIED REFEREED PUBLICATIONS

AWARD

Michael E. White (APL), and John P. Drummond and Ajay Kumar (NASA Langley Research Center), "Evolution and Application of CFD Techniques for Scramjet Engine Analysis," *Journal of Propulsion and Power* 3, 423-439 (1987).

HONORABLE MENTION

Frank R. Castella and J. Patrick Reilly, "Radar Detection Statistics for Discrete Scatterer Target Models with Frequency Agile Illumination," in *Proceedings, IEE International Conference—Radar 87*, 370-374 (1987).

Ella B. Dobson, Frank Monaldo, and Julius Goldhirsh (APL), and John Wilkerson (National Environmental Satellite Data and Information Service, NOAA), "Validation of Geosat Altimeter-Derived Wind Speeds and Significant Wave Heights Using Buoy Data," *Journal of Geophysical Research* 92, 10,719-10,731 (1987).

PAPERS IN CLASSIFIED REFEREED
TECHNICAL PUBLICATIONS

AWARD

James E. Hanson and W. Coleman Hyatt, "Evolution of AAW Missiles ECM/ECCM," *Journal of Defense Research* 17, 297-325 (1987).

HONORABLE MENTION

Russell E. Gingras, "Concept for Carrier Battle Group Employment of Electronic Warfare Against Low-Flying Cruise Missiles," *Journal of Defense Research* 18, 339-359 (1987).

Richard J. Prengaman and Jeffrey W. Thomas (APL), Richard O. Giorgis (NSWC), and W. Harold Harper (NRL), "Radar Design for Short-Range AAW Improvement," in *Record of the Thirty-Third Annual Tri-Service Radar Symposium* (1987).

FIRST PUBLISHED PAPER

AWARD

Richard R. Talbott, "Network Survivability Analysis," in *Proceedings FOC/LAN 87 Fiber Optics Communications and Local Area Networks Conference*, pp. 178-188 (1987).

SCIENTIFIC BOOKS

AWARDS

John R. Apel, *Principles of Ocean Physics*, Academic Press, London (1987).

Anthony T. Y. Lui, ed., *Magnetotail Physics*, The Johns Hopkins University Press, Baltimore and London (1987).

SPECIAL PUBLICATIONS

AWARDS

Milton Gussow, *Basic Electricity*, McGraw-Hill Book Company, New York (1983, 1987).

Paul L. Hazan, *VHSIC System Designer's Text*, VHSIC Technology and Application Workshops, Applied Physics Laboratory (1987).

HONORABLE MENTION

Robert C. Beal, ed., Proceedings of the Symposium, "Measuring Ocean Waves from Space," *Johns Hopkins APL Technical Digest* **8**, 3-147 (1987).

Charles C. Kilgus, ed., "The Navy GEOSAT Mission," *Johns Hopkins APL Technical Digest* **8**, 169-271 (1987).

Ronald J. Klauda (APL) and Michael E. Bender (Virginia Institute of Marine Science), "Contaminant Effects on Chesapeake Bay Finfishes," Chap. 15, in *Contaminant Problems and Management of Living Chesapeake Bay Resources*, S. K. Majumdar, L. W. Hall, and H. M. Austin, eds., The Pennsylvania Academy of Science (1987).

Barry H. Mauk and Lawrence J. Zanetti, "Magnetospheric Electric Fields and Currents," *Reviews of Geophysics* **25**, 541-554 (1987).