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- Oct 7 — "The Gradual Encroachment of Artificial Intelligence," E. Rich, Univ. of Texas.
- Oct 14 — "Properties and Applications of

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- Oct 21 — "Trends and Perspectives in Computer Vision," A. Rosenfeld, Univ. of Maryland.
- Oct 28 — "Prospects for Harnessing Biomolecules for Fabricating Molecular and Electronic Structures," J. H. McAlear, EMV Associates.

- Nov 4 — "Magnetic Memories," R. M. White, Xerox Corp.
- Nov 11 — "The Effect of Electromagnetic Radiation on the Central Nervous System," H.-A. Hansson, Univ. of Gothenburg.
- Nov 18 — "The Creation of the Universe: New Thoughts on an Old Question," J. Trefil, Univ. of Virginia.

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JOHN R. APEL was born in Absecon, N.J., in 1930 and received a Ph.D. degree in applied physics from The Johns Hopkins University (1970). He was employed by APL from 1957 until 1970. From 1970 until 1976, he was Director of the Ocean Remote Sensing Laboratory of the National Oceanographic and Atmospheric Administration (NOAA) and during 1976-82, he directed NOAA's Pacific Marine Environmental Laboratory.

In 1982, he rejoined APL as Assistant Director of Planning.

Dr. Apel's specialties are in the physics of fluids and ocean remote sensing. He is a consultant to NASA and other government agencies and has played a leading role in the development of oceanographic satellites. He has received the Department of Commerce gold medal for meritorious service and a NOAA award for distinguished authorship. Dr. Apel has held affiliate professorships at the University of Miami and the University of Washington.



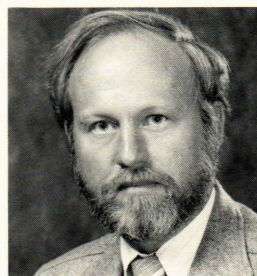
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Since joining APL in 1965, Dr. Potemra has engaged in research in ionosphere and space physics. He was principal investigator for the Triad magnetometer experiment and co-investigator for the Atmospheric Explorer photoelectron spectrometer experiment. He is now supervisor of the Space Physics Group. He was associate editor of the *Journal of Geophysical Research* during 1978-81 and is a member of the Committee on Solar-Terrestrial Research of the National Academy of Sciences.



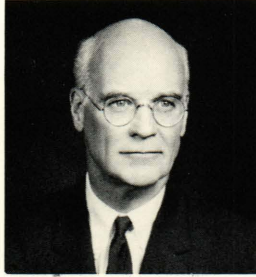
JAMES R. HOLBROOK was born in 1943 in Bainbridge, N.Y., and obtained his M.S. in physical oceanography from the University of Washington in 1971. He served as an officer aboard the USS *Ticonderoga* in the Tonkin Gulf during 1966-1969. From 1972 until 1983, Mr. Holbrook was employed as a research oceanographer at NOAA's Pacific Marine Environmental Laboratory (PMEL) in Seattle.

His research interests include circulation studies of coastal and estuarine waters, the fate of particulate pollutants in enclosed basins, and such baroclinic phenomena as density currents, gravitational circulation, and nonlinear internal waves. He is currently Deputy Director of PMEL.



ROBERT E. THURBER was born in Takoma Park, Md. in 1941, and received an M.S. degree in electrical engineering in 1970 from The Johns Hopkins University. Since joining APL in 1965, he has been involved in the design and development of several major radar and signal processing systems. His early work was concerned with the incorporation of advanced technology and techniques into tracking and weapons guidance systems to meet future needs.

More recently, Mr. Thurber has focused on the application of state-of-the-art components and techniques to enhance the real-time processing of surveillance radar data. This work includes responsibilities as lead engineer for developing an Automated Range Surveillance System for the processing and tracking of sea surface surveillance radar data at Navy test ranges.



HENRY H. PORTER was born in Chicago in 1903 and received the B.S. in engineering at Yale in 1926. After working as an engineer in family enterprises, he joined the Department of Terrestrial Magnetism, Carnegie Institution of Washington, in 1940 as supervisor of development of the proximity (VT) fuze and as executive officer to Dr. Merle A. Tuve.

In 1942, Mr. Porter joined APL as supervisor of VT fuze research. After that, he supervised successively the development of gun director mounts; facilities, aero-

dynamics composite design, and tactical analysis groups; and the Bumblebee Program, Talos and Terrier development, and SSGM formulation. In 1953, he was appointed Assistant Director for Planning; he became Assistant Director Emeritus in 1971.

Following World War II, Mr. Porter played an important role in planning APL's future in national defense and in efforts that led to the establishment of a war gaming office in the Navy. During the Korean War, he served as representative in the Far East of the Navy's Operations Evaluation Group. In 1958, he was a delegate to the Atlantic Congress in London from which emerged the Atlantic Union. Among other honors, he has received the Presidential Certificate of Merit and the Navy's Distinguished Public Service Award.

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