

- Kerr, J. L.—See McDonough, R. N.
- Krimigis, S. M.—*Guest Editor's Introduction*, No. 1, 2.
- Krimigis, S. M.—*Early Results from the Active Magnetospheric Particle Tracer Explorers (AMPTE) Satellite Experiments*, No. 3, 263.
- Levanon, N.—See Strikwerda, T. E.
- McCloskey, W.—*AMPTE: Notes on the Initial Observations*, No. 1, 108.
- McCloskey, W.—*The Chesapeake Bay*, No. 2, 159.
- McCloskey, W.—*Chesapeake Bay Research Institutions: A Bay-Wide Presence*, No. 4, 369.
- McColligan, E. E.—*Information Systems for Patient Care*, by B. I. Blum, No. 3, 269.
- McDonough, R. N.; Raff, B. E.; Kerr, J. L.—*Image Formation from Spaceborne Synthetic Aperture Radar Signals*, No. 4, 300.
- McEntire, R. W.—See Jaskulek, S. E.
- McGoldrick, L. F.—*Remote Sensing for Oceanography: An Overview*, No. 4, 284.
- Monaldo, F. M.—*Measurements of Directional Wave Spectra by the Shuttle Synthetic Aperture Radar*, No. 4, 354.
- Moorjani, K.—*International Seminar on Amorphous Materials: A New Science and a Novel Technology—A Meeting Report*, No. 3, 257.
- Muller, S.—*Wilhelm von Humboldt and the University in the United States*, No. 3, 253.
- Newman, A. L.—*Development of Medical Electronic Devices in the APL Space Department*, No. 1, 68.
- Newton, R. R.—*The Secular Acceleration of the Earth's Spin*, No. 2, 120.
- Raff, B. E.—See McDonough, R. N.
- Reymann, A. C.—See Bush, A. G.
- Rhyne, J. J.—See Cullen, J. R.
- Rueger, L. J.; Chiu, M. C.—*Development of Precision Time and Frequency Systems and Devices at APL*, No. 1, 75.
- Sarabun, C. C.; Brandt, A.; Tyler, M. A.; Smith, G. D.—*Biological Transport, Internal Waves, and Mixing in the Chesapeake Bay*, No. 3, 227.
- Schoeberlein, H. C.—*A Statistical Analysis of Patches of Oceanic Small-Scale Activity*, No. 3, 194.
- Seymour, S. J.—*Symposium on Applications of Real-Time Oceanographic Circulation Modeling*, No. 4, 364.
- Smith, G. D.—See Sarabun, C. C.
- Smith, G. L.—*Guest Editor's Introduction*, No. 3, 184.
- Smith, G. L.—*Guest Editor's Introduction*, No. 4, 274.
- Strikwerda, T. E.; Black, H. D.; Levanon, N.; Howey, P. W.—*The Bird-Borne Transmitter*, No. 1, 60.
- Strikwerda, T. E.—See Griffin, M. D.
- Thompson, D. R.—*Intensity Modulations in Synthetic Aperture Radar Images of Ocean Surface Currents and the Wave/Current Interaction Process*, No. 4, 346.
- Thompson, D. R.—See Apel, J. R.
- Tilley, D. G.—See Apel, J. R.
- Tyler, M. A.—See Sarabun, C. C.
- Van Allen, J. A.—*Genesis of the International Geophysical Year*, No. 4, 367.
- Van Dyke, P.—See Apel, J. R.
- Venkatesan, D.—*Cosmic-Ray Picture of the Heliosphere*, No. 1, 4.
- Venkatesan, D.—*Origins of Magnetospheric Physics*, by J. A. Van Allen, No. 1, 103.
- Wagner, G. D.—See Charles, H. K., Jr.
- Weiner, J. A.—See Charles, H. K., Jr.

TITLE INDEX

Johns Hopkins APL Technical Digest

Volume 6, 1985

BIOMEDICINE

- | | | |
|----|---|--------------|
| 68 | Development of Medical Electronic Devices in the APL Space Department | A. L. Newman |
|----|---|--------------|

BOOKS

- | | | |
|-----|--|---------------------------|
| 100 | Magnetospheric Currents, T. A. Potemra (ed.) and Quantitative Aspects of Magnetospheric Physics, by L. R. Lyons and D. J. Williams | H. Alfvén |
| 103 | Origins of Magnetospheric Physics, by J. A. Van Allen | D. Venkatesan |
| 106 | Magnetic Glasses, by K. Moorjani and J. M. D. Coey | J. R. Cullen, J. J. Rhyne |
| 176 | The Moon's Acceleration and Its Physical Origins: Vol. 1—As Deduced from Solar Eclipses and Vol. 2—As Deduced from General Lunar Observations, by R. R. Newton | S. J. Goldstein, Jr. |
| 269 | Information Systems for Patient Care, by B. I. Blum | E. E. McColligan |

ENVIRONMENT

- | | | |
|-----|---|--------------|
| 159 | The Chesapeake Bay | W. McCloskey |
| 369 | Chesapeake Bay Research Institutions: A Bay-Wide Presence | W. McCloskey |

FACILITIES

- | | | |
|-----|--|---|
| 85 | The Richard B. Kershner
Space Integration and Test Facility | A. G. Bush, W. E. Frain,
A. C. Reymann |
| 130 | Microelectronics at APL: The First Quarter Century | H. K. Charles, Jr., G. D. Wagner |
| 237 | Materials Characterization and Analysis:
Applications to Microelectronics | H. K. Charles, Jr., J. A. Weiner,
N. A. Blum |

HISTORY

- | | | |
|-----|--|-----------------|
| 92 | High Altitude Research at the Applied Physics
Laboratory in the 1940s | L. W. Fraser |
| 251 | Milton Stover Eisenhower (1899-1985) | W. G. Berl |
| 253 | Wilhelm von Humboldt and the University
in the United States | S. Muller |
| 367 | Genesis of the International Geophysical Year | J. A. Van Allen |

INTRODUCTIONS, EDITORIALS

- | | | |
|-----|-----------------------------|----------------|
| 2 | Guest Editor's Introduction | S. M. Krimigis |
| 118 | Introduction | W. G. Berl |
| 184 | Guest Editor's Introduction | G. L. Smith |
| 274 | Guest Editor's Introduction | G. L. Smith |

MEETINGS, COLLOQUIA

- | | | |
|-----|--|----------------|
| 149 | Symposium on the Role of Language in Problem Solving | B. W. Hamill |
| 173 | The Zuoz Workshop on Cardiovascular and Pulmonary
Dynamics | M. H. Friedman |
| 175 | Frontiers of Remote Sensing of the Oceans and
Troposphere from Air and Space Platforms:
Meeting and Workshop | J. Goldhirsh |
| 257 | International Seminar on Amorphous Materials:
A New Science and a Novel Technology—
A Meeting Report | K. Moorjani |
| 263 | Early Results from the Active Magnetospheric Particle
Tracer Explorers (AMPTE) Satellite Experiments | S. M. Krimigis |
| 361 | Thoughts on Technology and National Security | H. Brown |
| 364 | Symposium on Applications of Real-Time
Oceanographic Circulation Modeling | S. J. Seymour |

OCEANOGRAPHY

- | | | |
|-----|---|---|
| 186 | The Reduction in Finestructure Contamination of Internal
Wave Estimates from a Towed Thermistor Chain | D. C. Dubbel |
| 194 | A Statistical Analysis of Patches of Oceanic
Small-Scale Activity | H. C. Schoeberlein |
| 203 | A Numerical Simulation of Vortex Motion in a
Stratified Environment and Comparison with
Experiments | R. S. Hirsh |
| 211 | Convection at a Model Ice Edge | J. Calman |
| 216 | Application of Coupled Mode Theory to
Acoustic Scattering from a Rough Sea
Surface Overlying a Surface Duct | C. A. Boyles, L. B. Dozier,
G. W. Joice |
| 227 | Biological Transport, Internal Waves, and Mixing
in the Chesapeake Bay | C. C. Sarabun, A. Brandt,
M. A. Tyler, G. D. Smith |
| 276 | APL's Independent Research and Development
Thrust in Oceanography | H. E. Gilreath |
| 284 | Remote Sensing for Oceanography: An Overview | L. F. McGoldrick |
| 293 | Ocean Research with Synthetic Aperture Radar | R. C. Beal |
| 300 | Image Formation from Spaceborne Synthetic
Aperture Radar Signals | R. N. McDonough, B. E. Raff,
J. L. Kerr |
| 313 | Waves Across the Ocean | D. E. Irvine |
| 320 | Remote Sensing of the Ocean-Surface Wind Field with
a Scatterometer and a Synthetic Aperture Radar | T. W. Gerling |

330	Hydrodynamics and Radar Signatures of Internal Solitons in the Andaman Sea	J. R. Apel, D. R. Thompson, D. G. Tilley, P. Van Dyke
338	Synthetic Aperture Radar Imaging of Internal Waves	R. F. Gasparovic, J. R. Apel, A. Brandt, E. S. Kasischke
346	Intensity Modulations in Synthetic Aperture Radar Images of Ocean Surface Currents and the Wave/Current Interaction Process	D. R. Thompson
354	Measurements of Directional Wave Spectra by the Shuttle Synthetic Aperture Radar	F. M. Monaldo

SPACE

4	Cosmic-Ray Picture of the Heliosphere	D. Venkatesan
20	Spaceborne Energetic Particle Instrumentation	S. E. Jaskulek, R. E. Gold, R. W. McEntire
28	The Hopkins Ultraviolet Telescope	A. F. Davidsen, G. H. Fountain
38	High-Frequency Radiowave Probing of the High-Latitude Ionosphere	R. A. Greenwald
51	An Alternate Fine Guidance Sensor for the Space Telescope	M. D. Griffin, T. E. Strikwerda, D. G. Grant
60	The Bird-Borne Transmitter	T. E. Strikwerda, H. D. Black, N. Levanon, P. W. Howey
75	Development of Precision Time and Frequency Systems and Devices at APL	L. J. Rueger, M. C. Chiu
108	AMPTE: Notes on the Initial Observations	W. McCloskey
120	The Secular Acceleration of the Earth's Spin	R. R. Newton
146	The NASA Space Station	J. M. Beggs