

- Lucas, M. C. See Shade, K. E.
 Luke, G. W. See Dobbins, B. D., and see Flanagan, J. D.
 Massey, J. T.; Johns, R. J.—*A Short History of the Collaborative Biomedical Program*, No. 3, pp. 141-142.
 Meyer, R. A.; Campbell, J. N.—*Peripheral Neural Coding of Pain Sensation*, No. 3, pp. 164-171.
 Meyer, W. E.—*Foreword*, No. 4, p. 232.
 Miller, J. T., David, E. W. G.—*Battle Group Operations: Gridlock Demonstration*, No. 4, pp. 314-320.
 McCloskey, W. B. Jr.—*The New Fisherman*, No. 2, pp. 122-133.
 McDonald, R. L. See Witte, R. W.
 Newton, R. R.—*The Near-Term Potential of Doppler Location*, No. 1, pp. 16-31.
 Oliver, M. E.—*TERRIER/TARTAR: Pacing the Threat*, No. 4, pp. 256-260; *STANDARD Missile: The Common Denominator*, No. 4, pp. 283-288 (with W. N. Sweet).
 Parker, J. G.—*Acoustic Detection and Location of Leaks in Underground Natural Gas Distribution Lines*, No. 2, pp. 90-101; and Stanbro, W. D.—*Energy Transfer Processes Accompanying Laser Excitation of Hematoporphyrin in Various Solvents*, No. 3, pp. 196-199.
 Phillips, C. C.—*AEGIS: Advanced Multi-Function Array Radar*, No. 4, pp. 246-249; *Battle Group Operations: War at Sea*, No. 4, pp. 299-301; *Battle Group Operations: Antiair Warfare Coordination*, No. 4, pp. 308-313 (with E. C. Prettyman).
 Phillips, L. G.; Shadel, S. L.—*Methane Recovery from Landfills*, No. 2, pp. 63-68.
 Prettyman, E. C. See Phillips.
 Pryor, L. L.—*Developing and Managing a Large Computer Program*, No. 1, pp. 39-44.
 Schmeisser, G. See Seamone, W.
 Seamone, W.; Schmeisser, G.—*New Control Techniques for Wheelchair Mobility*, No. 3, pp. 179-184.
 Serpico, D. P.—*Combat Systems Evaluation Laboratory*, No. 4, pp. 321-326.
 Shade, K. E.; Lucas, M. C.—*The Mk 92 Fire Control System*, No. 2, pp. 69-73.
 Shadel, S. L. See Phillips, L. G.
 Stanbro, W. D. See Parker, J. G.
 Stewart, R. L. See Healy, S. J.
 Sweet, W. N. See Flanagan, J. D., and see Oliver, M. E.
 Tolchin, S. G. See Healy, S. J.
 Weiffenbach, G. C. See Guier, W. H.
 Witte, R. W.; McDonald, R. L.—*STANDARD Missile: Guidance System Development*, No. 4, pp. 289-298.
 Wyatt, T.—*The Gestation of Transit as Perceived by One Participant*, No. 1, pp. 32-38.

TITLE INDEX

Johns Hopkins APL Technical Digest

Volume 2, 1981

BASIC SCIENCES

- | | | |
|-----|--|-----------------------------|
| 153 | Spectroscopy of Porphyrins | B. F. Kim, J. Bohandy |
| 196 | Energy Transfer Processes Accompanying Laser Excitation of Hematoporphyrin in Various Solvents | J. G. Parker, W. D. Stanbro |
| 222 | Seventh International Symposium on Boron, Borides, and Related Compounds: A Trip Report | C. Feldman |

BIOMEDICAL SYSTEMS

- | | | |
|-----|---|-------------------------------|
| 102 | Radiophobia: The Great American Syndrome | S. Koslov |
| 140 | Guest Editor's Introduction | M. H. Friedman |
| 141 | A Short History of the Collaborative Biomedical Program | J. T. Massey, R. J. Johns |
| 153 | Spectroscopy of Porphyrins | B. F. Kim, J. Bohandy |
| 164 | Peripheral Neural Coding of Pain Sensation | R. A. Meyer, J. N. Campbell |
| 172 | Automating Medical Image Analysis | J. B. Garrison, R. E. Jenkins |
| 179 | New Control Techniques for Wheelchair Mobility | W. Seamone, G. Schmeisser |
| 185 | Selection and Performance Assessment of Automated Patient Monitoring Systems for the Johns Hopkins Adult Intensive Care Units | B. E. Amsler |

COMPUTER SYSTEMS

- | | | |
|-----|---|---|
| 39 | Developing and Managing a Large Computer Program | L. L. Pryor |
| 84 | A Fiber-Optic Local Area Communication Network | S. J. Healy, S. A. Kahn, R. L. Stewart, S. G. Tolchin |
| 172 | Automating Medical Image Analysis | J. B. Garrison, R. E. Jenkins |
| 185 | Selection and Performance Assessment of Automated Patient Monitoring Systems for the Johns Hopkins Adult Intensive Care Units | B. E. Amsler |

EDITORIALS AND INTRODUCTIONS

- | | | |
|---|-----------------|-------------|
| 2 | Guest Editorial | H. D. Black |
|---|-----------------|-------------|

140	Guest Editor's Introduction	M. H. Friedman
232	Foreword	W. E. Meyer
233	From Kamikaze to AEGIS: An Introduction	B. D. Dobbins, G. W. Luke

ENERGY, ENVIRONMENT, AND SAFETY

63	Methane Recovery from Landfills	L. G. Phillips, S. L. Shadel
90	Acoustic Detection and Location of Leaks in Underground Natural Gas Distribution Lines	J. G. Parker

FLEET DEFENSE

69	The Mk 92 Fire Control System	K. E. Shade, M. C. Lucas
200	RAM Guided Missile Weapon System	R. W. Bruns, E. C. Jarrell
233	From Kamikaze to AEGIS: An Introduction	B. D. Dobbins, G. W. Luke
237	AEGIS: Newest Line of Defense	J. D. Flanagan, G. W. Luke
243	AEGIS: Advanced Surface Missile System	J. D. Flanagan, W. N. Sweet
246	AEGIS: Advanced Multi-Function Array Radar	C. C. Phillips
250	APL Contributions to AEGIS	E. P. Irzinski
256	TERRIER/TARTAR: Pacing the Threat	M. E. Oliver
261	TERRIER/TARTAR: Integration and Automation of Navy Shipboard Surveillance Sensors	W. G. Bath
268	TERRIER/TARTAR: Demonstration of AN/SYS-1 Integrated Automatic Detection and Tracking System	E. A. Frekko
276	TERRIER/TARTAR: New Threat Upgrade Program	T. R. Betzer
283	STANDARD MISSILE: The Common Denominator	M. E. Oliver, W. N. Sweet
289	STANDARD MISSILE: Guidance System Development	R. W. Witte, R. L. McDonald
299	Battle Group Operations: War at Sea	C. C. Phillips
302	Battle Group Air Defense Analysis	R. S. Farris, R. J. Hunt
308	Battle Group Anti-air Warfare Coordination	C. C. Phillips, E. C. Prettyman
314	Battle Group Gridlock Demonstration	J. T. Miller, E. W. G. David
321	Combat Systems Evaluation Laboratory	D. P. Serpico

MISCELLANEOUS TOPICS

122	The New Fisherman	W. B. McCloskey, Jr.
209	A Physicist's View of Science and Technology in China	C. K. Jen
330	Spaceborne Synthetic Aperture Radar for Oceanography: A Book Review	J. R. Apel

OCEAN SCIENCE AND TECHNOLOGY

3	Satellites for Earth Surveying and Ocean Navigating	H. D. Black
56	Optical Measurement of the Phase Velocity of Ocean Waves During the 1978 Wave Dynamics Experiment	B. L. Gotwols, G. B. Irani

RESEARCH AND DEVELOPMENT MANAGEMENT

2	Guest Editorial	H. D. Black
39	Developing and Managing a Large Computer Program	L. L. Pryor
45	The Arcane Art of Research and Development Management	R. B. Kershner
207	The Cost/Benefit Monster	R. B. Kershner
327	Where Have All the Underruns Gone?	R. B. Kershner

SPACE SCIENCE AND SATELLITE TECHNOLOGY

2	Guest Editorial	H. D. Black
3	Satellites for Earth Surveying and Ocean Navigating	H. D. Black
14	The Early Days of Sputnik	W. H. Guier, G. C. Weiffenbach
16	The Near-Term Potential of Doppler Location	R. R. Newton
32	The Gestation of Transit as Perceived by One Participant	T. Wyatt
39	Developing and Managing a Large Computer Program	L. L. Pryor
45	The Arcane Art of Research and Development Technology	R. B. Kershner
74	The APL Satellite Refrigerator Program	C. S. Leffel, Jr.
87	Low Energy Charged Particles at Saturn	J. F. Carbary, S. M. Krimigis