

PUBLICATIONS

APL staff members were authors or coauthors of the following unclassified books and technical articles that were recently published:

Allensworth WS (Applied Hydro-Acoustics Research), Kennedy CW, Newhall BK, and Schurman IW

Twinline array development and performance in a shallow-water littoral environment, *Johns Hopkins APL Tech. Dig.* 16(3), 222–232 (1995).

Anderson DE, DeMajistre R, Lloyd SA, and Swaminathan PK
Impact of aerosols and clouds on the troposphere and stratosphere radiation field with application to twilight photochemistry at 20 km, *J. Geophys. Res. (Atmospheres)* 100, 7135–7145 (1995).

Apel JR

Linear and nonlinear internal waves in coastal and marginal seas, *Oceanographic Applications of Remote Sensing*, CRC Press (1995).

Babin SM

Sensitivity of average annual runoff to spatial variability and temporal correlation of rainfall, *J. Climate* 8, 2104–2108 (1995).

Benson RC, Murphy JC, and Charles HK Jr

Miniature sensors based on microelectromechanical systems, *Johns Hopkins APL Tech. Dig.* 16(3), 311–318 (1995).

Best LA, and Sanders RD

Using genetics-based learning methods to improve simulation model fidelity, *Johns Hopkins APL Tech. Dig.* 16(2), 123–135 (1995).

Biemer SM

Force-level effectiveness modeling for the Tomahawk Land Attack Cruise Missile, *Johns Hopkins APL Tech. Dig.* 16(1), 59–68 (1995).

Binari SC (NRL), Dietrich HB (NRL), Kelner G (NRL), Rowland LB (NRL), Doverspike K (NRL), and Wickenden DK

H, He, and N implant isolation of N-type GaN, *J. Appl. Phys.* 78(5), 3008–3011 (1995).

Boiarsky CR, Northrop BA, Grove LK, Phillips MT, Myers LN, and Earnest PJ

Men's and women's oral communication in technical/scientific fields: Results of a study, *J. Soc. Tech. Commun.* 42(3), 451–459 (1995).

Bowen MW (Lockheed), Osiander R, Spicer JWM, and Murphy JC

Thermographic detection of conducting contaminants in composite materials using microwave excitation, *Proc. 21st Symp. on Quantitative Nondestructive Evaluation*, Snowmass, CO, Vol. 14(A), pp. 453–460 (1995).

Brintzenhofe KT

Deriving effective sweep width for intermittent signals, *Johns Hopkins APL Tech. Dig.* 16(1), 18–26 (1995).

Bristow WA, Sibeck DG, Jacquy C, Greenwald RA, Sofko GJ, Mukai T, Yamamoto T, Kokubun S, Hughes TJ, Hughes WJ, and Engelbretson MJ

Observations of convection vortices in the afternoon sector using the SuperDARN HF radars, *J. Geophys. Res.* 100, 19,743–19,756 (1995).

Bryden WA, Benson RC, Ecelberger SA, Phillips TE, Cotter RJ (JHMI), and Fenselau C (Univ. of MD)

The tiny-TOF mass spectrometer for chemical and biological sensing, *Johns Hopkins APL Tech. Dig.* 16(3), 296–310 (1995).

Chase CJ, and Roelof EC

Extracting evolving structures from global magnetospheric images via model fitting and video visualization, *Johns Hopkins APL Tech. Dig.* 16(2), 111–122 (1995).

Cheng AF, Veverka J, Pilcher C, and Farquhar RW

Mission to near-earth objects, *Hazards Due to Asteroids and Comets*, T Gehrels and M Matthews (eds.), University of Arizona Press, pp. 651–670 (1995).

Constantikes KT

Modeling and synthesizing infrared ocean clutter, *Johns Hopkins APL Tech. Dig.* 16(2), 171–186 (1995).

Constantikes KT, and Claussen ED

Measuring marine infrared clutter, *Johns Hopkins APL Tech. Dig.* 16(2), 207–210 (1995).

Cumnock JA, Heelis RA, Hairston MR, and Newell PT

High-latitude ionospheric convection pattern during steady northward interplanetary magnetic field, *J. Geophys. Res.* 100, 14,537–14,555 (1995).

Dakermanji G, Butler MH, Carlsson UP, and Jenkins JE

Near-earth asteroid rendezvous power subsystem, *Proc. 4th European Space Power Conf.*, pp. 277–282 (1995).

Davis KD (JHMI), Meyer RA, Turnquist JL (JHMI), Filloon TG (Procter & Gamble), Pappagallo M, and Campbell JN (JHMI)

Cutaneous pretreatment with the capsaicin analog NE-21610 prevents the pain to a burn and subsequent hyperalgesia, *Pain* 62, 373–378 (1995).

Decker RB, Krimigis SM, McNutt RL, and Burgala LF

Pressure and energy carried by superthermal ions during the September 1991 GMIR at Voyagers 1 and 2, *Proc. 24th Int. Cosmic Ray Conf.*, Rome, Vol. 4, pp. 425–429 (1995).

Decker RB, Krimigis SM, McNutt RL, and Kane M

Spatial gradients, energy spectra, and anisotropies of ions >30 keV at CIR shocks from 1 to 50 AU, *Proc. 24th Int. Cosmic Ray Conf.*, Rome, Vol. 4, pp. 421–425 (1995).

DeMajistre R, Anderson DE, Swaminathan PK, Lloyd SA, and Zasadil S

Effects of refraction on photochemical calculations, *J. Geophys. Res.* 100, 18,817–18,822 (1995).

Donohue DJ, Stoyanov BJ, McCally RL, and Farrell RA

Numerical modeling of the cornea's lamellar structure and birefringence properties, *J. Opt. Soc. Am. A* 12(7), 1425–1438 (1995).

Duven DJ

Modeling and analysis of cavity antennas on cylindrical ground planes, *Johns Hopkins APL Tech. Dig.* 16(2), 136–147 (1995).

Dykton MD, and Sanders RD

The Submarine Combat Information Laboratory and the Object-oriented Rule-Based Interactive System, *Johns Hopkins APL Tech. Dig.* 16(1), 83–94 (1995).

Edwards ML, Cheng S, and Sinsky JH

A deterministic approach for designing conditionally stable amplifiers, *IEEE Trans. Theory and Techniques* 43(7), 1567–1575 (1995).

Farquhar RW, Dunham DW, and McAdams JV

Near Earth Asteroid Rendezvous (NEAR) mission overview and trajectory design, AAS 95-378, AAS/AIAA *Astrodynamics Specialist Conf.* (1995).

- Farrell RA, Pisacane VL, Bankman IN, Shoukas AA (JHMI), and Sachs MB (JHU)**
Master's degree program in engineering and applied physics of biomedicine, *Johns Hopkins APL Tech. Dig.* 16(4), 397–401 (1995).
- Feldstein YI, Newell PT, Sandahl I, Woch J, Leonjev SV, and Vorobjev VG**
Structure of auroral precipitation during a theta aurora from multisatellite observations, *J. Geophys. Res.* 100, 17,429–17,442 (1995).
- Franson JD**
Recent developments in quantum optics, *Johns Hopkins APL Tech. Dig.* 16(4), 324–332 (1995).
- Freund DE, McCally RL, Farrell RA, Cristol SM (Emory Univ.), L'Hernault NL (Emory Univ.), and Edelhofer HF (Emory Univ.)**
Ultrastructure in anterior and posterior stroma of perfused human and rabbit corneas, *Invest. Ophthalmol. Vis. Sci.* 36(8), 1508–1523 (1995).
- Ganguli GP, Palmadesso PJ, Fedder J, and Lui ATY**
Role of ermi acceleration in explosive enhancement of cross-tail current in late substorm growth phase, *Geophys. Res. Lett.* 22, 2405–2408 (1995).
- Gary JB, Heelis RA, and Thayer JP**
Summary of field-aligned Poynting flux observations from DE 2, *Geophys. Res. Lett.* 22, 1861–1864 (1995).
- Goemmel L, and Doering JP**
A compact lightweight, high resolution, electron monochromator, *Rev. Sci. Instrum.* 66(6), 3472–3474 (1995).
- Gottlieb RG, Dunham DW, Fraietta MF, and Sponaugle SJ**
APL's Near Earth Asteroid Rendezvous simulation, AAS 95-109, *Spaceflight Mechanics 1995, Advances in the Astronautical Sciences*, Vol. 89, Part I, RJ Proulx, JFF Liu, PK Seidelmann, and S Alfano (eds.), Univelt, San Diego, CA (1995).
- Hawkins, SE III, Cheng AF, Lanzerotti LJ, and MacLennan CG**
Rotational anisotropy of the Jovian magnetosphere at high latitudes, *J. Geophys. Res.* 100, 14,807–14,820 (1995).
- Howser LM**
Measuring and modeling scan modulation of an infrared seeker, *Johns Hopkins APL Tech. Dig.* 16(1), 27–33 (1995).
- Hunter LW, Duncan DD, Mark FF, O'Connor JS, and White JW**
Advanced materials technology insertion, *Johns Hopkins APL Tech. Dig.* 16(4), 358–372 (1995).
- Hyer SA, Johnston JJ, and Roe CL**
Combat system effectiveness modeling to support the development of anti-air warfare tactics, *Johns Hopkins APL Tech. Dig.* 16(1), 69–82 (1995).
- Iannuzzelli RJ, and Hughes AS**
ISAR imaging via discrete multi-tone transmit and channelized narrowband receive processing, *Proc. SPIE—The International Society of Optical Engineering Radar/Lidar Processing and Applications*, San Diego, CA, pp. 244–260 (1995).
- Jensen JR**
Design and performance analysis of a phase-monopulse radar altimeter for continental ice sheet measurement, *Proc. International Geoscience and Remote Sensing Symp.* (IGARSS), pp. 865–867 (1995).
- Jensen JR**
On-orbit performance validation plan for the GEOSAT follow-on radar altimeter, *Proc. International Geoscience and Remote Sensing Symp.* (IGARSS), pp. 54–56 (1995).
- Keller MR, Gotwols BL, Plant WJ, and Keller WC**
Comparison of optically derived spectral densities and microwave cross sections in a wind-wave tank, *J. Geophys. Res.* 100, 16,163–16,178 (1995).
- Krimigis SM, Decker RB, McNutt RL, Venkatesan D, Hamilton DC, and Collier MR**
Energetic particle activity in the heliosphere, 1991–1995, *Proc. 24th Int. Cosmic Ray Conf.*, Rome, Vol. 4, pp. 401–405 (1995).
- Kropotkin AP, and Lui ATY**
Quasi-static evolution of the magnetosphere: The substorm growth phase, *J. Geophys. Res.* 100, 17,231–17,239 (1995).
- Krupp N, Decker RB, Gold RE, Krimigis SM, Lanzerotti LJ, and Keppler E**
Comparison of recurrent ion events using Ulysses HI-SCALE and EPAC and Voyager LECP data, *Proc. 24th Int. Cosmic Ray Conf.*, Rome, Vol. 4, pp. 431–435 (1995).
- Lanzerotti LJ, Armstrong TP, Gold RE, MacLennan CG, Roelof EC, Simnett GM, Thomson DJ, Anderson KA, Hawkins SE III, Krimigis SM, Lin RP, Pick M, Sarris ET, and Tappin SJ**
Over the southern solar pole: Low-energy interplanetary charged particles, *Science* 268, 1011–1013 (1995).
- Loesch JE**
Private/public partnerships to ensure building code compliance, *Proc. World Workplace '95, The World Workplace Consortium/IFMA*, Houston, TX, Vol. 2, pp. 875–886 (1995).
- LoPresto MD, Pollack AF, Florence J, Ferguson RC, and Feldberg IE**
Operator support concepts for Tomahawk strike management, *Johns Hopkins APL Tech. Dig.* 16(2), 148–159 (1995).
- Lu G, Lyons LR, Reiff PH, Denig WF, de la Beaujardiere O, Kroehl HW, Newell PT, Rich FJ, Opgenoorth H, Persson AL, Ruohoniemi JM, Friis-Christensen E, Tomlinson L, Morris R, Burns G, and McEwin A**
Characteristics of ionospheric convection and field-aligned current in the dayside cusp, *J. Geophys. Res.* 100, 11,845–11,862 (1995).
- Lui ATY**
Observed features in current disruption and their implications to existing theories, *Micro/Meso Scale Phenomena in Space Plasma*, M Ashour-Abdalla, T Change, and P Dusenbery (eds.), pp. 149–162 (1995).
- Lutz RR**
Distributed vertical model integration, *Johns Hopkins APL Tech. Dig.* 16(2), 187–196 (1995).
- Matsuoka H, Takahashi K, Yumoto K, Anderson BJ, and Sibeck DG**
Observation and modeling of compressional Pi 3 magnetic pulsations, *J. Geophys. Res.* 100, 12,103–12,115 (1995).
- Menner WA**
Introduction to modeling and simulation, *Johns Hopkins APL Tech. Dig.* 16(1), 6–17 (1995).
- Miragliotta JA**
Analytical and device-related applications of nonlinear optics, *Johns Hopkins APL Tech. Dig.* 16(4), 348–357 (1995).
- Monaldo FM, and Beal RC**
Real-time observations of southern ocean wave fields from the shuttle, *IEEE Trans. Geosci. and Remote Sensing* 33(4), 942–949 (1995).
- Newell PT**
Do the dayside cusps blink? *Rev. Geophys., Suppl., U.S. National Report to the IUGG* (1991–1994), pp. 665–668 (1995).

- Newell PT, and Meng CI**
Magnetopause dynamics as inferred from plasma observations on low-altitude satellites, *Proc. Chapman Conf. on the Physics of the Magnetopause*, AGU Monograph, P Song and BUO Sonnerup (eds.), pp. 407–416 (1995).
- Newman FC, Carnes MR (NRL), Valenzuela GN (Bell Labs), Hughes JG (Naval Meteorology and Oceanography Command), and Khedouri E (Naval Meteorology and Oceanography Command)**
A simulated ocean environment for a maritime simulation demonstration, *Johns Hopkins APL Tech. Dig.* 16(2), 160–170 (1995).
- Osiander R, Spicer JWM, and Murphy JC**
Thermal nondestructive evaluation using microwave sources, *Mater. Eval.* 53(8), 942–948 (1995).
- Pisacane VL**
Telemedicine: Health care at a distance, *Johns Hopkins APL Tech. Dig.* 16(4), 373–376 (1995).
- Porter DL, and Shih HH**
Temperature effects on the next generation water level measurement system, *EOS S86* (1995).
- Potocki KA, and Brocato RC**
A system of management for organizational improvement, *Johns Hopkins APL Tech. Dig.* 16(4), 402–412 (1995).
- Quaranta TF**
Fuzzy systems for simulating human-like reasoning and control, *Johns Hopkins APL Tech. Dig.* 16(1), 43–58 (1995).
- Raney RK, Fountain GH, Hoffman EJ, Bythrow PF, and Maurer RH**
Small satellites and NOAA: A technology study, *Proc. 9th Annual AIAA/USU Conf. on Small Satellites*, Logan, UT, pp. 1–9 (1995).
- Riehl J, Gefert L, Kusnierkiewicz DY, Myers E, and McAdams JV**
Low power electric propulsion for minor body applications, AIAA 95-2812, *Proc. 31st AIAA/ASME, SAE/ASEE Joint Propulsion Conf. and Exhibit* (1995).
- Sibeck DG**
Coupling processes at the magnetopause, *Surv. Geophys.* 16, 267–298 (1995).
- Sibeck DG**
Demarcating the magnetopause boundary, U.S. National Report to IUGG for 1991–1994, *Rev. Geophys. Suppl.*, pp. 651–655 (1995).
- Sibeck DG**
The magnetospheric response to foreshock pressure pulses, *Physics of the Magnetopause*, P Song, BUO Sonnerup, and M Thomsen (eds.), American Geophysical Union, Washington, DC, pp. 293–302 (1995).
- Skinder RF and Gresehover RS**
An internet navigation tool for the technical and scientific researcher, *Online* 19(4), 38–42 (1995).
- Sommerer JC**
The end of classical determinism, *Johns Hopkins APL Tech. Dig.* 16(4), 333–347 (1995).
- Spall JC, Chin DC, and Smith RH**
A system-wide approach to adaptive traffic control, *Proc. Intelligent Vehicles '95 Symp.*, pp. 442–447 (1995).
- Spicer JWM, Champion JL (JHU), Osiander R, and Spicer JB (JHU)**
Thermal stressing techniques for flaw characterization with shearography, *SPIE Proc.*, Oakland, CA, pp. 250–259 (1995).
- Spicer JWM, and Osiander R**
Time-dependent temperature distributions for nondestructive probing of material properties, *Johns Hopkins APL Tech. Dig.* 16(3), 278–287 (1995).
- Suter JJ, Bryden WA, Kistenmacher TJ, and Porga RD (Phonon Corp.)**
Aluminum nitride on sapphire films for surface acoustic wave chemical sensors, *Johns Hopkins APL Tech. Dig.* 16(3), 288–295 (1995).
- Suter JJ, and Dragonette RA**
Distribution of precision UHF and timing signals with fiber optic transmission lines, *Photonics for Space Environments III*, *Proc. SPIE* 2482, 205–212 (1995).
- Thomas ME, Tropf WJ, and Szpak A**
Optical properties of diamond, *Diamond Films and Technology* 5(3), 159–180 (1995).
- Thompson KE, Rust DM, and Chen H**
A compact polarization imager, *Johns Hopkins APL Tech. Dig.* 16(3), 258–277 (1995).
- Tillman DB (JHMI), Treede RD (JHMI), Meyer RA, and Campbell JN (JHMI)**
Response of C fibre nociceptors in the anaesthetized monkey to heat stimuli: Correlation with pain threshold in humans, *J. Physiol.* 485(3), 767–774 (1995).
- Tillman DB (JHMI), Treede RD (JHMI), Meyer RA, and Campbell JN (JHMI)**
Response of C fibre nociceptors in the anaesthetized monkey to heat stimuli: Estimates of receptor depth and threshold, *J. Physiol.* 485(3), 753–765 (1995).
- Wickenden DK, Bryden WA, Kistenmacher TJ, Bythrow PF, and Strohhahn K**
Development of Al_xGa_{1-x}N alloy semiconductors for solar-blind ultraviolet seeker applications, *Johns Hopkins APL Tech. Dig.* 16(3), 246–257 (1995).
- Wiley S, Herbert GA, and Mosher LE**
Design and development of the NEAR propulsion system, AIAA 95-2977, *Proc. AIAA/ASME/SAE/ASEE Joint Propulsion Conf. and Exhibit* (1995).
- Wing S, Newell PT, Sibeck DG, and Baker KB**
A large statistical study of the entry of interplanetary magnetic field Y-component into the magnetosphere, *Geophys. Res. Lett.* 22, 2083–2086 (1995).
- Wozniak JJ, Ecker JA, and Hildebrand RJ**
Advanced Natural Gas Vehicle development, *Johns Hopkins APL Tech. Dig.* 16(1), 95–100 (1995).
- Yionoulis SM**
Ultraviolet and visible imager simulation, *Johns Hopkins APL Tech. Dig.* 16(1), 34–42 (1995).
- Youngblood SM, and Pace DK**
An overview of model and simulation verification, validation, and accreditation, *Johns Hopkins APL Tech. Dig.* 16(2), 197–206 (1995).
- Zanetti LJ, and Potemra TA**
Magnetic field experiment on the Swedish Freja satellite, *Johns Hopkins APL Tech. Dig.* 16(3), 233–245 (1995).

PRESENTATIONS

APL staff members were among those who gave the following unclassified presentations:

- Beal RC**
Ocean applications of spaceborne SAR, *U.S.–Republic of China Oceanic Microwave Remote Sensing Workshop*, University of Delaware (16–18 Aug 1995).
- Boies MT, Uy OM, Erlandson RE, Lesho J, and Cooper SB**
Certification of the MSX contamination instrument data, *5th Annual Symp. on Infrared Radiometric Sensor Calibration*, Utah State Univ., Space Dynamics Laboratory, Logan, UT (8–11 May 1995).

- Cole TD, Boies MT, El-Dinary AS, Reiter RA, Rodriquez D, Heins RJ, Le B, and Moore RC**
Laser rangefinder for the Near Earth Asteroid Rendezvous (NEAR) mission, EUROPTO, *European Symp. on Satellite Remote Sensing II*, Palais des Congres, Paris, France (25–28 Sep 1995).
- Culpepper C, Kushina M, and Cole TD**
Near Earth Asteroid Rendezvous laser transmitter (paper #CTuG6), *1995 Conf. on Lasers and Electro-optics (CLEO)/Quantum Electronics and Laser Science Conf. (QELS)*, Baltimore, MD (23 May 1995).
- Donohue DJ**
Numerical calculations of randomly rough and periodic surface scattering using a variational principle, *Progress in Electromagnetics Research Symp.*, Seattle, WA (24 Jul 1995).
- Dunham DW**
Let's catalog all observatories, *Astronomical League Convention*, San Antonio, TX (22 Jul 1995) and *European Symp. on Occultation Projects*, Plzen, Czech Republic (26 Aug 1995).
- Dunham DW, and McAdams JV**
Software used for NEAR heliocentric trajectory design, *AIAA Trajectory Optimization Workshop*, Baltimore, MD (7 Aug 1995).
- Farquhar RW, Dunham DW, and McAdams JV**
Near Earth Asteroid Rendezvous (NEAR) mission overview and trajectory design, *AAS/AIAA Astrodynamics Specialist Conf.*, Halifax, Nova Scotia (14–17 Aug 1995).
- Jenkins JE, Butler MH, Carlsson UP, and Dakermanji G**
Near Earth Asteroid Rendezvous power subsystem, *4th European Space Power Conf.*, Poitiers, France (4–8 Sep 1995).
- Keller MR, Gotwols BL, Plant WJ, and Keller WC**
Wave-wave interactions in a wind-wavetank as measured with microwave and optical systems, *Combined Optical-Microwave Earth and Atmosphere Remote Sensing Conf.*, Atlanta, GA (3–6 Apr 1995).
- Krimigis SM, and Potemra TA**
NASA Space Physics Division (G Withbroe), NASA Headquarters, Washington, DC (24 Apr 1995).
- Kues HA**
The effects of high power pulsed microwaves on primate retina, *Ocular Effects of Microwave Radiation Workshop*, San Antonio, TX (4 May 1995).
- Loesch JE**
Private/public partnerships to ensure building code compliance, *World Workplace '95, The World Workplace Consortium*, Miami Beach, FL (17–20 Sep 1995).
- McKerracher PL, Cox R, and Sontag C**
ALUICE: An analyst's user interface for the location and retrieval of space-based, earth-imaging data subsets, *IAGA Symp. GA-5.07, Application Data Systems: Real-Time, On-line, and Disk*, Boulder, CO (2–14 Jul 1995).
- Meng CI**
Special sensor ultraviolet spectrographic imager (SSUSI), *1995 DMSP Annual Maxi-Review, Users' Working Group (UWG), and System Supportability Review (SSR)*, Colorado Springs, CO (21–24 Aug 1995).
- Meng CI, Paxton LJ, Anderson D, Romick G, Morrison D, and Carbery JF**
Ultraviolet and visible remote sensing from space, *22nd European Meeting on Atmospheric Studies by Optical Methods*, Helsinki region, Finland (28 Aug–1 Sep 1995).
- Menner WA**
An overview of modeling and simulation, *24th Applied Imagery and Pattern Recognition Workshop*, Washington, DC (11–13 Oct 1995).
- Miragliotta J, Phillips TE, and Benson RC**
Investigation of electrically conductive adhesives using optical techniques, Blue Mt., NY (3–6 Oct 1995).
- Paschalidis NP, Krimigis SM, Jaskulek SE, Mitchell DG, McEntire RW, Tossman BE, Chrissostomidis N, Houllis P, and Sarris ET**
Miniaturization of the electronics of energetic particle instruments: Application in the MIMI/LEMMS instrument onboard the Cassini spacecraft, *Chapman Conf. on Measurement Techniques for Space Plasmas*, Santa Fe, NM (3–7 Apr 1995).
- Paxton LJ, Meng CI, Fountain GH, Morrison D, Crowley G, and Gorzalek BS**
Special sensor ultraviolet spectrographic imager (SSUSI): An instrument description, *22nd European Meeting on Atmospheric Studies by Optical Methods*, Finland (28 Aug–1 Sep 1995).
- Sommerer JC, and Ott E (Univ. of MD)**
Symmetry breaking via chaos, *Symmetry: Natural and Artificial, International Society for the Interdisciplinary Study of Symmetry*, Alexandria, VA (14–20 Aug 1995).
- Spall JC**
Introduction to SPSA, *Math Dept. Seminar Series*, Wayne State Univ., Detroit, MI (25 Sep 1995).
- Spall JC**
Stochastic optimization, *School of Engineering Seminar Series*, Georgia Institute of Technology (27 Sep 1995).
- Spall JC, Chin DC, and Smith RH**
A system-wide approach to adaptive traffic control, *Proc. Intelligent Vehicles '95*, Detroit, MI (25–26 Sep 1995).
- Suter JJ, and Dragonette RA**
Distribution of precision UHF and timing signals with fiber optic transmission lines, *The International Society for Optical Engineering*, SPIE, Orlando, FL (19–20 Apr 1995).
- Thompson DR**
Physics of microwave scattering from the ocean surface, *U.S.–Republic of China Oceanic Microwave Remote Sensing Workshop*, Univ. of DE (16–18 Aug 1995).
- Thompson DR**
Recent advances in microwave ocean remote sensing: Overview of the ONR high-resolution remote sensing experiment, *General Assembly of the International Association of the Physical Sciences of the Oceans*, Honolulu, HI (5–12 Aug 1995).
- Thompson DR**
Variation of microwave backscattered power from the ocean surface as inferred from velocity and slope-based modulation transfer functions, *Progress in Electromagnetic Research Symp.*, Univ. of WA, Seattle, WA (24–28 Jul 1995).
- Thompson DR, Graber HC, and Carande RE**
Measurements of ocean currents with SAR interferometry and HF radar, *Progress in Electromagnetic Research Symp.*, Univ. of WA, Seattle, WA (24–28 Jul 1995).
- Williams DJ**
The NASA Galileo mission to Jupiter: Journey's end, *Amos Fortune Forum*, Jaffrey, NH (10 Aug 1995).
- Wing S, and Baker KB**
SuperDARN radar computer system, *International SuperDARN Meeting*, Saskatoon, Saskatchewan, Canada (28 Apr–1 May 1995).
- The following papers were presented at the American Geophysical Union Spring Meeting, Baltimore, MD (30 May–2 Jun 1995):
- Goembel L, Doering JP, Paxton LJ, Morrison D, and Swaminathan PK**
Determining atomic oxygen concentrations in the lower thermosphere from photo-electron spectra.

Wing S, Newell PT, Sibeck DG, and Baker KB
Large statistical study of the entry of interplanetary magnetic field Y-component into the magnetosphere.

The following papers were presented at the International Union of Geodesy and Geophysics XXI General Assembly, Boulder, CO (2–14 Jul 1995):

Anagnostopoulos GC, Sarris ET, and Carstounis T
On the origin of energetic ions observed by Ulysses upstream from Jupiter's bow shock.

Christon SP, Gloeckler G, Williams DJ, McEntire RW, Lui ATY, and Angelopoulos V
Magnetotail energetic ion charge state and species composition measured by GEOTAIL/EPIC instrument.

Lanzerotti LJ, Gold RE, Anderson KA, Armstrong TP, Krimigis SM, Lin RP, MacLennan CG, Pick M, Roelof EC, Sarris ET, Simnett GM, and Tappin SJ
Ulysses from pole to pole: Low energy interplanetary charged particle measurements.

The following papers were presented at the International Geoscience and Remote Sensing Symp. (IGARSS), Florence, Italy (10–14 Jul 1995):

Gotwols BL
Backscatter statistics during the SAXON FPN experiment.

Jensen JR
Design and performance analysis of a phase-monopulse radar altimeter for continental ice sheet measurement.

Raney RK
A delay/Doppler radar for ice sheet monitoring.

The following papers were presented at the 24th International Cosmic Ray Conf., Rome, Italy (28 Aug–8 Sep 1995):

Decker RB, Krimigis SM, McNutt RL, and Burgala LF
Pressure and energy carried by superthermal ions during the September 1991 GMIR at Voyagers 1 and 2.

Decker RB, Krimigis SM, McNutt RL, and Kane M
Spatial gradients, energy spectra, and anisotropies of ions >30 keV at CIR shocks from 1 to 50 AU.

Kane M, Decker RB, Mauk BH, McNutt RL, and Krimigis SM
The solar wind velocity determined from Voyagers 1 & 2 low energy charged particle (LECP) anisotropies.

Krimigis SM, Decker RB, McNutt RL, Venkatesan D, Hamilton DC, and Collier MR
Energetic particle activity in the heliosphere.

Krupp N, Decker RB, Gold RE, Krimigis SM, Lanzerotti LJ, and Keppler E
Comparison of recurrent ion events using Ulysses HI-SCALE and EPAC and Voyager LECP data.

The following papers were presented at the 21st Annual Conf. of the Remote Sensing Society, Southampton, United Kingdom (11–14 Sep 1995):

Raney RK
Antichaos and holistic fusion: Paradigms for hyperSAR altimetry.

Raney RK
Keynote address.

Raney RK
Towards successful application of radar altimetry over ice.

The following papers were presented at the 9th Annual AIAA/USU Conf. on Small Satellites, Utah State Univ., Logan, UT (18–21 Sep 1995):

Bokulic RS, Jensen JR, and McKnight TR
The NEAR spacecraft telecommunications system.

Cameron GE, and Herbert GA
The engineering of cost efficient operations.

Raney RK, Fountain GH, Hoffman EJ, Bythrow PF, and Maurer RH
Small satellites and NOAA: A technology study.

The following papers were presented at the Mid-Atlantic Global Probability and Statistics Day Conf., Washington, DC (21 Oct 1995):

Chin D
Efficient global optimization for multivariate problems.

Kleinman NL, and Spall JC
Optimization of integral-based loss functions.

Maryak JL, Spall JC, and Heydon BD
Use of the Kalman filter for inference in state-space models with unknown noise distributions.

Sadegh P (Tech. Univ. of Denmark) and Spall JC
Optimal random perturbations for the SPSA algorithm.

Spall JC
Second-order accelerated optimization based on function measurements.

COLLOQUIA

The following topics were recently presented at the weekly APL Colloquium:

6 Oct 1995
Missions technology and prospects for hypersonic flight, F. S. Billig, APL.

13 Oct
The fate of the universe, B. Ryden, Ohio State Univ.

20 Oct
Advanced technology needs and applications in transportation, N. Rifkin, U.S. Dept. of Transportation.

27 Oct
World record model aeroplanes, M. L. Hill, APL (retired).

3 Nov
Pencils, pictures, and computers: Technologies for the blind in sight, T. V. Cranmer, National Federation of The Blind and The Braille Research Center.

10 Nov
Observations of intergalactic helium with the Hopkins Ultraviolet Telescope, A. F. Davidsen, Dept. of Physics and Astronomy, JHU.

17 Nov
Space technology and natural resource conservation, W. S. Seegar, U.S. Army Edgewood Research, Development, and Engineering.