

## PUBLICATIONS

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

**Basu S, Makela JJ, Sheehan RE, MacKenzie E, Doherty P, Wright JW, Keskinen MJ, Pallamraju D, Paxton LJ, and Berkey FT**

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**Benedict JR**

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**Brandenburg WL, and Jackson R**

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**Brinckerhoff WB**

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**Deane MJ**

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**Fry RL**

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**Georgoulis MK**

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**Owens GS, Southard GE, Van Houten KA, and Murray GM**

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**Pikas CK**

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**Raney RK**

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**Zimm AD**

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## PRESENTATIONS

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

**Ashar RJ**

Videoconferencing in the advanced health and disaster aid network, *NSTD Program/Tech. Rev. Committee Mtg.*, Laurel, MD (Oct 2005).

**Beecher ME, and Iny ML**

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**Bernasconi PN, LaBonte BJ, Rust DM, and Foukal P**

Finding the sources of irradiance variation at sunspot minimum, Solar variability and Earth's climate, *Monte Porzio Catone*, Rome, Italy (Jun 2005).

**Biermann PJ**

Improving correctional officer safety; reducing inmate weapons—Program update, *Northeast Technol. and Product Assessment Committee*, Sturbridge, MA (Oct 2005).

**Borlase GA**

Intact stability of twin hull pontoon vessels, *Soc. Naval Architects and Marine Engineers Chesapeake Section*, Washington, DC (Sep 2005).

**Clark TR**

Coherent optical receiver and fiber network technology for airborne electronic attack systems, *Airborne Electronic Attack Technol. Transition Organization (AEA TTO)*, Arlington, VA (Jun 2005).

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**Crowley G, Hacert C, Meier RR, Strickland DJ, Paxton LJ, Pi X, Manucci A, Christensen A, Morrison D, Bust G, Roble RG, and Curtis N**

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**Deane MJ**

Foundations and trends in Russian development, *Seminar for the Inter-Am. Defense College*, Washington, DC (Oct 2005).

**Debolt R, Duven D, Haskins C, Deboy C, and Lefevre T**

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**Hampton JR, Oetting JD, and Merheb NM**

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- Ho GC, Lario D, Decker RB, Desai MI, Hi Q, Kasper J, and Vina AF**  
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- Jenkins J**  
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- Ockerman JJ, McKneely JA, and Koterba NT**  
A hybrid approach to cognitive engineering: supporting development of revolutionary warfighter-centered command and control systems, *Human Systems Integration Symp. (HSIS) 2005*, Arlington, VA (Jun 2005).
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- Troll JR**  
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- Troll JR, and Schulze RC**  
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- Ward EE, Kleinberger M, Lennon AM, and Roberts JC**  
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- Wong YK, Martin MN, Meitzler RC, and Fraeman ME**  
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- The following papers were presented at the American Geophysical Union Fall Meeting, San Francisco, CA (Dec. 2005).
- Butler MH, and Dakermanji G**  
Observational constraints for plasma sheet ion sources and transports during northward IMF.
- Fraeman ME, Meitzler RC, Martin MN, Millard WP, Wong YL, Melkert J, Bowles-Martinez JN, Strohbehn K, and Roth DR**  
Coordinated analysis of Mars express OMEGA hyperspectral imaging and Mars exploration rover traverse data for meridiani planum.

- Haskins C, and Millard W**  
Hurricane-generated gravity waves as a trigger of ionospheric plasma instabilities.
- Jenkins JE, Samsundar J, and Neradka V**  
An information-theoretical approach that identifies a solar cycle dependence of nonlinearity in magnetospheric activity.
- Jenkins J**  
NASA Thermosphere Ionosphere Mesosphere Energetics and Dynamics (TIMED) mission: Significant findings and evolving research.
- Jenkins J**  
Three-dimensional global simulation of CME/ICME/shock propagation from Sun to the heliosphere.
- Lees WJ, and Schaefer ED**  
Test-particle simulation of storm-time outer radiation belt: Radial transport and losses.
- Lees WJ, Schaefer ED, and Fasold MJ**  
An investigation of the ozone balance in the upper mesosphere and lower thermosphere using MSX/UVISI stellar occultation and air-glow measurements.
- Lees WJ, and Schaefer ED**  
Energy conversion in magnetic reconnection.
- McComas DJ, Velli M, Lewis WS, Acton LW, Balat-Pichelin M, Bothmer V, Dirling RB Jr, Eng DA, Feldman WC, Gloeckler G, Guhathakurta M, Habbal SR, Hassler DM, Mann I, Maldonado HM, Matthaeus WH, McNutt RL Jr, Mewaldt RA, Murphy N, Ofman L, Potocki KA, Sittler EC Jr, Smith CW, and Zurbuchen TH**  
Particle acceleration at perpendicular shock waves: Model and observations.
- Troll JR, Thompson P, and Humm D**  
Cassini-Huygens ion neutral mass spectrometer: Early Saturn and Titan results.
- Troll JR, and Schulze RC**  
Equatorial distributions of the plasma sheet ions, their magnetic and electric drifts, and magnetic fields under different IMF Bz conditions.
- Troll JR, and Schulze RC**  
Relationship of the ring current plasma pressure from ENA images and field-aligned currents.
- Troll JR**  
O/N<sub>2</sub> morphology during quiet and moderate auroral activity and its relation to TEC.
- Weaver G, Miranian M, and Reinhart MJ**  
High-level integration of data systems.
- Wong YK, Martin MN, Meitzler RC, and Fraeman ME**  
Coordinated observation of field line resonance in the mid-magnetotail.
- The following papers were presented at the *Proc. 3rd Intersociety Energy Conversion Engineering Conf.*, San Francisco, CA (Aug 2005).
- Butler MH, and Dakermanji G**  
The TIMED spacecraft power system orbital performance.
- Jenkins J**  
Prometheus nuclear systems and technology: Program technical accomplishments.
- Jenkins J**  
A design methodology for optimal power generation in high altitude airships using genetic algorithms.
- Allmon WR, Anderson CW, Bryden WA, Carlson MA, Cornish TJ, DeCicco DJ, Ecelberger SA, Evancich NH, Ko HW, McLoughlin MP, and Velky JT**  
*Portable Time-of-Flight Mass Spectrometer System*, 6841773 (11 Jan)
- Allmon WR, Arabian AK, Carlson MA, Dence AE, Goemmer SA, Reach SG, Sternberger WI, and Vertes RF**  
*Reservoir for Use with Sampling Interface for a Vehicle*, 6957592 (25 Oct)
- Allmon WR, Carlson MA, Dence AE, Goemmer SA, Reach SG, Schein CS, and Sternberger WI**  
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- Anderson CW**  
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- Anderson CW, Barger CB, Benson RC, Carlson MA, Fraser AB, Groopman JD, Ko HW, Kohler DR, Phillips TE, and Strickland PT**  
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- Asher MS, Olsen EA, and Stadter PA**  
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- Bade PR, Kahn SA, and Verven DM**  
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- Beser ND, and Lapin BD**  
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- Blodgett LA, Cooperman CB, Hayek CS, Lombardo JS, Thompson WR III, and Tuchinda C**  
*System and Method for Diagnosing Pathologic Heart Conditions*, 6898459 (24 May)
- Brunner L, Drewry DG Jr, and Gauthier LR Jr.**  
*Optical Sensor and Method for Detecting Projectile Impact Location and Velocity Vector*, 6931166 (16 Aug)
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- Charles HK Jr, Cornish TJ, Francomacaro AS, Keeney AC, and Lee DM**  
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- Cooperman CB, Nelson CV, and Smith DG**  
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- Cornish TJ, and Ecelberger SA**  
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- Abita JL, and Proctor LR**  
*Vestibular Irrigator Test System (VITS)*, 6875196 (5 Apr)

**Cornish TJ, and Ecelberger SA**  
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**Dougherty JM**  
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**Duven DJ**  
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*GPS Receiver Tracking System*, 6934630 (23 Aug)

**Fainchtein R**  
*Force Detected Magnetic Field Gradiometer*, 6853187 (8 Feb)

**Gauthier LR Jr, Klimek JM, and Wesner-Barrios AL**  
*Apparatus and Method for Detecting the Location, Intensity and Initiation Time of an Energy Pulse*, 6841766 (11 Jan)

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## FOREIGN PATENTS (2005)

**Charles HK Jr, Francomacaro AS, Keeney AC, Lee DM, and Cornish TJ**  
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