

WHITE PAPERS

Melbourne, W. G., Davis, E. S., Duncan, C. B., Hajj, G. A., Hardy, K. R., Kursinski, E. R., Meehan, T. K., Young, L. E., Yunck, T. P. "The Application of Spaceborne GPS to Atmospheric Limb Sounding and Global Change Monitoring." JPL Publication 94-18. April 1994.

CONFERENCE PAPERS

Courtney B. Duncan. "Onboard Trajectory Determination for Mars Approach Using Monte Software Components on Electra Spare Sparc Capacity. AAS 07 – 134. AIAA/AAS, Sedona, Arizona, 2007 January 28 – February 1.

Andreas E. Mogensen, E. Glenn Lightsey, P. Daniel Burkhart, Todd A. Ely, and Courtney Duncan. "Real-Time Navigation for Mars Final Approach and Entry, Descent, and Landing using the Mars Network. AIAA Journal Article, November 2006.

P. Daniel Burkhart, Todd Ely, Courtney Duncan, Glenn Lightsey, Thomas Campbell, Andreas Mogensen. "Expected EDL Navigation Performance with Spacecraft to Spacecraft Radiometric Data." AIAA, San Francisco, 2005 August 15-19.

E. Glenn Lightsey, Thomas Campbell, Andreas Mogensen, P. Daniel Burkhart, Todd Ely, Courtney Duncan. "Expected Performance of the Electra Transceiver for Mars Missions." AIAA, San Francisco, 2005 August 15-19.

Willy Bertiger, Yoaz Bar-Sever, Shailen Desai, Courtney Duncan, Bruce Haines, Da Kuang, Michael Lough, Angela Reichert, Larry Romans, Jeff Srinivasan, Frank Webb, Larry Young, and James Zumberge, "Precise Orbit Determination for the Shuttle Radar Topography Mission using a New Generation of GPS Receiver." Institute of Navigation GPS 2000, Salt Lake City, Utah, September 2000.

T. K. Meehan, C. Duncan, C. Dunn, D. Spitzmesser, J. Srinivasan, T. Munson, NASA/JPL; J. Ward, G. Lightsey, NASA/GSFC; J. C. Adams, J. How, Stanford University, "GPS On A Chip" - An Advanced GPS Receiver for Spacecraft. Institute of Navigation 11th International Technical Meeting. Session C5: Space Applications I: Overview and Orbit Determination Applications. September 18, 1998.

C. Duncan, C. Andricos, W. Bertiger, L. Young, "GPS Receivers for Shuttle Radar Topography Mission." Institute of Navigation, 54th Annual Meeting. Session 1B: Spaceborne Applications of GPS. June 1, 1998.

R. Duren, E. Wong, B. Breckenridge, S. Shaffer, C. Duncan, P. Salomon, E. Tubbs, "Metrology, attitude, and orbit determination for spaceborn interferometric synthetic aperture radar. "SPIE Aerosense, Orlando, FL., April 15, 1998

C. Duncan, D. Spitzmesser, T. Meehan, G. Franklin, B. Wilson. "An Interfrequency Bias Calibrator for TurboRogue GPS Receivers." (Was: "A Device for Continuously Measuring the Interfrequency Bias in TurboRogue GPS.") Institute of Navigation, National Technical Meeting. Session C4: Special Applications/Ionospheric and Atmospheric. January 23, 1998.

Sien-Chong Wu, Willy Bertiger, Jeff Srinivasan, Angie Reichert (U. of Colorado). "MicroGPS for Orbit Determination of Earth Satellites." Institute of Navigation, National Technical Meeting. Session D1: Space: Orbit/Rendezvous Applications. January 23, 1996.

T. K. Meehan, C. E. Dunn, C. B. Duncan (NASA JPL), M. L. Exner (Univ. Corp. for Atmos. Res.). "The GPS/MET Atmospheric Occultation Receiver." Fall 1995 AGU session G05: Geoscience from GPS/MET.

Schutz, B., Abusali, P., Schroeder, C., Tapley, B. (Univ. TX/Austin), Exner, M., McCloskey, R., (Univ. Corp. for Atmos. Res.), Carpenter, R., Cooke, M., McDonald, S., (NASA JSC), Combs, N., (Univ. Houston), Duncan, C., Dunn, C., Meehan, T., (NASA JPL). "GPS Tracking Experiment of a Free-Flyer Deployed from Space Shuttle." ION GPS 95, September 12-15, 1995, Palm Springs, California, Session C1, Space Applications.

C. B. Duncan, E. R. Kursinski, T. K. Meehan, "GPS Science From Inexpensive Low Earth Orbiting Platforms." Fall 1991 AGU special session SA42B-11: Earth Occultation Science With GPS Satellites.

T. K. Meehan, J. M. Srinivasan, D. J. Spitzmesser, C. E. Dunn, J. Y. Tien, J. B. Thomas, T. N. Munson, C. B. Duncan, "The TurboRogue GPS Receiver." Sixth International Symposium on Satellite Positioning, Columbus, Ohio, March 18, 1992.

C. B. Duncan, G. H. Purcell, Jr., "Flexible Position and Clock Estimation Algorithms for the Rogue GPS Receiver." Fall 1988 AGU session G41A: Toward the Accurate Measurement of Tectonic Deformation.

PROPOSALS

Duncan, Courtney B.; Dennis, Matthew; Cutler, Dr. James; Kalman, Dr. Andrew; Cantwell, Dr. Brian; Cubesat Mission with Low Mas Radio Science Transponder (LMRST). Director's Research and Development Fund Proposal, FY 2008. Funded for \$175K.

Duncan, Courtney B. "Space Elevators – Astrodynamical Utilization Issues. JPL "Purple Pigeon" call. March 29, 2007. Not Funded.

Duncan, Courtney B. "Extend RTC With Physical Modeling and Units Checking." Proposal to the FY2003 Research and Technology Proposal process, July 25, 2002. Not Funded.

Duncan, Courtney B. "International Space Station Alpha GPS Subsystem Evaluation." Proposal to Penny E. Saunders, NASA Johnson Space Center, February 14, 1995. FUNDED.

Duncan, Courtney B. "An Upgrade to the GPS Receiver/Processor Assembly (GRA) of the DSN Media Calibration Subsystem (DMD). Proposal to TMOD, May 4, 1994. FUNDED.

Duncan, Courtney B., Muheleman, Duane O., Kursinski, E. R., Srinivasan, J. M., Mysoor, Narayan, Crist, R. "Subharmonic Sampling Radio Science Uplink Receiver." Proposal to the Planetary Instrument Definition and Development Program, NRA-93-OSSA-04. October 22, 1993. Not funded.

Young, L., Duncan, C. "Pluto Fast Flyby Subharmonic Sampling Radio Science Uplink Receiver." Proposal to NASA Headquarters, Code SLB. March 29, 1993. Not Funded.

Kursinski, E. R., Duncan, C. B., Hajj, G. A., Meehan, T. K., McCleese, D. J.: GPS Earth Atmosphere Occultation Science Balloon Demonstration. Proposal to JPL Director's Discretionary Fund, FY '93, August 28, 1992. Not Funded.

REFEREED PAPERS

E. Glenn Lightsey, Andreas E. Mogensen, P. Daniel Burkart, Todd A. Ely, and Courtney Duncan, "Real-Time Navigation for Mars Final Approach and Entry, Descent, and Landing using the Mars Network." Journal of Spacecraft and Rockets. AIAA. Submitted 2007 March 12.

G. H. Purcell, Jr., L. E. Young, S. Kornreich Wolf, T. K. Meehan, C. B. Duncan, S. S. Fisher, F. N. Spiess, G. Austin, D. E. Boegeman, C. D. Lowenstein, C. Rocken, and T. M. Kelecy, "Accurate GPS Measurement of the Location and Orientation of a Floating Platform," **Marine Geodesy**, Vol. 14, pp. 255-264, 1991.

IOMs

Mars Precision Landing Navigation Sensor Strawman Design. C. Duncan, IOM-335.9.002-96, May 3, 1996.

NASA INTERNAL PAPERS

Duncan, Courtney B., Young, Lawrence E., Yunck, Thomas P., Davis, Ab, "JPL Independent Assessment of the International Space Station Alpha (ISSA) Global Positioning System (GPS) Subsystem Design. JPL D-13618 delivered to Johnson Space Center (JSC), March 1996.

Courtney B. Duncan, "The Space Transportation System Ku-Band Communications and Radar System Description," EE7-83-354, NASA, Lyndon B. Johnson Space Center, Houston, TX 77058, July 1983.

UNIVERSITY of HOUSTON SENIOR HONORS THESIS

Courtney Duncan, "Precise Edge Measurement in Micrometrology." May 11, 1985

AMSAT and AMATEUR RADIO PAPERS

Courtney B. Duncan, n5bf/6. Software Radios, an Enabling Technology for Satellite, Space, and Ultra-Weak Signal Applications. AMSAT Symposium, San Francisco, California (Foster City). 2006 October 8.

Duncan, C., Tarsala, J., "Before the Federal Communications Commission, In the Matter of 1998 Biennial Regulatory Review -- Amendment of Part 97 of the Commission's Amateur Service Rules. WT Docket No. 98-143. December 1, 1998.

Duncan, C., Tarsala, J., "Rescue Effort on W6VIO/R." (An account of a medical assist in the Angeles National Forest). W6VIO Calling, Vol. 25, Issue 9., September 1996.

Duncan, C. "Amateur Public Service." (An account of the March 10, 1973 Hubbard, Tx Tornado and amateur radio response.) W6VIO Calling (the JPL Amateur Radio Club Newsletter), Vol. 24, Issue 8., September 1995.

Duncan, C., et al. "AMSAT Director Elections." (Campaign Statement) The AMSAT Journal, Vol. 13, No. 3. July 1990.

Clark, T., Duncan, C., King, J., McGwier, B. "The First Flock of Microsats." The AMSAT Journal, Vol. 12, No. 1. May 1989.

Duncan, C., Wallio, R. "Layered Command Team Development." The AMSAT Journal, Vol 12, No. 1. May 1989.

Duncan, C., Bristor, R. "WA4UPD Appointed Technical Coordinator." (Telemetry Archiving) The AMSAT Journal, Vol 12, No. 1. May 1989.

Duncan, C., Campbell, D. "N3FKV Appointed Operational Coordinator." (Orbital Data Management) The AMSAT Journal, Vol 12, No. 1. May 1989.

Duncan C. "The Satellite Experimenter's Handbook, 2nd Edition." (book review) The AMSAT Journal, Vol. 14, No. 4. July 1991.

Duncan, C. "AMSAT-NA Operations Report." The AMSAT Journal, Vol. 14, No. 4. July 1991.

Duncan, C. "AMSAT-NA Operations Report." The AMSAT Journal, Vol. 14, No. 3. May 1991.

Duncan, C. "AMSAT-NA Operations Report." The AMSAT Journal, Vol. 14, No. 2. March 1991.

Deskur, D., Duncan C. "1990 AMSAT Space Symposium and Annual Meeting." The AMSAT Journal, Vol. 14, No. 1. January 1991.

Duncan, C., "How Can I Help? AMSAT-NA Operations." The AMSAT Space Symposium Proceedings. October 1990.

Duncan, C., "Operations Net Schedule." The AMSAT Journal, Vol. 13., No. 1. March 1990.

Duncan, C., "AMSAT Operations for 1989 & 1990." The AMSAT Journal, Vol. 12, No. 3. November 1989.

Duncan, C., "Why Do Satellites?" 73 Amateur Radio., Issue #332., May 1988.

Duncan, C., "A Method for Evaluating Antennas for a Low Earth Orbit Mission." AMSAT-NA Technical Journal, Vol. 1, No. 2., Winter 1987-1988.

Duncan, C., "Power Budget and Eclipse Considerations for PTSE-H." AMSAT-NA Technical Journal, Vol. 1, No. 1., Summer 1987.

Duncan, C., "The CAD Experience." QEX, The ARRL Experimenter's Exchange, #49, April 1986.

OTHER PUBLICATIONS, SIGNIFICANT INVOLVEMENT BUT NOT LISTED AS AUTHOR

Staehle, R. L., Graham, J. M., Champa, J. "Solar Sail Expedition to the Moon and Mars." Proceedings of the AMSAT-NA Ninth Space Symposium, AMSAT/ARRL Educational Workshop, and AMSAT Annual Meeting. November 8-10, 1992.

Davidoff, M. "An Efficient Method for Calculating Average Daily Access Time as a Function of Ground Station Latitude for a Satellite Orbit." The AMSAT Journal, Vol 13. No. 5. November 1990.

Reeves, D. "Chaminade MicroSat Project." Proceedings of the AMSAT-NA Ninth Space Symposium, AMSAT/ARRL Educational Workshop, and AMSAT Annual Meeting. November 8-10, 1992.

Lawson, J. "Microsat Packet Gateway Operations." The AMSAT Journal, Vol. 14, No. 3. May 1991.

Welch, R. "Membership Software Survey." The AMSAT Journal, Vol. 14, No. 2. March 1991.

Krome, E. "Mode S: Plug and Play!" The AMSAT Journal, Vol 14, No. 1. January 1991.

Ensign, R. C. "OSCARs in the Classroom." The AMSAT Journal, Vol. 14, No. 1. January 1991.

King, J. A., McGwier, R., Price, H., White, J. "The In-Orbit Performance of Four Microsat Spacecraft." The AMSAT Space Symposium Proceedings. October 1990.

Smith, G. G. "Decoding Telemetry from the Amateur Satellites." The AMSAT Space Symposium Proceedings. October 1990.

White, J. "Microsat Motion and Stabilization (and why we care about it)." The AMSAT Space Symposium Proceedings. October 1990.

Campbell, D. "AMSAT Orbital Data Management." The AMSAT Space Symposium Proceedings. October 1990.

Krome, E.. "Design of an Easy to Build, Versatile, Homebrew Satellite Ground Station." The AMSAT Space Symposium Proceedings. October 1990.

Garvey, J., Champa, J., "Solar Sail Program Status." The AMSAT Journal, Vol. 12, No. 3. November 1989.

Wingo, D., Champa, J. "The Lunar Polar Prospector." The AMSAT Journal, Vol. 12, No. 3. November 1989.

Creager, Gerry, "A Proposed Series of Satellites for Digital Message Relay." AMSAT-NA Technical Journal, Vol. 1, No. 1., Summer 1987.