

Author Index,¹ 1999

The Telecommunications and Mission Operations Progress Report

42-137, January–March 1999
42-138, April–June 1999
42-139, July–September 1999
42-140, October–December 1999

Agan, M.

42-138 Micro Communications and Avionics Systems First Prototype (MCAS1): A Low Power, Low Mass In Situ Transceiver, pp. 1–35.

See Satorius, E.

Ahlstrom, Jr., H. G.

42-139 Modifications of the Torque-Bias Profile for Improved Tracking of Beam-Waveguide Antennas, pp. 1–17.

See Gawronski, W.

Baher, F.

42-139 Azimuth-Track-Level Compensation to Reduce Blind-Pointing Errors of the Beam-Waveguide Antennas, pp. 1–18.

See Gawronski, W.

¹ In the case of joint authorship, the reader is referred to the citation under the first author, where all the authors of the article are listed.

Berner, J. B.

42-137 Increased Suppressed-Carrier Telemetry Return by Means of Frequent Changes in Bit Rate During a Tracking Pass, pp. 1–17.

See Sue, M. K.

42-137 Regenerative Pseudo-Noise Ranging for Deep-Space Applications, pp. 1–18.

J. M. Layland, P. W. Kinman, and J. R. Smith

Bertiger, W.

42-137 Precise Real-Time Low-Earth-Orbiter Navigation With the Global Positioning System (GPS), pp. 1–11.

B. Haines, D. Kuang, M. Lough, S. Lichten, R. J. Muellerschoen, Y. Vigue-Rodi, and S. Wu

Brandt, J. J.

42-139 Modifications of the Torque-Bias Profile for Improved Tracking of Beam-Waveguide Antennas, pp. 1–17.

See Gawronski, W.

Britcliffe, M.

42-138 Progress in Design and Construction of the Optical Communications Laser Laboratory, pp. 1–6.

See Wilson, K. E.

Brown, P. R.

42-138 Design and Performance of the Monopulse Pointing System of the DSN 34-Meter Beam-Waveguide Antennas, p. 1–29.

See Gudim, M. A.

Butman, S.

42-137 The Mars Global Surveyor Ka-Band Link Experiment (MGS/KaBLE-II), pp. 1–41.

See Morabito, D.

Cheung, K.-M.

42-140 Telecommunications Analysis for “Faster, Better, Cheaper” Deep Space Flight Planning and Operations: The Deep Space 1 (DS1) Experience, pp. 1–20.

A. Makovsky and J. Taylor

Cirillo, Jr., R.

42-137 Temperature Testing of the New S-Band Transmitter Filter for DSS 54, pp. 1–5.

W. Veruttipong

42-138 Measurements of Complex Dielectric Constants of Paints and Primers for DSN Antennas: Part I, pp. 1–13.

See Otoshi, T. Y.

42-139 Measurements of Complex Dielectric Constants of Paints and Primers for DSN Antennas: Part II, pp. 1–7.

See Otoshi, T. Y.

42-140 Noise Temperature and Gain Loss due to Paints and Primers on DSN Antenna Reflector Surfaces, pp. 1–26.

See Otoshi, T. Y.

Darden, S.

42-140 A Comparison of the Performances of Coherent Binary-Phase-Shift Keying (BPSK) and Offset Quadrature-Phase-Shift Keying (OQPSK) in the Presence of Interference, pp. 1–18.

See Simon, M. K.

Divsalar, D.

42-139 A Simple Tight Bound on Error Probability of Block Codes with Application to Turbo Codes, pp. 1–35.

Fisher, F.

42-138 Deep Space Terminal Demonstration, pp. 1–24.

See Paal, L.

Fort, D.

42-139 Demonstration and Evaluation of the Ka-Band Array Feed Compensation System on the 70-Meter Antenna at DSS 14, pp. 1–17.

See Vilnrotter, V.

Franco, M.

42-139 Data Analysis and Results of the Ka-Band Array Feed Compensation System–Deformable Flat Plate Experiment at DSS 14, pp. 1–29.

See Richter, P.

Garnica, J.

42-138 Performance of a 12-Kilometer Photonic Link for X-Band Antenna Remoting in NASA's Space Network, pp. 1–8.

See Lutes, G.

Gawronski, W.

42-137 Design and Performance of the Monopulse Control System, pp. 1–15.

M. A. Gudim

42-138 Design and Performance of the Monopulse Pointing System of the DSN 34-Meter Beam-Waveguide Antennas, p. 1–29.

See Gudim, M. A.

42-139 Azimuth-Track-Level Compensation to Reduce Blind-Pointing Errors of the Beam-Waveguide Antennas, pp. 1–18.

F. Baher and O. Quintero

42-139 Modifications of the Torque-Bias Profile for Improved Tracking of Beam-Waveguide Antennas, pp. 1–17.

J. J. Brandt, H. G. Ahlstrom, Jr., and E. Maneri

42-140 Linear Quadratic Gaussian Controller Design Using a Graphical User Interface: Application to the Beam-Waveguide Antennas, pp. 1–29.

See Maneri, E.

Golshan, N.

42-138 Deep Space Terminal Demonstration, pp. 1–24.

See Paal, L.

42-138 Progress in Design and Construction of the Optical Communications Laser Laboratory, pp. 1–6.

See Wilson, K. E.

Gray, A.

42-138 Micro Communications and Avionics Systems First Prototype (MCAS1): A Low Power, Low Mass In Situ Transceiver, pp. 1–35.

See Satorius, E.

42-139 Carrier Synchronization for Low Signal-to-Noise Ratio Binary Phase-Shift-Keyed Modulated Signals, pp. 1–16.

See Vilnrotter, V.

Greenhall, C. A.

42-137 The Generalized Autocovariance: A Tool for Clock Noise Statistics, pp. 1–32.

Grigorian, E.

42-138 Micro Communications and Avionics Systems First Prototype (MCAS1): A Low Power, Low Mass In Situ Transceiver, pp. 1–35.

See Satorius, E.

Gudim, M. A.

42-137 Design and Performance of the Monopulse Control System, pp. 1–15.

See Gawronski, W.

42-138 Design and Performance of the Monopulse Pointing System of the DSN 34-Meter Beam-Waveguide Antennas, p. 1–29.

W. Gawronski, W. J. Hurd, P. R. Brown, and D. M. Strain

Haines, B.

42-137 Precise Real-Time Low-Earth-Orbiter Navigation With the Global Positioning System (GPS), pp. 1–11.

See Bertiger, W.

Hamkins, J.

42-138 The Capacity of Avalanche Photodiode-Detected Pulse-Position Modulation, pp. 1–19.

42-138 Performance of Binary Turbo-Coded 256-ary Pulse-Position Modulation, pp. 1–15.

42-139 A Joint Receiver–Decoder for Convolutionally Coded Binary Phase-Shift Keying (BPSK), pp. 1–23.

Hansen, D.

42-138 Micro Communications and Avionics Systems First Prototype (MCAS1): A Low Power, Low Mass In Situ Transceiver, pp. 1–35.

See Satorius, E.

Ho, C.

42-138 An Estimate of Interference Effect From the Los Angeles Area High-Density Fixed Services (HDFS) on the Goldstone DSN Receiver Above 30 GHz: Monte Carlo Simulation, pp. 1–18.

M. K. Sue and C. Ruggier

Hoppe, D. J.

42-140 Computational Methods and Theoretical Results for the Ka-Band Array Feed Compensation System--Deformable Flat Plate Experiment at DSS 14, pp. 1–23.

See Imbriale, W. A.

Hurd, W. J.

42-138 Design and Performance of the Monopulse Pointing System of the DSN 34-Meter Beam-Waveguide Antennas, p. 1–29.

See Gudim, M. A.

Imbriale, W. A.

42-140 Computational Methods and Theoretical Results for the Ka-Band Array Feed Compensation System—Deformable Flat Plate Experiment at DSS 14, pp. 1–23.

D. J. Hoppe

Kiasaleh, K.

42-138 An Analysis of Heterodyne Pulse-Position Modulation Communication Systems Over Unguided, Turbulent Optical Channels, pp. 1–14.

T.-Y. Yan

Kinman, P. W.

42-137 Increased Suppressed-Carrier Telemetry Return by Means of Frequent Changes in Bit Rate During a Tracking Pass, pp. 1–17.

See Sue, M. K.

42-137 Regenerative Pseudo-Noise Ranging for Deep-Space Applications, pp. 1–18.

See Berner, J. B.

42-140 Mutual Interference of Ranging and Telemetry, pp. 1–14.

M. K. Sue, T. K. Peng, and J. F. Weese

Klimesh, M.

42-139 Quantization Considerations for Distortion-Controlled Data Compression, pp. 1–38.

Kuang, D.

42-137 Precise Real-Time Low-Earth-Orbiter Navigation With the Global Positioning System (GPS), pp. 1–11.

See Bertiger, W.

Law, E.

42-138 Deep Space Terminal Demonstration, pp. 1–24.

See Paal, L.

Layland, J. M.

42-137 Regenerative Pseudo-Noise Ranging for Deep-Space Applications, pp. 1–18.

See Berner, J. B.

Layland, J. W.

42-138 Comparative Deep-Space Link Performance, pp. 1–12.

Lee, C.

42-139 Carrier Synchronization for Low Signal-to-Noise Ratio Binary Phase-Shift-Keyed Modulated Signals, pp. 1–16.

See Vilnrotter, V.

Lichten, S.

42-137 Precise Real-Time Low-Earth-Orbiter Navigation With the Global Positioning System (GPS), pp. 1–11.

See Bertiger, W.

Lough, M.

42-137 Precise Real-Time Low-Earth-Orbiter Navigation With the Global Positioning System (GPS), pp. 1–11.

See Bertiger, W.

Lowe, S. T.

42-137 Voltage Signal-to-Noise Ratio (SNR) Nonlinearity Resulting From Incoherent Summations, pp. 1–6.

Lutes, G.

42-138 Performance of a 12-Kilometer Photonic Link for X-Band Antenna Remoting in NASA's Space Network, pp. 1–8.

W. Shieh, S. Yao, L. Maleki, and J. Garnica

Makovsky, A.

42-140 Telecommunications Analysis for “Faster, Better, Cheaper” Deep Space Flight Planning and Operations: The Deep Space 1 (DS1) Experience, pp. 1–20.

See Cheung, K.-M.

Maleki, L.

42-138 Performance of a 12-Kilometer Photonic Link for X-Band Antenna Remoting in NASA's Space Network, pp. 1–8.

See Lutes, G.

Maneri, E.

42-139 Modifications of the Torque-Bias Profile for Improved Tracking of Beam-Waveguide Antennas, pp. 1–17.

See Gawronski, W.

42-140 Linear Quadratic Gaussian Controller Design Using a Graphical User Interface: Application to the Beam-Waveguide Antennas, pp. 1–29.

W. Gawronski

Mileant, A.

42-137 Increased Suppressed-Carrier Telemetry Return by Means of Frequent Changes in Bit Rate During a Tracking Pass, pp. 1–17.

See Sue, M. K.

Morabito, D.

42-137 The Mars Global Surveyor Ka-Band Link Experiment (MGS/KaBLE-II), pp. 1–41.

S. Butman and S. Shambayati

Muellerschoen, R. J.

42-137 Precise Real-Time Low-Earth-Orbiter Navigation With the Global Positioning System (GPS), pp. 1–11.

See Bertiger, W.

Otoshi, T. Y.

- 42-138 Measurements of Complex Dielectric Constants of Paints and Primers for DSN Antennas: Part I, pp. 1–13.
R. Cirillo, Jr., and J. Sosnowski
- 42-139 Measurements of Complex Dielectric Constants of Paints and Primers for DSN Antennas: Part II, pp. 1–7.
R. Cirillo, Jr., and J. Sosnowski
- 42-140 Noise Temperature and Gain Loss due to Paints and Primers on DSN Antenna Reflector Surfaces, pp. 1–26.
Y. Rahmat-Samii, R. Cirillo, Jr., and J. Sosnowski
- 42-140 Noise Temperature of a Lossy Flat-Plate Reflector for the Elliptically Polarized Wave Case, pp. 1–6.
C. Yeh

Paal, L.

- 42-138 Deep Space Terminal Demonstration, pp. 1–24.
N. Golshan, F. Fisher, E. Law, W. Veruttipong, and M. Stockett

Pechkam, P.

- 42-138 An Automation Language for Managing Operations (ALMO) in the Deep Space Network, p. 1–10.
See Santos, P. F.

Peng, T. K.

- 42-140 Mutual Interference of Ranging and Telemetry, pp. 1–14.
See Kinman, P. W.

Quintero, O.

- 42-139 Azimuth-Track-Level Compensation to Reduce Blind-Pointing Errors of the Beam-Waveguide Antennas, pp. 1–18.
See Gawronski, W.

Rahmat-Samii, Y.

42-140 Noise Temperature and Gain Loss due to Paints and Primers on DSN Antenna Reflector Surfaces, pp. 1–26.

See Otoshi, T. Y.

Richter, P.

42-139 Data Analysis and Results of the Ka-Band Array Feed Compensation System–Deformable Flat Plate Experiment at DSS 14, pp. 1–29.

M. Franco and D. Rochblatt

Rochblatt, D.

42-139 Data Analysis and Results of the Ka-Band Array Feed Compensation System–Deformable Flat Plate Experiment at DSS 14, pp. 1–29.

See Richter, P.

Ruggier, C.

42-138 An Estimate of Interference Effect From the Los Angeles Area High-Density Fixed Services (HDFS) on the Goldstone DSN Receiver Above 30 GHz: Monte Carlo Simulation, pp. 1–18.

See Ho, C.

Santos, P. F.

42-138 An Automation Language for Managing Operations (ALMO) in the Deep Space Network, p. 1–10.

P. Pechkam

Satorius, E.

42-138 Micro Communications and Avionics Systems First Prototype (MCAS1): A Low Power, Low Mass In Situ Transceiver, pp. 1–35.

M. Agan, A. Gray, E. Grigorian, D. Hansen, and C. Wang

Shambayati, S.

- 42-137 The Mars Global Surveyor Ka-Band Link Experiment (MGS/KaBLE-II), pp. 1–41.
See Morabito, D.
- 42-139 Optimization of a Deep-Space Ka-Band Link Using Atmospheric-Noise-Temperature Statistics, pp. 1–16.
- 42-140 Analysis and Optimization of the Performance of a Convolutionally Encoded Deep-Space Link in the Presence of Spacecraft Oscillator Phase Noise, pp. 1–11.

Shieh, W.

- 42-138 Performance of a 12-Kilometer Photonic Link for X-Band Antenna Remoting in NASA's Space Network, pp. 1–8.
See Lutes, G.

Simon, M. K.

- 42-137 Performance Evaluation and Interpretation of Unfiltered Feher-Patented Quadrature-Phase-Shift Keying (FQPSK), pp. 1–29.
T.-Y. Yan
- 42-139 Performance of Coherent Binary Phase-Shift Keying (BPSK) with Costas-Loop Tracking in the Presence of Interference, pp. 1–24.
- 42-140 A Comparison of the Performances of Coherent Binary-Phase-Shift Keying (BPSK) and Offset Quadrature-Phase-Shift Keying (OQPSK) in the Presence of Interference, pp. 1–18.
S. Darden

Smith, J. R.

- 42-137 Regenerative Pseudo-Noise Ranging for Deep-Space Applications, pp. 1–18.
See Berner, J. B.

Sosnowski, J.

42-138 Measurements of Complex Dielectric Constants of Paints and Primers for DSN Antennas: Part I, pp. 1–13.

See Otoshi, T. Y.

42-139 Measurements of Complex Dielectric Constants of Paints and Primers for DSN Antennas: Part II, pp. 1–7.

See Otoshi, T. Y.

42-140 Noise Temperature and Gain Loss due to Paints and Primers on DSN Antenna Reflector Surfaces, pp. 1–26.

See Otoshi, T. Y.

Stockett, M.

42-138 Deep Space Terminal Demonstration, pp. 1–24.

See Paal, L.

Strain, D. M.

42-138 Design and Performance of the Monopulse Pointing System of the DSN 34-Meter Beam-Waveguide Antennas, p. 1–29.

See Gudim, M. A.

Sue, M. K.

42-137 Increased Suppressed-Carrier Telemetry Return by Means of Frequent Changes in Bit Rate During a Tracking Pass, pp. 1–17.

A. Mileant, J. F. Weese, J. B. Berner, P. W. Kinman, and H. H. Tan

42-138 An Estimate of Interference Effect From the Los Angeles Area High-Density Fixed Services (HDFS) on the Goldstone DSN Receiver Above 30 GHz: Monte Carlo Simulation, pp. 1–18.

See Ho, C.

42-140 Mutual Interference of Ranging and Telemetry, pp. 1–14.

See Kinman, P. W.

Tan, H. H.

42-137 Increased Suppressed-Carrier Telemetry Return by Means of Frequent Changes in Bit Rate During a Tracking Pass, pp. 1–17.

See Sue, M. K.

Taylor, J.

42-140 Telecommunications Analysis for “Faster, Better, Cheaper” Deep Space Flight Planning and Operations: The Deep Space 1 (DS1) Experience, pp. 1–20.

See Cheung, K.-M.

Tong, K. K.

42-140 A Multimission Deep-Space Telecommunications Analysis Tool: The Telecom Forecaster Predictor, pp. 1–7.

R. H. Tung

Tsou, H.

42-137 The Combined Effect of Modulator Imbalances and Amplifier Nonlinearity on the Performance of Offset Quadrature-Phase-Shift-Keyed (OQPSK) Systems, pp. 1–18.

Tung, R. H.

42-140 A Multimission Deep-Space Telecommunications Analysis Tool: The Telecom Forecaster Predictor, pp. 1–7.

See Tong, K. K.

Veruttipong, W.

42-137 Temperature Testing of the New S-Band Transmitter Filter for DSS 54, pp. 1–5.

See Cirillo, R.

42-138 Deep Space Terminal Demonstration, pp. 1–24.

See Paal, L.

Vigue-Rodi, Y.

42-137 Precise Real-Time Low-Earth-Orbiter Navigation With the Global Positioning System (GPS), pp. 1–11.

See Bertiger, W.

Vilnrotter, V.

42-139 Carrier Synchronization for Low Signal-to-Noise Ratio Binary Phase-Shift-Keyed Modulated Signals, pp. 1–16.

A. Gray and C. Lee

42-139 Demonstration and Evaluation of the Ka-Band Array Feed Compensation System on the 70-Meter Antenna at DSS 14, pp. 1–17.

D. Fort

Wang, C.

42-138 Micro Communications and Avionics Systems First Prototype (MCAS1): A Low Power, Low Mass In Situ Transceiver, pp. 1–35.

See Satorius, E.

Weese, J. F.

42-137 Increased Suppressed-Carrier Telemetry Return by Means of Frequent Changes in Bit Rate During a Tracking Pass, pp. 1–17.

See Sue, M. K.

42-140 Mutual Interference of Ranging and Telemetry, pp. 1–14.

See Kinman, P. W.

Wilson, K. E.

42-138 Progress in Design and Construction of the Optical Communications Laser Laboratory, pp. 1–6.

M. Britcliffe and N. Golshan

Wu, S.

42-137 Precise Real-Time Low-Earth-Orbiter Navigation With the Global Positioning System (GPS), pp. 1–11.

See Bertiger, W.

Yan, T.-Y.

42-137 Performance Evaluation and Interpretation of Unfiltered Feher-Patented Quadrature-Phase-Shift Keying (FQPSK), pp. 1–29.

See Simon, M. K.

42-138 An Analysis of Heterodyne Pulse-Position Modulation Communication Systems Over Unguided, Turbulent Optical Channels, pp. 1–14.

See Kiasaleh, K.

Yao, S.

42-138 Performance of a 12-Kilometer Photonic Link for X-Band Antenna Remoting in NASA's Space Network, pp. 1–8.

See Lutes, G.

Yeh, C.

42-140 Noise Temperature of a Lossy Flat-Plate Reflector for the Elliptically Polarized Wave Case, pp. 1–6.

See Otoshi, T. Y.