UNB Database of Publications Related to the Ionosphere and GPS

compiled by

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2. Aarons, J. (1982). Global morphology of ionospheric scintillations. Proceedings of IEEE, Vol. 70, No. 4, 360 (abstract only).

3. Aarons, J., C. Gurgiolo and A.S. Rodger (1988). The effects of magnetic storm phases on F layer irregularities below the auroral oval. Radio Science, May-June, Vol. 23, No. 3, 309-319.

4. Aarons, J. and S. Basu (1994). Ionospheric amplitude and phase fluctuations at the GPS frequencies. ION GPS-94, Proceedings of the 7th International Technical Meeting of the Satellite Division of The Institute of Navigation, Salt Lake City, Utah, 20-23 September, The Institute of Navigation, Alexandria, Va., Vol. 2, 1569-1578.

5. Abdullah, K.A. (1984). Ionospheric correction of single frequency GPS data using electron content derived from simultaneous Transit observations. M.Eng. Report Department of Surveying Engineering, University of New Brunswick, Fredericton, N.B., September, 89 pp.

6. Abidin, H.Z. and D.E. Wells (1990). Extrawidelaning for 'on the fly' ambiguity resolution: Simulation of ionospheric effects. GPS '90, Proceedings of Second International Symposium on Precise Positioning with the Global Positioning System, Ottawa, Ontario, 3-7 September, Canadian Institute of Surveying and Mapping, Ottawa, Ontario, 1217-1232.

7. Afraimovich, E.L., O.N. Boitman, V.N. Zvezdin, N.P. Minko and S.V. Fridman (1992). The physical composition of the oscillation spectrum of total electron content in the ionosphere. Proceedings of Symposium on Refraction of Transatmospheric Signals in Geodesy, T. A. T. S. Eds. J.C. de Munck, The Hague, The Netherlands, 19-22 May, Netherlands Geodetic Commission, Publications on Geodesy, Delft, The Netherlands, No. 36, New Series, 81 (abstract only).

8. Afraimovich, E.L., Y.I. Vakulin and N.M. Minko (1992). Response of the ionosphere to a very strong magnetic storm of April 9-11, 1990 and estimating the error of a GPS-type navigation system. Proceedings of Symposium on Refraction of Transatmospheric Signals in Geodesy, T. A. T. S. Eds. J.C. de Munck, The Hague, The Netherlands, 19-22 May, Netherlands Geodetic Commission, Publications on Geodesy, Delft, The Netherlands, No. 36, New Series, 109 (abstract only).

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10. Ajayi, G.O. and et al. (1978). Accurate Determination of Ionospheric Effects on Satellite Based Positioning Systems Using a Versatile Three-dimensional Ray Tracing Program. Report UIO-SR-78-04, 22 pp.

11. Ajayi, G.O., A. Hedberg and G. Hamberg (1980). Accurate determination of ionospheric effects on satellite-based positioning systems in terms of residual range error. Radio Science, Vol. 15, No. 5, 1009-1016.

12. Al'pert, Y.L. Radio Wave Propagation and the Ionosphere. Excerpts from the authorized translation from the Russian Consultants Bureau, N.Y., 33 pp.

13. Alexander, M. (1994). Radiosonde measurement of the atmosphere using GPS positioning data. ION GPS-94, Proceedings of the 7th International Technical Meeting of the Satellite Division of The Institute of Navigation, Salt Lake City, Utah, 20-23 September, The Institute of Navigation, Alexandria, Va., Vol. 2, 1627-1635.

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Navigation, Salt Lake City, Utah, 20-23 September, The Institute of Navigation, Alexandria, Va., Vol. 2, 1643-1651.

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74. Brunner, F.K. and W.M. Welsch (1993). Effect of the troposphere on GPS measurements. GPS World, January, Vol. 4, No. 1, 42-51. Innovation; Nature of the delay; measurements; meteorological ground data; estimating zenith delays; effects on geodetic networks; conclusions. As they propagate from a satellite to a receiver on the ground, GPS signals must pass through the earth's atmosphere. In previous columns, the effect that the ionosphere—the ionized part of the atmosphere—had on GPS signals has been examined. Here the effect of the nonionized or neutral part, the bulk of which lies in the troposphere, is discussed.

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computer, sonar, other); ionospheric calibrators; laboratory test equipment; mapping (data conversion, imagery, interfaces, systems); market analysis/reports; photogrammetry/GPS integrated systems; precise ephemeris information; publications, guides, etc., receiver components (chips, interfaces, modules, quartz crystals, RF amplifiers, other); receiver performance analysis; receivers (attitude/direction finding, aviation, handheld, land vehicle, marine, military, modules/OEMs/sensors, space, surveying, timing, tracking); satellite signals simulators/pseudosatellites; security code decryption devices; seminars/training; software (geodetic parameter, GIS/LIS, mapping, mission planning, navigation/route guidance, network adjustment, orbit analysis and simulation, pre-/postprocessing, system performance analysis, vehicle/vessel tracking); space systems (command, control, and communications, launch vehicles/services, satellite systems); surveying (dataloggers, electronic field books, 3-D monuments, tripods); time-code generators; timing clocks; timing/frequency systems; translators; vehicle location/tracking workstations and systems; product manufacturers.

81. Buyers Guide (1994). GPS World, June, Vol. 5, No. 6, 46-60. Accessories (cable assemblies; connectors; power supplies; other); Antennas; Avionics Displays; Bandpass Filters; Buffer Boxes; Communications Datalinks; Computer GPS Cards; Computer Peripherals (digitizing tablets/scanners; interface modules; plotters; printers; other); Datalogger/GPS; Differential GPS (datalinks; DGPS-capable radiobeacon receivers; real-time DGPS-capable receivers; reference stations; services; systems); Digital Compasses; Electronic Bulletin Boards; Electronic Charts/Maps; GLONASS Hardware/Software; Integrated GPS Navigation Equipment (dead reckoning; Decca; GPS/GLONASS; inertial; Loran-C; military; multisensor; Omega; Radar; radiopositioning; satcom/GPS; Transit; other); Integrated Instrumentation with GPS; Integrity Monitoring (bar code scanner; communications; datalogger; PC/laptop/handheld computer; sonar; other); Ionospheric Calibrators; Laboratory Test Equipment; Mapping (data conversion; imagery; interfaces; systems); Market Analysis/Reports; Photogrammetry/GPS Integrated Services; Precise Ephemeris Information; Publications, Guides, etc.; Receiver Components (chips; interfaces; modules; quartz crystals; RF amplifiers; other); Receiver Performance Analysis; Receivers (attitude/direction finding; aviation; GPS/GLONASS; handheld; land vehicle; marine; military; modules/OEMs/sensors; space; surveying; timing; tracking); Satellite Signal Simulators/Pseudosatellites; Security Code Decryption Devices; Seminars/Training; Software (geodetic parameter; GIS/LIS; mapping; mission planning; navigation/route planning; network adjustment; orbit analysis and simulation; pre/postprocessing; system performance analysis; vehicle/vessel tracking); Space Systems (command, control, and communications; launch vehicles/services; satellite systems); Surveying (dataloggers; electronic fieldbooks; 3-D monuments; tripods); Time-Code Generators; Timing Clocks; Timing/Frequency Systems; Translators; Vehicle Location/Tracking Workstations and Systems; Company Directory.

82. Buyers Guide (1995). GPS World, June, Vol. 6, No. 6, 52-63. accessories (cable assemblies, connectors, power supplies, other); antennas (GPS external; GPS integrated, GPS/communications); bandpass filters; buffer boxes; communications datalinks; computer GPS cards; computer peripherals (digitizing tablets/scanners, interface modules, plotters, printers, other); datalogger GPS; differential GPS (datalinks; DGPS-capable radiobeacon receivers, real-time DGPS capable receivers, reference stations, services, systems); displays (alphanumeric, graphical); digital compasses; electronic bulletin boards; electronic charts/maps; GLONASS hardware/software; integrated GPS navigation equipment (dead reckoning, Decca, GPS/GLONASS, inertial, Loran-C, military, multisensor, Omega, radar, radiopositioning, Satcom/GPS, Transit, other); integrated instrumentation with GPS (bar code scanner, camera, communications, datalogger, infrared/multispectral sensors, integrity monitoring, laser rangefinders, PC/laptop/handheld computer, sonar, videography including time/position captioning,

other); ionospheric calibrators; laboratory test equipment; mapping (data conversion, digital mapbases, imagery, interfaces, systems, travel information databases); market analyses/reports; photogrammetry/GPS integrated systems; precise ephemeris information; publications and guides; radiometers; receiver components (chips, interfaces, modules, quartz crystals, RF amplifiers, other); receiver-performance analysis; receivers (attitude/direction finding, automatic vehicle location, aviation, GPS/GLONASS, handheld, land vehicle navigation, marine, military, modules/oems/sensors, space, surveying, timing, tracking, translators); satellite signal simulators/pseudosatellites; security code decryption devices; seminars/training; software (geodetic parameter, GIS/LIS, mission planning, navigation/route guidance, network adjustment, orbit analysis and simulation, pre-/postprocessing, system performance analysis, vehicle/vessel tracking); space systems (command, control, and communications, launch vehicles/services, satellite systems); surveying (dataloggers, electronic fieldbooks, 3-D monuments, tripods); time-code generators; time transfer stations; timing/frequency systems; timing clocks; vehicle location/tracking workstations and systems (computer aided dispatch)). Company directory.

83. Buyers Guide (1996). GPS World, June, Vol. 7, No. 6, 51-74. accessories (cable assemblies, connectors, power supplies, other); antennas (GPS external; GPS integrated, GPS/communications); bandpass filters; buffer boxes; communications datalinks; computer peripherals (digitizing tablets/scanners, interface modules, plotters, printers, other); datalogger GPS; differential GPS (datalinks; DGPS-capable radiobeacon receivers, real-time DGPS capable receivers, reference stations, services, systems); digital compasses; displays (alphanumeric, graphical); electronic bulletin boards; electronic charts/maps; GLONASS hardware/software; integrated GPS navigation equipment (dead reckoning, Decca, GPS/GLONASS, inertial, Loran-C, military, multisensor, radar, radiobeacon, Satcom/GPS, other); integrated instrumentation with GPS (bar code scanner, camera, communications, datalogger, infrared/multispectral sensors, integrity monitoring, laser rangefinders, PC/laptop/handheld computer, sonar, videography including time/position captioning, other); ionospheric calibrators; laboratory test equipment; mapping (data conversion, digital mapbases, imagery, interfaces, systems, travel information databases); market analyses/reports; photogrammetry/GPS integrated systems; precise ephemeris information; publications, guides, videos, training software, etc.; receiver components (chipsets, interfaces, modules, quartz crystals, RF amplifiers, other); receiver-performance analysis; receivers (attitude/direction finding, automatic vehicle location, aviation, computer GPS cards/modules, GPS/GLONASS, handheld, land vehicle navigation/route guidance, marine, military, modules/oems/engines, PCMCIA cards, space, surveying, timing, tracking, translators); satellite signal simulators/pseudosatellites; security code decryption devices; seminars/training; software (geodetic, GIS/LIS, mapping, mission planning, navigation/route guidance, network adjustment, orbit analysis and simulation, pre-/postprocessing, system performance analysis, vehicle/vessel tracking); space systems (command, control, and communications, launch vehicles/services, satellite systems); surveying (dataloggers, electronic fieldbooks, tripods); time-code generators; time transfer stations; timing/frequency systems; timing clocks; vehicle location/tracking workstations and systems (computer aided dispatch); other GPS-related products. Company directory.

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85. Calais, E. and J.B. Minster (1996). GPS detection of ionospheric perturbations following a Space Shuttle ascent. Geophysical Research Letters, Vol. 23, 1897-1900.

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87. Campbell, J. and F.J. Lohmar (1982). On the computation of ionospheric path delays for VLBI from satellite Doppler observations. Geodetic Applications of Radio Interferometry, Proceedings of International Association of Geodesy Symposium No. 5, Tokyo, Japan, 7-8 May, NOAA Technical Report NOS 95 NGS 24, 231-241.

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