Project Details

ROSES ID: NRA-03-OSS-01
Selection Year: 2004
Program Element: Independent Investigation: LWS

Project Title:
Contribution of Ionospheric Occultation Experiment (IOX) Observations to the LWS Data Environment

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Summary:
The Ionospheric Occultation Experiment (IOX) is a GPS occultation sensor that is currently in orbit on a US Air Force Space Test Program (STP) satellite. IOX is the only currently operational GPS occultation sensor with an ionospheric mission focus and has been collecting a substantial database of GPS occultation data since late-2001. The IOX measurements of the GPS L1 and L2 signals can be used to derived precise line-of-sight total electron content (TEC) values, electron density profiles with good vertical resolution, and L-band scintillation. These types of measurements are key to fulfilling many LWS objectives. The IOX data is particularly useful for scintillation (including mid-latitude) studies and assimilative model evaluation and development. We propose to provide the science community with on-line access to IOX data together with a simple search/browse capability and ancillary information about IOX mission parameters useful for research.

Publication References:

Summary: ''

Reference: Paul Straus / Aerospace Corporation-Contribution of Ionospheric Occultation Experiment (IOX) Observations to the LWS Data Environment

Summary: no summary

Reference: Straus, P. R.; (2007), Ionospheric climatology derived from GPS occultation observations made by the ionospheric occultation experiment, Advances in Space Research, Volume 39, Issue 5, p. 793-802, doi: 10.1016/j.asr.2006.08.009