

Ionospheric variability in sounding data from JORN.

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JORN supports a network of Lowell vertical incident sounders (VIS's) around western and northern Australia. These sounders sample the ionosphere regularly and automatically every 3'45" (since 2002). They provide a unique opportunity to quantitatively describe the variability in the ionosphere in the Australian region, particularly, "fast" variations with periods of 10-90 minutes that are inherently missed or under-sampled in hourly data.

This poster shows samples of JORN VIS data and describes techniques used to clean and process the raw VIS trace data in order to extract a quantitative description of the "mesoscale" ionospheric disturbances observed (with periods of 10-90 minutes). These disturbances are frequently found to have spatial and temporally correlated structures consistent with models of medium scale travelling ionospheric disturbances (mTID's). This poster shows how data describing the spatial and seasonal "climatology" of these "mesoscale" ionospheric disturbances can be extracted from the JORN VIS data.