

## Relationship between parameters of mid-latitude and high-latitude LSTIDs

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We present results of the statistical comparison of the parameters between mid-latitude LSTIDs observed by the GPS network in Japan and the ionospheric disturbances observed by the SuperDARN radars. Between 2002/07 and 2004/12 we found 6 and 17 examples where ground scatter echoes observed by King Salmon and Kodiak SuperDARN radars have long-period (1 to 1.5 hours) oscillations in the Doppler velocities, about 2-hours prior to the observation of mid-latitude LSTIDs. These oscillations probably correspond to the vertical oscillation of the ionosphere. The statistical relationship of LSTID parameters (velocity, wave length etc.) between high-latitude and mid-latitude LSTIDs will be discussed.