

On the relationship between mid-latitude LSTIDs and ionospheric disturbance observed by the SuperDARN radar

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We present results of the comparison between mid-latitude LSTIDs observed by the GPS network in Japan and the ionospheric disturbances observed by the SuperDARN radar. We found two examples where ground scatter echoes observed by Alaskan SuperDARN radars have long-period (1 to 1.5 hours) oscillation in the Doppler velocities, probably corresponding to the vertical oscillation of the ionosphere, about 2-hours prior to the observation of mid-latitude LSTIDs.