

Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

©2011. Japan Geoscience Union. All Rights Reserved.



PEM032-09

Room:103

Time:May 26 16:30-16:45

MSTID simultaneously observed with the SuperDARN Hokkaido radar and FORMOSAT: initial results

Tadahiko Ogawa^{1*}, Toru Adachi², Nozomu Nishitani³

¹NICT, ²Stanford University, ³STEL, Nagoya University

We present some initial results from simultaneous observations of nighttime mid-latitude medium-scale traveling ionospheric disturbances (MSTID) observed with the Hokkaido SuperDARN HF radar and 630-nm airglow intensity observed with a limb imager of FORMOSAT-2/ISUAL. The radar observes two-dimensional MSTID structures propagating in the horizontal plane, while the limb imager does two-dimensional airglow structures in the vertical plane. The observations were made during the night on 20 and 21 December 2006 and 29 December 2008. Preliminary analyses of data from both instruments suggest that spatial MSTID structures observed with the radar are identified as airglow intensity enhancements observed with ISUAL, though the radar field-of-view is separated by a few hundred kilometers or more from the ISUAL observation areas.

Keywords: medium-scale traveling ionospheric disturbances, midlatitude ionosphere, HF radar, 630-nm airglow