# 2012 Workshop: Gravity Wave Propagation and Dissipation

Long title
Gravity Wave Propagation, Dissipation, and Effects in the MLT, Thermosphere, and Ionosphere from Tropospheric, MLT, and Thermospheric Sources
Conveners
Sharon Vadas
Michael Nicolls
Greg Earle
Description

This 2-hr workshop will focus on gravity waves (GWs) from sources in the troposphere, MLT region, and thermosphere. Relevant topics include GW propagation and dissipation, and their influence on the surrounding neutral and plasma environments as they propagate/dissipate. GW sources may include (but are not limited to) deep convection, air flow over orography, cold fronts, tsunamis (and ocean wave excitation), shear, body forcings and heatings in the MLT and thermosphere. These body forcing and heatings can be created from the dissipation of primary GWs, the aurora, or other thermospheric sources. All latitudes are welcome. Both data and modeling talks are welcome. The format will consist of 6-8 10-min talks. Each talk should consist of 8 slides or less, and will be followed by 5-10 minutes of questions and discussion.

Justification

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minutes of questions and discussion. Please email vasha@cora.nwra.com and michael.nicolls@sri.com if you would like to contribute a talk.

Summary

The speakers were

Greg Earle "Gravity Wave Effects on the Mid-Latitude Bottomside Ionosphere"
Richard Walterscheid, "Gravity Wave Degradation under Classically Stable Conditions"
Sharon Vadas and Mike Nicolls: "The phases and amplitudes of gravity waves propagating and dissipating in the ther mosphere"
Erdal Yigit
Dave Fritts "Nonlinear Dynamics of Gravity Waves in the MLT: Instabilities and Effects" (pdf)
Mike Kelley et al" Prediction of Large Earthquakes Using GPS TEC Data: Verification and an Explanation"

Each talk was 10 min long, with a maximum of 8 slides. This worked out very well, because it left alot of time for questions after each talk.

In the end, there were a lot of questions, as well as a final discussion.

This workshop was well-attended, with 150-200 attendees.

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