

Abstract Submitted
for the 4CF13 Meeting of
The American Physical Society

Satellite and Ground-Based Measurements of Mesospheric Temperature Variability over Cerro Pachon, Chile (30.3° S)¹ JONATHAN PUGMIRE, MICHAEL TAYLOR, YUCHENG ZHAO, P. DOMINIQUE PAUTET, Center for Atmospheric and Space Sciences, Utah State University, JAMES RUSSELL, Center for Atmospheric Sciences, Hampton University — Observations of mesospheric OH (6,2) rotational temperatures by the Utah State University Mesospheric Temperature Mapper (MTM) located at the Andes Lidar Observatory, Cerro Pachon, Chile (30.3° S, 70.7° W) reveal a large range of nightly variations induced by atmospheric gravity waves and tides, as well as strong seasonal oscillations. This study investigates MTM temperature variability over the past 4 years comprising over 800 nights of high-quality data and compares the results with MTM measurements from Maui, Hawaii (2001-2005) and coincident mesospheric temperature measurement by the SABER instrument on the NASA TIMED satellite.

¹This research is supported under NSF collaborative grant #0737698.

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Date submitted: 20 Sep 2013

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