

Abstract Submitted
for the 4CF10 Meeting of
The American Physical Society

Investigating short-period gravity wave characteristics over Rothera, Antarctica (68°S) THOMAS MARTIN, JON PUGMIRE, MIKE TAYLOR, M.J. JARVIS, KIM NIELSEN, DOMINIQUE PAUTET, CENTER FOR ATMOSPHERIC AND SPACE SCIENCES TEAM, BRITISH ANTARTIC SURVEY COLLABORATION — As part of a collaborative program between British Antarctic Survey and Utah State University, we present an intra-annual study of short-period, mesospheric gravity wave events observed over Antarctica in the near infrared OH emission. The measurements were made using an all-sky airglow imager operated at Rothera Station (68°S, 68°W), situated on the Antarctic Peninsula. A total of 5 austral winter seasons have been analyzed (2002-2009). Distributions of their observed wave parameters were found to be similar to previous findings using imaging instrumentation at other latitudes in the Northern and Southern Hemispheres. However, the observed wave headings exhibited strong anisotropy that was also found to be remarkably consistent from year to year, establishing a predominance for westward wave propagation over the Antarctic peninsula. In this poster we present data from each year summarizing the seasonal wave properties focusing on wave anisotropy and the strong year to year consistency.

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Date submitted: 13 Sep 2010

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