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Intra-Annual Comparison of Mesospheric Gravity Waves Over Halley and Rothera Stations, Antarctica JONATHAN PUGMIRE, MICHAEL TAYLOR, KIM NIELSEN, ALLEN WALL, JONATHAN THOMPSON, DOMINIQUE PAUTET, Utah State University, Center for Atmospheric and Space Sciences, UTAH STATE UNIVERSITY TEAM, BRITISH ANTARCTIC SURVEY TEAM — 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 either Halley Station on the Brunt Ice Shelf, or Rothera Station, situated on the Antarctic Peninsula. A total of six austral winter seasons have been analyzed (2000-2006). This study comprises the first detailed winter seasonal investigation of short-period mesospheric gravity waves at high-Antarctic latitudes. 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, but dissimilar anisotropy at both sites that was also found to be repetitive from year to year, establishing a persistent recurrent pattern. In this poster we present example wave data and seasonal summaries of their properties at both observing sites focusing on wave anisotropy and the strong year to year consistency.

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