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Mesospheric Planetary Waves over Antarctica from 2002 to 2010

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Well correlated, large variations in winter-time mesospheric temperature and winds were observed during 2002 over the Antarctic Peninsula. These were subsequently identified as the signatures of long period planetary waves. In subsequent years observations from the British Antarctic Survey station at Rothera have indicated less sustained planetary wave activity during the winter resulting in poorer correlation between the wind and temperature in the mesosphere. We examine the longitudinal and altitudinal characteristics of planetary waves over the peninsula for the 8 years following 2002 using a combination of MF radar and mesospheric winds derived from the SuperDARN network of radars.