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Inertia gravity waves generation by mountain waves

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Generation of inertia gravity waves by mountain waves is studied on the basis of data obtained from the radio sounding launched from Ushuaia (54.8s, 68.3W), Argentina on February 2000. Two cases are analized in details. In both cases (but not at the same altitude), the potential temperature shows conditions of static instability (SI). Below the SI level the wave has the characteristic of a mountain wave, whereas above the SI the characteristic is that of inertial gravity wave. Wavelet analisis of the wind profiles before any processing show the vertical wavelenght obtained in the processed wind profiles. Using the Weather Research and Forecast model, allows to calculate the period of the inertial gravity waves.