



Generation and propagation of inertia-gravity waves in the atmosphere (in analogy to the ocean)

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Mesoscale inertia-gravity waves are frequently appearing on atmosphere and ocean. Several phenomena account for the generation of inertia-gravity waves: orography, convection and jets. While the first two are well-understood, the third process is still not well resolved. We study a shallow water model to justify an empirical formulae. This parameterization is validated with atmospheric data from ten field campaigns and related mesoscale model simulation. They were run under the influence of a poleward breaking planetary Rossby wave with strong upper level jets. The presented forcing function could be integrated in ray tracing models which are used in the meteorological and maritime community.