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Superpressure balloon studies of gravity waves in the lower stratosphere

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Superpressure balloons (SPB), which are long duration balloons that float on a constant density surface, provide a powerful means of measuring important gravity wave (GW) parameters in the lower stratosphere. The response of SPB to gravity waves will be discussed and the results applied to data acquired in the Vorcore campaign undertaken in the Antarctic between September 2005 and February 2006. Outcomes include GW momentum fluxes and phase speed distributions as well as their geographic variability and temporal intermittency. Plans for future campaigns in equatorial regions will also be discussed.