

Antarctic Gravity Wave Imaging/Instrument Network (ANGWIN)

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Our understanding of the important role of gravity waves for transporting energy and momentum within the middle atmosphere and the coupled thermosphere/ionosphere system has significantly been improved by recent observational and modeling studies. However, gravity wave fluxes and dynamical contributions at polar latitudes are not well understood, primarily due to insufficient measurements. ANGWIN (ANtartic Gravity Wave Imaging/Instrument Network) is a highly successful "grass roots" program initiated in 2011 that utilizes a network of instrumentation at several international research stations around Antarctica under international cooperation among USA, UK, Australia, Brazil, and Japan. The research goal is to quantify and understand the dominant sources, propagation and impact of a broad spectrum of gravity waves on a continental-wide scale. The cooperation is not limited to the collaborative research and data/software sharing, but the education of young scientists is included. In this paper, present status of collaborations, and research results/findings will be introduced.