南極における大気重力波のスーパープレッシャー気球観測 Super-pressure balloon observation of gravity waves over the Antarctic

*冨川 喜弘^{1,2}、佐藤 薫³、斎藤 芳隆⁴、村田 功⁵、平沢 尚彦^{1,2}、高麗 正史³ *Yoshihiro Tomikawa^{1,2}, Kaoru Sato³, Yoshitaka Saito⁴, Isao Murata⁵, Naohiko Hirasawa^{1,2}, Masashi Kohma³

1. 国立極地研究所、2. 総合研究大学院大学、3. 東京大学、4. 宇宙航空研究開発機構 宇宙科学研究所、5. 東北大学 1. National Institute of Polar Research, 2. SOKENDAI (The Graduate University for Advanced Studies), 3. The University of Tokyo, 4. JAXA/ISAS, 5. Tohoku University

Recently super-pressure balloons (SPBs) have been developed, which can float at a constant density surface in the troposphere and stratosphere for long duration (i.e., several months). They can follow Lagrangian motions of air parcels, which is beneficial for gravity wave studies. Gravity wave is one of uncertain factors in current climate models, in which it is required to obtain its stochastic features as well as its spatial and temporal mean behavior. SPBs enable us to obtain stochastic features of gravity waves in a full frequency range from Brunt-Vaisala frequency to inertial frequency. Our group proposes new SPB observations in the Antarctic.

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