

## Current status of Iceland-Syowa conjugate observation in 2018

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Current status of the upper atmosphere physics observation between Iceland and Syowa Station, Antarctica (geomagnetic conjugate observation) will be explained. As for the observations in Iceland, re-construction of observations has been carried out since 2015, based on the JSPS funding whose title is “Study on the auroral conjugacy with high temporal resolution observation”. In collaboration with other JSPS funding “Study of dynamical variation of particles and waves in the inner magnetosphere using ground-based network observations” led by Prof. Shiokawa, in 2016-2017 JFY, a new VLF instrument and the OMTI (Optical Mesosphere Thermosphere Imager ) were installed at Husafell, and a new high-speed all-sky imager and a proton auroral spectrograph at Tjornes. In 2017-2018 JFY, an atmospheric electric field detector (AEFD) was installed at Husafell in collaboration with Tokyo Gakugei University. As for the observations around Syowa Station, re-construction of observations at Syowa Station and West Ongul island, and a new deployment of unmanned observation network have been carried out under the 9th-term Japanese Antarctic Research Expedition (JARE) project since 2016. In 2017, a new high-speed all-sky imager was installed at Syowa Station, and an unmanned auroral observation system at Amudsen Bay area, and a proton auroral spectrograph was installed at Syowa Station in 2018. With the ground-based conjugate observation network using those instruments, simultaneous observations with the Arase satellite have been carried out since March, 2017.