

Seismic observation on Greenland Ice Sheet by the Japanese GLISN team (2011-2013), and a plan for the 2014 season

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Melting of the Greenland ice sheet is now in progress accompanying the global climate change. Recently, a new type of seismic event called "glacial earthquakes", which are generated by the movement of a large mass of ice within the glacial terminus, has been realized as a new way to monitor current ice sheet dynamics. In 2009, the multinational GreenLand Ice Sheet monitoring Network (GLISN), a large broadband seismological network in and around Greenland was initiated to monitor these events.

Japan, a partner country of the GLISN project, has been sending a field team every year since 2011. The joint U.S. and Japanese team first constructed a seismic station (station code: ICESG) on the Greenland ice sheet. In 2012, we serviced two ice sites (ICESG, DY2G) and one rock site (NUUK). In 2013, the same team spent 11 days on ice for maintenance of ICESG and DY2G, and helped logistics for another ice site (NEEM). This presentation summarizes our field activities on the GLISN project for three years, and show a plan for the 2014 season.

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