



## Counting Calving Events in Greenland using GLISN

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Over the last decade, broadband sensors at teleseismic distances have been used to detect and locate large Greenlandic iceberg calving events using emitted surface wave energy. GLISN (the Greenland Ice Sheet Monitoring Network) is nearing completion and will include about 20 continuous, realtime, very broadband, high dynamic range observatory quality seismic stations located on Greenland. Currently, 5 stations located within 100km of major calving fronts are operational. At these local distances, calving events produce a complex wavetrain rich in frequency over very wide bands, including long duration, low frequency resonant signals (100-1000 s) which we believe are produced by local fjord seiche stimulated by the calving process. We present a new calving catalogue based on this seiche detection, with comparison to the Nettles / Ekstrom teleseismic catalogue. We suggest a more complete counting of calving events, and an enhanced understanding of the calving process in general, is possible for calving fronts monitored by a local broadband seismometer.