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EARTHQUAKES IN GREENLAND

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Results from the earthquake monitoring in Greenland during the last decades are presented, and these results show; a large increase of the number of detected earthquakes, an improved detection threshold, new areas of high seismicity, several earthquake clusters and seismicity below the ice cap. The development of the seismic monitoring have gone from having only three seismic stations placed in Greenland in the 1960'ties, to a start where there today are 20 permanent stations placed in Greenland. All 20 stations are equipped with broadband sensors, of which 17 transmit 100sps data in real time, and 3 transmit 1sps data with a delay, using Internet or the Iridium satellite system. The resent major improvement of the seismic monitoring is performed by the Greenland ice sheet monitoring network (GLISN, http://glisn.info). Using single station analyzing technique, the detection threshold has been lowered during the resent decade. The power of the technique is shown at the latest station to become online, station NOR at Station Nord in North-East Greenland. In the period since the station became online by ultimo NOV 2013 to 23rd of MAR 2014, 862 events has been detected at the station, but only 17.4% of these events was recorded on other stations. The outcome of this analysis is presented in connection to the overall image of the seismicity of Greenland.

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