

Title:

RI management and services at the seismological service for the Kingdom of Denmark

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Type:

talk

Abstract:

This presentation will give an overview on how research infrastructure (RI) management and services are organized and planned at the seismological service at the Geological Survey of Denmark and Greenland (GEUS). Furthermore, insight to the Danish pools of mobile seismological equipment is given.

The main task of the seismological service is to monitor and detect earthquakes and other seismic events, including nuclear explosions, in the Kingdom of Denmark. To fulfil this task data from seismological monitoring conducted in Denmark, the Faroe Islands and Greenland, is collected, processed and analysed by seismologist at GEUS. The infrastructure used for the monitoring is managed by many different institutions specially in Greenland, where the Greenland Ice Sheet Monitoring Network project (GLISN) (see <http://glisn.info/>) a joint international effort to improve our understanding of Ice Sheets dynamics have installed many stations. For each station the equipment, power and communication management conducted by the institution operating the station. Several stations in Greenland are operated by two or more institutions, GEUS is involved in the coordination of most of the stations. The data collected at the permanent stations is made available for research in near real time via a seedlink webservice, mainly from GEUS, IRIS and GEOFON. Data are archived and made available by partly IRIS and partly GEOFON, through the fdsnws-dataselect webservices and EIDA (<http://www.orfeus-eu.org/data/eida/>).

A joint pool of mobile instruments (land sensors and OBS) is made available by the DanSeis consortium (see <https://danseis.dk/>), the instruments is managed jointly by Copenhagen and Aarhus University, data is available at the DanSeis ftp server after a quarantine period, normally 2 yrs. In addition to DanSeis Copenhagen University, Aarhus University and GEUS host a small number of mobile land stations. A major part of the data collected using these are hosted at the seismic waveform data archive at GEOFON and made available through EIDA and/or the fdsnws-dataselect webservice, after a quarantine period. Aarhus University also host equipment for active source seismology (see

<https://geo.medarbejdere.au.dk/faciliteter/booking-af-instrumenter-og-udstyr>)

The parametric data produced at GEUS by manual analysing the data produced at monitoring stations, is collected in NORDIC format and made available via e-mails or websites services. The e-mails are sent one daily to recipients requesting the e-mail. The parametric data is made available as catalogues of earthquakes for Denmark and Greenland and cryo-generated in Greenland. Additionally, GEUS provide a daily updated website service with the bulletin, showing source parameters and phase reading (http://seis.geus.net/seismic_service.html).