The sliced ICEMELT broadband data, Department of Terrestrial Magnetism, Carnegie Institution of Washington.

These tapes contain sliced SAC files for earthquakes recorded on the ICEMELT experiment. The data were recorded on STS-2 seismometers owned by The Department of Terrestrial Magnetism, Carnegie Institution of Washington. The experiment PIs were Sean Solomon and Ingi Th. Bjarnason (Ingi Bjarnason is now at the Science Institute, University of Iceland). The data was orginally recorded on reftek disks, but the continuous data were converted to SEGY using the program ref2segy, and then sliced and converted into SAC data with earthquake information in the header. This dataset only contains the sliced SAC data and the SEGY triggered data, although DTM still has copies of the original continuous data.

The directories under "slicedata.1, slicedata.2, etc." contain directories called akud, bre, etc. These directories are named by the station. Each directory contains subdirectories containing sliced earthquake data in SAC format. The data is in a directory named by the julian day of the earthquake (e.g., slicedata.1/bre/94042). The sac files in the julian day directories are named after the starting time of the earthquake, e.g.:

slicedata.1/bre/94042/21.17.31.bre.1.sac
slicedata.1/bre/94042/21.17.31.bre.2.sac
slicedata.1/bre/94042/21.17.31.bre.3.sac

The channels marked .1.sac are vertical, .2.sac are north, and .3.sac are east.

There is also a directory called "nolock". This contains SAC data for periods when the GPS clock was found to be not operating, thus the absolute timing is not accurate.

The log files from reading the continuous tapes using ref2segy are in iceroot. For example, iceroot/akud/94322-95047 contains the log file (I0660.log) from the period covering 94322-95047. These directories also contain the segy triggered data. The .02 channel is the triggered data sampled at 50 sps, in order to record local microearthquakes. The .06 channel is the triggered low-gain channel, at 10 sps. e.g.,

iceroot/akud/94297-94322/R321.06/21.25.12.0660.4
iceroot/akud/94297-94322/R321.06/21.25.12.0660.5
iceroot/akud/94297-94322/R321.06/21.25.12.0660.6
iceroot/akud/94297-94322/R319.02/00.59.58.0660.1
iceroot/akud/94297-94322/R319.02/00.59.58.0660.2
iceroot/akud/94297-94322/R319.02/00.59.58.0660.3

The .4 and .1 channels are vertical, .5 and .2 channels are north, and .6 and .3 channels are east. Note that for the iceroot triggered data for station REYV ONLY, the horizontals will need to be multiplied by -1 (there was a polarity reversal found at reyv, which was corrected in the processing to SAC but is still present in the segy data).

The file containing the list of sliced earthquakes is called icemelt.loc.

The station names and locations are as follows:

	Station	Lat.	Long.	Elev. (m)	Location
iceroot	klu	65.7817	-21.5177	010	Kluka, Bjarnarfirdi,Strondum
iceroot	bre	66.2896	-16.4253	010	Brekka, Melrakkaslettu
iceroot	kaf	63.9465	-17.6862	050	Kalfafell, Fljotshverfi
iceroot	akud	65.6859	-18.0999	025	Akureyri, Digital DTM broadband
iceroot	nyd	64.7345	-18.0688	800	Nyidalur
iceroot	birh	65.0073	-14.6189	150	Birkihlid
iceroot	skot	65.3412	-17.2467	405	Svartarkot
iceroot	hoff	64.3967	-15.3404	050	Hoffell
iceroot	blol	65.2310	-19.7178	490	Blondulon
iceroot	asbs	65.7047	-14.9171	030	Asbrandsstadir
iceroot	reyv	64.1271	-21.9040	050	Reykjavík
iceroot	hrau	66.1186	-20.0987	000	
iceroot	mdal	66.1237	-23.2609	030	Middalur
iceroot	hnjo	65.5626	-24.1531	015	Hnjotur
iceroot	askj	64.9844	-16.6754	720	Askja
iceroot	ljop	64.0249	-19.0201	580	Ljotipollur

Tape 1. Created by:
tar cvf /dev/rmt/0cn slicedata.2 slicedata.4 slicedata.5
Tape 2:
tar cvf /dev/rmt/0cn slicedata.1 slicedata.6 slicedata.7 slicedata.8 slicedata.9
Tape 3:
tar cvf /dev/rmt/0cn iceroot nolock icemelt.loc iceroot_stn.loc README slicedata.3

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