Basic Information Regarding FAIM Profile SEG-Y data

Please refer to the *FAIM Cruise Report, EW0106*, for important details on this experiment and dataset, including a report describing the underway geophysical data and metadata.

In addition to the raw archival form of the FAIM seismic data set, we have compiled a dataset consisting of shot-location sorted profiles. This dataset is comprised of the following files:

420.1_r8.4.segy	carib.2_r8.4.segy	pauli.1_r8.4.segy
420.2_r8.4.segy	cass.1_r8.4.segy	pauli.2_r8.4.segy
abita.1_r8.4.segy	cass.2_r8.4.segy	pete.1_r8.4.segy
abita.2_r8.4.segy	foster.1_r8.4.segy	pete.2_r8.4.segy
asahi.1_r8.4.segy	foster.2_r8.4.segy	pete_line2.1_r8.4.segy
asahi.2_r8.4.segy	guinness.1_r8.4.segy	pete_line2.2_r8.4.segy
bass.1_r8.4.segy	guinness.2_r8.4.segy	sierra.1_r8.4.segy
bass.2_r8.4.segy	harp.1_r8.4.segy	sierra.2_r8.4.segy
bud.1_r8.4.segy	harp.2_r8.4.segy	tecate.1_r8.4.segy
bud.2_r8.4.segy	mamba.1_r8.4.segy	tecate.2_r8.4.segy
bud_line2.1_r8.4.segy	mamba.2_r8.4.segy	urquell.1_r8.4.segy
bud_line2.2_r8.4.segy	molson.1_r8.4.segy	urquell.2_r8.4.segy
carib.1_r8.4.segy	molson.2_r8.4.segy	

The naming convention indicates: the instrument "name" (see FAIM Cruise Report for details on location); channel number – 1 (hydrophone) or 2 (vertical seismometer); r8.4 – data are reduced at 8.4 km/s; segy – SEG-Y format. For instruments pete and bud, shots from Line 2 were also recorded, and these data are supplied in bud(pete)_line2.etc.

For the Line 1 profiles, the data are sorted by either (1) shot location, for the co-located shots, or (2) circle location, for the circle shots. The files thus consist of a set of gathers, with each gather comprised of traces from either a common circle or a common shot location. The gather are numbered consecutively from east to west, with gathers 1-26 being circle-shot gathers from the eastern circle set, gathers 27-595 being common-shot-location gathers, and gathers 596-601 being the common-circle gathers for the western circle set. The gather number is stored in 4-byte header word position 6 (H4(6)), and the trace number within the gather is stored in H4(7). Shot numbers are preserved in the standard location, H4(3). Shot and receiver latitudes and longitudes are stored in the standard locations as seconds of arc. The data are reduced at 8.4 km/s, with 30 seconds of data at .008 s sampling. Offset in meters between source and receiver is stored in H4(10), with positive offsets for shots east of the instrument, negative offsets for shots west of the instrument.