Sensors for Summer Only Polar Programs

Your choice of seismic sensor for Polar research will depend on your scientific targets. PASSCAL has a wide range of both passive and active seismic sensors appropriate for controlled source, local or regional seismicity, ice dynamics or teleseismic studies. A comparison of our sensors can be found [here](https://www.passcal.nmt.edu).

**Short Period Sensors**

These are typically used for controlled source experiments, short term, local seismicity or ice studies. The instruments available are the Sercel L-28 and L-22. The L-28 is a 4.5Hz 3 component geophone while the L-22 is a 2Hz 3 component seismometer.

**Intermediate Period and Broadband Seismometers**

These are mainly used for earthquake seismology and ice behavior studies. The broadband seismometers available are the Guralp CMG-3T, which is a 3 component instrument that has a flat velocity response between 120s and 50Hz; the Nanometrics Trillium 240, which is a triaxial instrument that has a flat velocity response between 240s and 200Hz; and finally the Guralp CMG40T, which is a 3 component instrument that has a flat velocity response between 30s and 50Hz.

All of the broadband seismometers have a fairly low tilt tolerance and are sensitive to temperature changes, therefore more care needs to be taken while building a temporary vault.

Related categories: Polar Programs, Sensors, Special Polar Equipment, Summer Only

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