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.

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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