Specialized Polar Equipment

The Polar Program of IRIS/PASSCAL is dedicated to supporting with seismological research in the Arctic and Antarctic. As opposed to traditional seismic stations installations around the world, instrumenting the Arctic or Antarctic require special consideration due to the extreme nature of the climatic conditions, temperature being the primary challenge.

The PASSCAL Instrument Center in Socorro, NM has spent much time and resources toward the successful design of robust and reliable seismic stations that can operate continuously throughout the polar nights. PASSCAL has equipment and instrumentation available that is adapted to short, seasonal (summer only) deployments; or single to multi-year year-round deployments. The equipment and instrumentation used for seasonal deployment have less stringent temperature specification requirement than year-round deployment because the summer temperature, even on the high Antarctic Plateau, are sufficiently high.

The following pages provide descriptions of the various equipment and instrumentation designed for the cold temperatures.

- Summer Only
  - Batteries
  - DAS
  - Power
  - Sensors
- Solar
- Station Enclosure
- Vaults
- MEVO Box (rapidly deployable, short duration seismic station)

- Year Round
  - Batteries
  - DAS
  - Power Box
  - Sensors
  - Solar
  - Station Enclosure
  - Vaults

Related categories:

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