Intermediate Sensors

PASSCAL Intermediate-Period Sensors:

- Guralp CMG3-ESP
- Guralp CMG40T
- Nanometrics Trillium40

Features:

The low-period corner is 30 seconds for the 3 Guralps and is 40 seconds for the Nanometrics sensor. All are 3-component feedback sensors. The CMG40T and Trillium40 masses do not lock. One should still ship and handle them with care so as not to damage them. The CMG3-ESP has masses that require manual locking and unlocking. For information on the CMG40T with corner-frequencies of 1-sec, click here.

Historically, the ESP's were among the first feedback sensors purchased for the PASSCAL program, along with STS-2's. For that reason, the ESP's have been 'categorized' as broadband sensors when broadband stations are scheduled for PASSCAL experiments. The ESP's are an ever-decreasing percentage of the PASSCAL broadband pool and we attempt to assign them as evenly as possible, roughly 10% of the sensors for a broadband experiment from 2006 onward, and that number should decrease further after 2009.

The noise characteristics of the three intermediate sensors differ. The good ESP’s are almost as quiet as a Guralp CMG3T at periods from 0.005 - 0.05 Hz. As they age, however, there are fewer and fewer good ESP’s. Trillium40 sensors are noisy below about 10 seconds, but not nearly as noisy as CMG40T’s.

Other Documents:

- PASSCAL Sensor Comparison Chart
- Policy for the use of PASSCAL Instruments

Related categories: Intermediate Period  Sensors

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