Questions & Answers (Set 3)

1. Output Impedance of Output Seismic Signal

Why does IRIS want to specify output impedance requirement lower than 150 ohms?

ANSWER: A review of sensors currently in use suggests that this requirement can be relaxed to 250 ohms; each line to ground.

2. Offset of Output Seismic Signal vs. Temperature

The requirement for offset of output seismic signal vs. temperature to be "10% boom position full scale/C" is confusing. We would expect this requirement to be specified as a maximum of volts offset of the output seismic signal per degree C, consistent with the preceding requirement for "maximum offset of the output seismic signal" which is specified in volts. The reference to "boom position full scale" is unclear to us. Can you please clarify?

ANSWER: Different sensors have different voltage ranges for full scale output of the mass position. For example, 12 Volts for an STS-2 Sensor, and 2.5 Volts for a Trillium Sensor. A percentage of full scale is an attempt to be consistent with the +/- 10 degree C operating range without requiring re-centering. IRIS understands that a lack of temperature stability in the sensor environment at short time scales < 4 hours is highly undesirable.

3. Common Mode on Output

Can you please clarify the intent of the "if analog" wording?

ANSWER: For this procurement, IRIS assumes that the sensor output is analog voltage.