

## Increasing the usability of ocean-bottom seismometer data: The OBSIC metrics website

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The analysis of ocean-bottom seismometer (OBS) data is often complicated by variable instrument performance, drifting clocks, a diversity of sensor and emplacement types, unknown horizontal component orientations, and noise from ocean currents and waves. These complications can hinder the use of archived OBS data when that use requires substantial data correction effort or information that is not included in the standard metadata. The OBS Instrument Center at WHOI has developed a web application to increase the usability of archived OBS data. The first version of the site (<http://www.obsic-metrics.whoi.edu>), released in January 2022, provides additional information and instrument performance summaries for recent OBSIC experiments. The application serves up spectrograms, power spectral density (PSD) information, and a single quality metric for each data channel. This metric is defined as the percentage of ‘good’ hours out of the total possible hours for each channel, station, and experiment. ‘Good’ hours are classified using DBSCAN clustering of the relative PSD at the microseism peak and the linearity of the PSD across the instrument’s entire bandwidth. Metadata that are not routinely available elsewhere, such as instrument descriptions and orientation estimates, are also included on the site. The application uses a simple, standardized structure with dynamic serving and a MySQL database backend to minimize ingestion and maintenance effort. Three experiments have been added including the Alaska Amphibious Community Seismic Experiment and the PacificArray Community Experiment. A revised version is scheduled for release in the summer of 2022 when the application will be expanded to include clock performance, instrument tilt and seafloor compliance information.

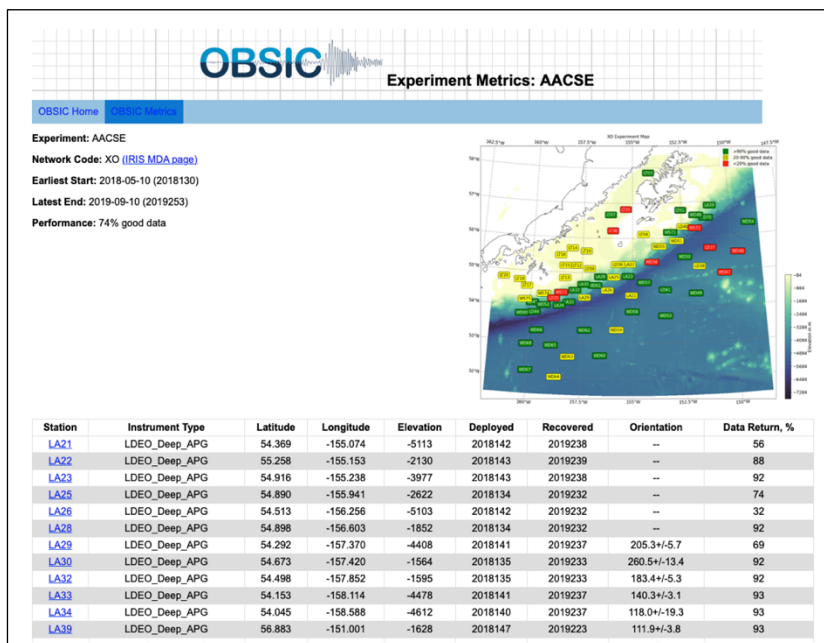


Figure. Extract of metrics summary page (<http://www.obsic-metrics.whoi.edu/XO>) for the 2018-2019 Alaska Amphibious Community Seismic Experiment.