

Ocean-Bottom Seismograph Instrumentation Center (OBSIC)

- OBSIC replaces the Ocean Bottom Seismograph Instrument Pool (OBSIP) that was created by NSF in 1999 and jointly operated/managed by WHOI, SIO, and LDEO until 2011, and thereafter managed by IRIS.
- 5-Year Cooperative Agreement between WHOI and NSF-OCE. Start-Date August 1, 2018.
- Provides and operates OBS to support NSF-sponsored investigators, and to investigators at other research or educational institutions with government, private, or industry funding. *No Development!*
- Base Budget: \$1.8M/year (OBS Maintenance; OBS Mobilization/De-Mobilization; Data Archiving; Regular (1st 8 hours) at sea). Flat funded. ~90-100 man-months/year.
- Experiment Support: Expendables (batteries etc.); Shipping; Travel, O/T or “sea-time” for sea-going personnel.
- WHOI/USGS Coastal & Marine Sci. Center Cooperative Agreement: ~\$70K/year for facility support.
- <https://obsic.whoi.edu/>

Ocean-Bottom Seismograph Instrumentation Center (OBSIC) Operations Sub-Committee

- Community Governance for OBSIC Program
- Members:
 - Chair: Jim Gaherty (Northern Arizona University)
 - Kasey Aderhold (IRIS) – rotating off
 - Emilie Hooft (U. Oregon)
 - Helen Janiszewski (U. Hawaii)*
 - Ross Parnell-Turner (SIO)
 - Lindsay Worthington (U. New Mexico) – rotating off
 - Susan Schwartz (UCSC)
- Nominal three-year terms
- Meets twice a year (one virtual, one in person) plus calls as needed
- Terms of Reference at: https://www.unols.org/sites/default/files/OBSIC-OS_TOR_v1.0_2June2020_0.pdf
- Sub-Committee of the Marine Seismic Research Oversight Committee (MSROC)

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Primary areas of OBSIC-OS focus:

- Maintaining guidelines for the use of the equipment and services of the OBSIC facility;
- Supporting facility-performance assessment for experiment planning and operations, and data management and quality;
- Promoting and supporting community outreach and engagement within the marine and terrestrial seismic communities as well as the broader scientific community;
- Monitoring the current and future health of the facility, including procurement and management of resources for equipment testing, maintenance, development, and recapitalization;
- Advocating for technical capacity building and training of future personnel including engineers;
- Facilitating coordination and cooperation with the larger (non-OBS) marine-seismic community through interaction with MSROC;
- Supporting open distribution, discoverability, and usability of OBSIC data and data products through a national data archive;
- Facilitating coordination and cooperation with the research community to support a broad range of objectives, including global-scale and shoreline-crossing studies;
- Developing and responding to new initiatives to enhance the effectiveness of the OBSIC program.

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Recent Activities

- October 2022: 1.5-day in-person meeting in Flagstaff, AZ (first since 2019) – public minutes
 - Advances in data products
 - Challenges associated with inflationary costs between project budgeting and deployment
 - Enhance promotion of OBSIC and OBSIC experiments -- role for MSROC/UNOLS?
- Current: White paper to support enhancements to short-period active-source instrumentation
 - Would like community input, including from MSROC members

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Short-Period White Paper

- Provide justification for investment in new active-source fleet
 - Existing science plans in EAR and OCE require active-source imaging
 - Current fleet inadequate for addressing modern scientific needs
 - New industry-driven technology could provide enhanced performance and lower cost
- Provide community support for proposal(s) to funding opportunities, including upcoming MSRI competition (pre-proposals due Jan 5 2023)