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# of Ambient Noise Between Ocean-Bottom Seismic Networks

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Seismic sensors have traditionally been largely restricted to on-land installations, yet the oceans comprise roughly 70% of the Earth's surface. Coupled with heterogeneous distribution of seismicity, this results in many regions being poorly sampled for Earth model development, and poorly monitored for detection of natural and anthropogenic seismic sources. To mitigate this deficiency, extending our seismic measurements and observations into the oceans is an important future direction in seismology. Sea floor seismic sensing may mitigate many monitoring issues from a geometric perspective, but the ambient noise level recorded by ocean-bottom seismometers (OBS) is in general much higher than the ambient noise levels on land. Details of the sea floor noise regime are not well described, and to exploit the broadest regions for potential instrumentation, we must characterize the noise environment to aid in selection of sites for permanent sensors. We present a preliminary comparison of seafloor seismic noise at several temporary sea floor deployments, located in different parts of the global ocean. We detail how noise varies as a function of oceanographic, meteorological, and other dynamic variables at these sites. Our aim is to eventually develop a worldwide dynamic sea floor seismic noise model to guide us in optimizing future deployments for seismic monitoring.

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Promotional text

We examine seismic noise characteristics at ocean-bottom seismic networks in order to guide the optimization of future ocean-bottom deployments for seismic monitoring.

Oral preference format

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