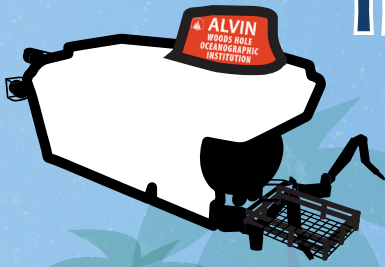


# Off-Axis Seamount Investigations at Siqueiros: The 2016 OASIS Expedition

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Over 2/3's of the Earth's crust is formed at mid-ocean ridges. However, how melts are focused hundreds of kilometers to erupt at the narrow mid-ocean ridge axis remains a fundamental unconstrained question. Using near-axis seamount as mantle probes provides critical information to investigate the three-dimensional mantle melt region feeding an adjacent ridge segment. The OASIS Expedition is a multidisciplinary investigation to survey and sample the 160 km-long, 8° 20'N Seamount Chain situated ~15 km north of the Western Siqueiros Fracture Zone. The goal of this study is to provide constraints for melt generation and migration in the mantle adjacent to the well-studied 9°N segment of the East Pacific Rise (EPR). In November 2016, the OASIS Science Team mapped over 7000 km<sup>2</sup> of seafloor, collecting 50-m resolution multibeam, magnetics data, and gravity data. Multibeam data were used to guide sampling and near-bottom data collection for 15 HOV Alvin dives, 19 dredges, and 12 AUV Sentry dives.

*Join the OASIS Team on a voyage to a part of our planet that has never been explored before to learn about the formation and evolution of oceanic crust.*

