Assessing the Use of a Cabled Bottom Pressure Recorder as a New Reference Site for Mobile Pressure Recorder Surveys at Axial Seamount

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OOI Regional Cabled Array

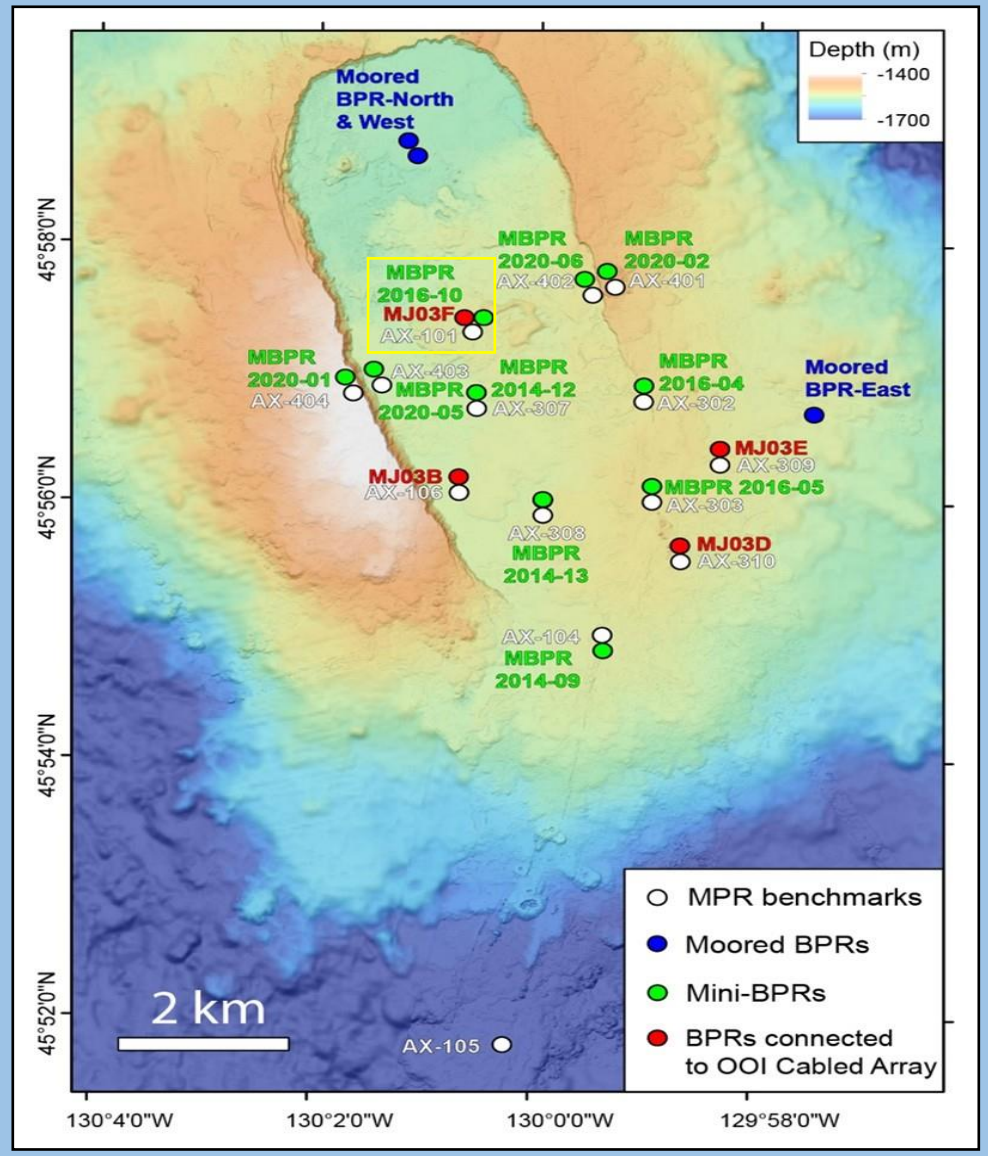

Figure 1. Bathymetric map of the summit caldera of Axial Seamount showing the network of bottom pressure recorders (BPRs) that were on the seafloor after the 2022 research cruise. The location of the central caldera study site is highlighted in the yellow box.

2022 and 2024 Data Gaps

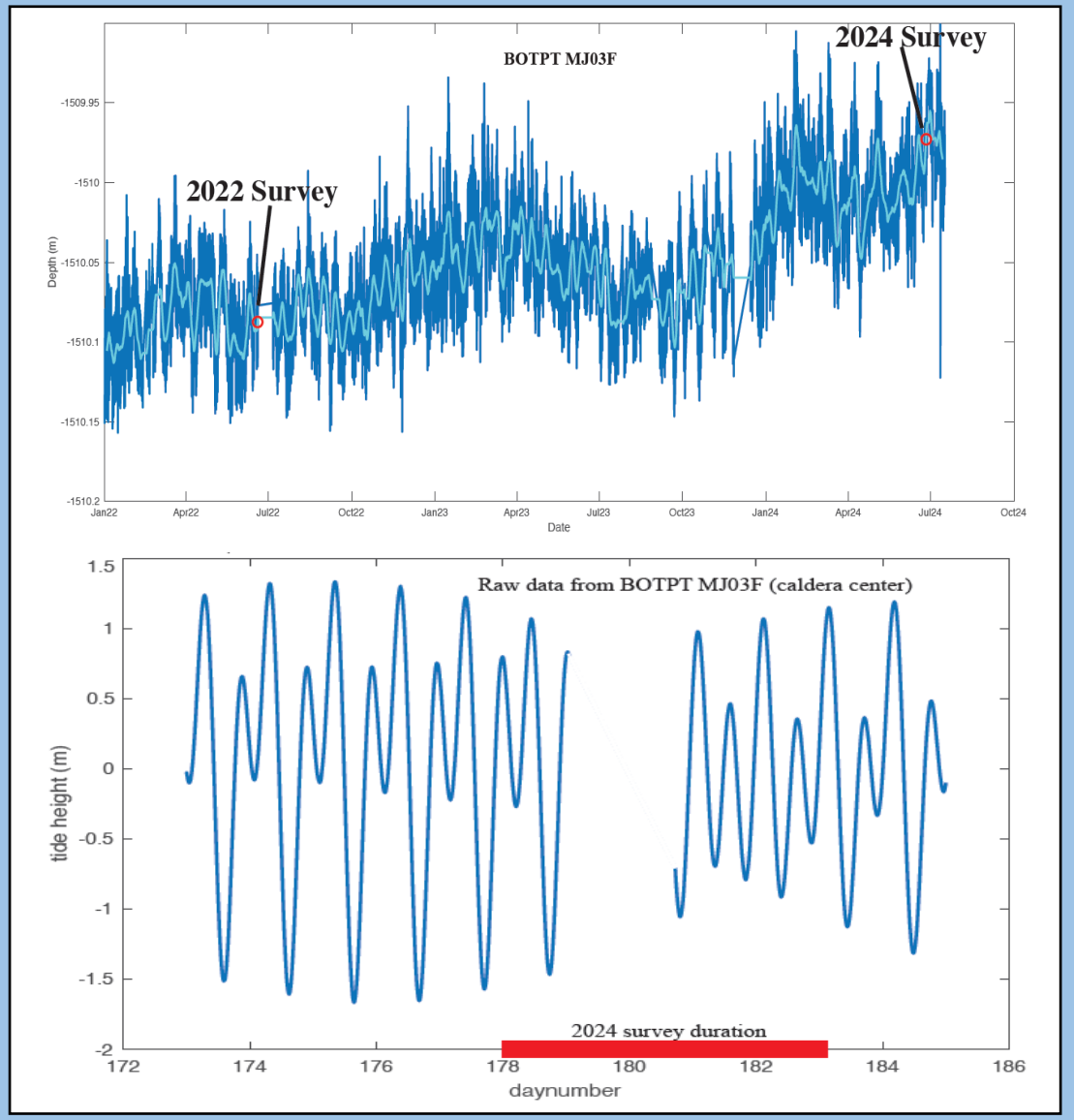

Figure 2. Plot of the central caldera OOI BOTPT depth record (top) from 2022 to 2024 with a closer look at the 2024 data gap in the BOTPT record (bottom).

Determining 2022-2024 Central Caldera Vertical Deformation

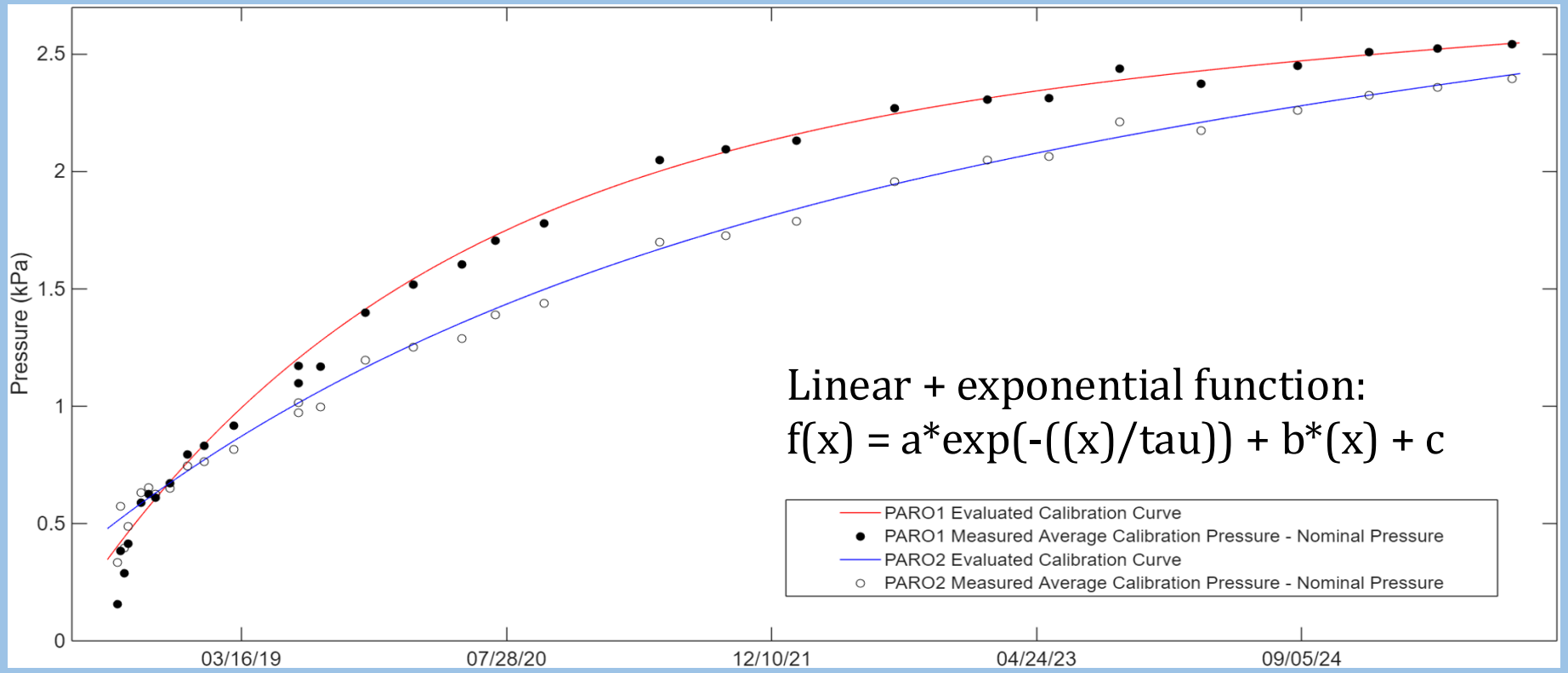

Figure 3. Calibration curves created from a previously determined linear + exponential function (Sasagawa et al., 2023) for the PARO1 and PARO2 pressure gauges housed within the CSCPR.

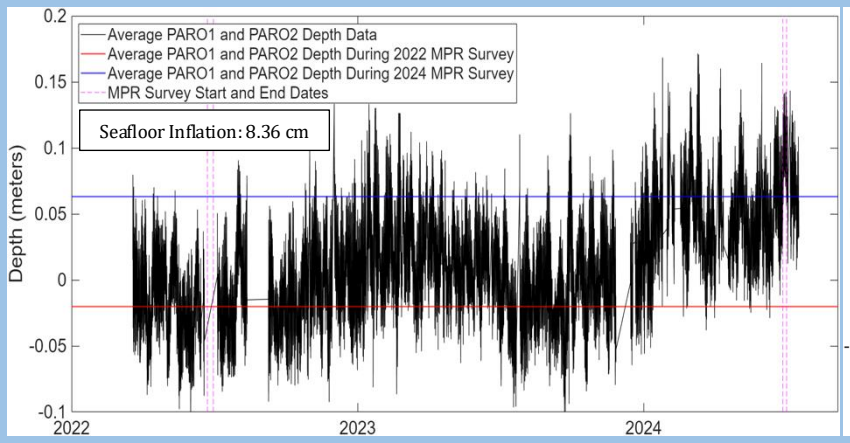

Figure 4. Averaged PARO1 and PARO2 2022-2024 seafloor inflation

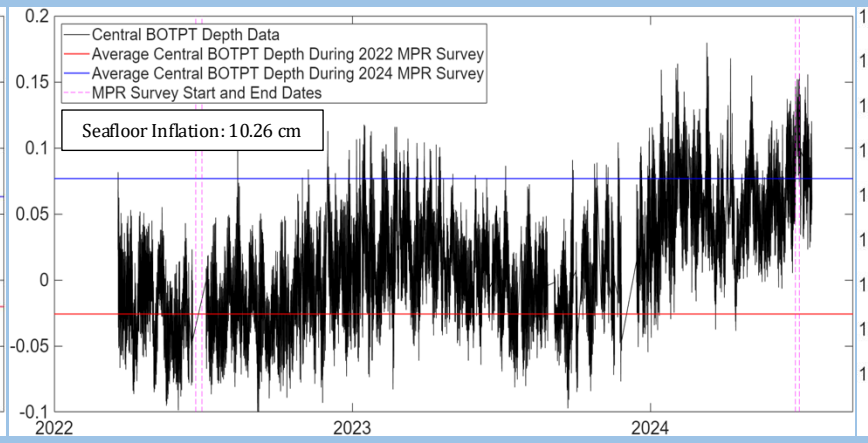

Figure 5. BOTPT 2022-2024 seafloor inflation

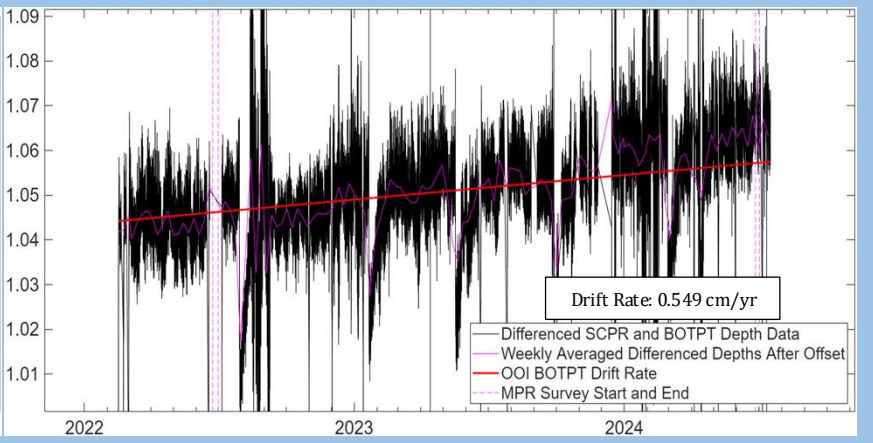

Figure 6. Differenced SCPR and BOTPT 2022-2024 depth data