

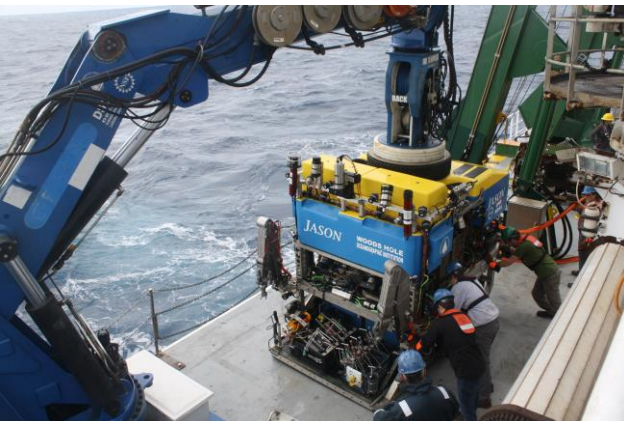
Axial 2018 Expedition KM1813 to Axial Seamount

R/V Kilo Moana – August 18-27, 2018

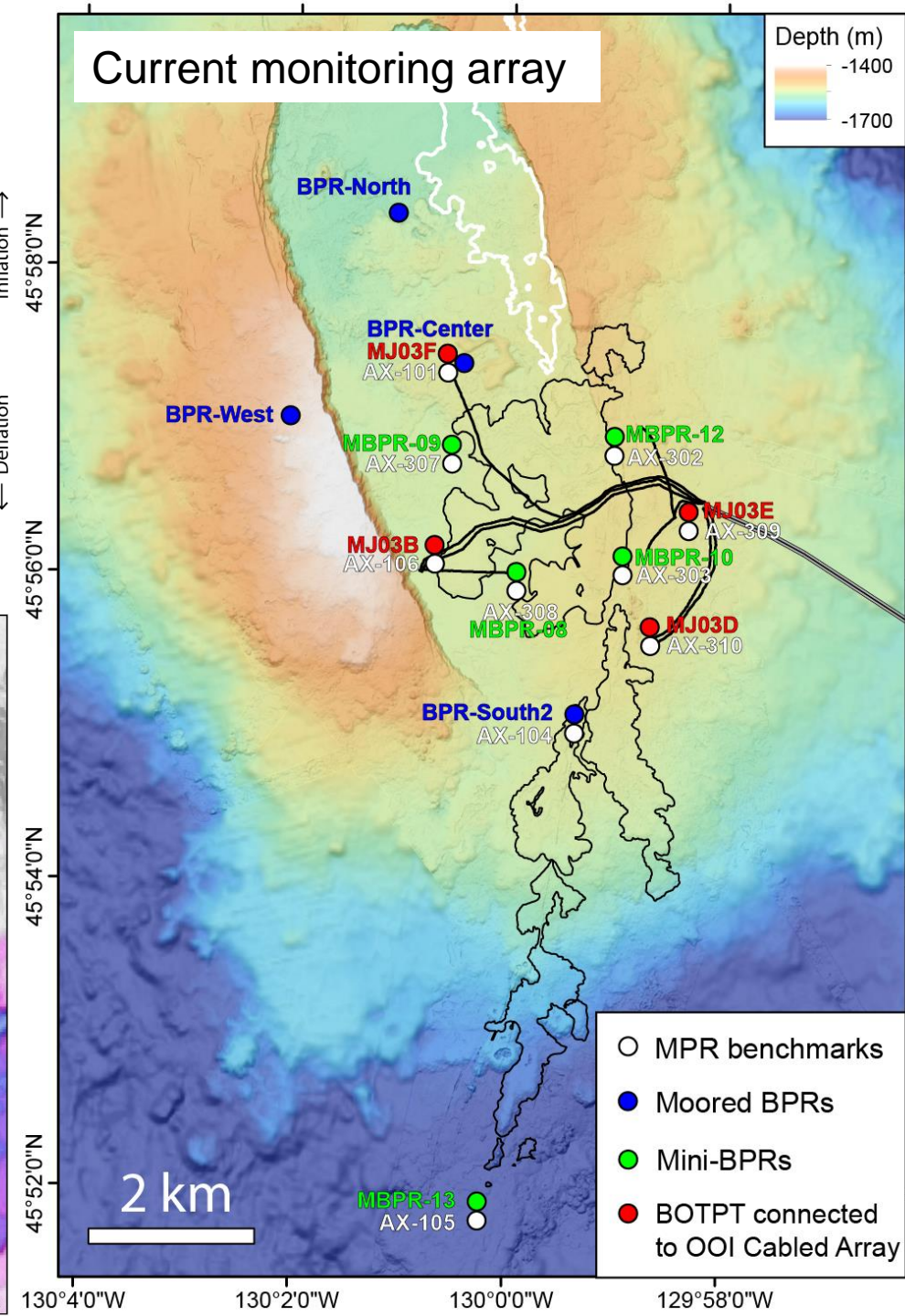
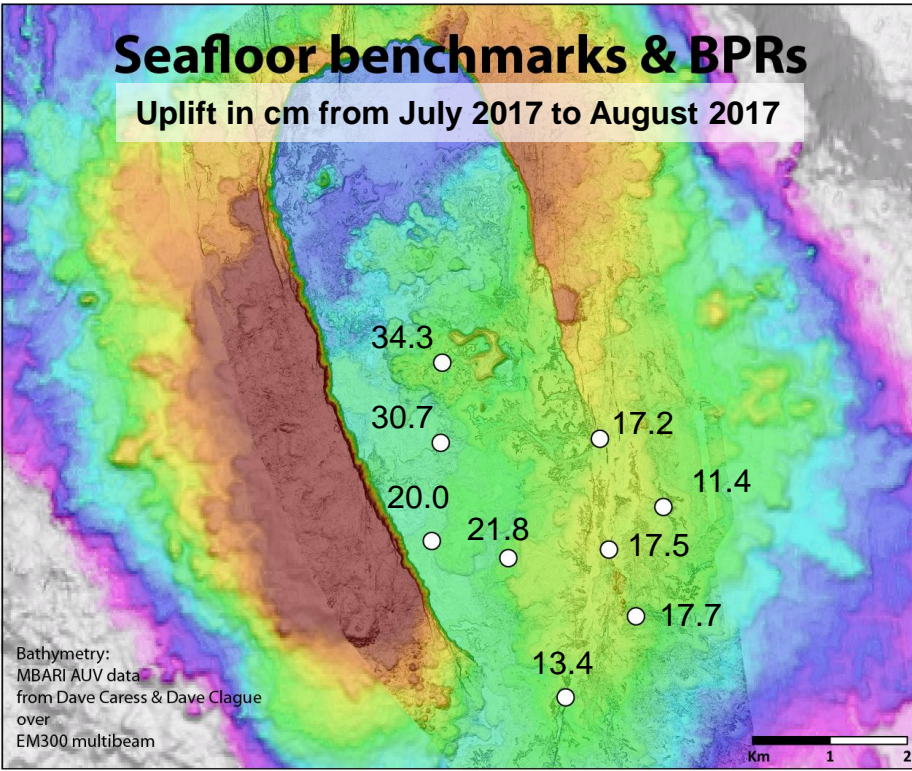
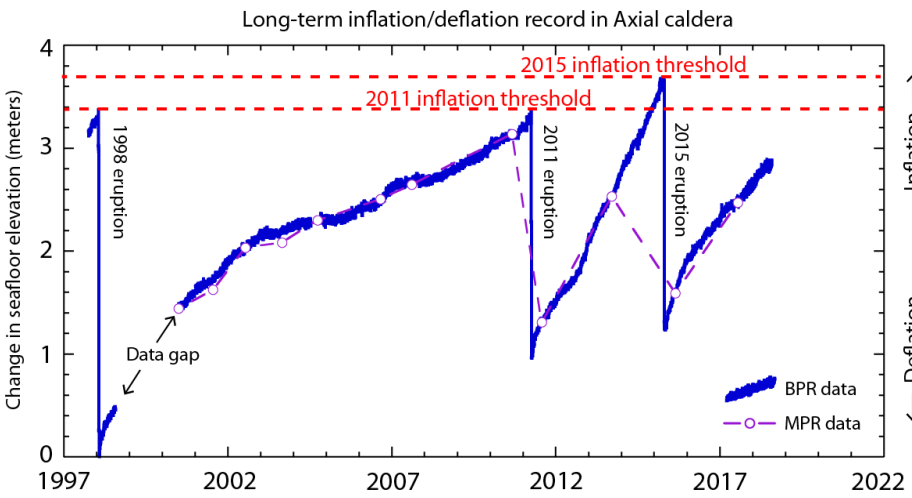
Astoria, OR – Astoria, OR

Main goals using Jason & MBARI-AUV:

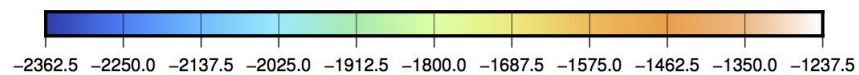
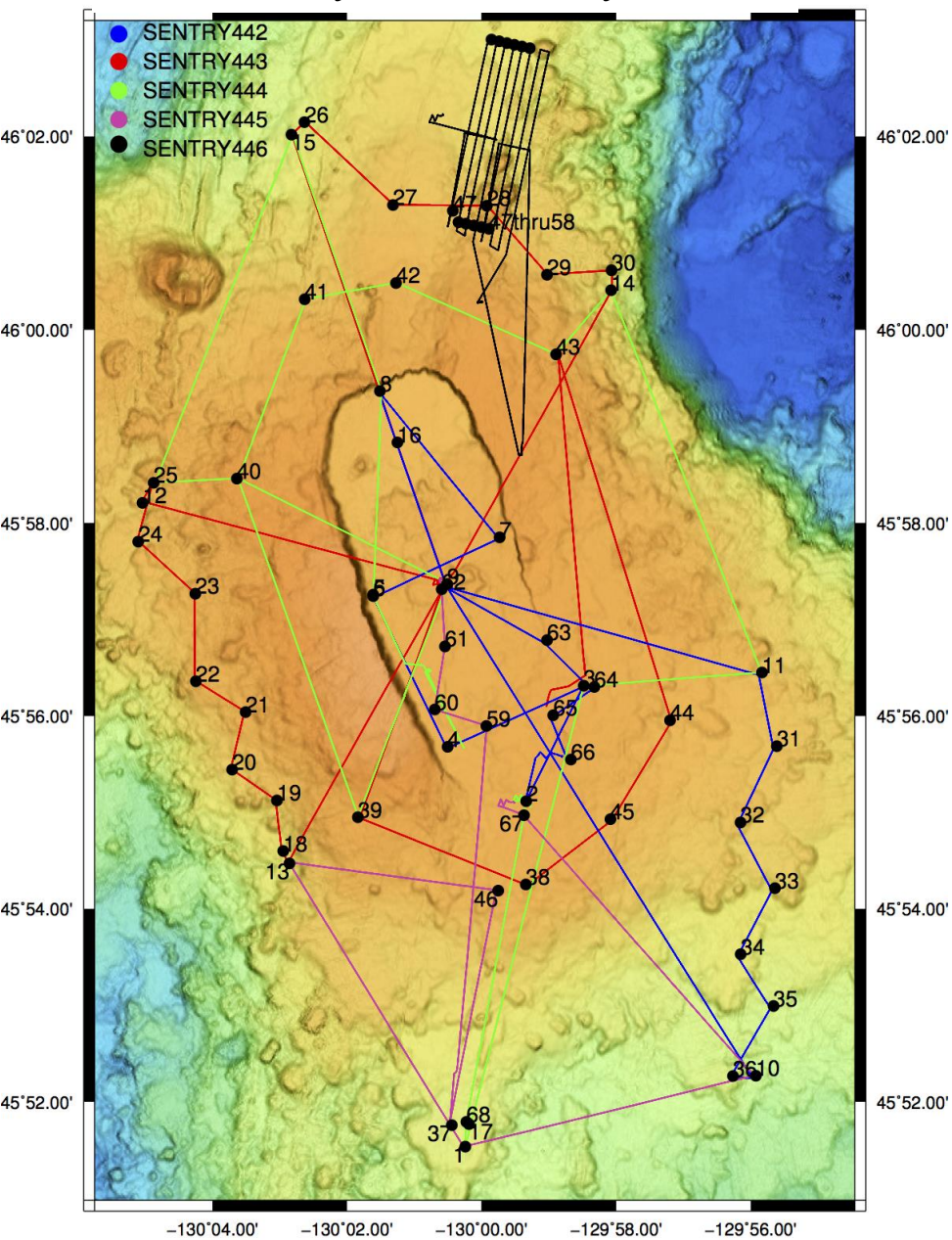
- Repeat pressure measurements for inflation/deflation time-series monitoring (Nooner/Chadwick; NSF-funded)
- Time-series vent fluid and gas sampling (Butterfield: NOAA-funded)
- Repeat AUV bathymetric mapping to measure inflation/deflation outside caldera (Dave Caress, MBARI, NSF-funded)
- 2 ROV Jason dives, 2 MBARI AUV dives
- 7 CTD casts, 5 mooring turn-arounds, multibeam bathymetric surveys



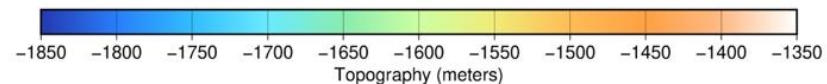
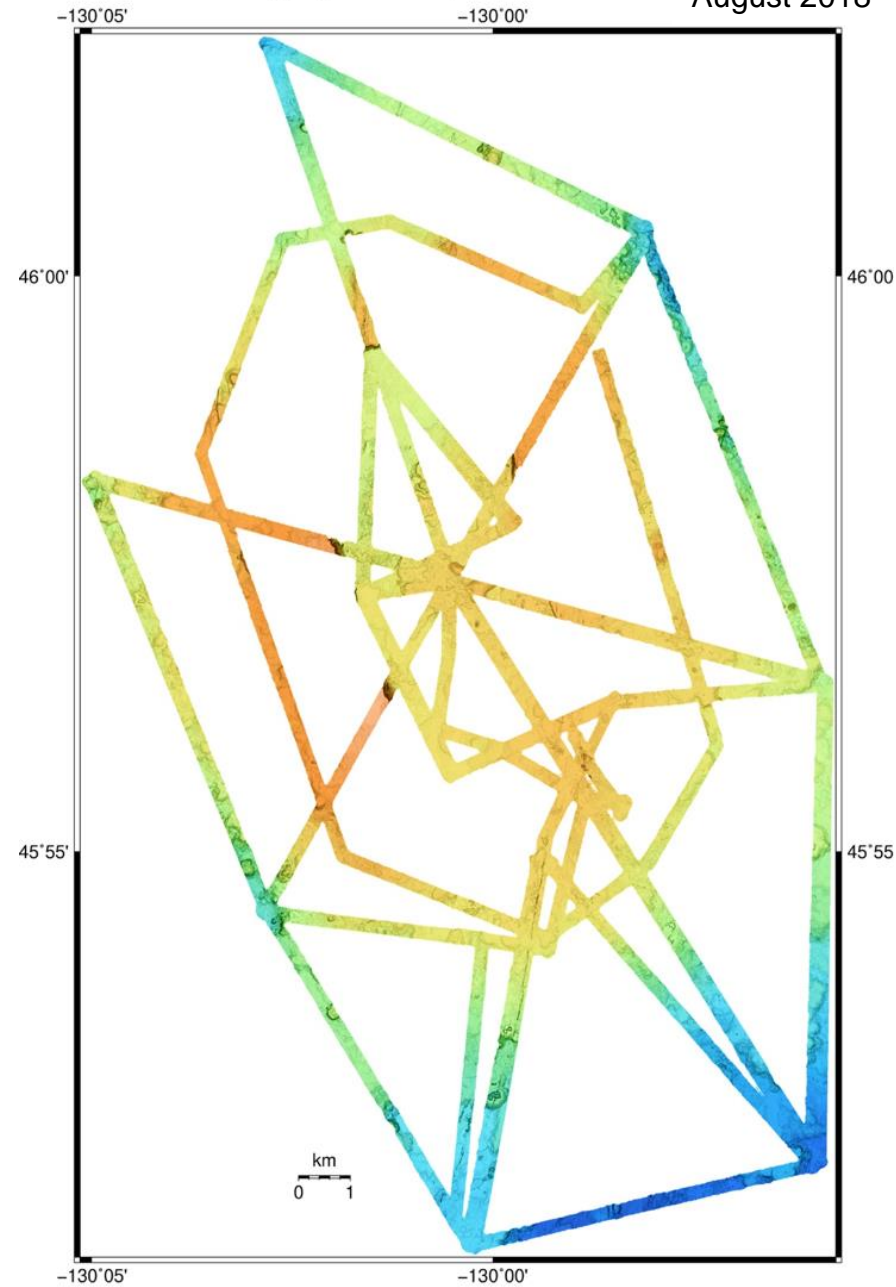
Pressure measurements to monitor volcanic inflation and deflation



AUV Sentry dives in July 2017



MBARI – Mapping AUV Surveys at Axial Seamount - August 2018

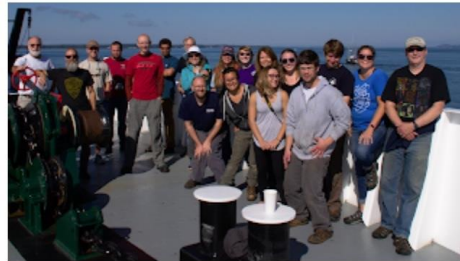


Axial Seamount Expedition 2018

MONDAY, AUGUST 27, 2018

Summary of the 2018 expedition

It's always a great feeling at the end of a research cruise when the ship is coming back into port and I know we have accomplished all your main science goals. In oceanography, there are many things that can go wrong at sea, from bad weather to equipment malfunctions that can prevent you from working, that success is never guaranteed. So I always have a sense of relief when we are able to get the work done that we set out to do. Thankfully, that is the case this time. The other feeling I have is gratitude for everyone on board the ship who contributed to our success – from the ship's crew, the operators of the vehicles we use, and the science party.



Science team for 2018 expedition.



ROV Jason launch.

Our main goal on this expedition was to continue our measurements of the volcanic inflation going on at Axial Seamount since its last eruption in April 2015. We accomplished that in several different ways during this cruise: 1) We repeated pressure measurements on an array of seafloor benchmarks inside the summit caldera with the Jason ROV. 2) We recovered and re-deployed bottom pressure recorder instruments that had been continuously recording on the seafloor at various locations for the past year. 3) Thirdly, the MBARI AUV made dives to collect high-resolution bathymetry that we will compare with previous surveys to measure depth changes over a much larger area than where the pressure measurements are made.

SEARCH THIS BLOG

BLOG ARCHIVE

▼ 2018 (11)

▼ August (11)

[Summary of the 2018 expedition](#)

[Our Next Gen Scientists](#)

[The Dive Plan!](#)

[Accurate and Precise](#)

[It's an AUV! Not a Torpedo.](#)

[In the Water! At Last!](#)

[Finding the Right Ship](#)

[Kilauea Volcano versus Axial Seamount](#)

[Navigation, Is Where It's At](#)

[Introduction to 2018's Expedition](#)

[Science Crew](#)

AXIAL LINKS

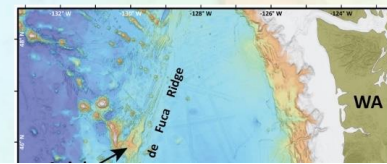
[EOI Axial Seamount Site](#)

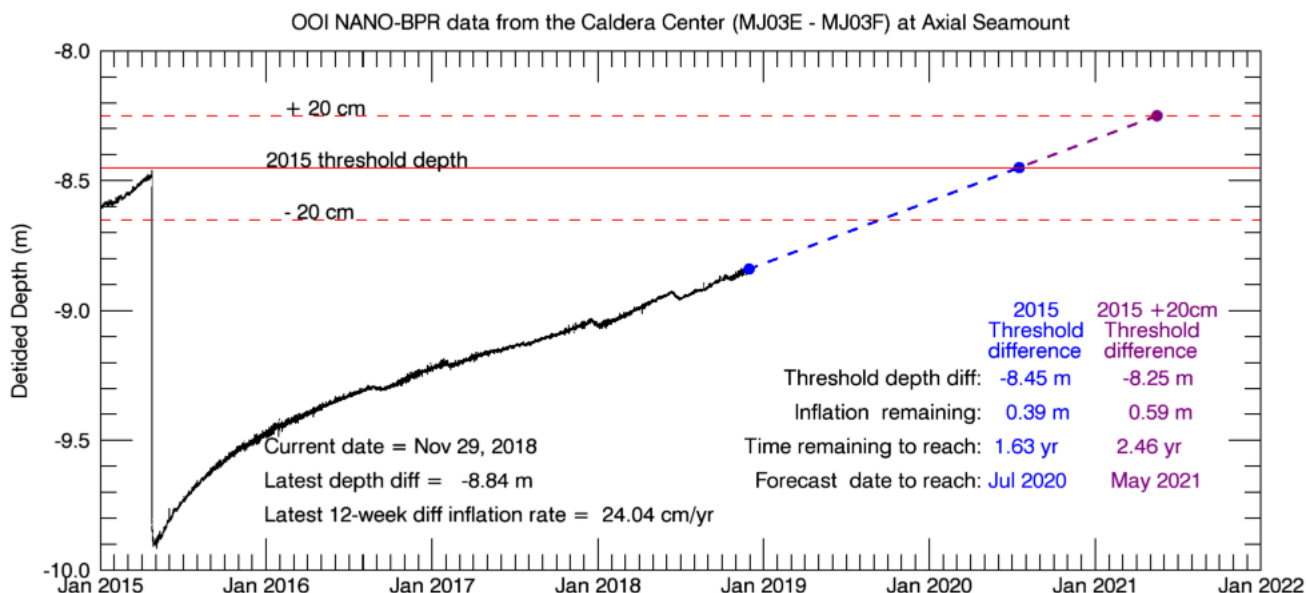
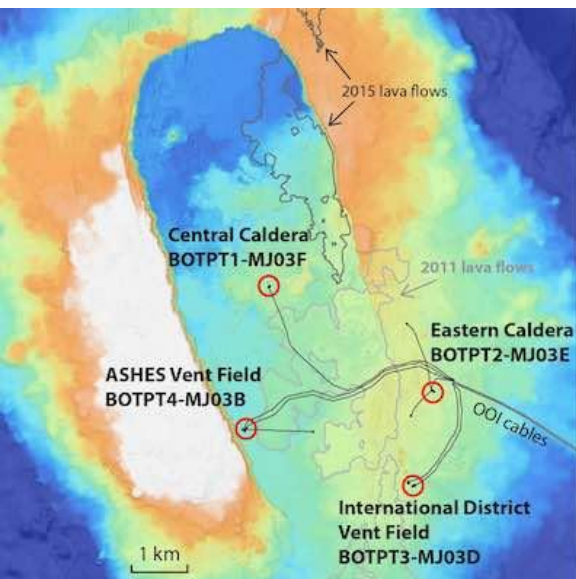
[Axial eruption forecast blog](#)

[Axial YouTube video collection](#)

[Axial Educational Resources](#)

WHERE IS AXIAL SEAMOUNT?





Related presentations at this year's AGU:

Natalie et al. – Poster – Thurs-pm V43G-0211

The relationship between post-2015 eruption deformation and seismicity rates since the 2015 eruption at Axial Seamount using OOI data

Hefner et al. – Poster – Thurs-pm V43G-0212

Magmatic Source Estimates at Axial Seamount for the 2015 Eruption From Seafloor Deformation and Seismic Data

Cook et al. – Talk – Thurs-pm T44C-08

Calibrated pressure measurements for seafloor geodesy

