



Ocean Observatories Initiative Facilities Board

Town Hall

**Lightning Talks**

*December 10, 2018*

# Lightning Talks

## one slide, one minute

### Town Hall Lightning-Talk Presenters

Ashley Burkett, Oklahoma State University

Bill Chadwick, OSU & NOAA

Matt Cook, Scripps Institution of Oceanography

Adrian Doran, Scripps Institution of Oceanography

Molly James, University of Connecticut

Hilary Palevsky, Woods Hole Oceanographic Institution

Dax Soule, Queens College

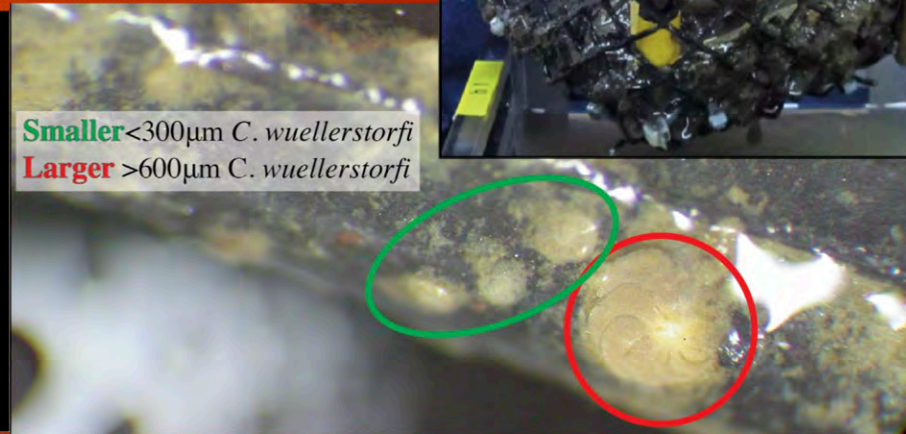
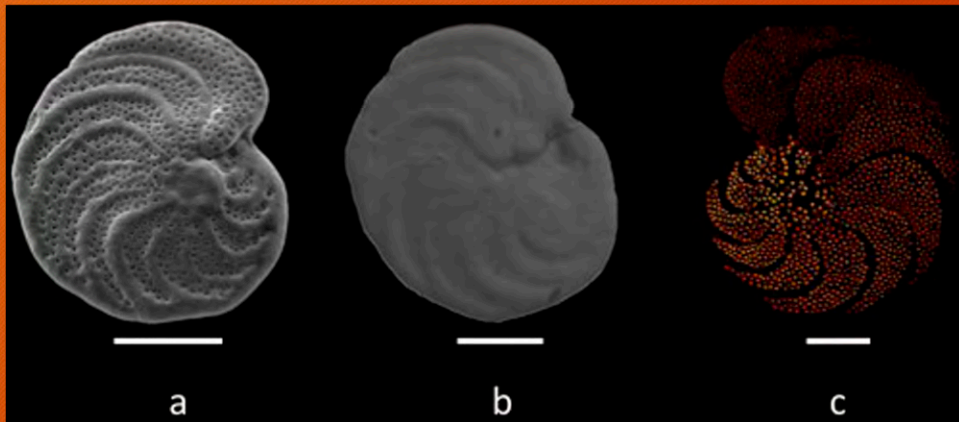
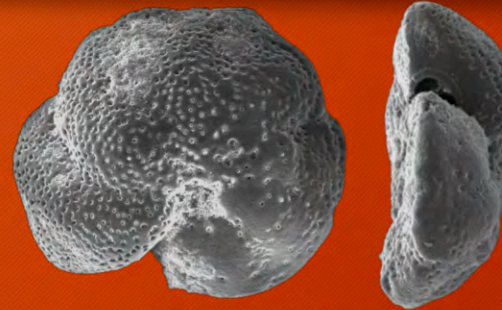
Richard Signell, USGS

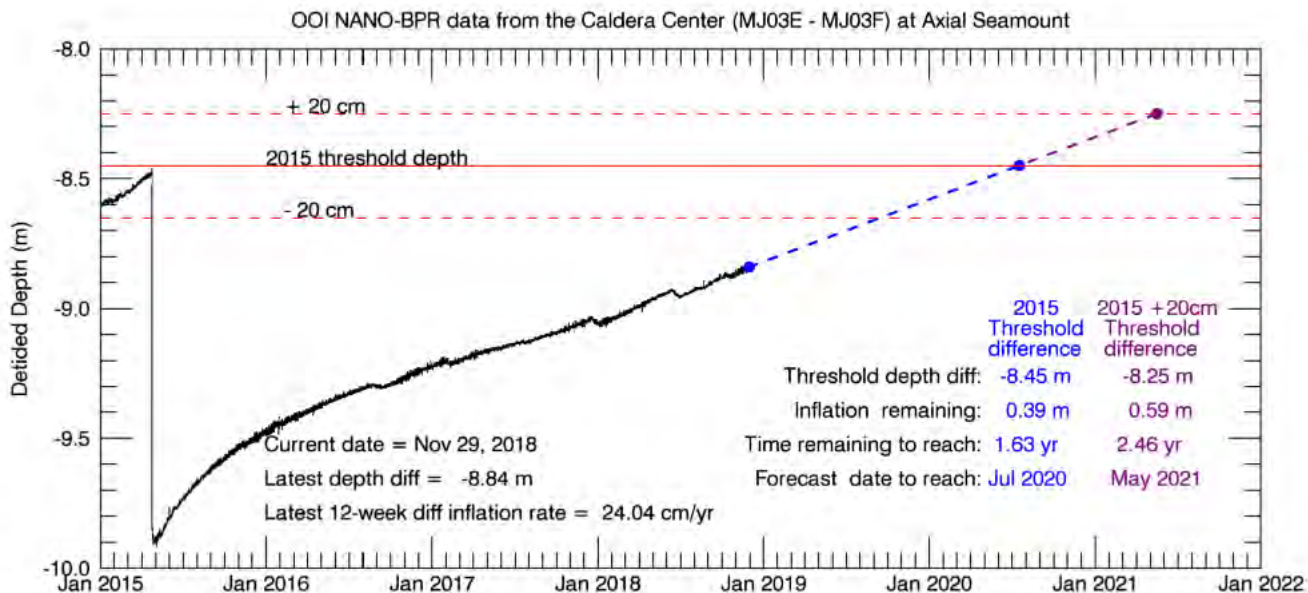
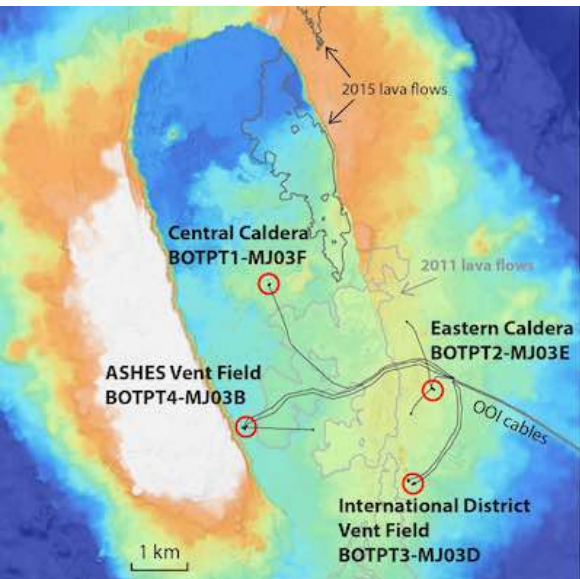
# Ashley Burkett

Boone Pickens School of Geology  
Oklahoma State University



- Benthic foraminifera
- SEA<sup>3</sup>S (Seafloor Epibenthic Attachment Cubes)
- Looking for collaborators!!
- [ashley.burkett@okstate.edu](mailto:ashley.burkett@okstate.edu)





## Related presentations at this year's AGU:

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

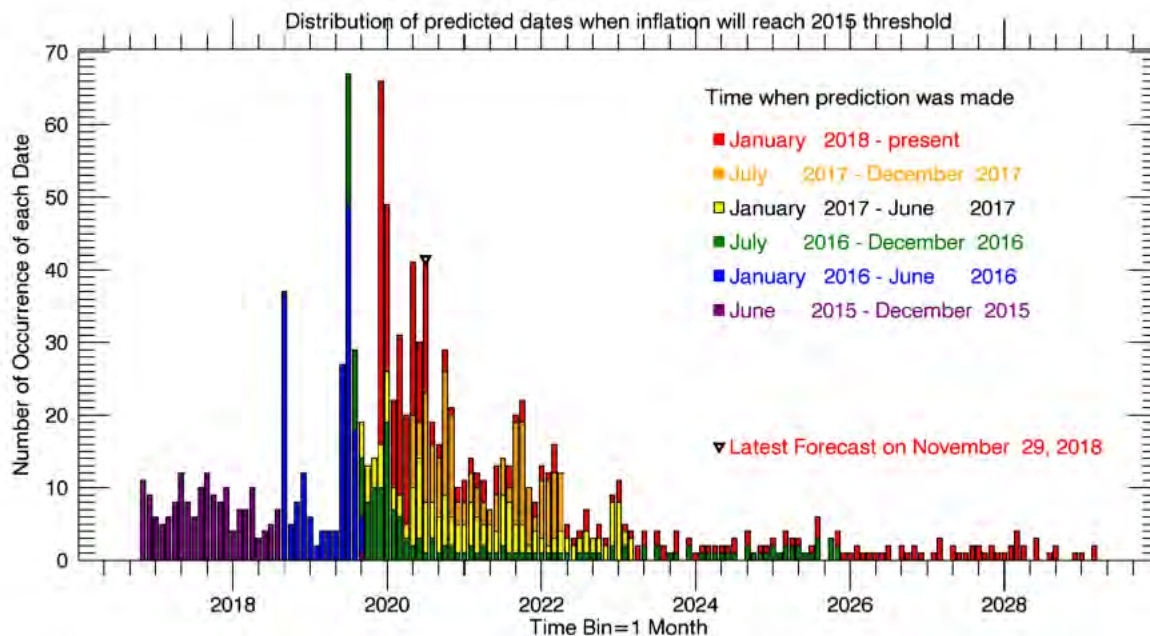
The relationship between post-2015 eruption deformation and seismicity rates since the 2015 eruption at Axial Seamount using OOI data

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

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

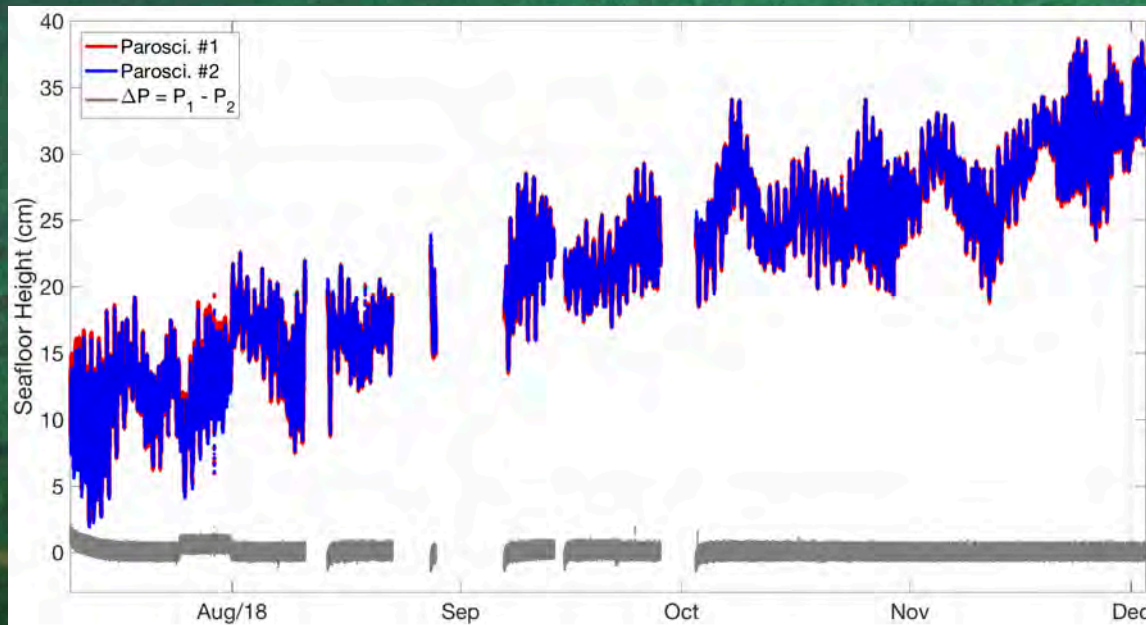
Cook et al. – Talk – Thurs-pm T44C-08

Calibrated pressure measurements for seafloor geodesy



# Cabled SCPR at Axial Seamount

Drift-corrected seafloor pressure for vertical deformation monitoring



Mark Zumberge  
[mzumberge@ucsd.edu](mailto:mzumberge@ucsd.edu)

Glenn Sasagawa  
[gsasagawa@ucsd.edu](mailto:gsasagawa@ucsd.edu)

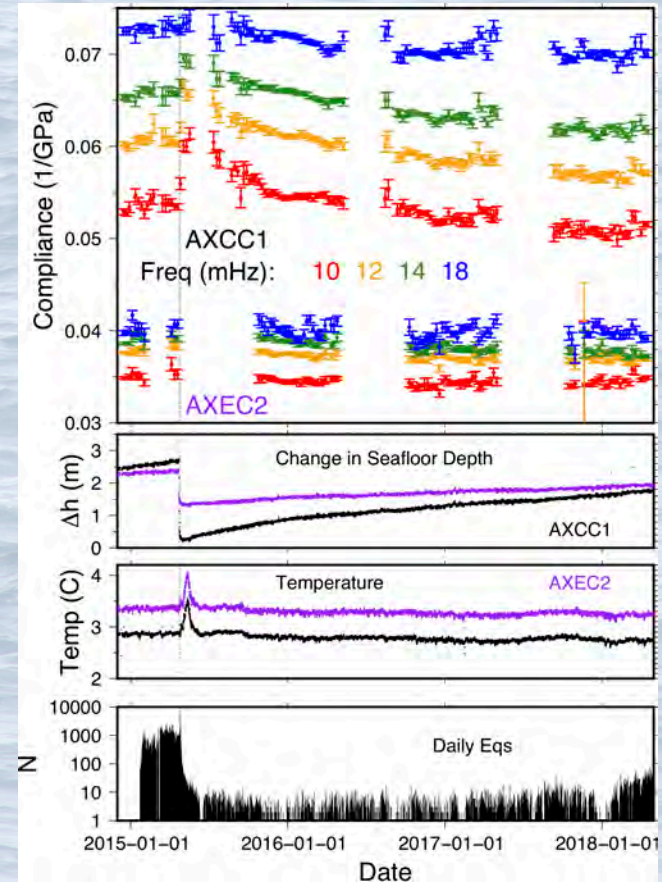
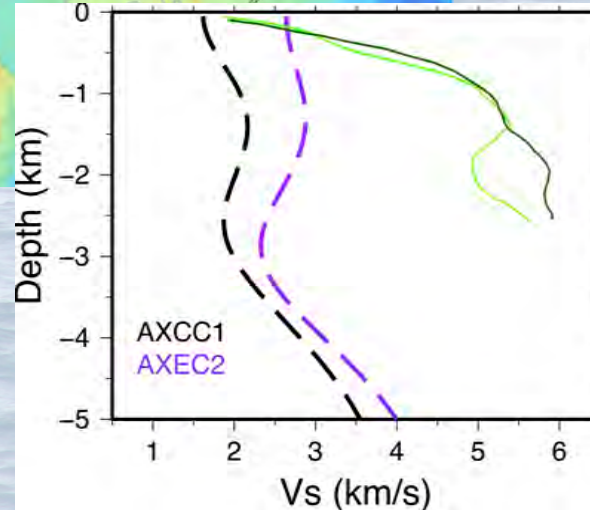
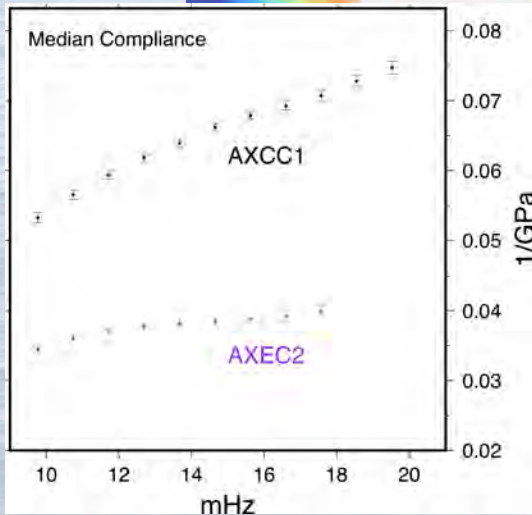
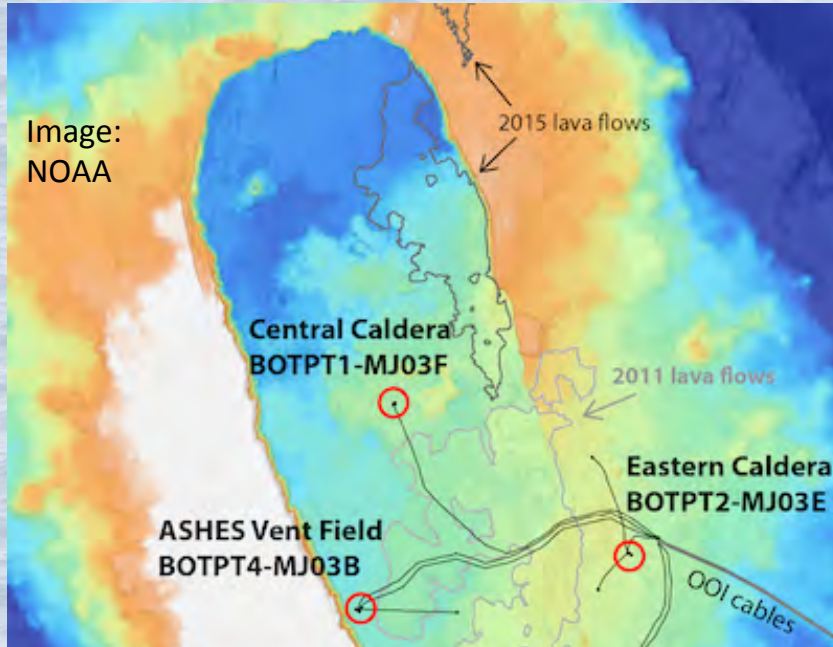
Matthew Cook  
[m2cook@ucsd.edu](mailto:m2cook@ucsd.edu)

Scripps Institution of Oceanography  
University of California, San Diego

# Continuous Imaging of Subsurface Melt with Seafloor Compliance Data

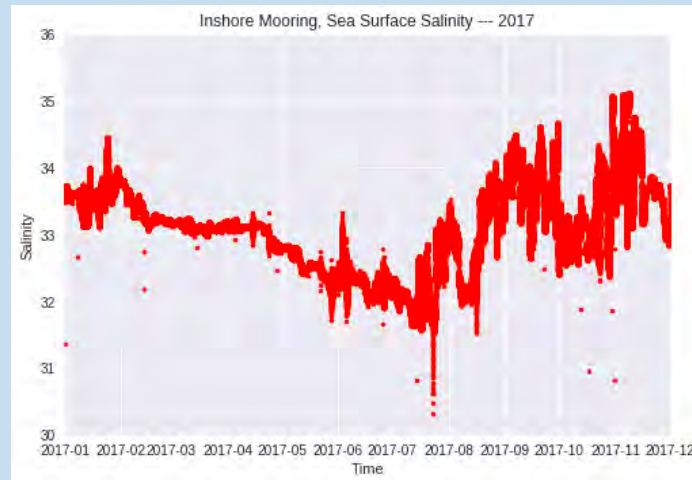
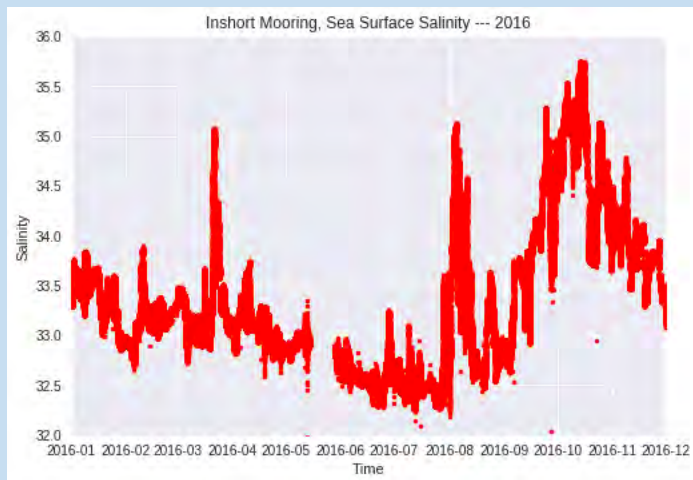
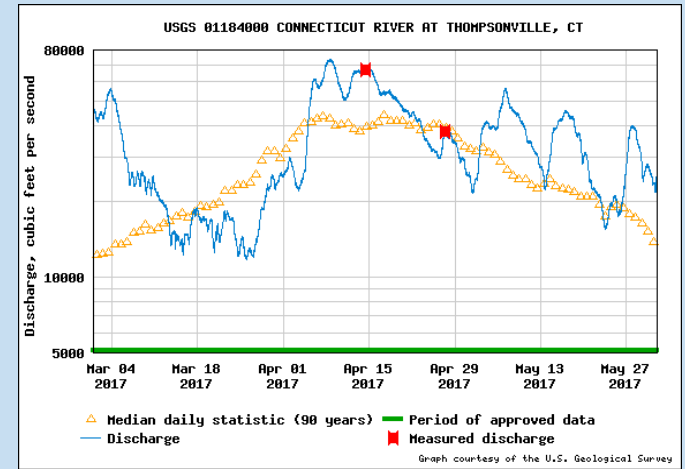
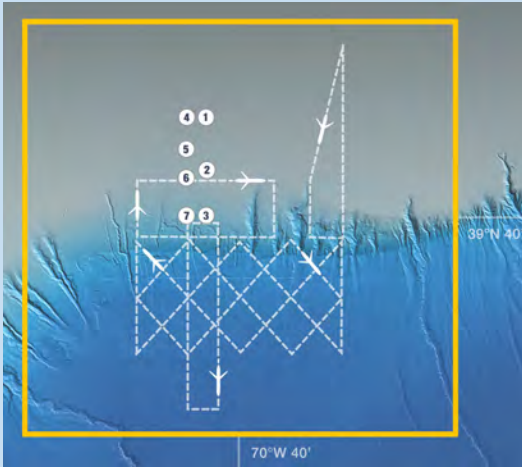
Adrian K. Doran  
SIO, UCSD  
adoran@ucsd.edu

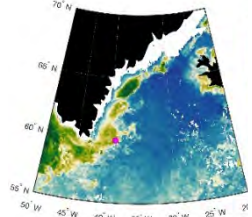
(with Wayne Crawford, IPGP)



# Low seasonal SSS anomaly at Pioneer Array

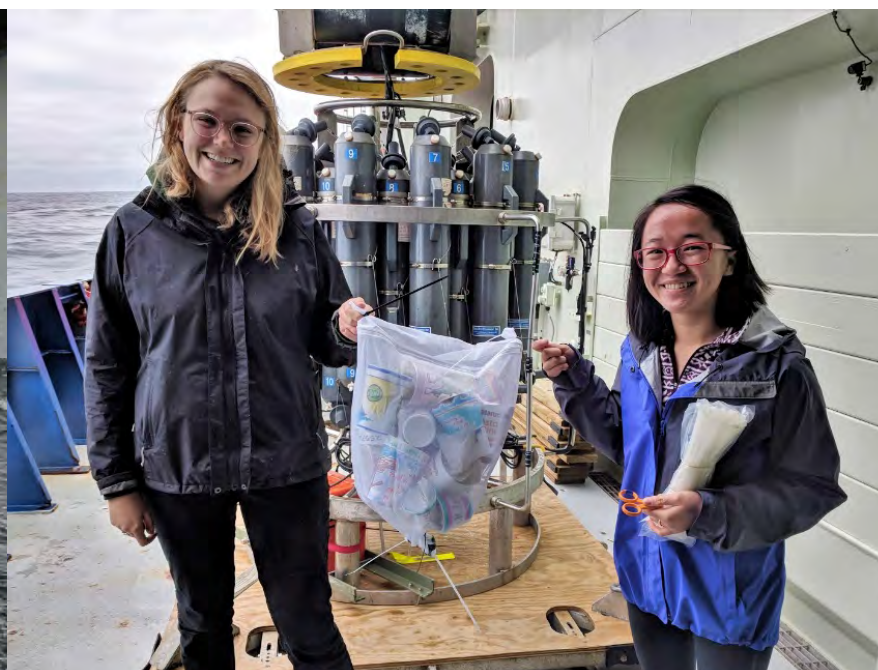
Molly M. James – University of Connecticut – molly.james@uconn.edu





# The annual cycle of the biological carbon pump at the OOI Irminger Sea Array

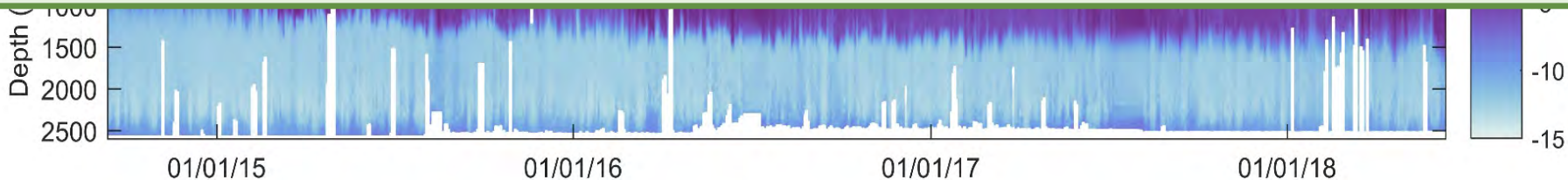
Hilary I. Palevsky, Wellesley College, hpalevsky@wellesley.edu



Deployed 2 gliders with air-calibrating oxygen sensors at the OOI Irminger Sea Array in June 2018

Undergraduate student researchers collected samples at sea and are using OOI data

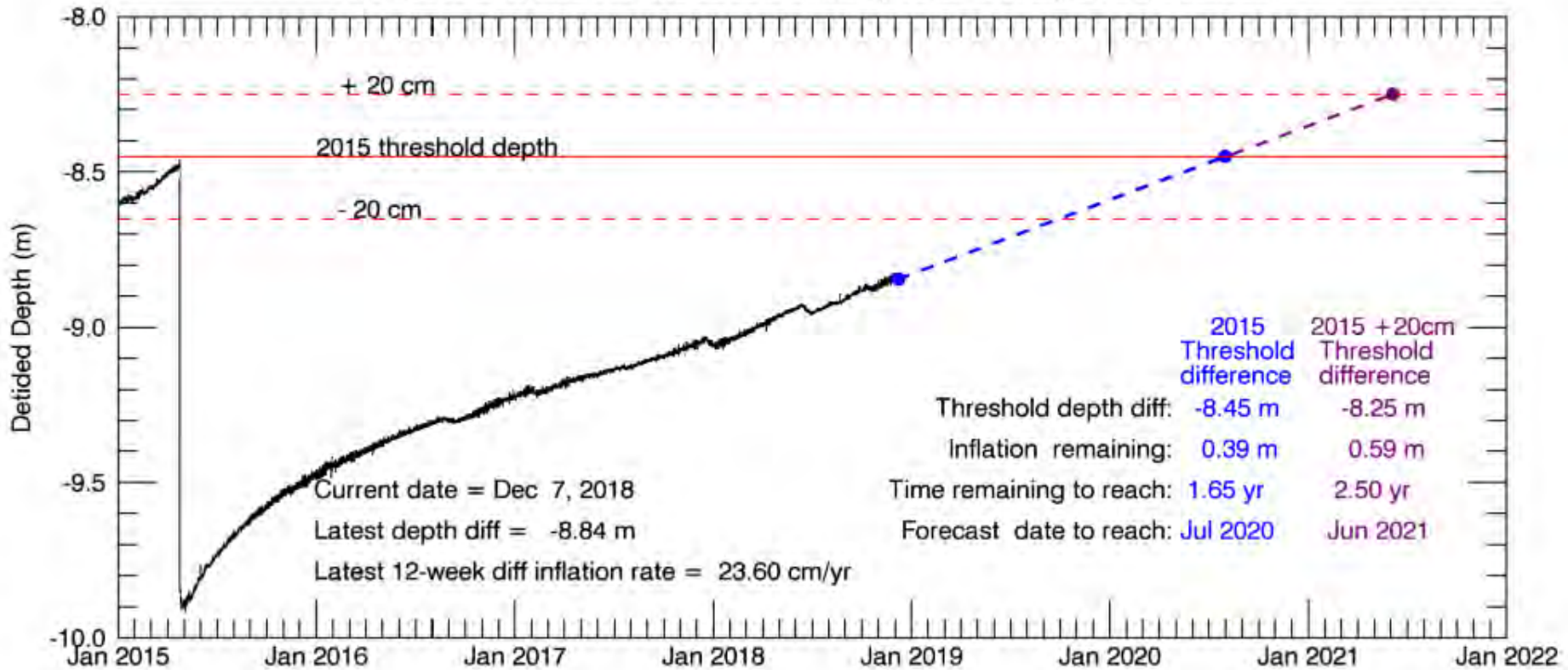
**For full details, come to Lucy Wanzer's talk! Wednesday 9:30am, Convention Ctr 101.**  
*The Influence of Deep Convection on Biologically Driven Carbon Sequestration in the Irminger Sea*





# Co-Located Geophysical Measurements

OOI NANO-BPR data from the Caldera Center (MJ03E - MJ03F) at Axial Seamount





# ERDDAP > Advanced Search

**Directions:** Specify as many or as few search criteria as you want, then click search. Only the datasets that match **all** of the search criteria will appear in the results.

Full Text Search for Datasets

**Search for Datasets by Category**

protocol = (ANY)

cdm\_data\_type = (ANY)

institution = (ANY)

ioos\_category = (ANY)

keywords = (ANY)

long\_name = (ANY)

standard\_name = sea\_water\_practical\_salinity

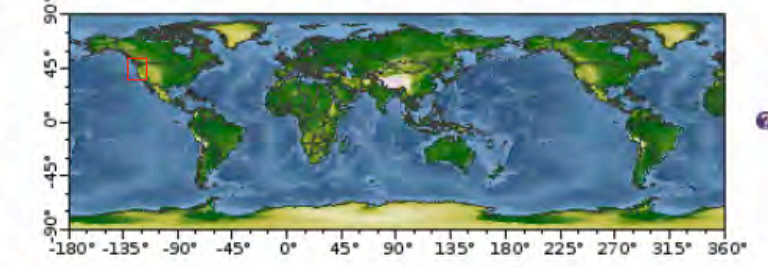
variableName = (ANY)

**Search for Datasets that have Data within Longitude, Latitude, and Time Ranges**

Maximum Latitude = 50.0

Min and Max Longitude = -132.0 -117.0

Minimum Latitude = 33.0



Minimum Time = 2018-07-01

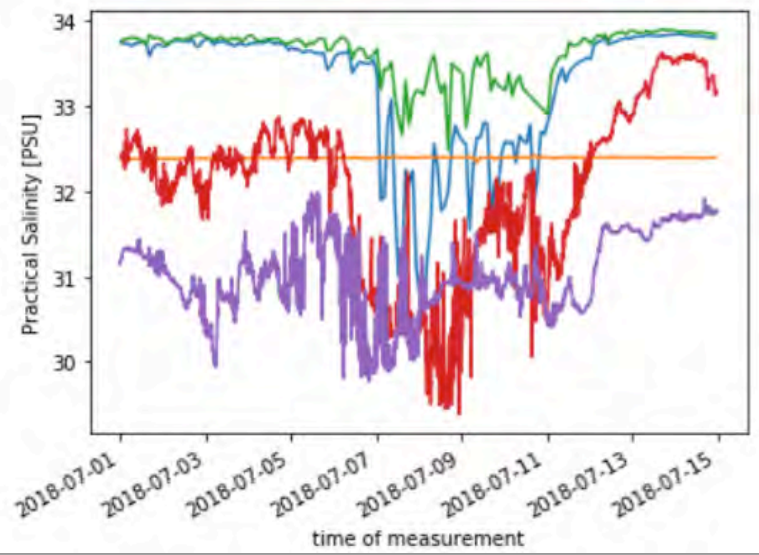
Maximum Time = 2018-07-05

```

for dataset_id in ctdbp['Dataset ID'].values:
    e.dataset_id = dataset_id
    e.variables = [ 'time', e.get_var_by_attr(dataset_id) ]
    try:
        ds = e.to_xarray(decode_times=True)
        ds = ds.swap_dims({'row':'time'})
        df_list.append(ds)
        print(dataset_id)
        [ds[var].plot() for var in ds.data_vars];
    except:
        pass
if len(df_list)==5: break

```

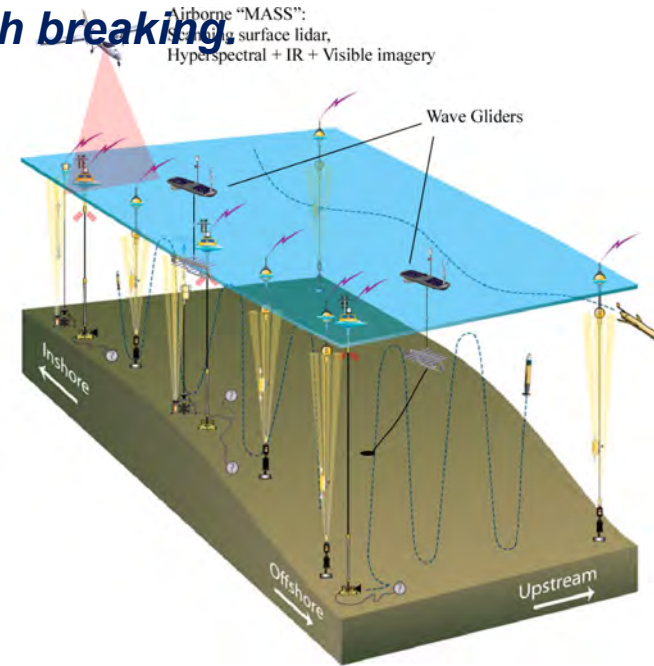
- CE01ISSM-BUOY-001-CTDBP-FLORT
- CE01ISSM-MFN-001-CTDBP-DOSTA
- CE01ISSM-NSIF-001-CTDBP-DOSTA
- CE02SHSM-NSIF-001-CTDBP
- CE04OSSM-NSIF-001-CTDBP



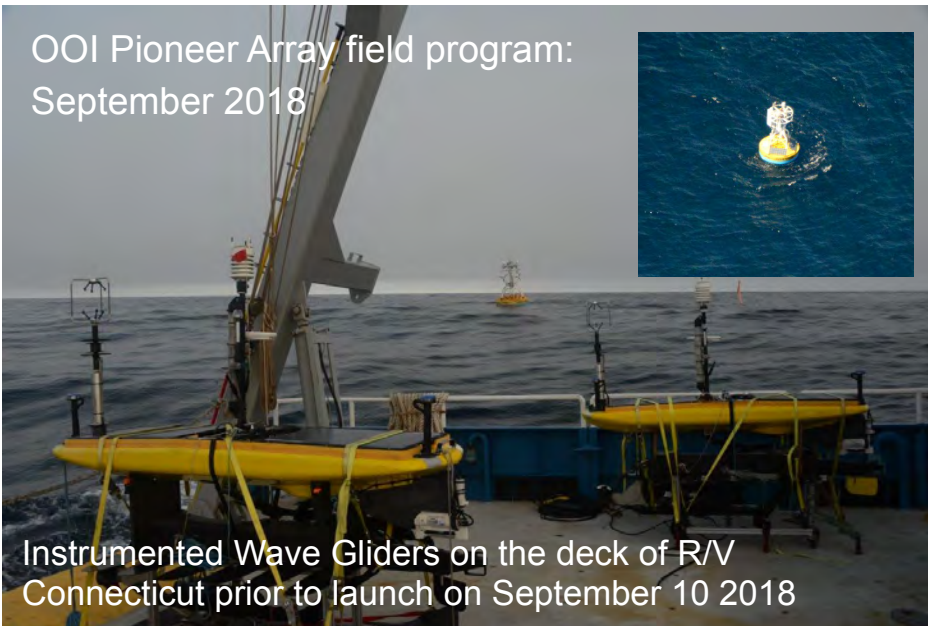
Ken Melville & Luc Lenain (Scripps Institution of Oceanography, UCSD)

**Goal: to better understand how currents modulate surface waves, and how surface waves transfer momentum to currents, especially through breaking**

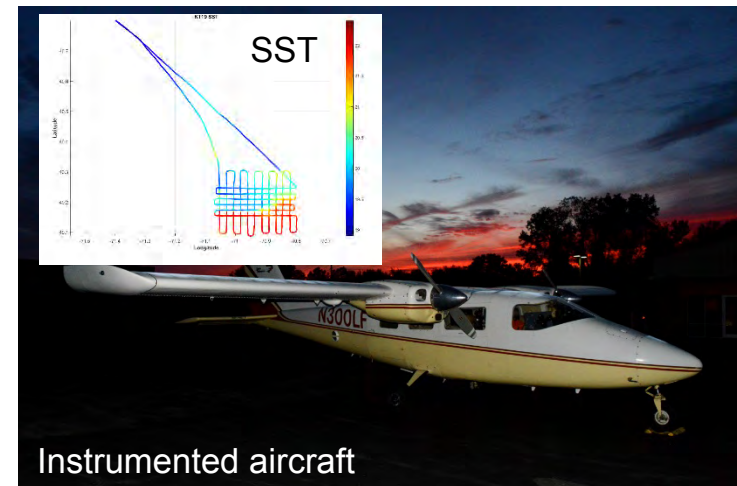
Approach: Use a combination of **airborne remote sensing** to accurately measure directional surface wave fields, surface currents, and breaking, in the area of the Ocean Observatories Initiative (OOI) **Pioneer Array**. The airborne measurements were supported by the Pioneer Array measurements of the air-sea fluxes of momentum and energy, and profile measurements of temperature, salinity and currents through the water column and supplemented by **two Wave Gliders** instrumented to measure the lower atmospheric boundary layer and the upper 50 m of the water column.



OOI Pioneer Array field program:  
September 2018



Instrumented Wave Gliders on the deck of R/V Connecticut prior to launch on September 10 2018



Instrumented aircraft

