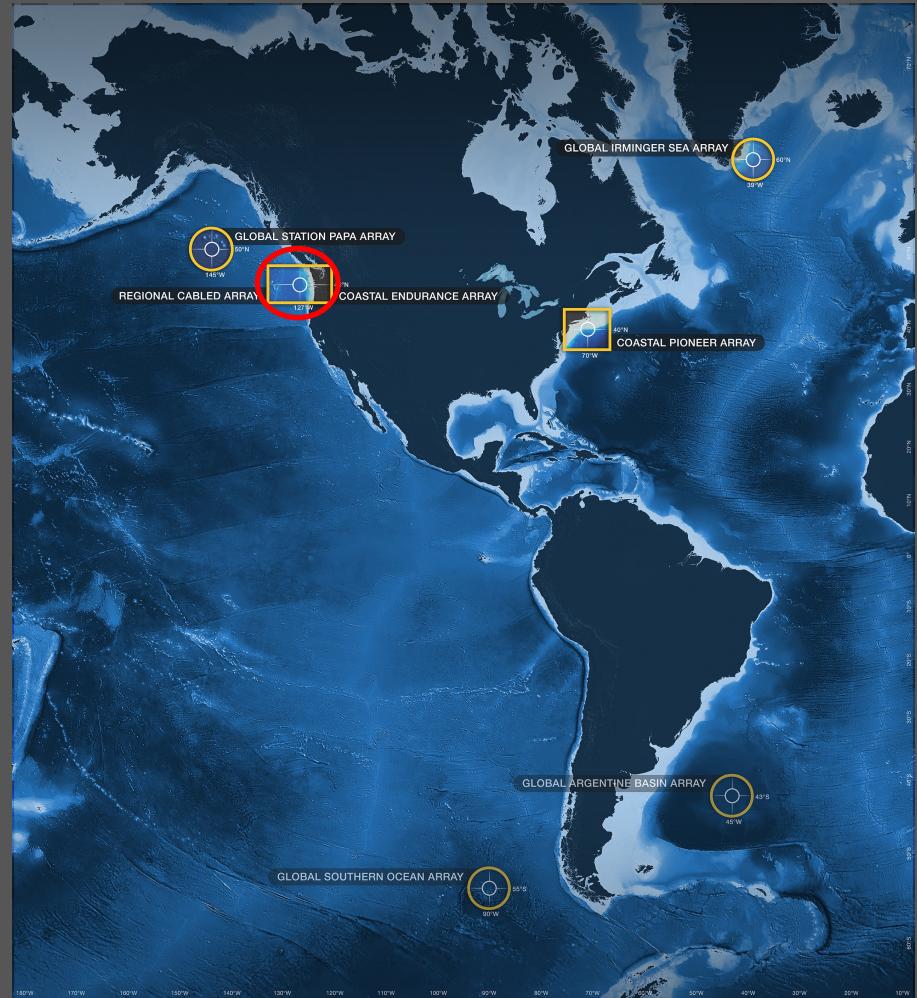


The OOI Coastal Endurance Array

Craig M. Risien

Oregon State University

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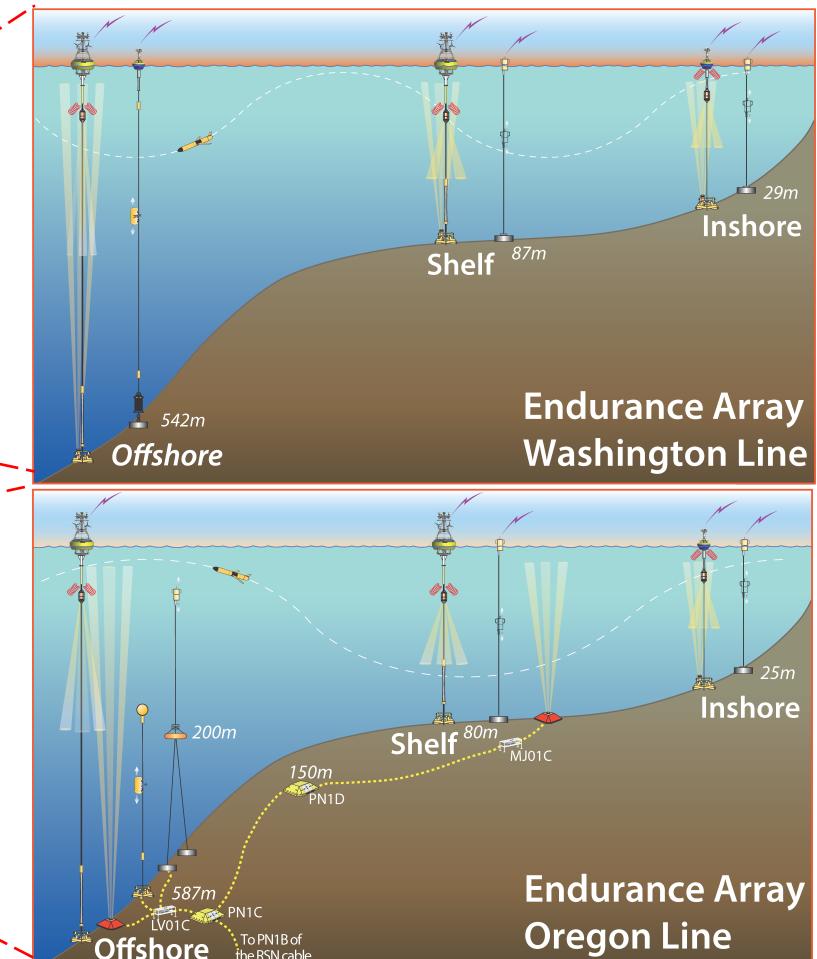
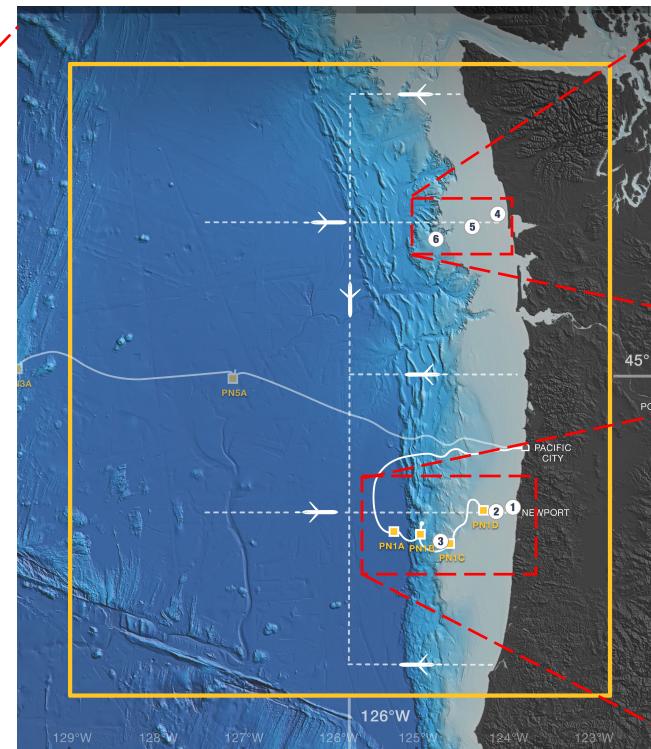
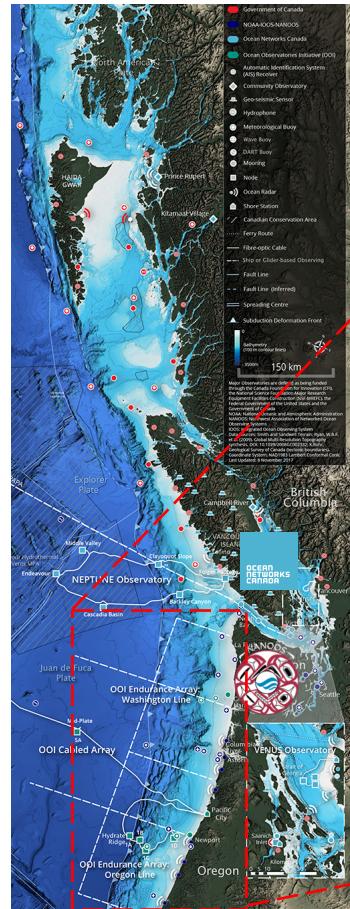


OOI Science Themes

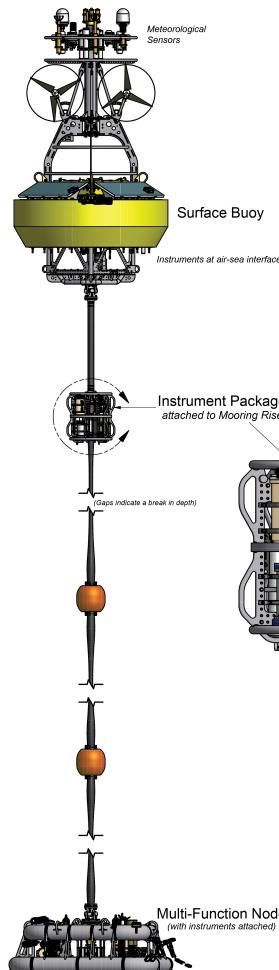
- Biogeochemistry and Carbon Cycling
- Ocean-Atmosphere Exchange
- Ocean Circulation, Mixing and Ecosystems
- Climate Variability and Ecosystems
- Coastal Ocean Dynamics and Ecosystems
 - Hypoxia
 - Ocean Acidification
 - Harmful Algal Blooms



Coastal Endurance Array



Fixed and Mobile Platforms



Buoys

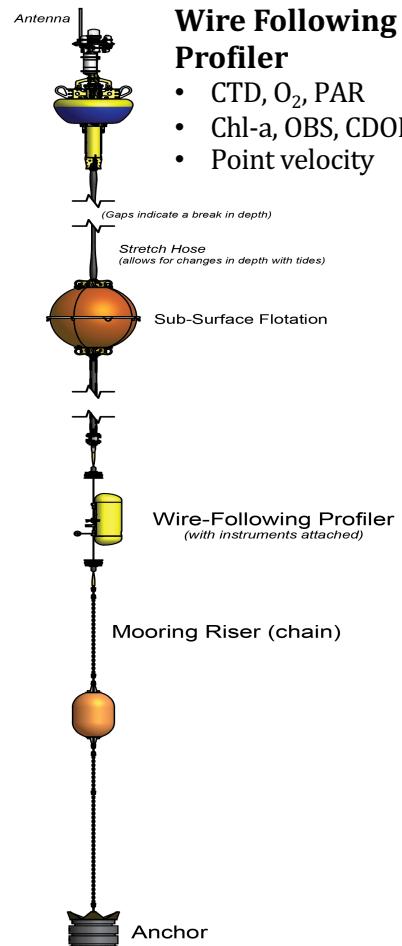
- Wind, rain, humidity
- Air pressure & temperature,
- Long & short wave radiation
- Wave spectra, air-sea pCO₂
- Surface CT & velocity

7m on moorings

- CTD, O₂,
- Chl-a, OBS, CDOM
- Point velocity
- Spec. Irrad., NO₃,
- Opt. Atten. & Absorp.
- pH, pCO₂, ADCP

Mooring Anchors

- CTD, O₂,
- Chl-a, OBS, CDOM
- Fast point velocity
- Opt. Atten. & Absorp.
- pH, pCO₂, ADCP
- Bioacoustic sonar, camera,
- Integrated pressure



Wire Following Profiler

- CTD, O₂, PAR
- Chl-a, OBS, CDOM
- Point velocity



Surface Piercing Profilers

- CTD, O₂, PAR
- Chl-a, OBS, CDOM
- Point velocity
- Opt. Atten. & Absorp.
- Spec. Irrad., NO₃,



Underwater Gliders

- CTD, O₂, PAR
- Chl-a, OBS, CDOM
- Velocity profiles

Cabled BEP

- CTD, O₂,
- Point velocity
- Opt. Atten. & Absorp.
- pH, pCO₂, ADCP
- Bioacoustic sonar, camera,
- Hydrophone



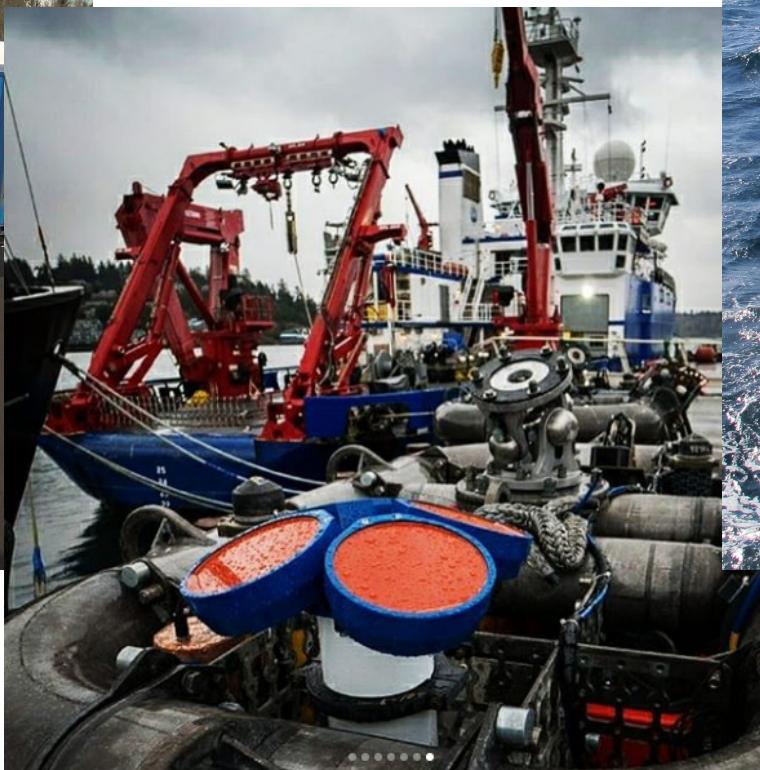
Mooring Assembly, Integration & Testing



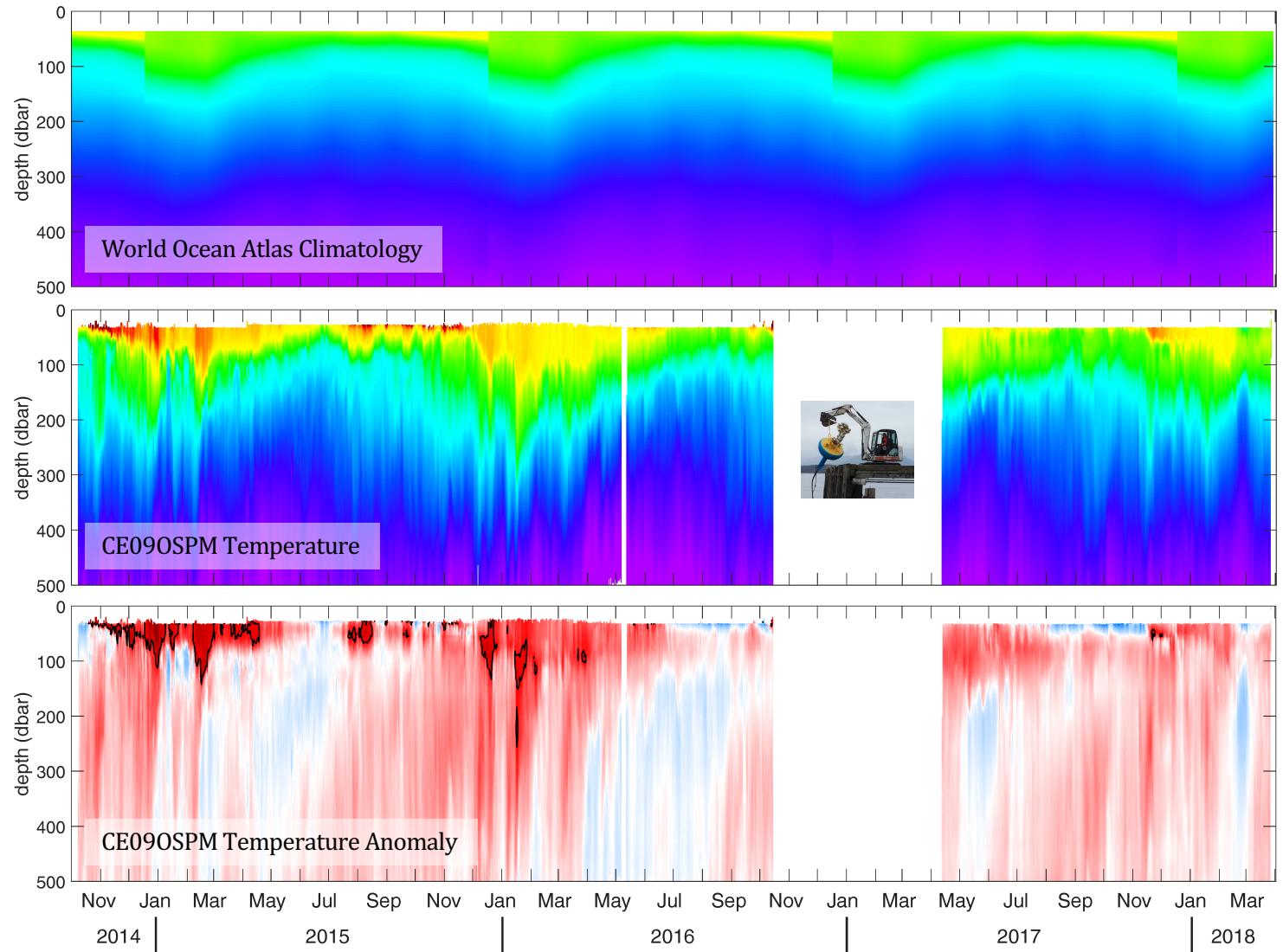
Ocean Observing Center
Corvallis, OR



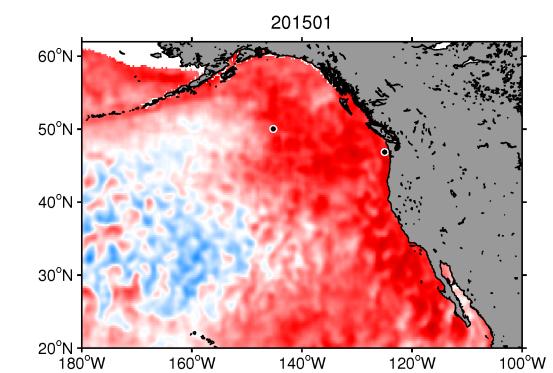
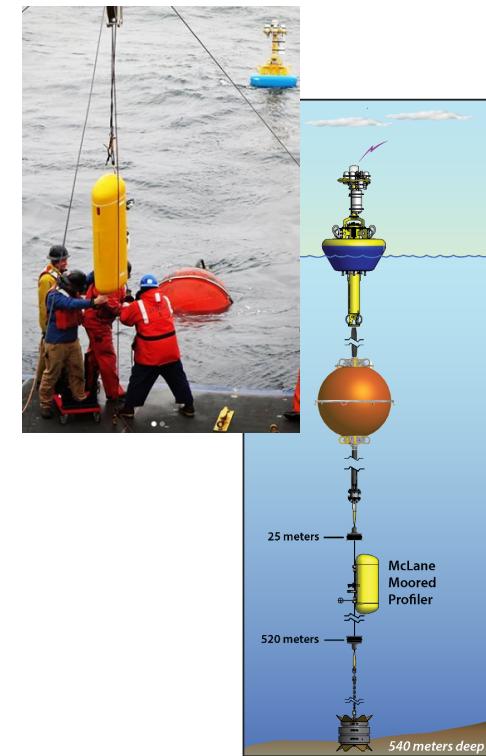
Spring and Fall Turnaround Cruises



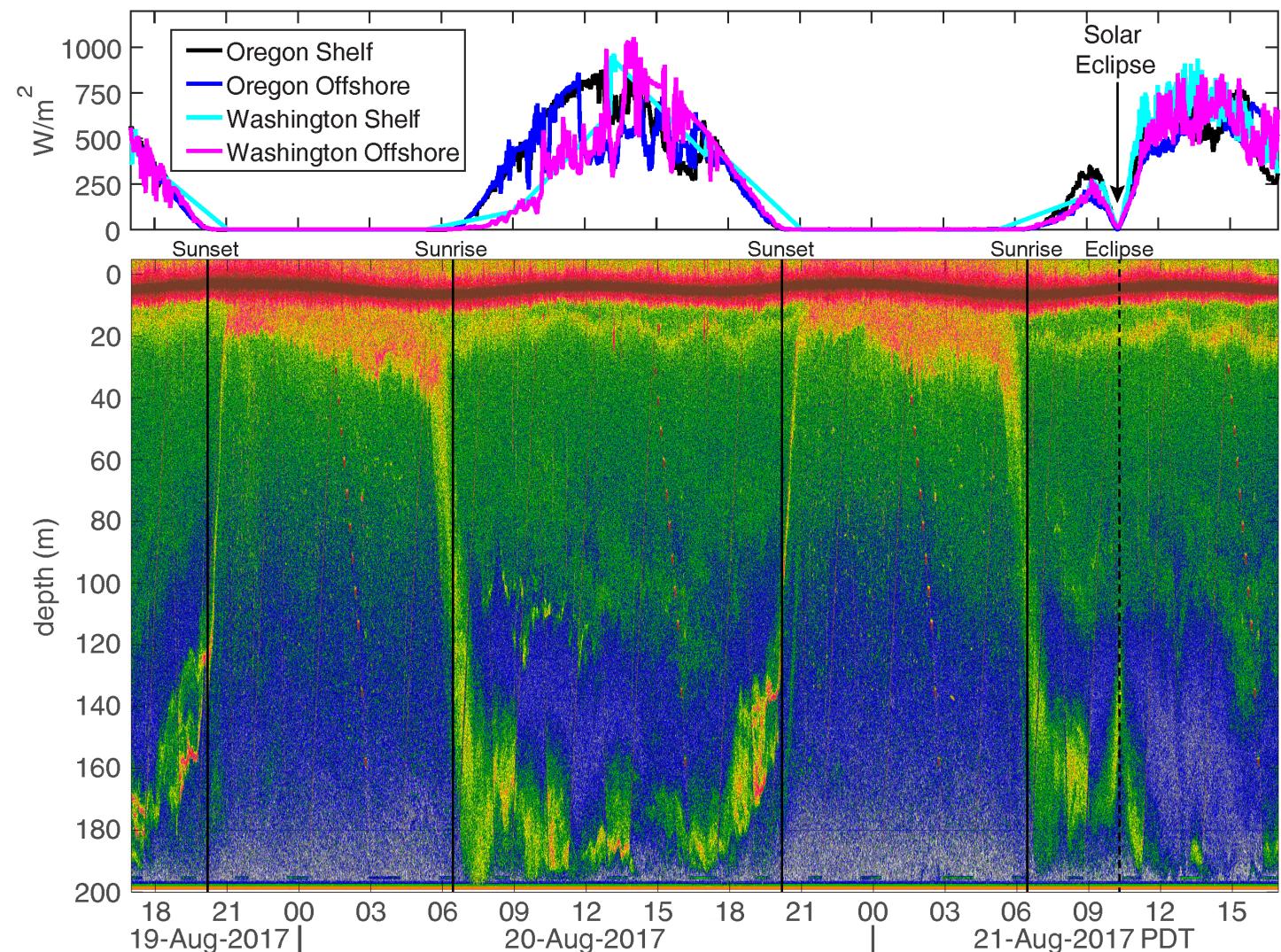
Marine Heatwaves



°C
14
12
10
8
6

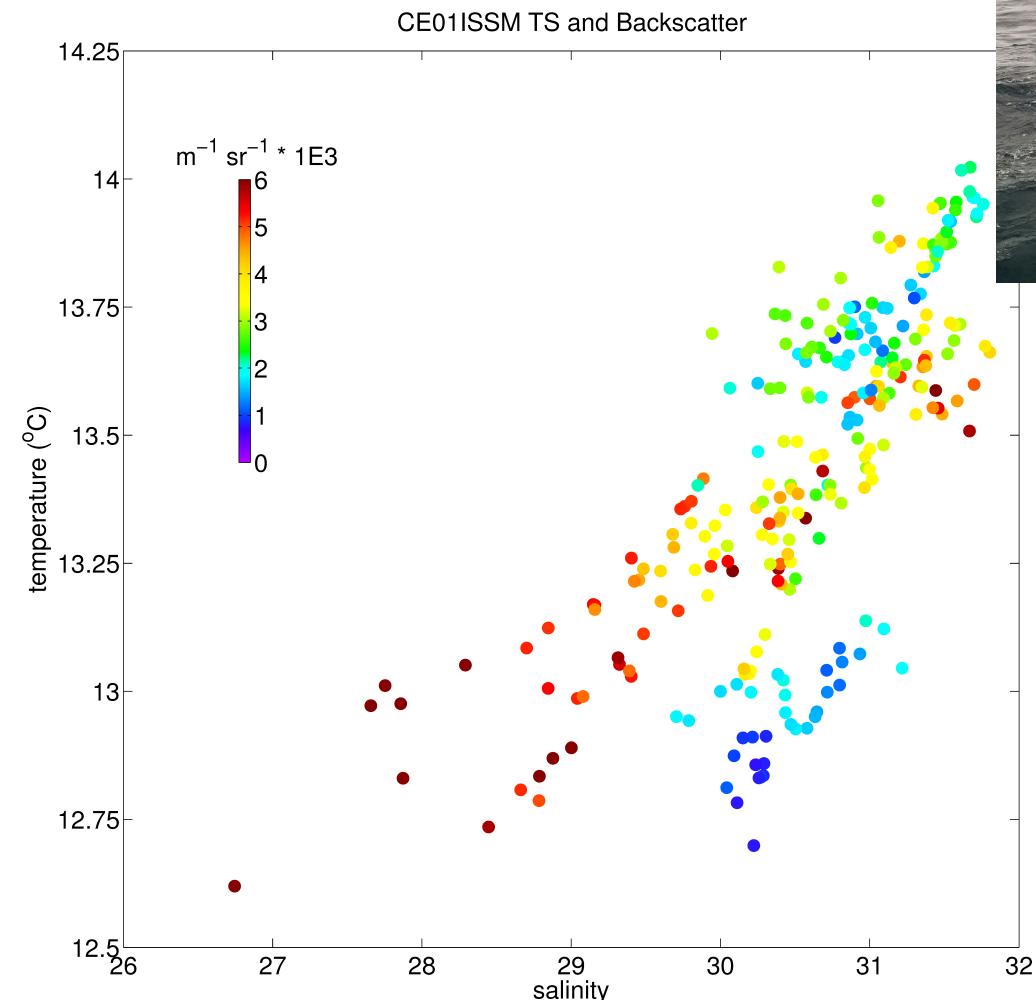
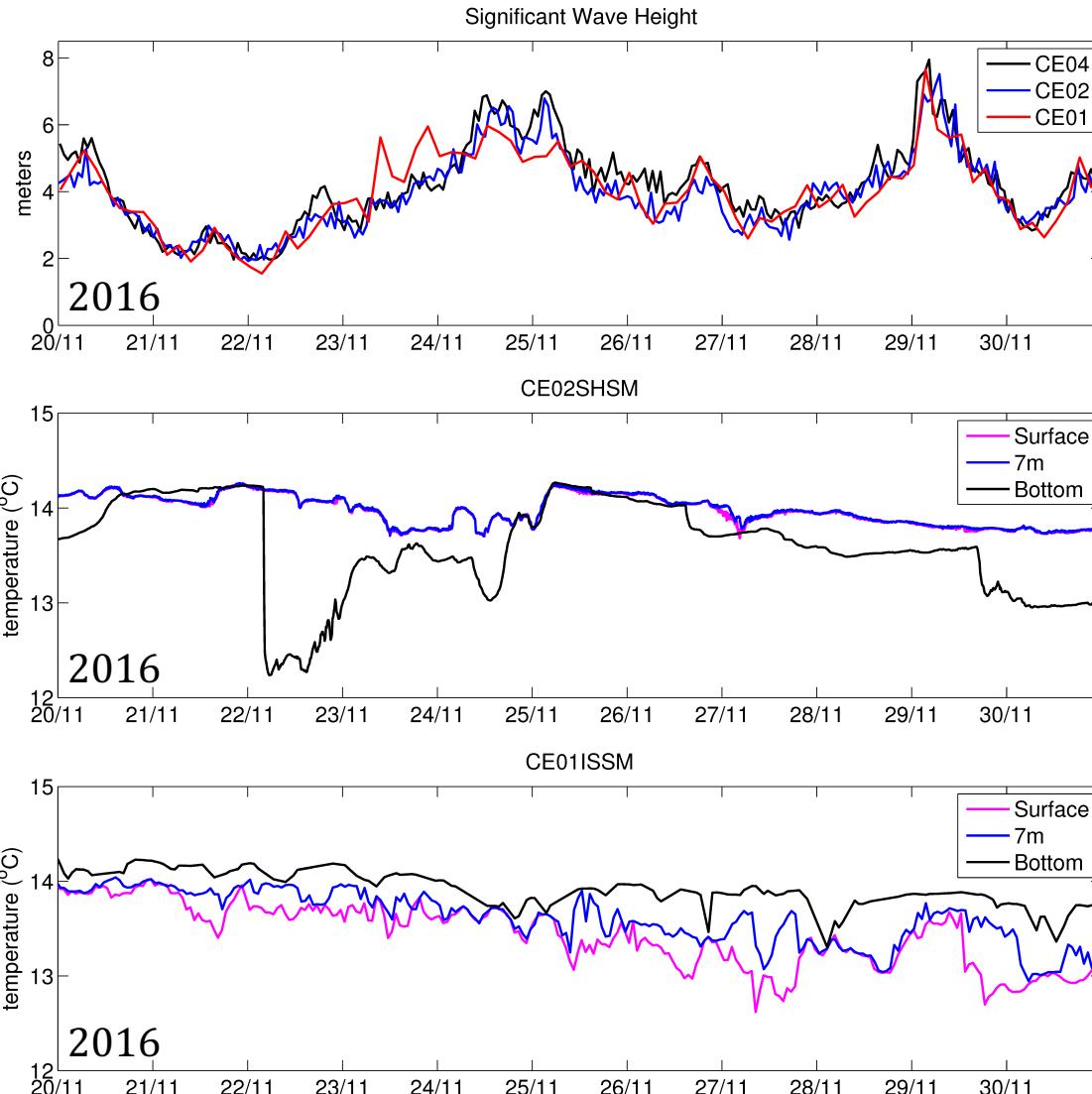


2017 Solar Eclipse



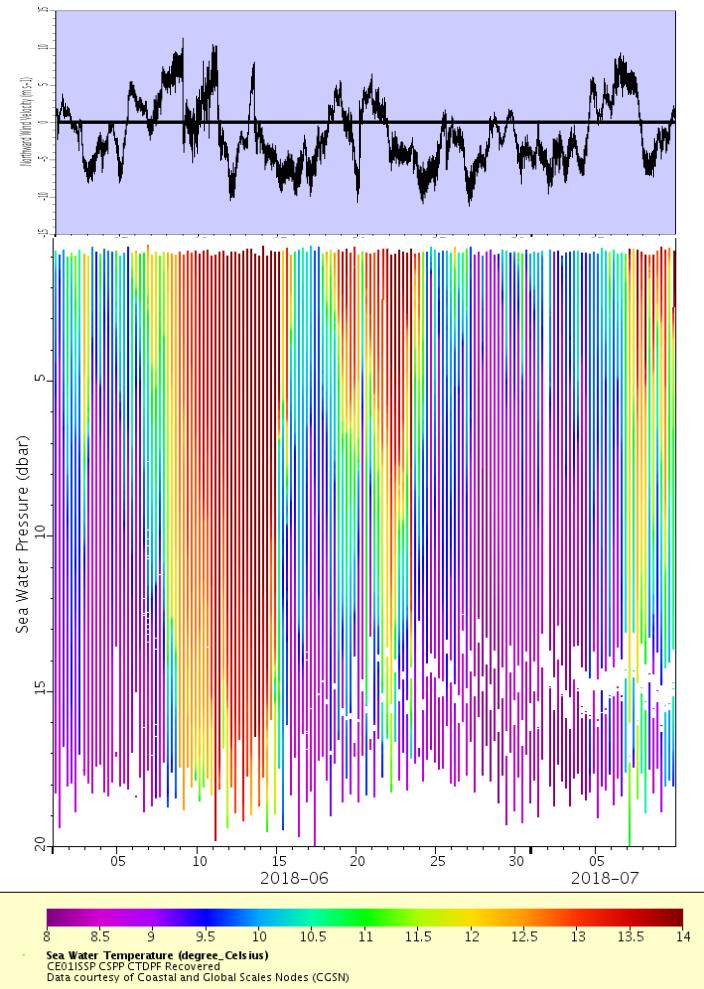
Wintertime Mixing Events

CE01ISSM

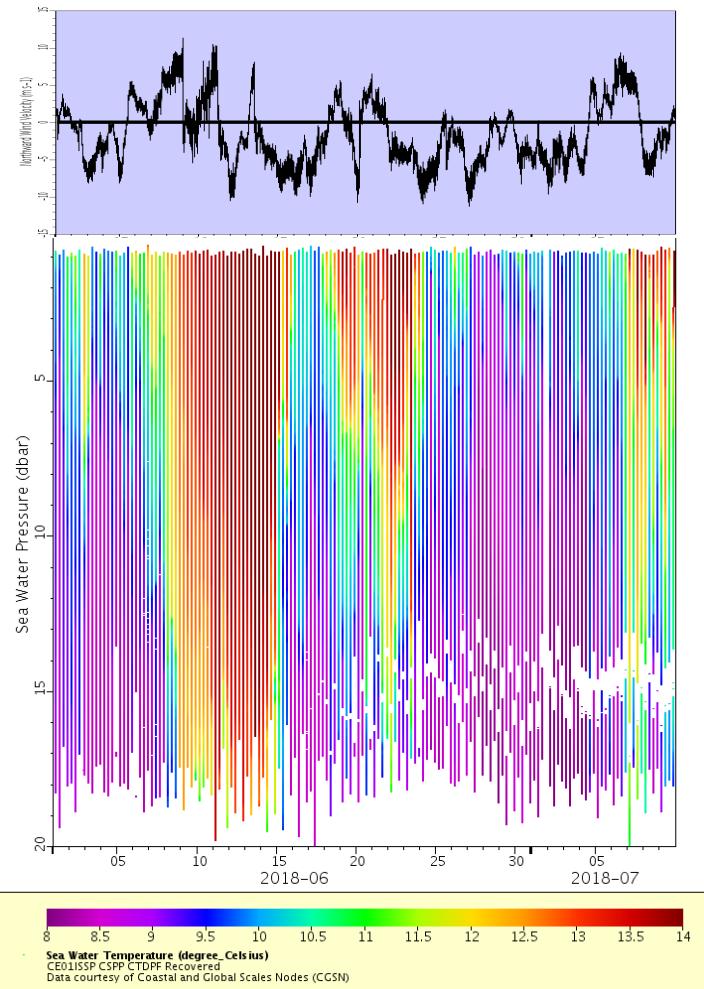


Upwelling/Downwelling & DO Conc.

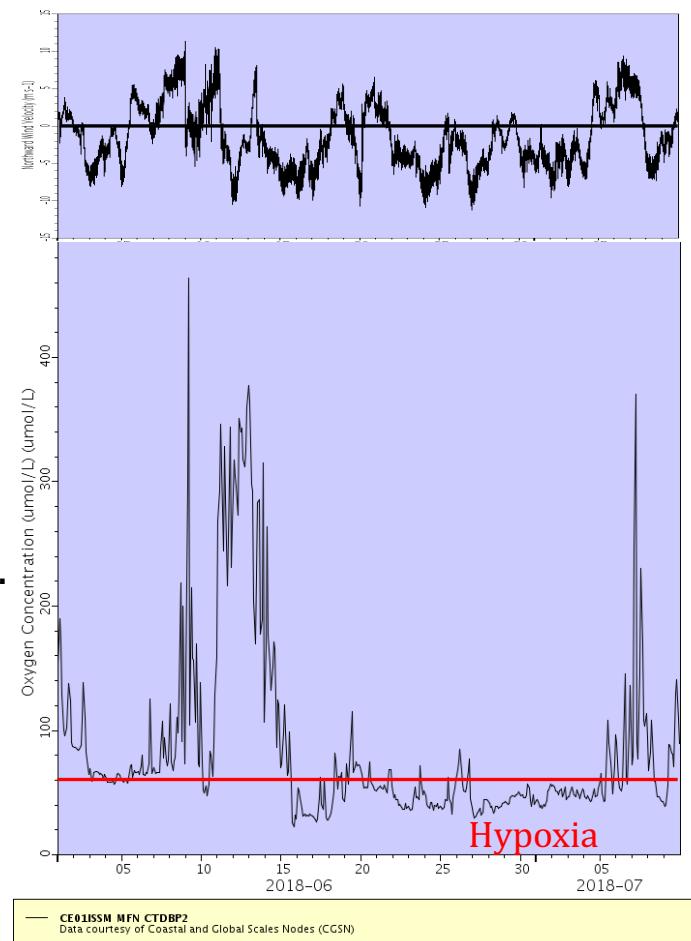
CE02SHSM
N/S Winds



CE01ISSP
Temperature



CE02SHSM
N/S Winds



CE01ISSM
MFN DO Conc.

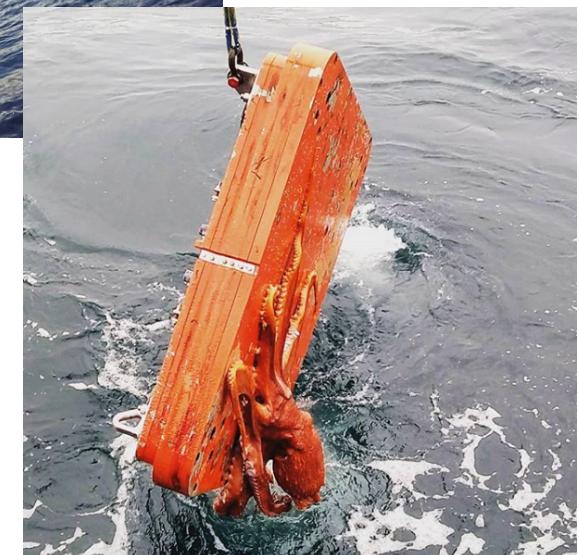


Questions?

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For more information:

<http://www.oceanobservatories.org/>

<https://www.instagram.com/osuooi/>

<https://www.youtube.com/user/ooicgsn/playlists>