

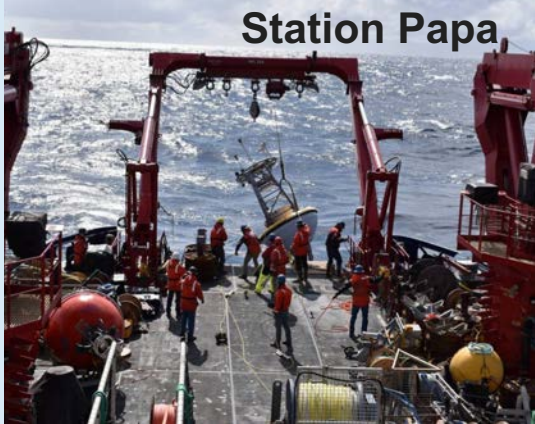
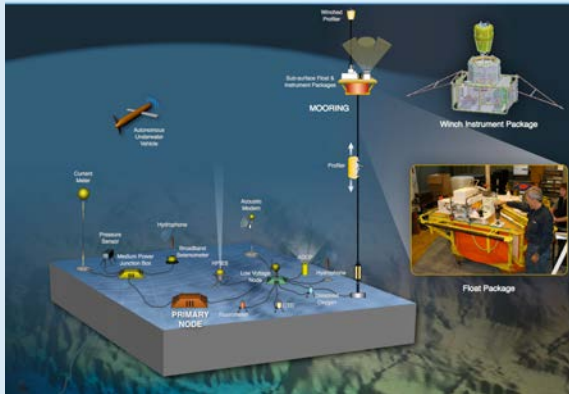
OOI Program Management Office (PMO) Report

James B. Edson

Northeast Pacific OOI Workshop
7-10 June 2022



NE Pacific Arrays



Thank you, John!

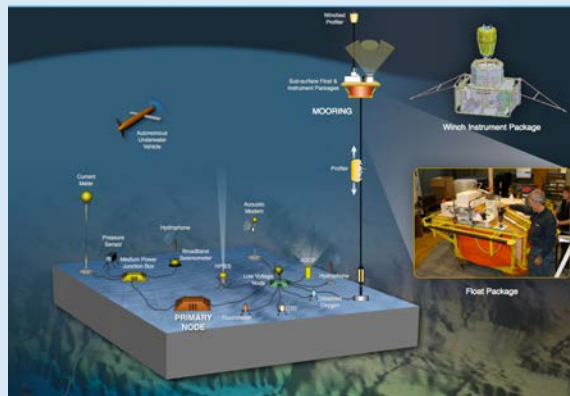


NE Pacific Arrays

Endurance



Regional Cabled



Station Papa



CI Center

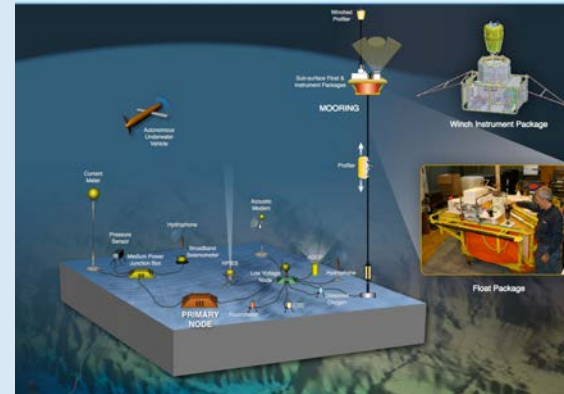


Data Advancement

Endurance



Regional Cabled



Station Papa



CI Center



Improved processing & QA/QC

- QARTOD
- Humans in the loop

Improved data delivery and accessibility

- Eye on FAIR principles
- Continued improvements to Data Explorer
- External PI data sets
- Curated data sets (education)
- Additional data sites, e.g., NDBC
- DOIs to improve acknowledgement & help with updates
- Data Ambassadors

Growing User Base

- Enhancing research
- More publications and grants
- More external PIs
- Early career scientists engagement
- More educational opportunities (OOIFB & NSF Edu)
- Quantified by metrics



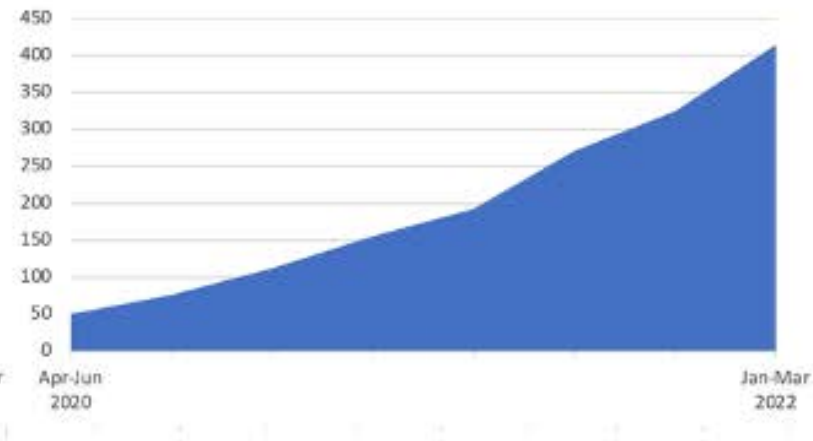
Community Engagement by the Numbers



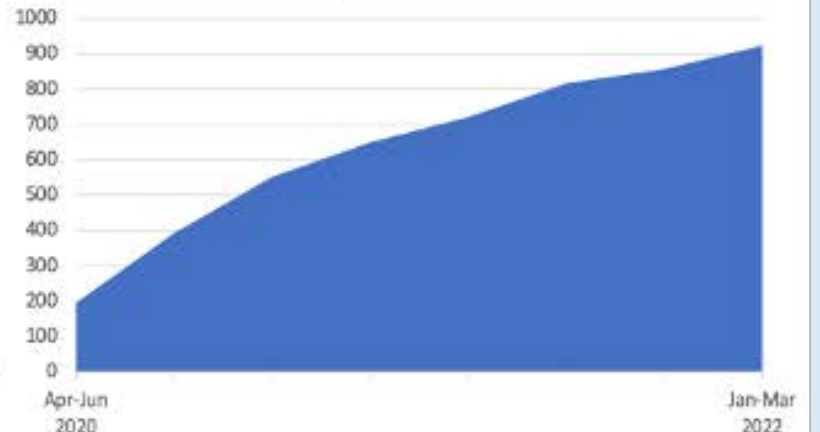
Twitter Followers



LinkedIn Followers



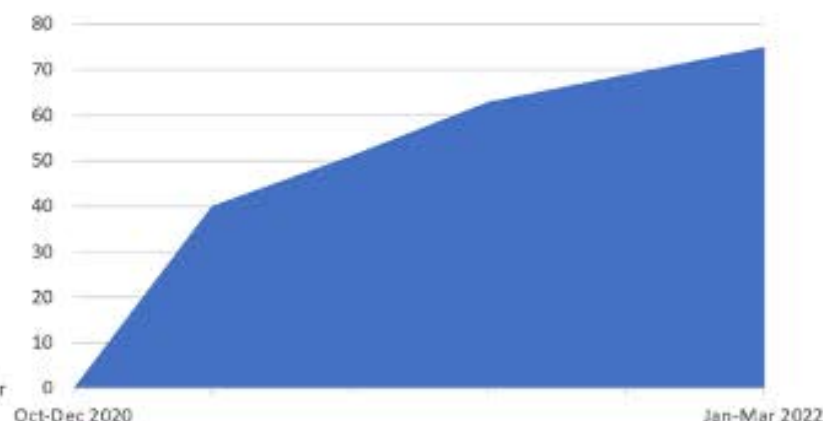
Instagram Followers



Facebook Followers



Discourse Users



Download Subscribers



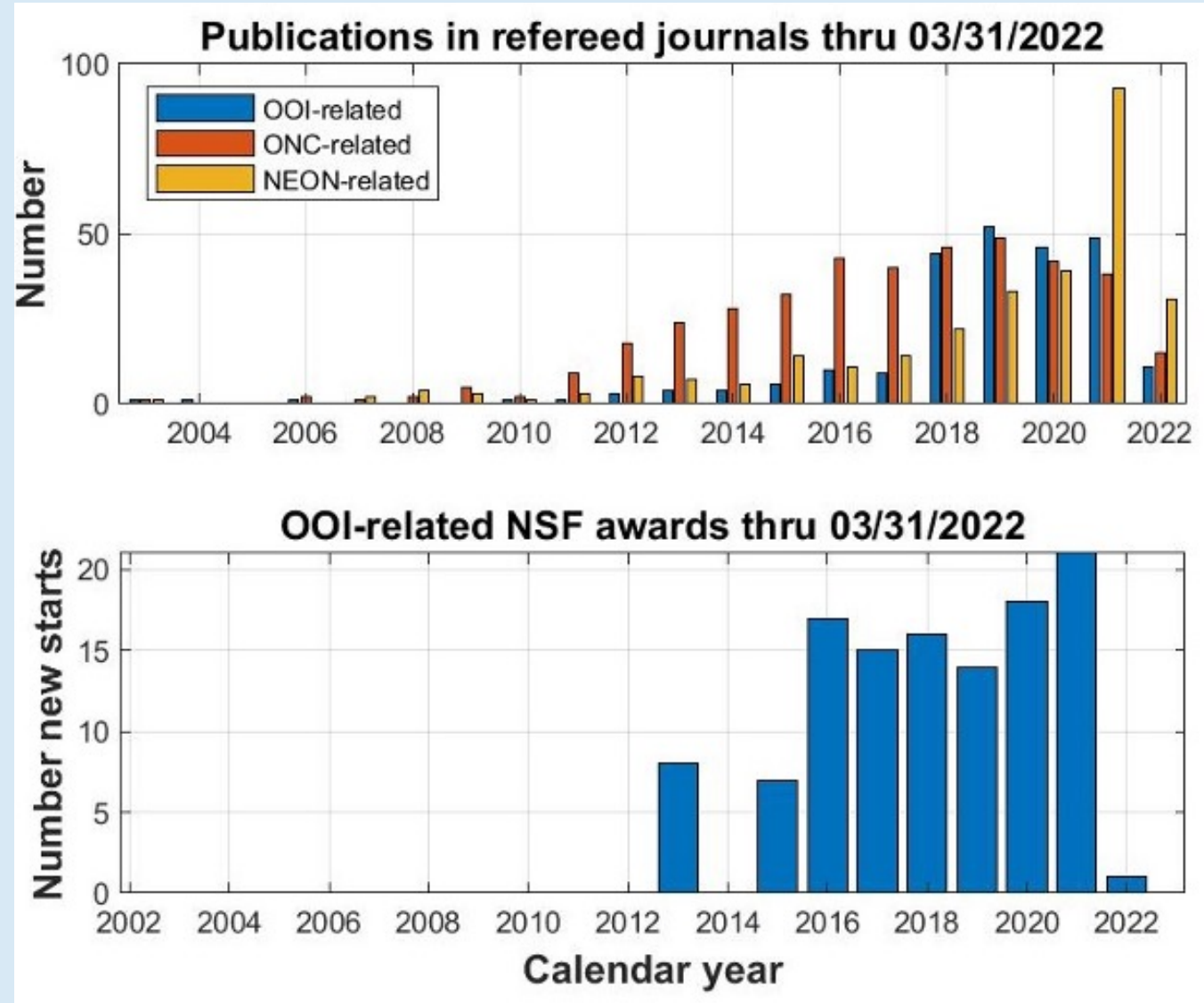
Science Impacts

243 OOI-related publications in refereed journals thru 31 Mar 2022

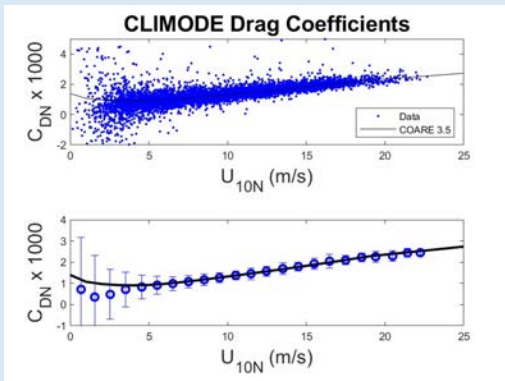
- 209 lead authors
- 92 lead institutions
- 109 countries
- 5 continents

117 NSF awards using OOI data or infrastructure thru 31 Mar 2022

- \$66.1m total
- 91 lead PIs
- 44 lead institutions

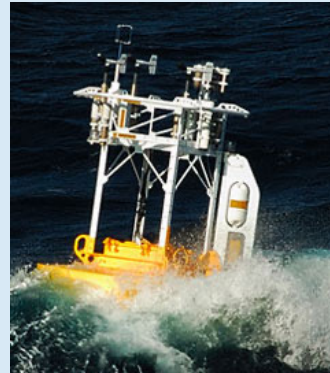


Improved Fluxes from a Growing Global Array



COARE 3.5

Edson, James B., and Coauthors, 2013: On the Exchange of Momentum over the Open Ocean. *J. Phys. Oceanogr.*, **43**, 1589–1610.



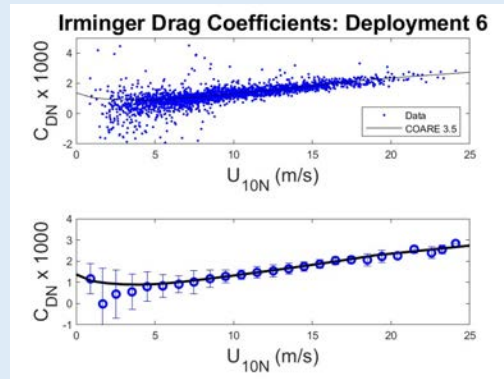
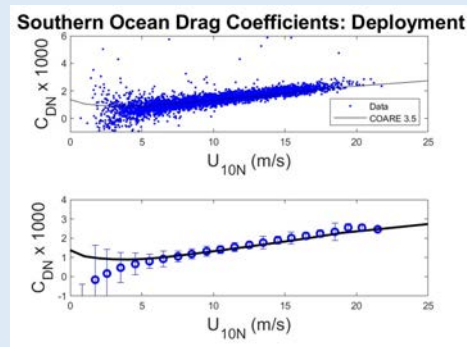
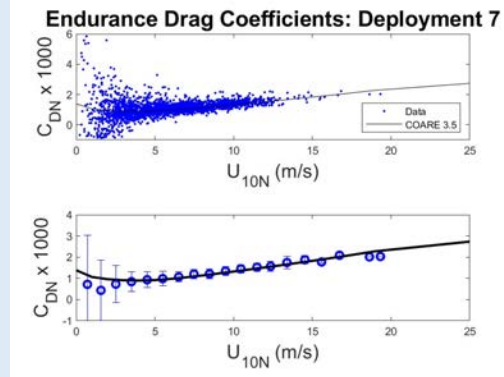
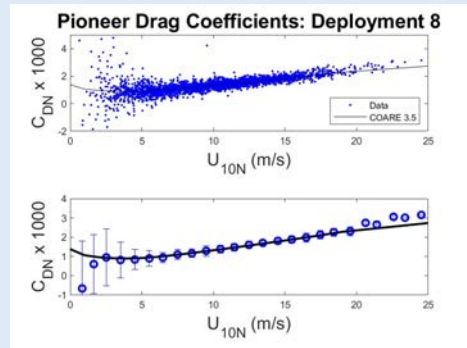
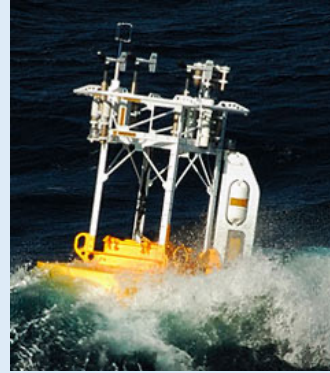
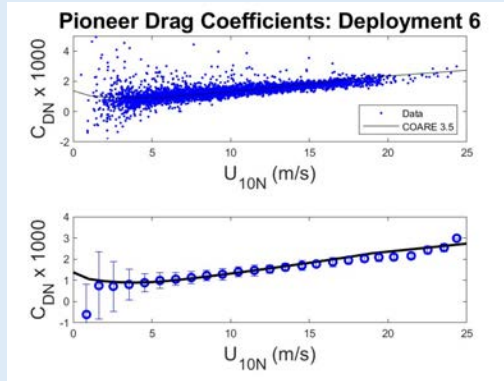
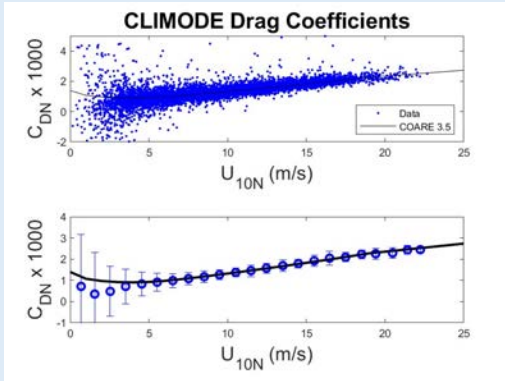
CLIMODE Buoy

Momentum Flux

$$\tau_o = \rho_a \overline{u w} = \rho_a \boxed{C_D} S_r \Delta U \quad \text{Drag Coefficient}$$

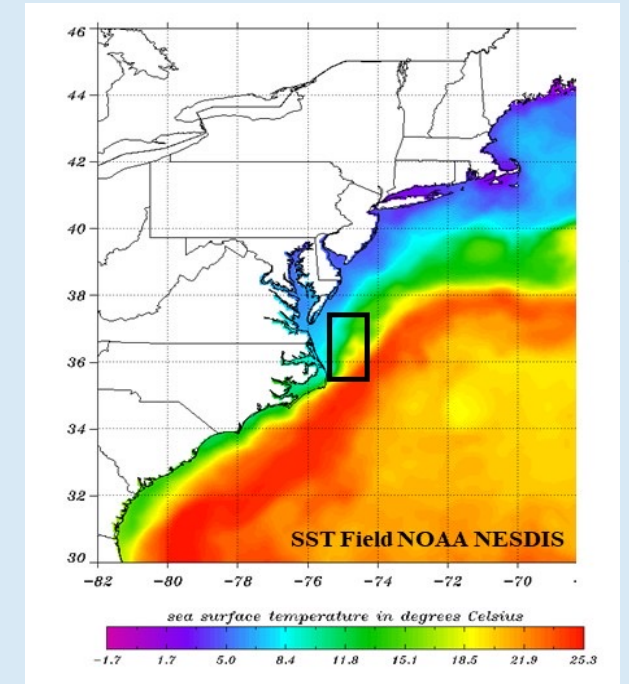
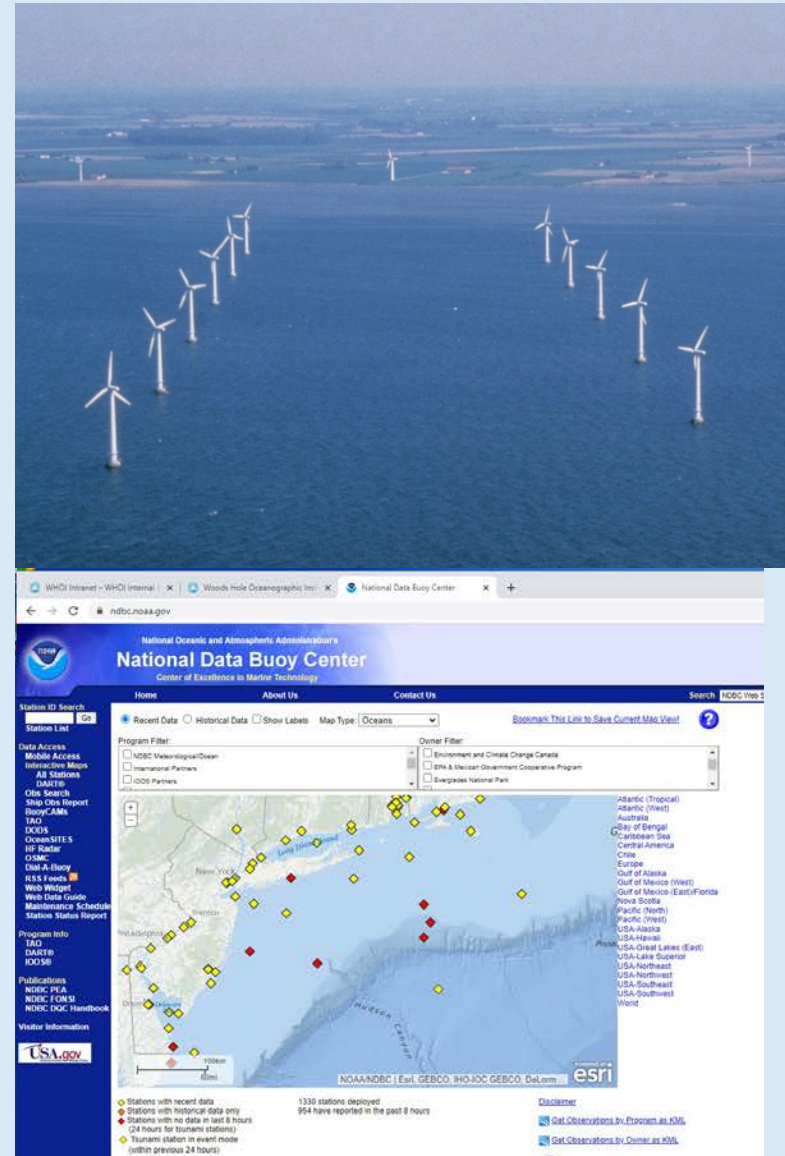


Improved Fluxes from a Growing Global Array



Continued and New partnerships opportunities

- Offshore Wind/DOE
- Pioneer Relocation
- US CLIVAR
- OASIS
- NOAA Labs
- NDBC
- Ocean Sites
- NCAR
- ARM
- ECWF/International
- IMOS/SOFS



2022 highlights

- Second virtual OOI booth at Ocean Sciences Meeting
- Monthly newsletters
- Social media engagement
- New expedition blog page
- Pioneer relocation process
- Continued partnerships
- FY-23 Continued & new partnerships
- OOI booth at AGU Fall Meeting
- OOI science session at AGU
- OOIFB Town Hall at AGU





OCEAN
OBSERVATORIES
INITIATIVE

QUESTIONS?



Maintain and develop partnerships

Active

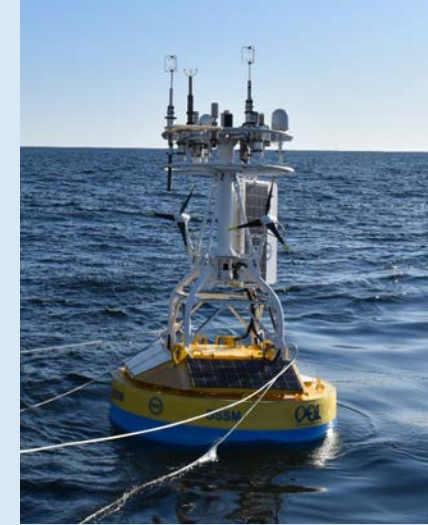
- IODP
- IOOS and its regions
- NEON
- Ocean Decade US/UN
- Ocean Data Labs
- ONC
- UNOLS

In Process

- Pangeo
- ESIP
- Brandon Jones, Program Director for the education and diversity programs in NSF's Geosciences Directorate

More External Pls

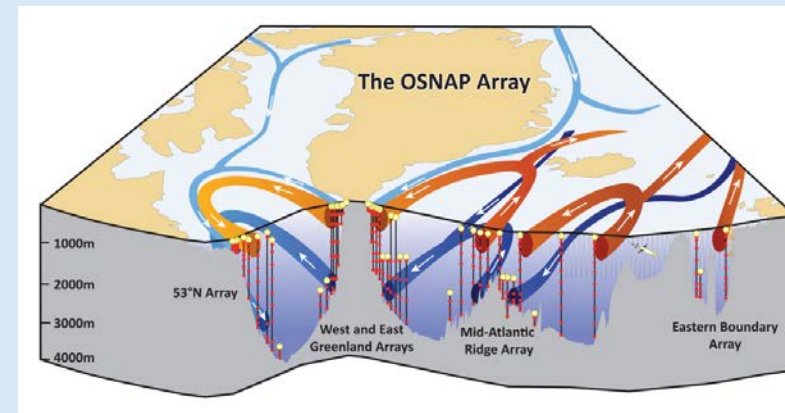
- Upgrading and adding instrumentation and sensors (long term)
- Adding instrumentation through funded research projects
- Use and enhancement of OOI arrays for field programs
- Use of OOI data for model initialization and validation



**Upgraded sonic
for surface stress**



**Addition of infrared
hygrometer for
moisture fluxes and
thereby latent and
sensible heat fluxes**



O-snap.org