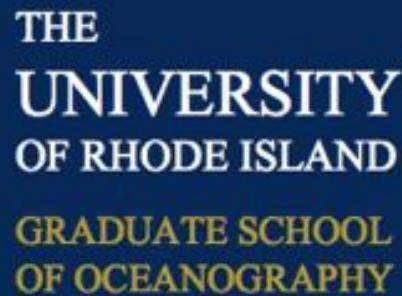


Telepresence Technologies for Ocean Exploration and Education – applications for UNOLS and NDSF

Dwight Coleman

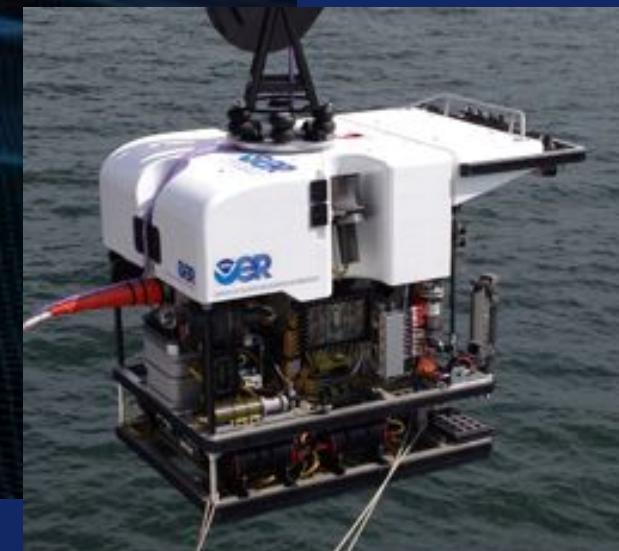
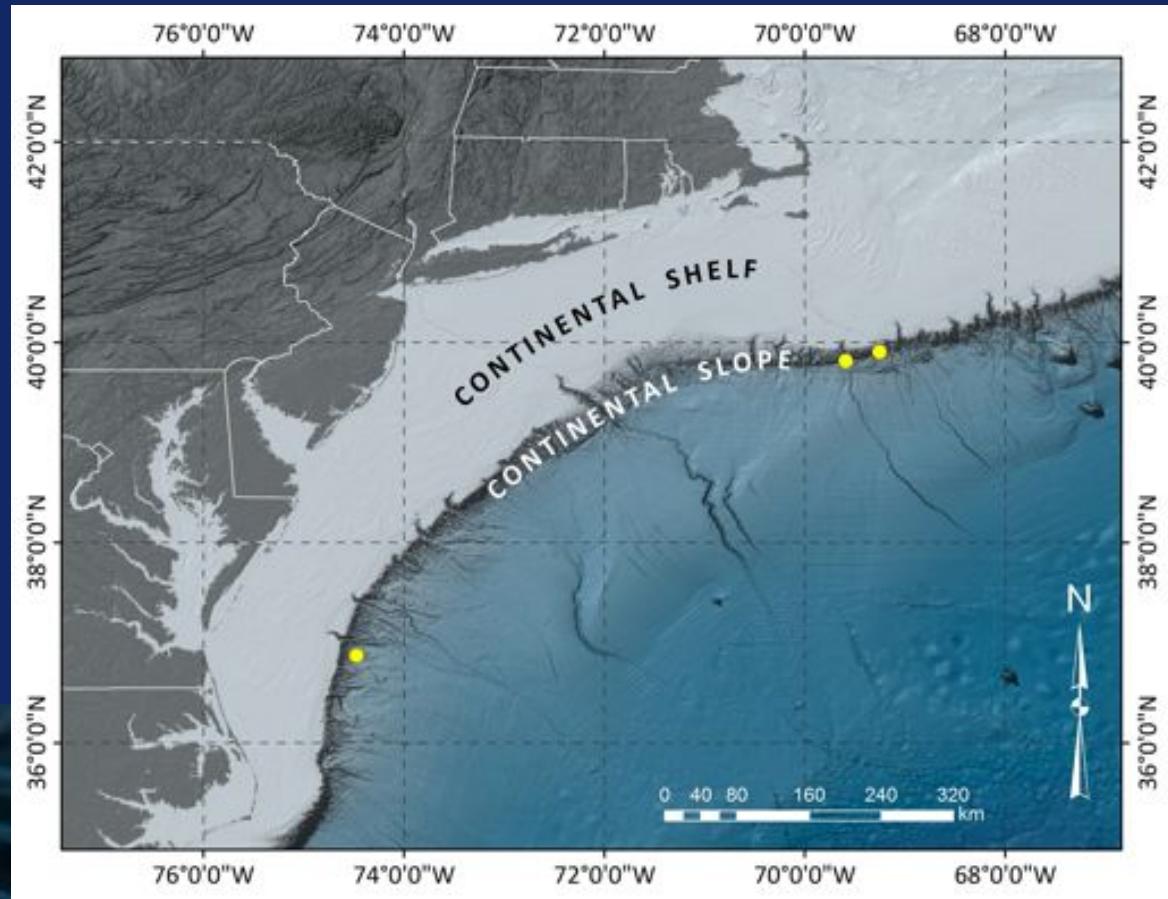
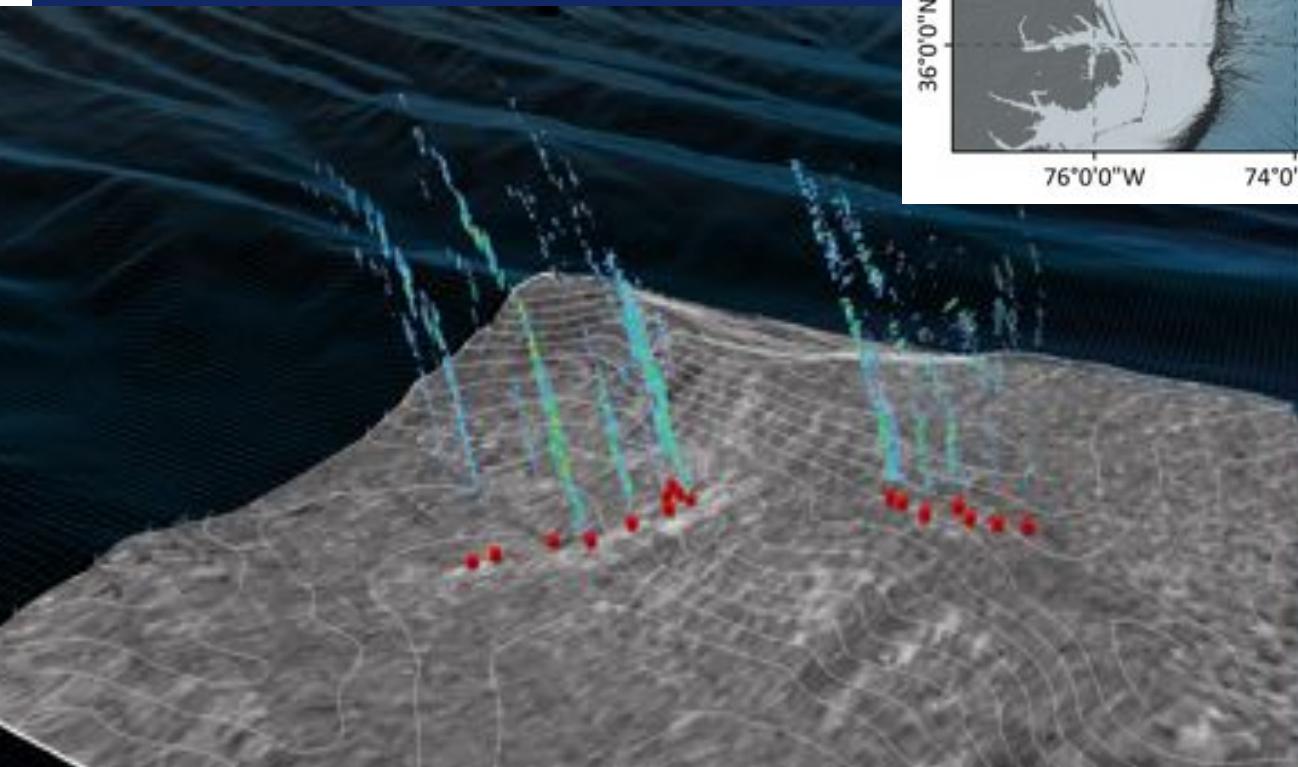
University of Rhode Island – Inner Space Center

DeSSC Meeting, December 2013

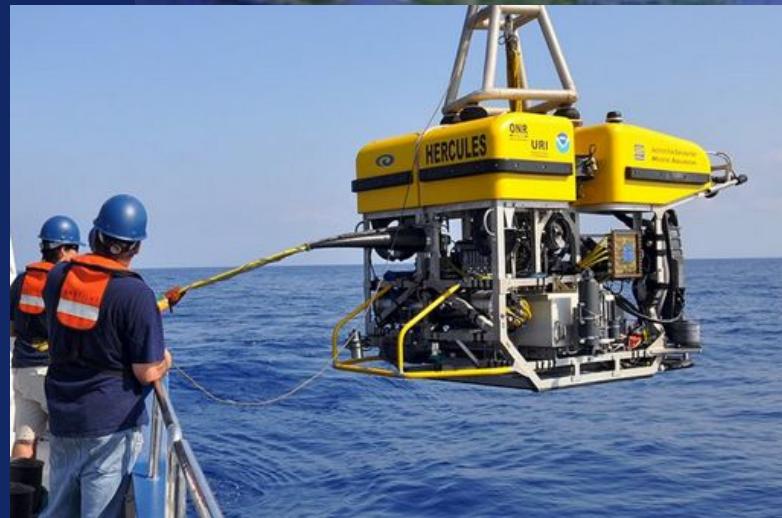


EXPLORE

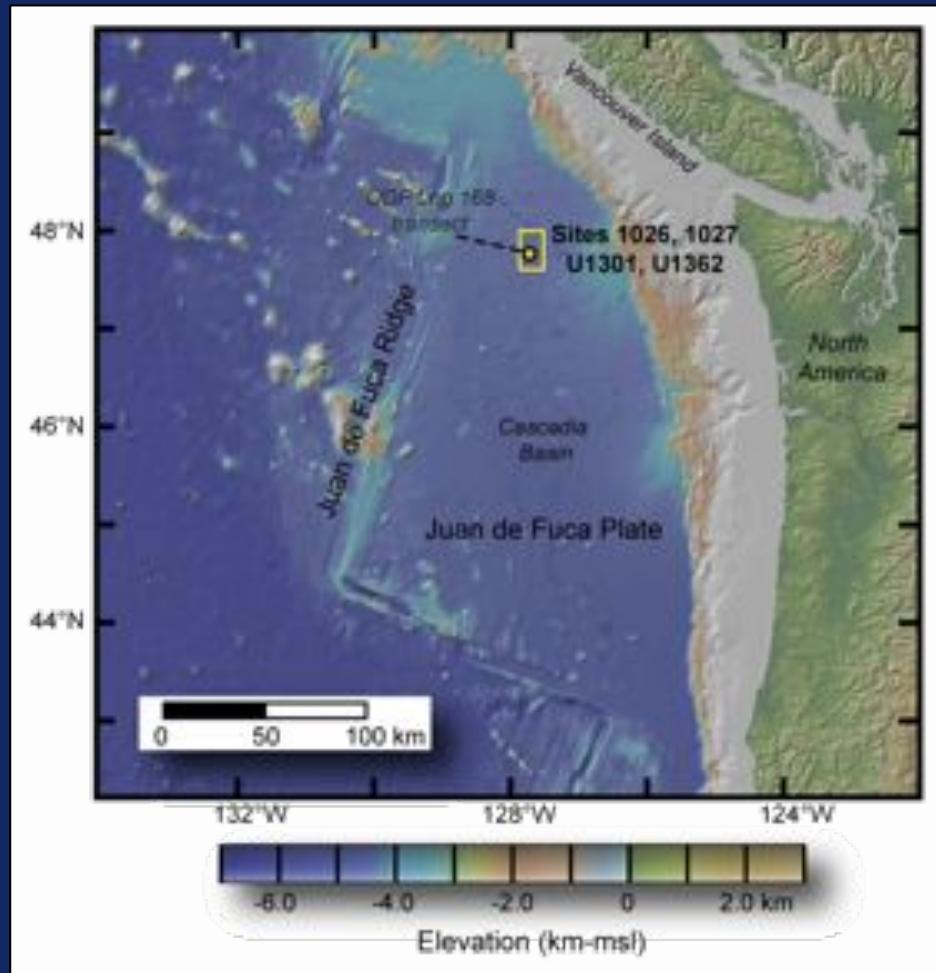
NORAA



NAUTILUS EXPLORATION PROGRAM



National Deep Submergence Facility



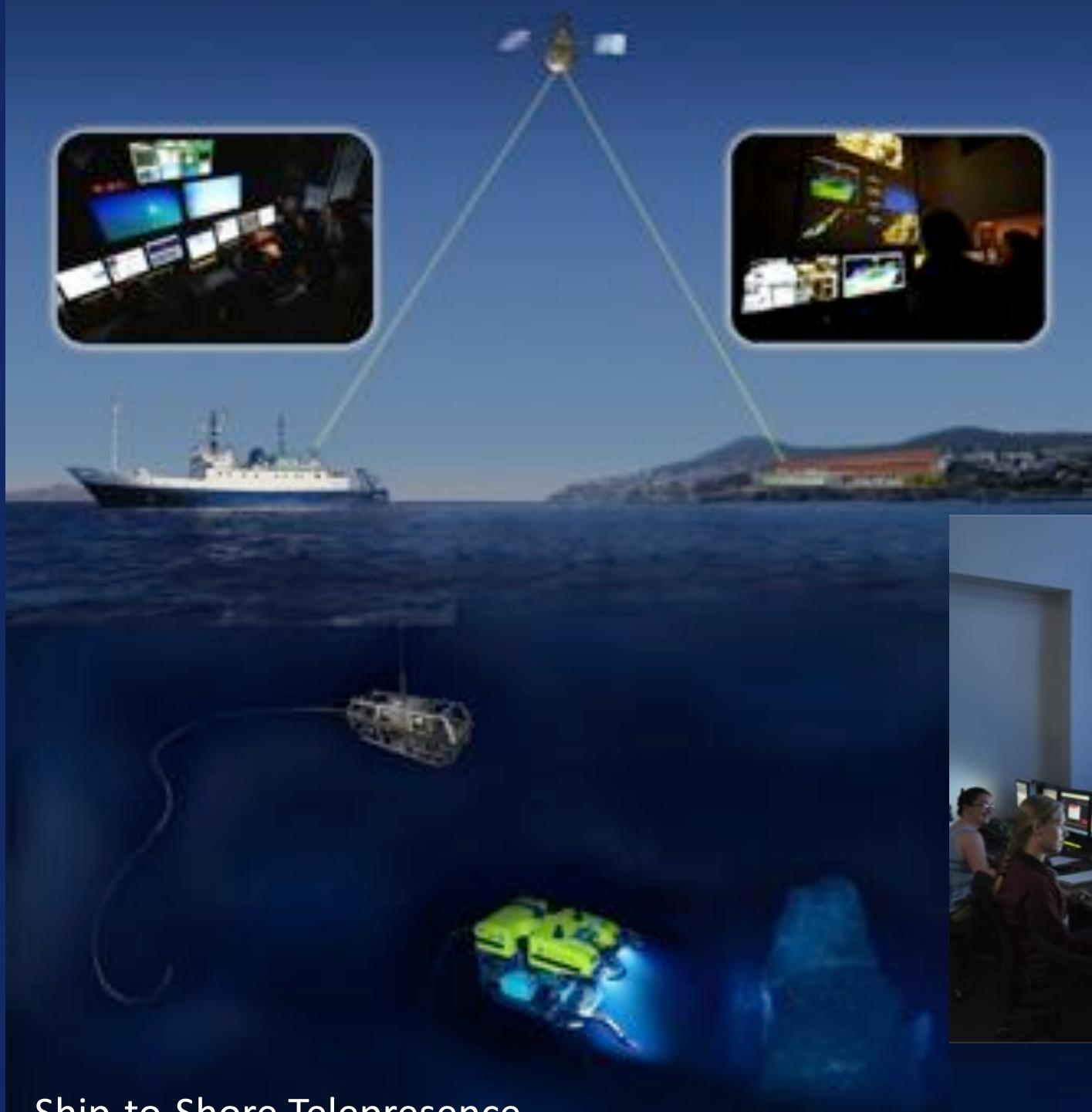
THE
UNIVERSITY
OF RHODE ISLAND
GRADUATE SCHOOL
OF OCEANOGRAPHY



Mission Control



Ship-to-Shore Telepresence







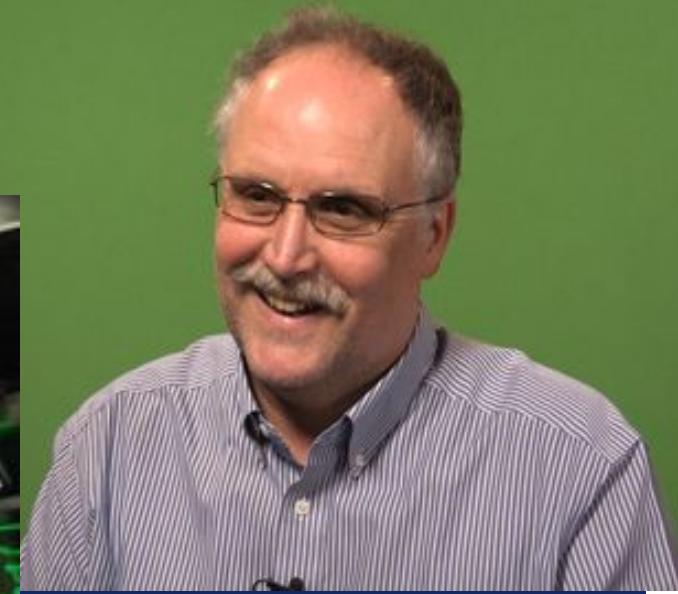
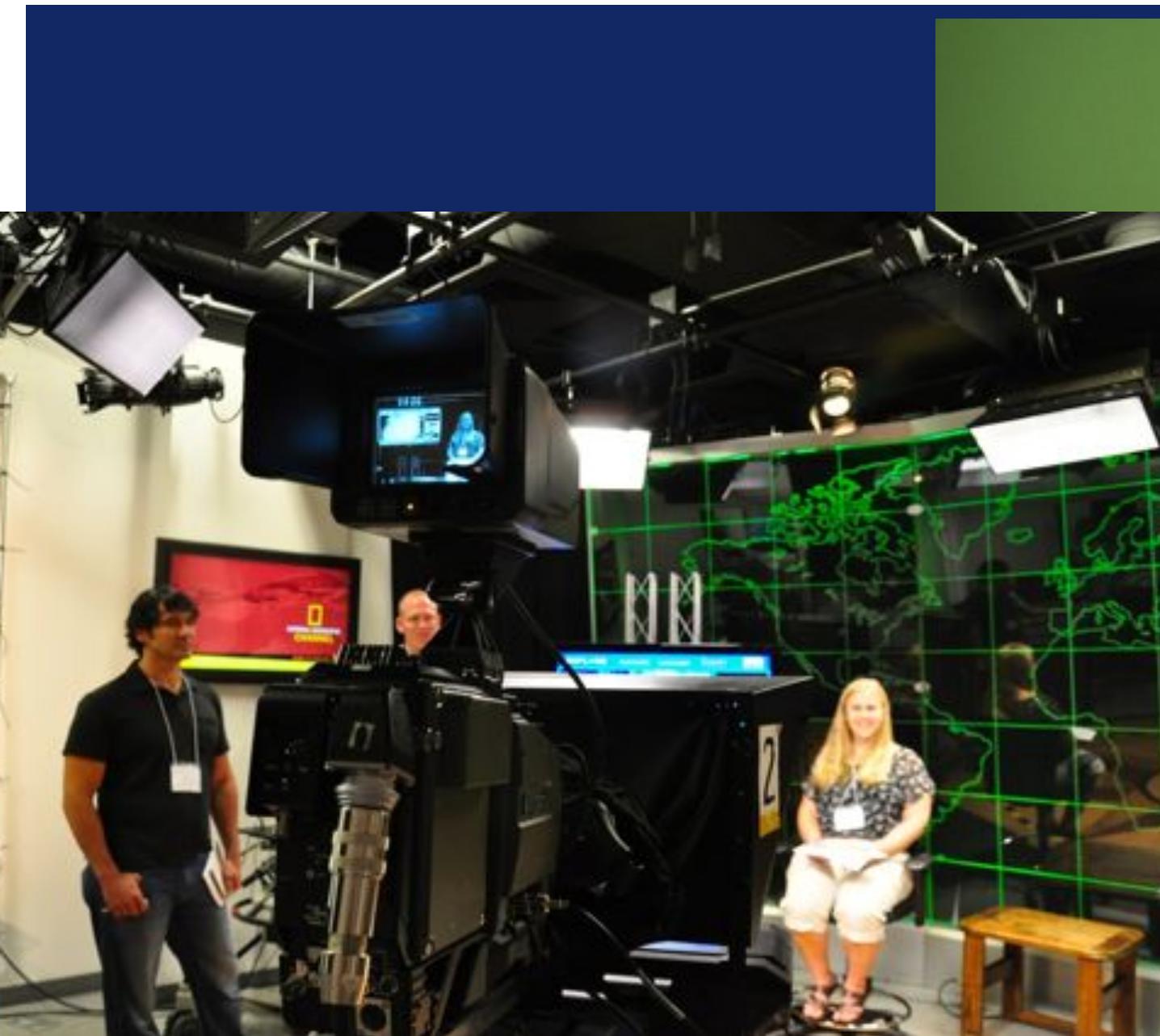


Mobile Telepresence Unit (MTU)

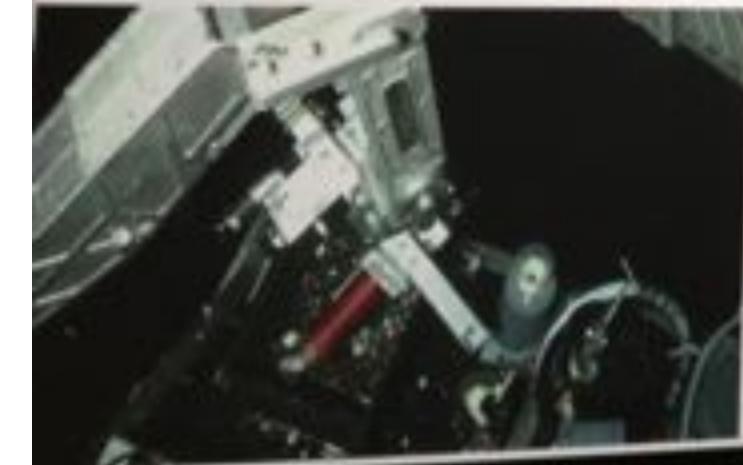
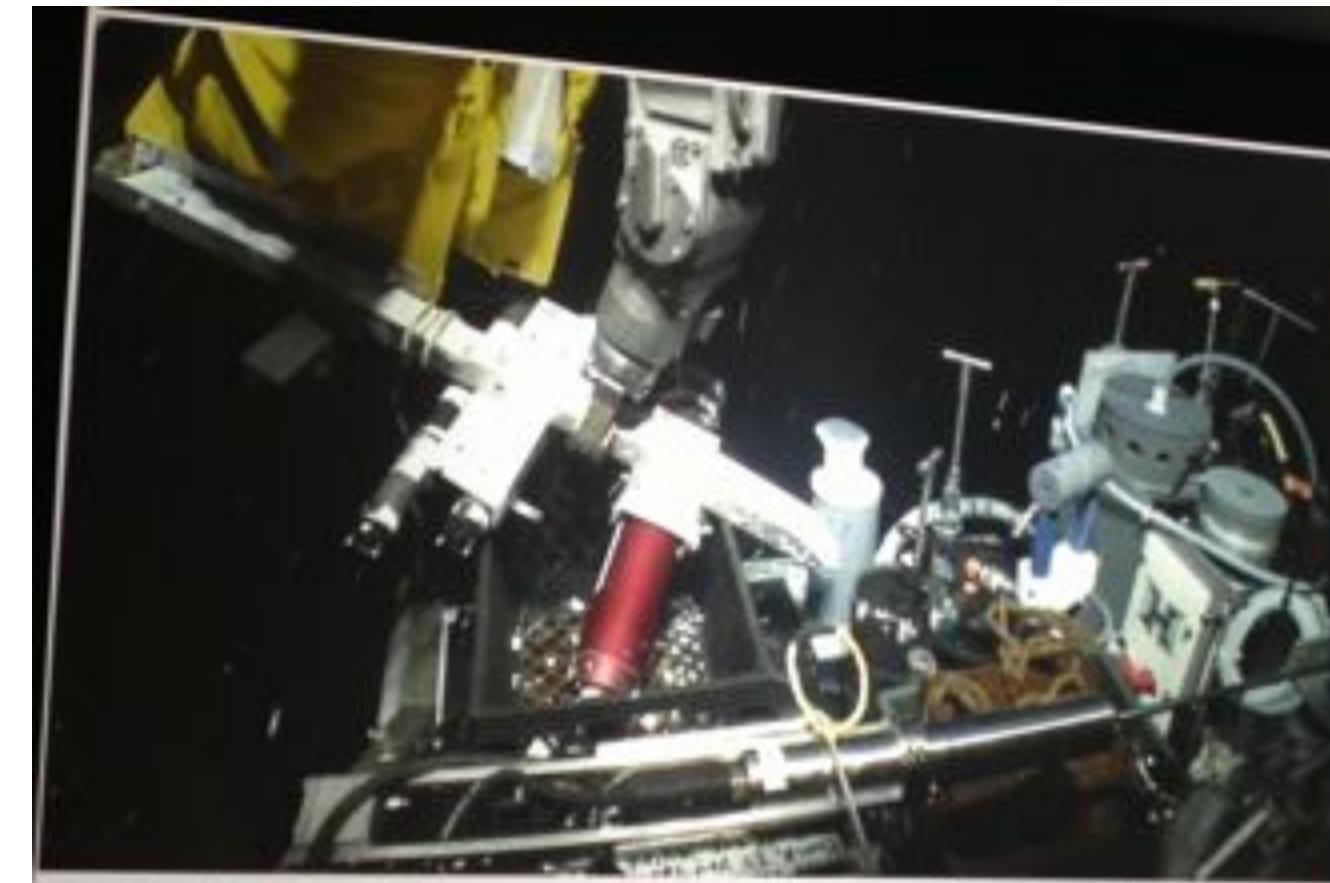




▶ 10:00:00 10:00:04 48







* EXPLORATION NOW

ATLANTIS LIVE

Explore the action LIVE with scientists and engineers aboard R/V Atlantis

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Meet the Team



Chelsea Catania
Researcher

Jason Dive Highlight - Octopus's Garden

It is not uncommon for an octopus to take up residence in or around a CORK. This footage taken by a Jason camera at the bottom of the ocean shows the resident octopus at CORK 13629.

EXPLORATION NOW

E/V NAUTILUS GULF OF MEXICO EXPLORING

E/V NAUTILUS

E/V NAUTILUS

E/V NAUTILUS

E/V NAUTILUS

E/V NAUTILUS

E/V NAUTILUS

EXPLORING THE DEEP SEA WITH NAUTILUS LIVE! 9



Mystic Aquarium – Nautilus Live Theater, CT





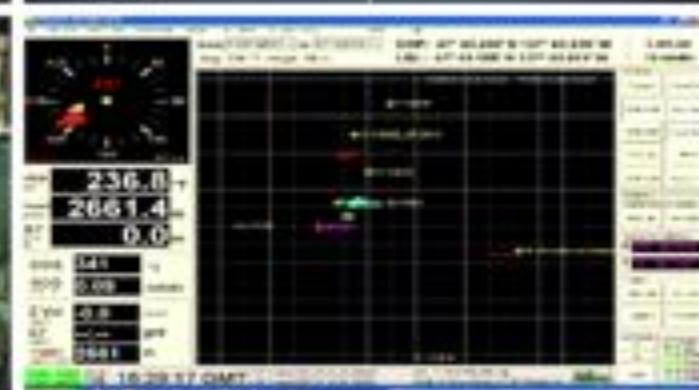
OCEAN EXPLORATION HUB

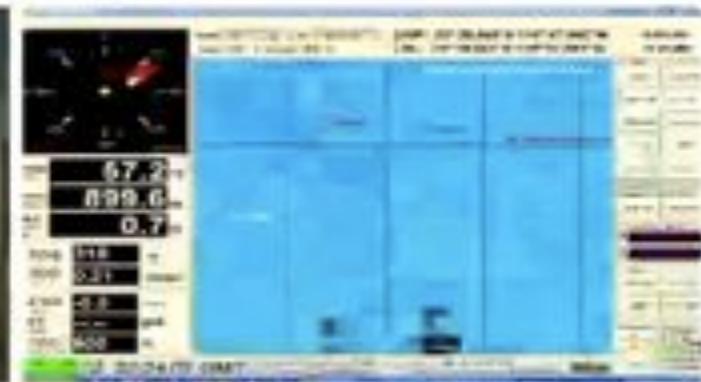
2013 ROV Shakedown and Field Trials
in the U.S. Northeast Canyons: Follow along
as the Okeanos Explorer team "shakes down"
a new remotely operated vehicle (ROV)
capable of diving to depths of 6,000 meters.

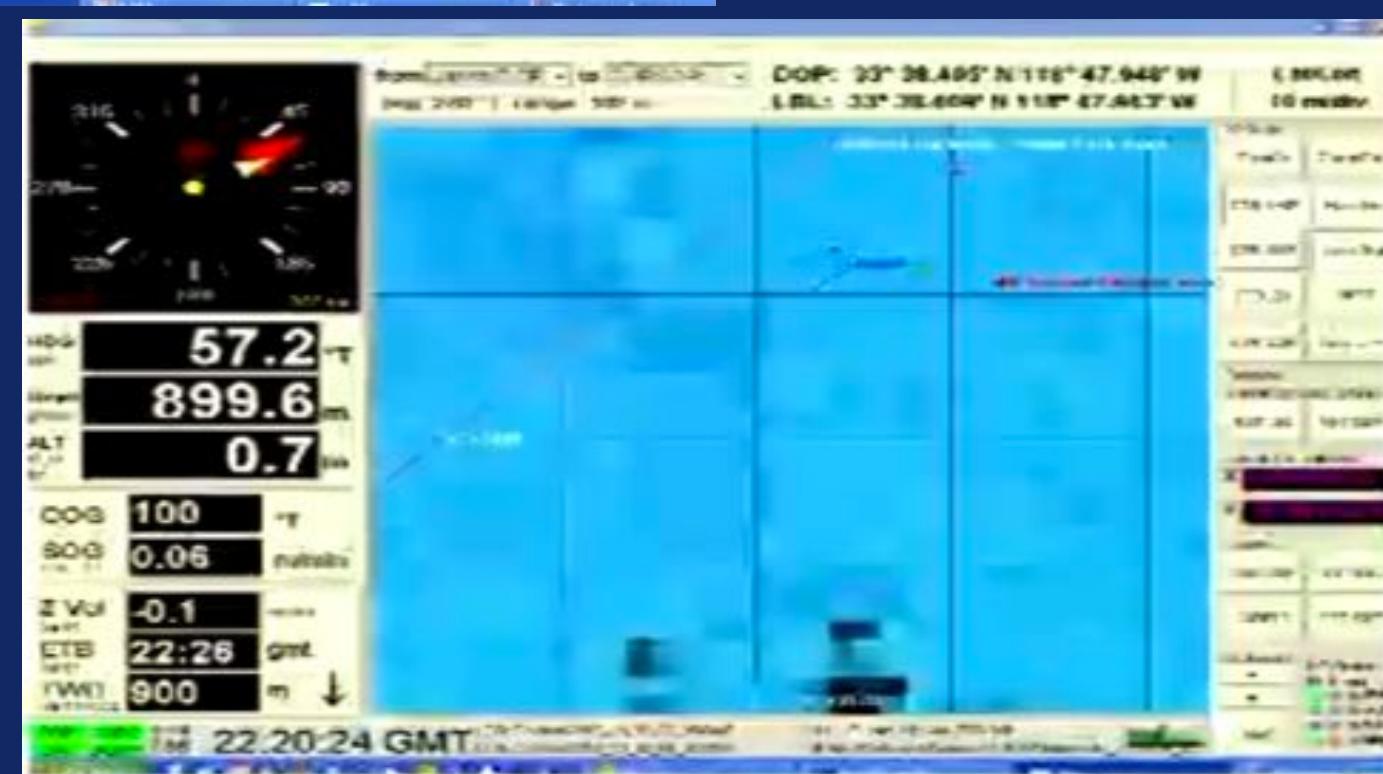
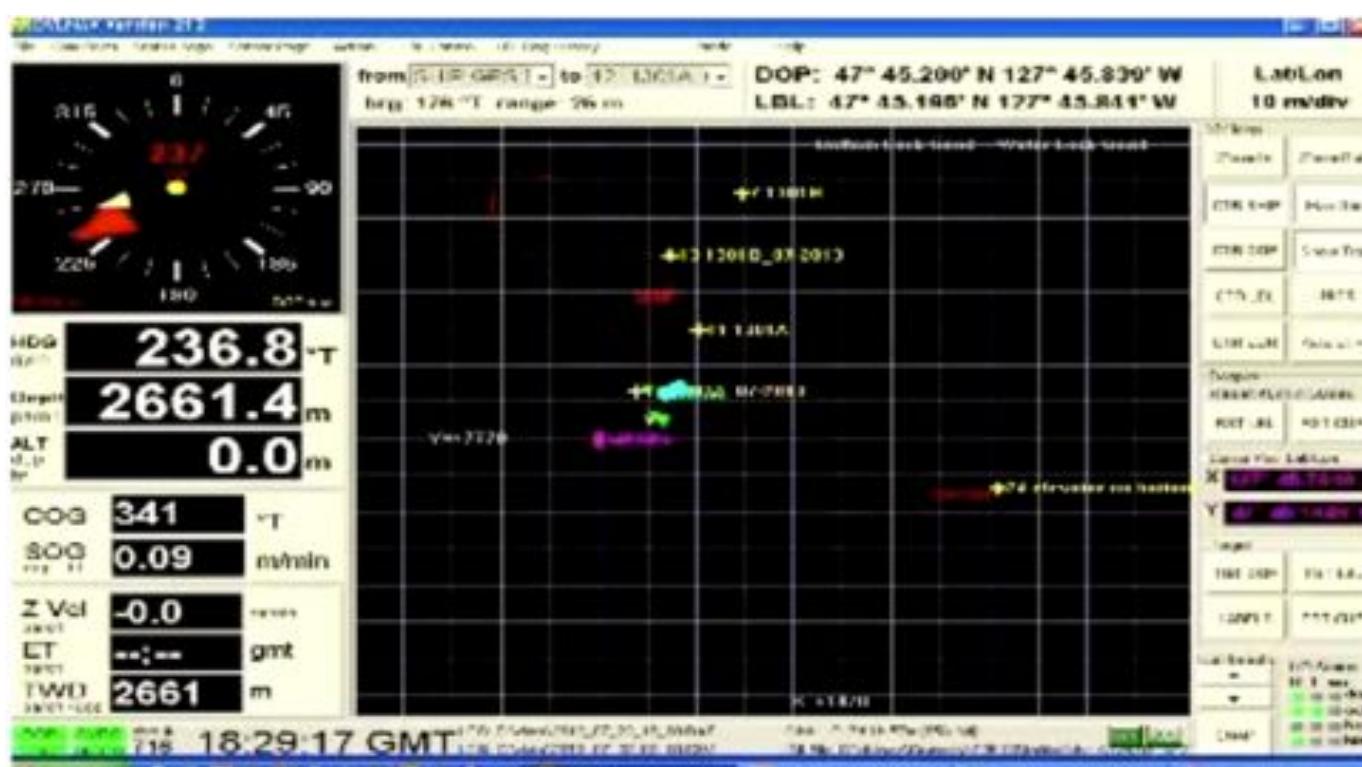




The Okeanos Explorer is the first vessel in the fleet of the National Oceanic and Atmospheric Administration (NOAA) to be dedicated solely to exploration and discovery missions. It's equipped with a remotely operated vehicle (ROV), sophisticated multibeam sonar technology for mapping the sea floor as deep as 6000 meters (nearly 20,000 feet), and 24-hour satellite telecommunications equipment to beam images in real time from the ship and ROV to destinations on shore. The Okeanos Explorer is primed for making new discoveries with every mission it undertakes. Venture into the vast and largely unknown ocean and follow along with the Okeanos Explorer scientists and crew on their discovery voyages.







Q?RIUS



Smithsonian
National Museum of Natural History



R/V Sikuliaq



Future RCRV(s)



R/V Neil Armstrong and *R/V Sally Ride*

UNOLS committee for ship-to-shore communications:

- Subcommittee of RVTEC, and also involves FIC
- Will compile a future requirements document to NSF/ONR
- Next meeting in January
- I will be soliciting input from the marine science and education communities (DeSSC, NMEA)

Oustanding question:

- How to request telepresence on your cruise
- Checkbox on UNOLS Ship Request Form?

At AGU this week:

- Poster Wed. afternoon w/ Steve Foley about HiSeasNet, Telepresence, and future of ship-to-shore networks
- Talk Fri. morning about the R/V *Atlantis* outreach effort w/ Sharon Cooper and Lisa Strong