

NOAA Update

Rachel Medley, Deputy Director (Acting)
NOAA Ocean Exploration

2021/2022 DeSSC Annual Community Meeting
February 25, 2022



OCEAN
EXPLORATION

Explore to Discover, Discover to Understand, and Understand to Inform



NOAA Ship *Okeanos Explorer*



Novel Technologies



Competitive Grants



Partnerships



Education



Outreach

Our Principles of Exploration meet the National Imperative

NATIONAL STRATEGY FOR MAPPING, EXPLORING, AND CHARACTERIZING THE UNITED STATES EXCLUSIVE ECONOMIC ZONE



NATIONAL STRATEGY FOR MAPPING, EXPLORING, AND CHARACTERIZING THE UNITED STATES EXCLUSIVE ECONOMIC ZONE



Explore to meet community needs



Always collect useful and quality data



Systematically expand exploration footprint



Share discoveries to engage the public



Produce open access data with necessary metadata



Release data in a timely manner

Mapping the U.S. EEZ



NOAA Ocean Exploration has

MAPPED
2,000,000 KM²

(772,204 mi²) using

NOAA Ship *Okeanos Explorer*



More than **one quarter** the size of the contiguous United States

Mapped almost
800,000
linear kilometers
(500,000 linear miles)



approximately
20 times
the circumference
of the Earth



Contributed almost
50% of the
mapping data
available
for U.S. waters
deeper than
200 meters (656 feet)

Provided
183 internships
for students and early
career scientists &
engineers



61% were women

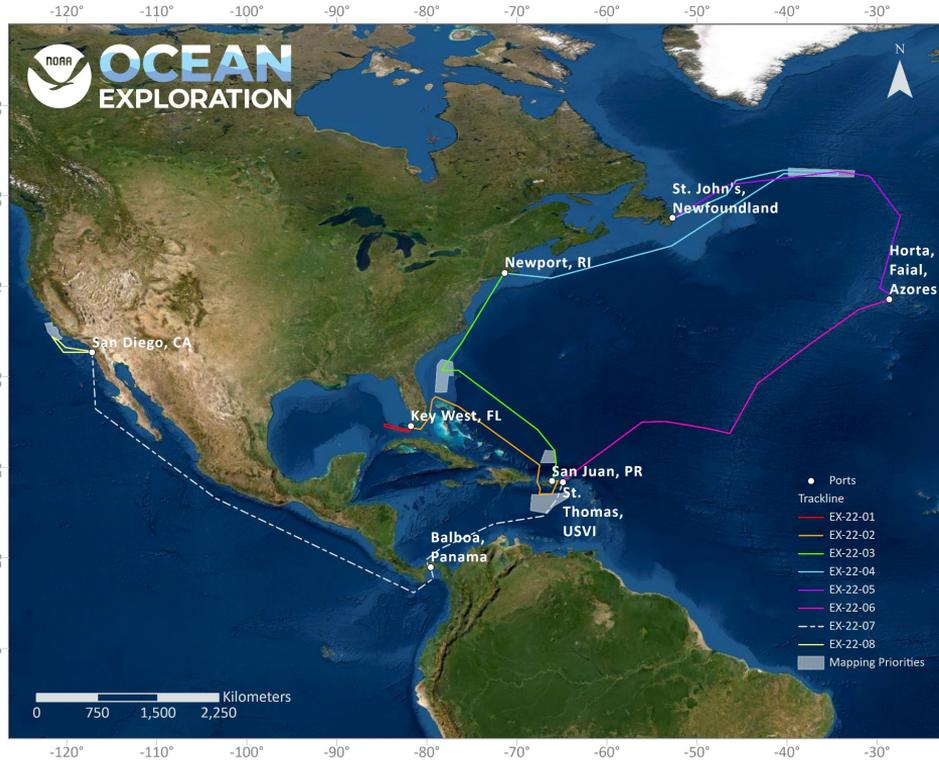


Collected data in
16 countries (in addition
to the United States)
and the high seas



Processed
mapping data
remotely on 11
expeditions

Okeanos Explorer Draft 2022 Schedule



- FY22 schedule: 200 days at sea (~47% within U.S. EEZ / ~53% international waters)
- Blake Plateau work completed last fall
- ROV and mapping shakedown underway now
- Caribbean mapping (March)
- North Puerto Rico Mapping and Deep-Sea Camera Demonstration (April)
- Voyage to the Mid-Atlantic Ridge (May-August)
- EXPRESS West Coast Mapping (September)

Ocean Exploration Cooperative Institute



THE
UNIVERSITY
OF RHODE ISLAND



WOODS HOLE
OCEANOGRAPHIC
INSTITUTION



OCEAN
EXPLORATION
TRUST



THE UNIVERSITY OF
SOUTHERN
MISSISSIPPI



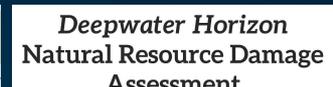
University of
New Hampshire

OEI is an integrated ocean exploration cooperative that aims to:

- accelerate exploration through the development of new ocean technologies and operational concepts
- apply new approaches to underexplored regions of the US EEZ and to ocean exploration data
- train the next generation of ocean explorers and blue technology workers
- facilitates additional partnerships, such as:

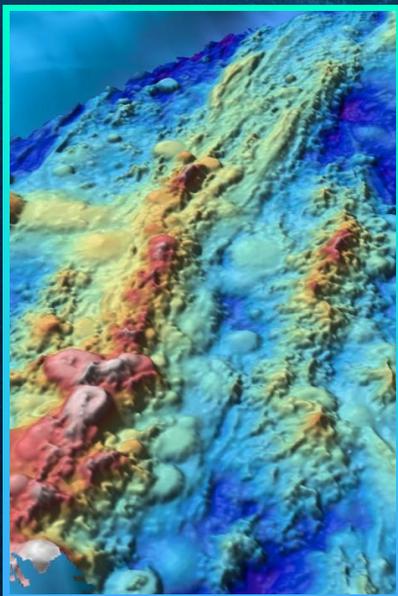


SAILDRONE



OECI: Charting Ocean Exploration's Future

SEAFLOOR MAPPING



Filling gaps in ocean mapping, with traditional vessels and novel autonomous systems, in support of NOMECS strategy and Seabed 2030.

WATER COLUMN & BENTHIC EXPLORATION



Exploring the ocean interior for scientific advancement, sustainable development, and ocean health and safety.

OCEAN TECHNOLOGY



Expanding ocean research and exploration capacity through cooperative robotics, autonomy, and telepresence.

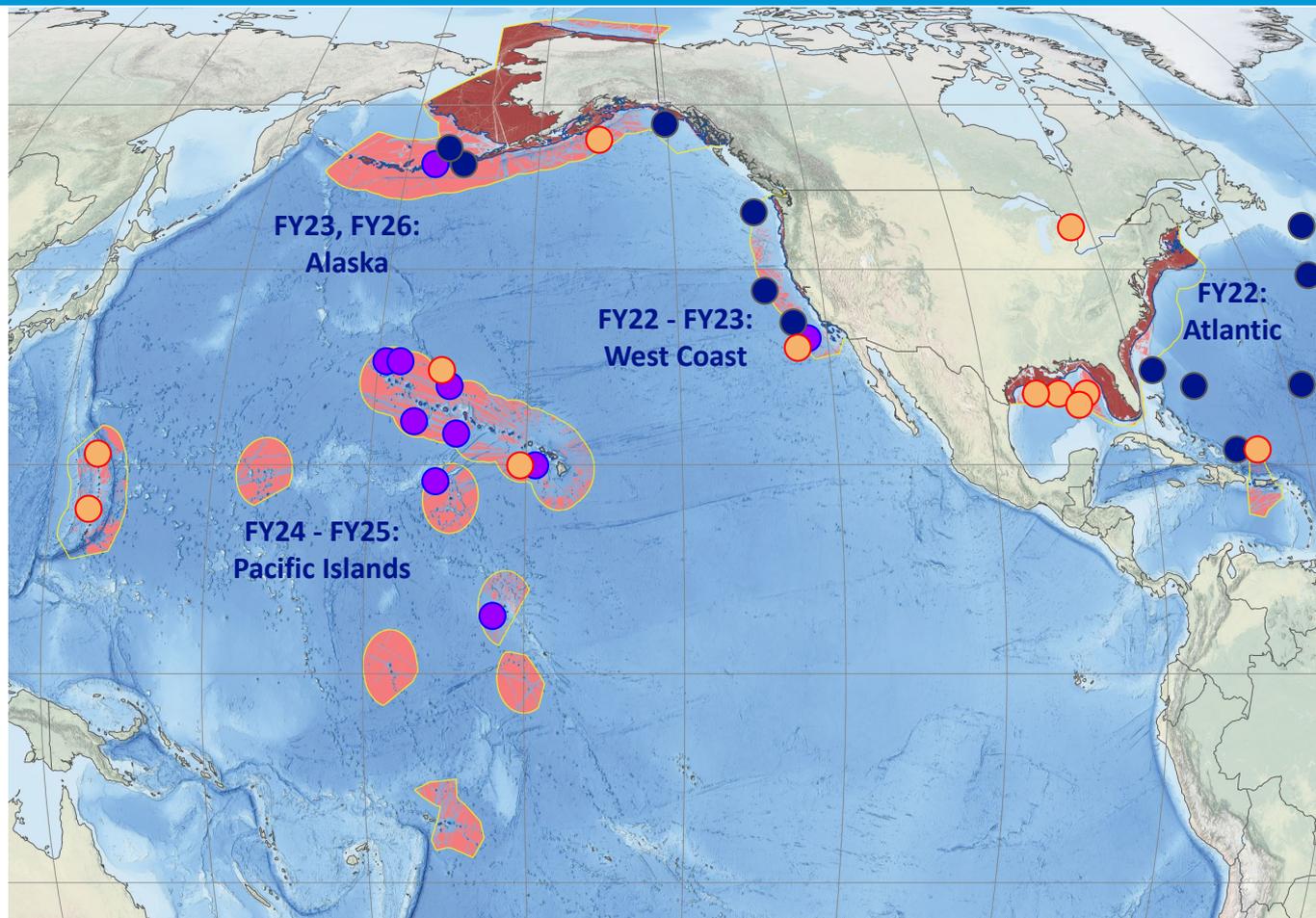
EDUCATION & OUTREACH



Partnership with Tuskegee University and New England Institute of Technology to expand participation in Ocean Exploration.

NOAA Ocean Exploration Funded Expeditions

- OER anticipated Expeditions FY22/23 (*Okeanos Explorer*)
- OER funded OECI/NOPP Expeditions FY22/23
- OER funded NOFO Expeditions FY22/23
- Generalized plans for OER FY funded *Okeanos Explorer* Expeditions FY22-26
- Unmapped >200m US EEZ
- Unmapped <200m US EEZ
- US EEZ Boundary



Updated 10/21



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Questions?

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