

# NOAA Update DeSSC Meeting June 2020

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# OCEAN EXPLORATION



Seafloor Mapping



Visual Surveys



Sampling



Inform traditional and renewable energy siting



Evaluate availability of critical minerals resources



Discover new species with biopharmaceutical/biotechnology potential



Assess populations and habitats of managed marine species



Drive innovation of novel technologies



Inspire and educate the next generation of STEM professionals

# Administration Policies and Priorities

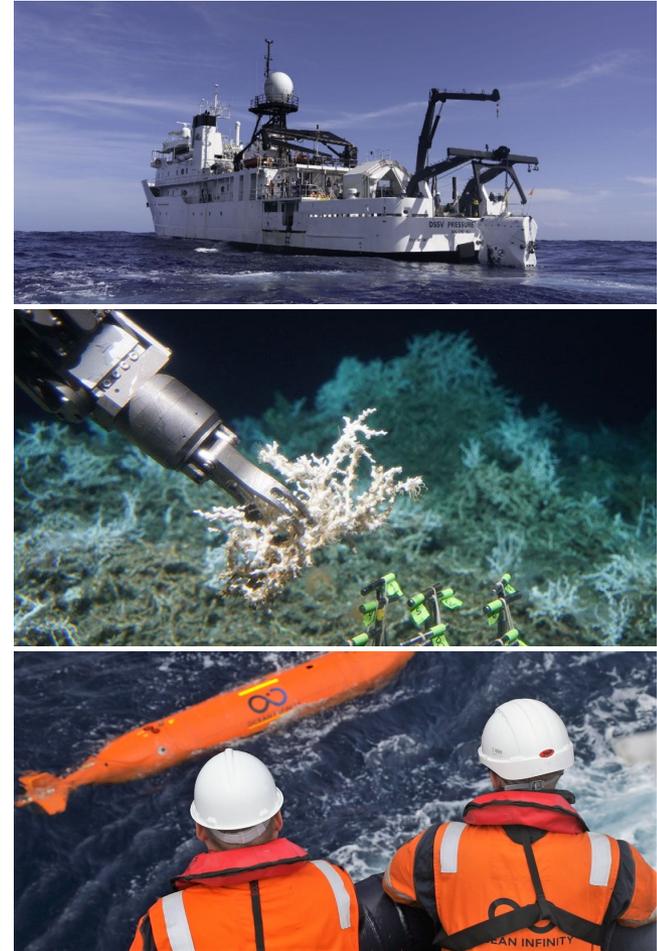
- Executive Order 13817: A Federal Strategy To Ensure Secure and Reliable Supplies of Critical Minerals
- Executive Order 13840: Ocean Policy to Advance the Economic, Security, and Environmental Interests of the United States
- Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals
- Science and Technology for America's Oceans: a Decadal Vision
- NOAA Unmanned Systems, Artificial Intelligence, 'Omics, and Cloud Strategies
- Memorandum on Ocean Mapping of the United States Exclusive Economic Zone and the Shoreline and Nearshore of Alaska
- **National Ocean Mapping, Exploration, and Characterization (NOMECE) Strategy**

# NOMECE Strategy

- **Goal 1: Coordinate Interagency Efforts and Resources to Map, Explore, and Characterize the United States EEZ**
  - New groups created: National Ocean Mapping, Exploration, and Characterization Council and the Interagency Working Group on Ocean Exploration and Characterization (IWG-OEC)
  - First step: National Strategy Implementation Plan to be completed within 180 days
- **Goal 2: Map the United States EEZ**
  - Federal agencies will coordinate mapping efforts to compile a complete map of deep water by 2030 and nearshore waters by 2040
- **Goal 3: Explore and Characterize Priority Areas of the United States EEZ**
  - First step: Identify strategic priorities within one year -- will include opportunities for academic community to participate (workshops, RFIs, etc.)
- **Goal 4: Develop and Mature New and Emerging Science and Technologies to Map, Explore, and Characterize the United States EEZ**
  - Emphasizes the importance of academia and the private sector in advancing marine technology
- **Goal 5: Build Public and Private Partnerships to Map, Explore, and Characterize the United States EEZ**
  - Maximizes opportunities for non-federal participation in NOMECE activities

# Mechanisms to support ocean exploration

- **Dedicated Platform** - NOAA Ship *Okeanos Explorer*
- **Ocean Exploration Cooperative Institute** - Partnership with URI, WHOI, USM, UNH, and OET
- **CRADAs** - All for maturation and investment of technology with industry
- **Partnership agreements** - Formal relationships with private sector partners through MOUs (Caladan, OceanX, Vulcan, etc)
- **Contracts** - Hydro surveys and data buys from industry
- **National Oceanographic Partnership Program** - NOAA works through the NOPP to facilitate exploration across the federal government, like with the DEEP SEARCH project and through an annual BAA funding call.
- **Competitive grant process** - FY20 proposals in award process. FY21 call for proposals active - pre-proposals due July 8.



# Execution: Ocean exploration in 2020

- **Fugro hydrographic survey contract** - OER contracted Fugro to add more than 27,000 sq km of mapping coverage on Blake Plateau. All data is now publicly available via NCEI.
- **Ocean mapping procedures manual** - OER Expeditions team has developed a manual identifying standard procedures for deepwater mapping data acquisition. Manual will be published via NOAA Institutional Repository and shared broadly.
- **Virtual ocean exploration events** - OER Engagement team is pursuing multiple opportunities during no-sail period: rebroadcast of past dives, webinar series, photo contest and more.

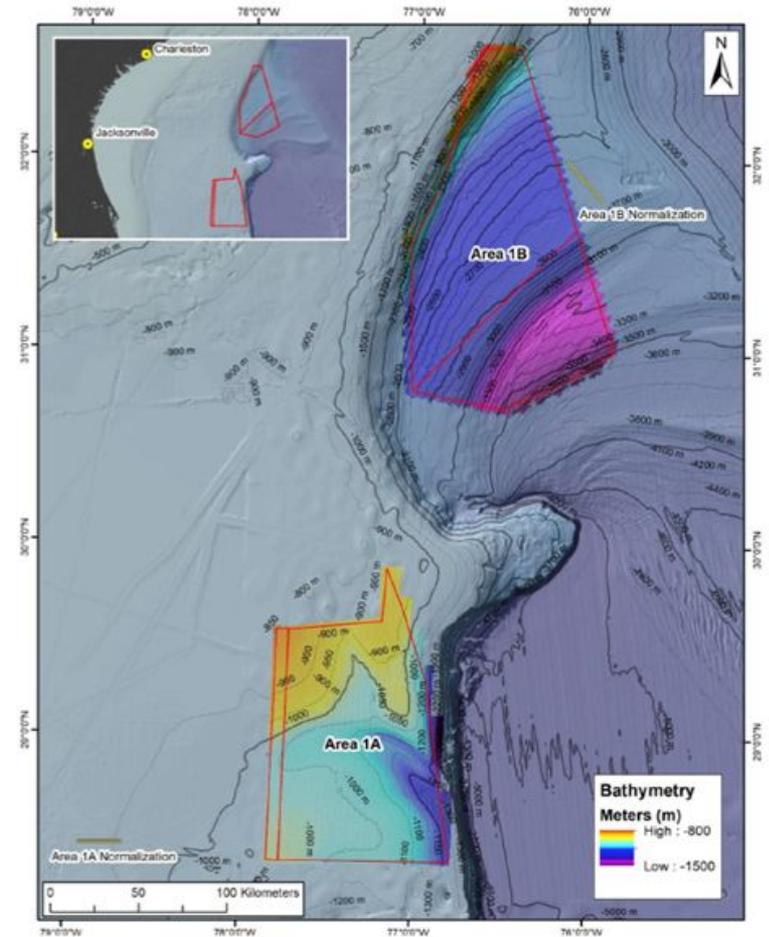
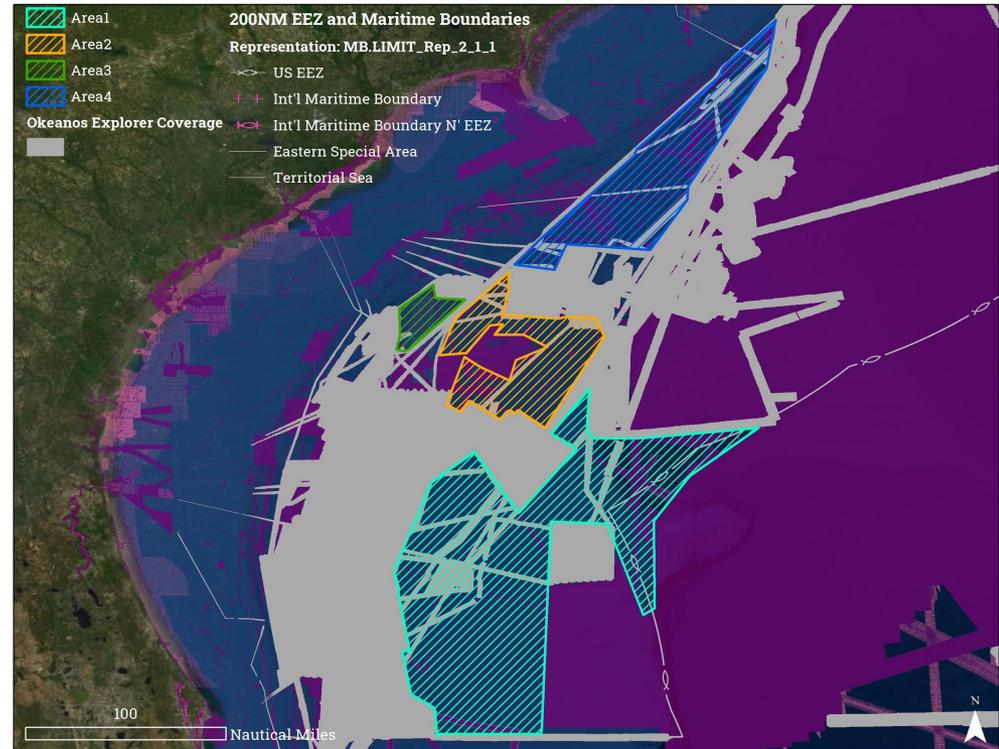


Figure 4.2: Locations of the backscatter normalizations on Blake Plateau

# *Okeanos Explorer* in 2020 - on pause

- NOAA Fleet is in a stand down due to the ongoing COVID-19 pandemic.
- Operations on NOAA Ship *Okeanos Explorer* to resume no earlier than July 22.
- If/when we are able to sail again, operations will focus on fully integrating the recently installed **EM304 sonar system** and mapping remaining gaps on Blake Plateau.
- ROV operations no longer planned for FY20. Anticipated to resume post-drydock repairs in FY21.

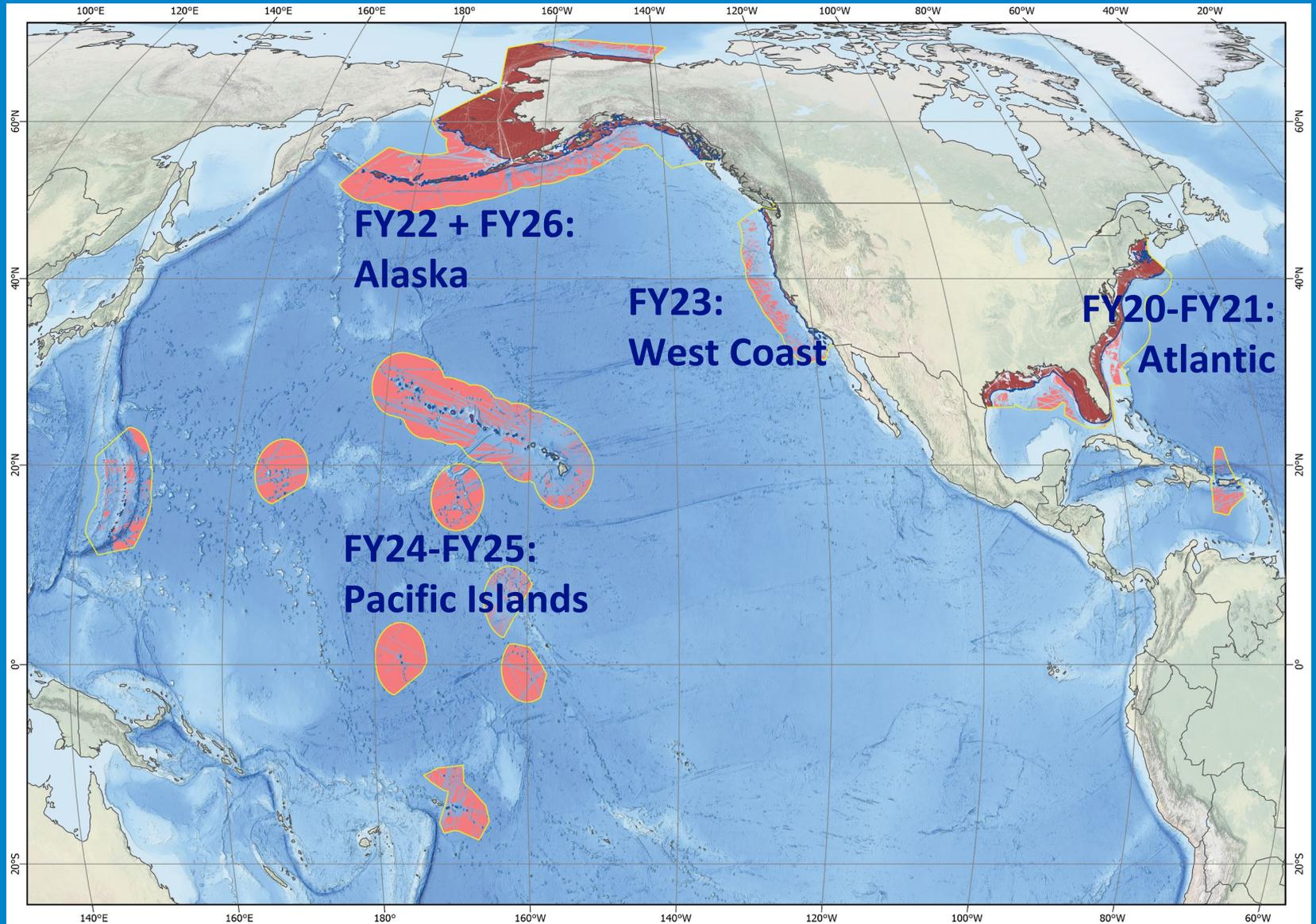


# *Okeanos Explorer* in FY21

- **US SE Mapping + Tech Demo cruise** planned for October 2020 to do initial testing of WHOI'S *Orpheus* AUVs and continue mapping the gaps on Blake Plateau.
- **Major drydock repair period** scheduled for November 2020 to March 2021.
- **2021 expeditions** are still TBD due to COVID impacts but will focus on North Atlantic basin.



# Looking to the Future





[OceanExplorer.NOAA.gov](http://OceanExplorer.NOAA.gov)



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