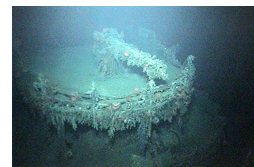




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Interagency Partnerships:  
BOEM and OER

## Evolving Partnership: U-Boats to Deep Corals to ?

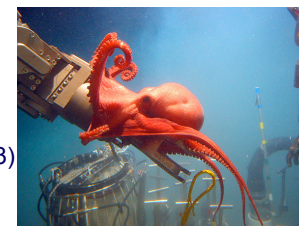


The gun on Robert E. Lee's fantail (WWII Shipwrecks)

### NOPP

- CHEMO III (2005-09)
- *Lophelia* II (2008-12)
- Mid-Atlantic Canyons (2011-13)
- Next ??

\*USGS involvement since *Lophelia* II



Stunning octopus near brine pool (Bruce Strickrott/CHEMO III)

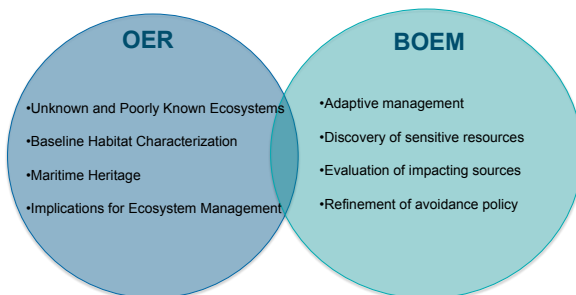
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## Motivation: Eager Partners

Federal Mandates: Outer Continental Shelf Lands Act & Magnuson-Stevens Fishery Conservation and Management Act

Resource sharing allows both NOAA-OER and BOEM to fulfill their organizational objectives in addition to advancing scientific knowledge and increasing public awareness of deep ecosystems in U.S. waters

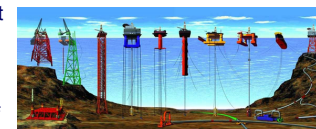


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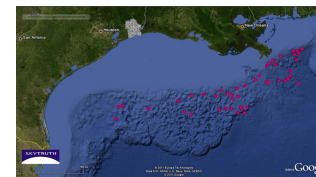
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## Goals and Objectives

- Exploration and research to support OCS resource management decisions
- Discover and characterize deep habitats and biodiversity in areas of ongoing and in advance of potential energy development
- Expand knowledge of chemosynthetic and hard bottom habitats
- Discover and identify important cultural heritage sites



Types of Gulf of Mexico offshore oil and gas structures (BOEM)



2011 map of deepwater oil and gas production platforms. Created by Skytruth using publicly available BOEM data.

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## How We Operate

- Competitive peer-review process
- ~50/50 cost-share
- OER responsibilities
  - Provide ship and submersible assets
  - Facilitate cruise planning
  - Support education and outreach
  - Support information management
- BOEM responsibilities
  - Lead for solicitation development
  - Manage competitive contract
  - Provide direct science funding to contractor
  - Coordinate and fund USGS participation

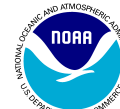


ALVIN Launch (CHEMO III)

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## Partners

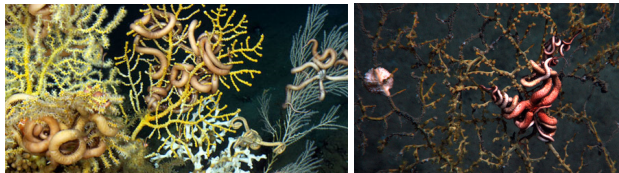


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## Case Study: Lophelia II 2008-2012

- Discover and characterize Gulf of Mexico deep coral
- 5 cruises in 5 years
- Project timeline began prior to Deepwater Horizon
- First post-DWH expedition to document deep sea benthic habitats showing signs of recent and severe impact
- Mississippi Canyon lease block 294/338 site became priority for follow-on NSF and NRDA funded research
- Highlighted in 2012 PNAS paper

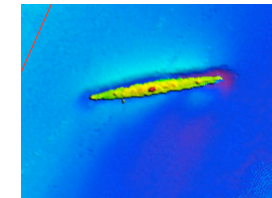
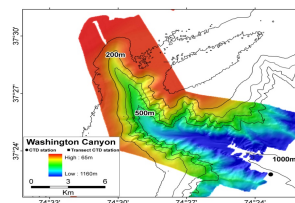


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## Case Study: Mid-Atlantic Canyons

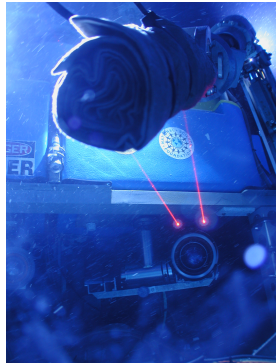
- Major exploration of Norfolk, Washington, Accomac and Baltimore submarine canyons
- 1<sup>st</sup> joint project outside of the Gulf of Mexico
- 'New' science team
- Complemented 2011 work with *Okeanos Explorer* mapping
- 2012 and 2013 shiptime challenges



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## Strengths – Why it Works



JASON ROV (CHEMO III)

- Strong interpersonal relationships
- Complementary mission and objectives
- Started small and built over time
- Well-defined mode of operations
- Established mechanisms that minimize unnecessary bureaucracy
- Use of results -
  - Notice To Lessee No. 2009-G40 avoidance distance doubled to 2,000ft for drilling discharges (Jan-2010)
  - Deepwater Horizon
- Various NOPP and DOI awards

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## Challenges

- Increasing reliance on and availability of NOAA shiptime
- Availability of appropriate submersible platforms
- Differences between NOAA and UNOLS vessels
- Availability of experienced personnel
- Ability to capitalize on the successes



CHEMO III

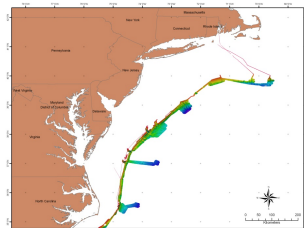


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## Future Directions and Opportunities

- Adapt model to other geographic areas:
  - Alaska & Arctic
  - International Collaboration
  - Integration of Extended Continental Shelf mapping data
- Complementary work in Northeast canyons



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