



# COL – NAML

## *Opportunities for Closer Collaboration?*

*Jon White, RADM, U.S. Navy (Ret.)  
President and CEO  
Consortium for Ocean Leadership (COL)*

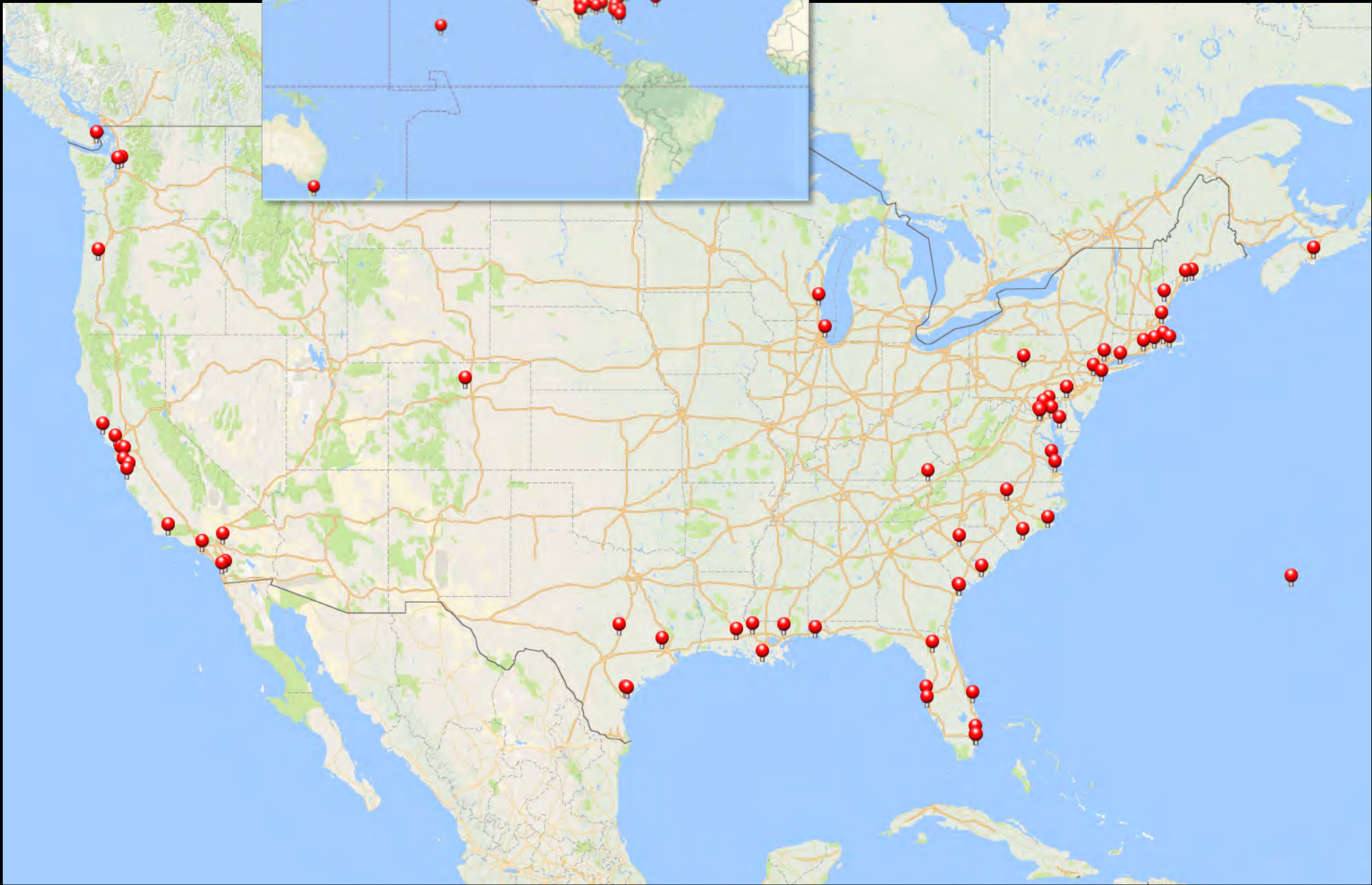


*A Washington, DC-based nonprofit organization that represents more than 95 of the leading public and private ocean research and education institutions, aquaria and industry with the mission to advance research, education and sound ocean policy.*

## **Discovery, Understanding, Action**

*Collaboration begins with COL*

# Members



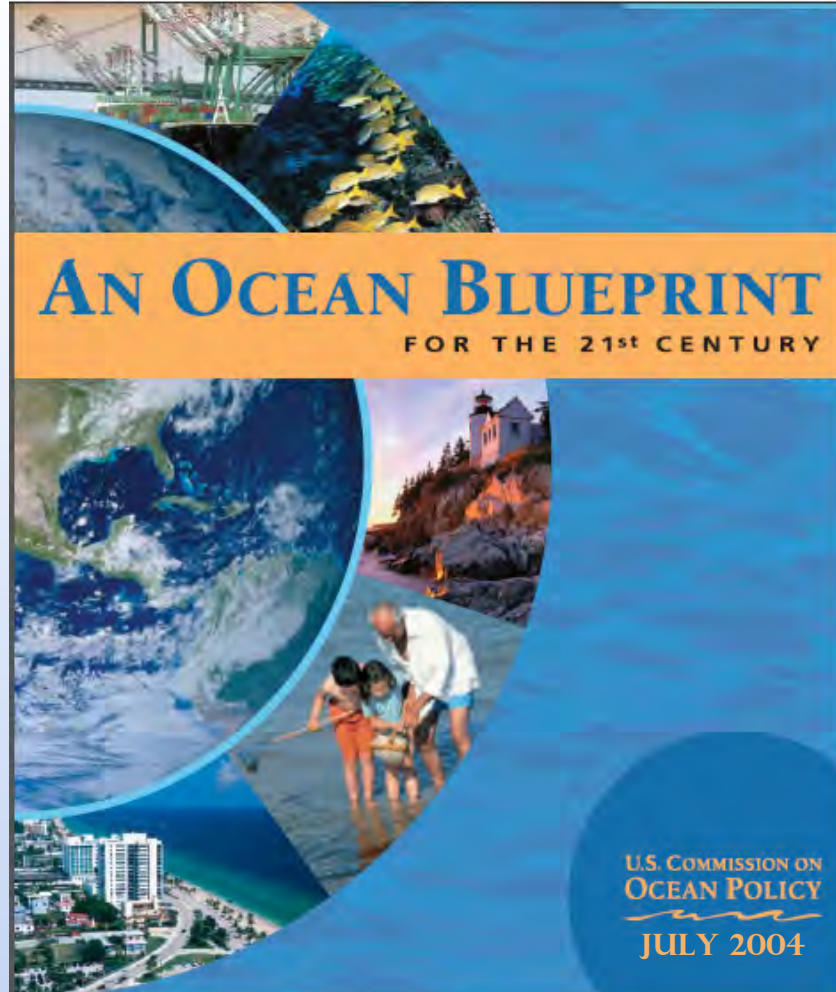




# Where are we today?

- *The importance of our oceans, coasts, and Great Lakes cannot be overstated; they are critical to the very existence and wellbeing of the nation and its people.*
- *While the oceans lap daily at our shores, they only intermittently lap at our consciousness. We still take the oceans for granted, even as they are increasingly troubled by over-development, over-fishing, climate change, and other human insults. Worse still, perhaps, we don't even know all that much about the oceans, certainly not as much as we would like to properly identify, diagnose, and remedy problems.*

# ADM James Watkins – The Legacy – 2004



# On the brink?



**Challenges and Opportunities**



# Ocean Science + Global Security = "Ocean Security"

**Security**



**Science**

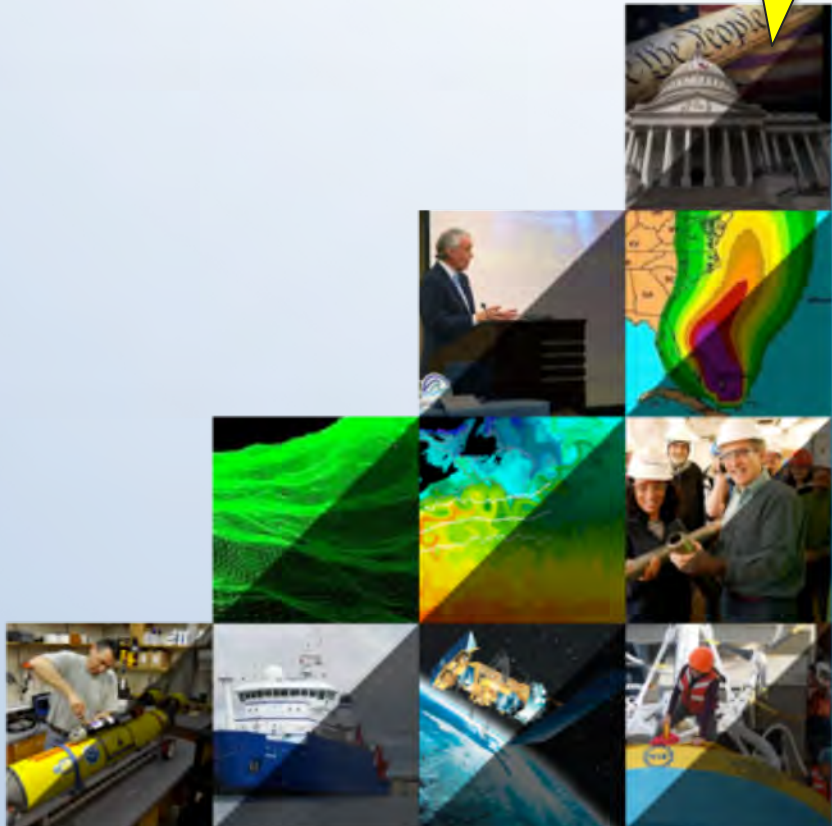


# *Ocean Security*

*The amalgamation of securities (e.g., national, homeland, economic, food, energy, water, health) dependent on robust ocean knowledge to ensure our safety and survival.*



# Science Based Decision-Making



**DECISION  
IMPACT  
ANALYSIS  
DATA**

# Homeland Security



# Food Security



# Water Security



# Energy Security



# Human Health





# Economic Security



## DANGER

**Toxins from algae in this water can harm people and kill animals**

-   **Stay out of the water until further notice. Do not touch scum in the water or on shore.**
-   **Do not let pets or other animals drink or go into the water or go near the scum.**
-   **Do not eat fish or shellfish from this water.**
-  **Do not use this water for drinking or cooking. Boiling or filtering will not make the water safe.**

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<b>For people, the toxins can cause:</b> <ul style="list-style-type: none"><li>• Skin rashes, eye irritation</li><li>• Diarrhea, vomiting</li></ul>	<b>For animals, the toxins can cause:</b> <ul style="list-style-type: none"><li>• Diarrhea, vomiting</li><li>• Convulsions and death</li></ul>
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STAFF RESEARCH • ACCESSIBLE COAST • 100-YEAR FLOOD • WILSON BAY

# Coastwatch

NORTH CAROLINA SEA GRANT • SPRING • 2017 • ISSUE 2 • \$3.75

Resilient Coastal Communities:  
North Carolina's Past, Present and Future

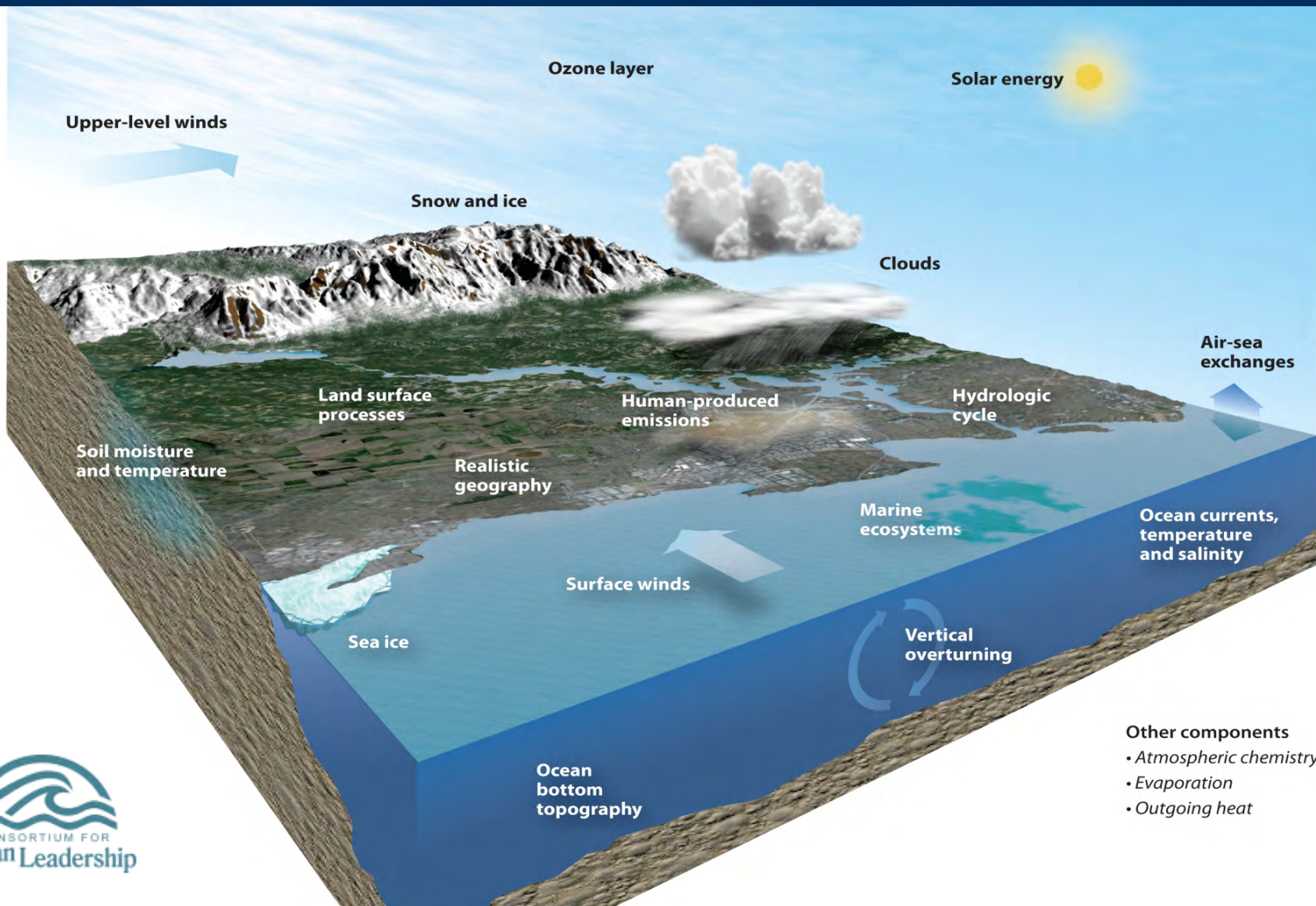


# National Security



# Earth System Knowledge

*Ocean, Climate, Weather, Ice, Land, ...*



# Earth System Knowledge

*Ocean, Climate, Weather, Ice, ...*

# Today

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Earth System Knowledge  
*Ocean, Climate, Weather, Ice, ...*

**Tomorrow?**

# Do we need ships?



# We need SHIPs!



Leader**SHIP**



Owner**SHIP**



Partner**SHIP**



Steward**SHIP**



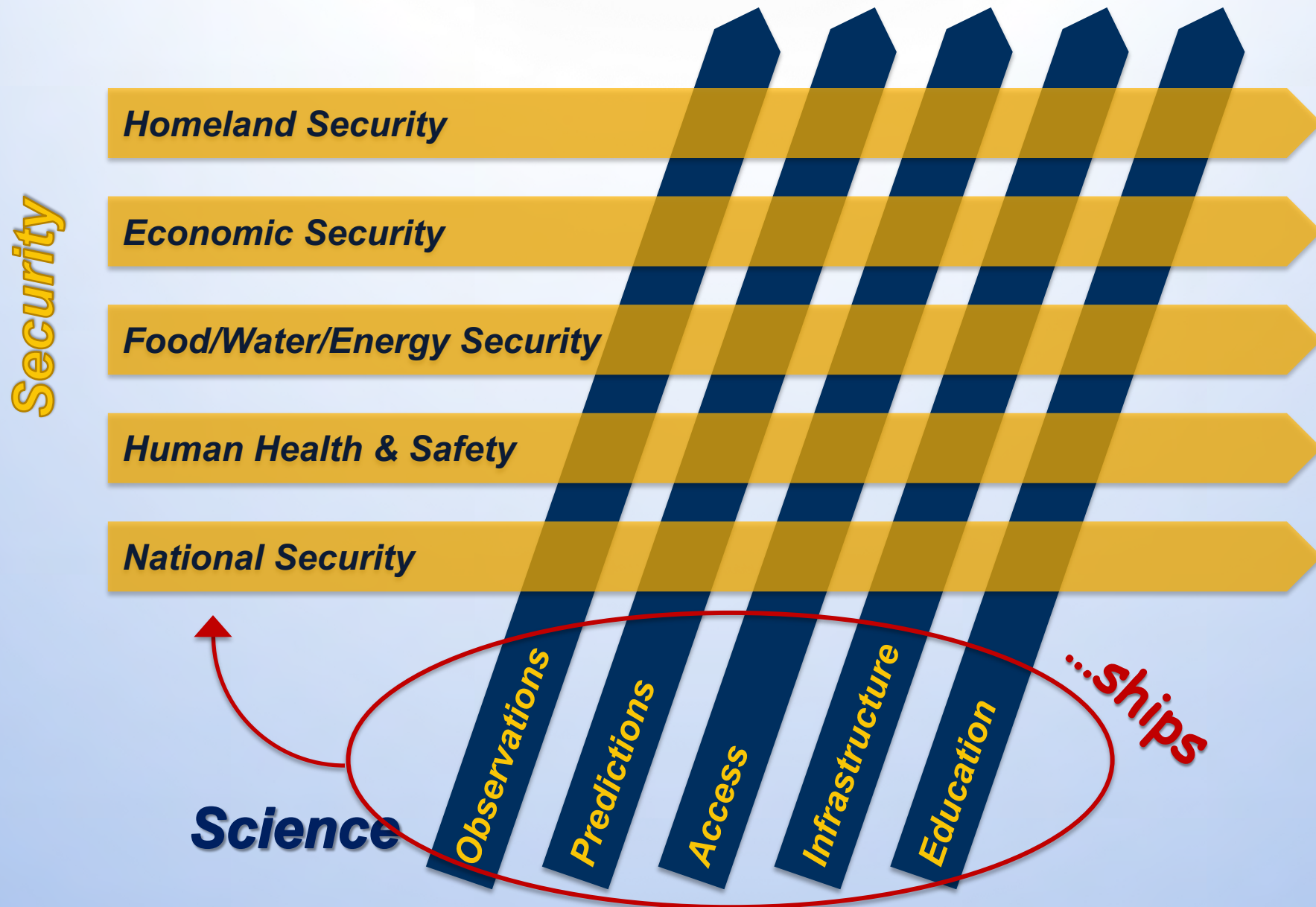
Scholar**SHIP**



\$ponsor**SHIP**,  
Enterpreneur**SHIP**, ...



# Ocean Science + Global Security = "Ocean Security"





# President's FY19 R&D Priorities



## ➤ R&D Priority Areas

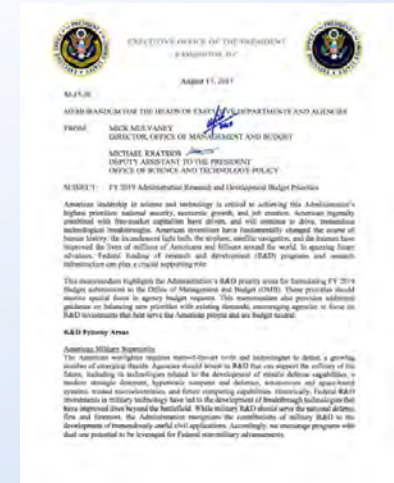
- American Military Superiority
- American Security
- American Prosperity
- American Energy Dominance
- American Health

## ➤ R&D Priority Practices

- Increasing Government Accountability and Efficiency
- Supporting Innovative Early-Stage Research
- Maximizing Interagency Coordination

## ➤ R&D Workforce and Infrastructure

- Developing a Future-Focused Workforce
- Modernizing and Managing Research Infrastructure





# COL – NAML

## *Opportunities for Collaboration*



- **Congressional & Agency engagement**
  - Including OMB
- **Legislative actions**
- **Policy activities (briefings, etc.)**
- **Joint meeting activities**
- **Ocean Science and Tech meeting activities**
  - e.g., AGU 2018 Town Hall
- **???**



# COL – NAML

## *Opportunities for Collaboration*



### ➤ **Next Steps:**

- **Schedule President – President telcon to discuss further**
- **Execute reciprocal membership**
- **Identify organizational POC's to advance collaboration**
- **NAML President speak at COL Fall Members Meeting (Oct 25, 2018)**
- **???**



# Opportunities: Ocean Science & Technology

## Technology

Miniaturization

Artificial  
intelligence

Data  
Management

## Science

eDNA

Gnomics

Biochemistry

Sound

Science Based Decision-Making





***Ocean science is not just “science for science’s sake”; it’s science with survival at stake.***

***... this shouldn’t be a secret***