Enabling Exploration

Frank Cantelas
Acting Deputy Director
Implementation Plan

1. Make discoveries of scientific, economic, and cultural value

2. Promote technological innovation to advance ocean exploration

3. Provide public access to data and information

4. Expand the national ocean exploration program through partnerships

5. Encourage the next generation of ocean explorer, scientists and engineers

6. Organizational excellence - not in current Strategic Plan
Example of Success Indicators

1.0 GOAL: Make discoveries of scientific, economic, and cultural value, with priority given to US EEZ/ECS

1.1 OBJECTIVE: Map Ocean Basin Features of Interest

1.1.A SUCCESS INDICATOR: Acquired sonar-based bathymetry at a minimum resolution of 100 meters for 100 percent coverage of areas greater than 200 meters depth within the U.S. EEZ by 2013

1.1.B SUCCESS INDICATOR: Acquired multibeam backscatter in support benthic habitat and water column characterization in areas greater than 200 meters depth within the U.S. EEZ.

1.1.1 ACTIONS: Develop and execute on a comprehensive mapping strategy to identify and fill gaps in unmapped areas

1.1.2 ACTIONS: Produce comprehensive multibeam and seafloor backscatter coverage maps

1.1.3 ACTIONS: Establish internally consistent tracking and reporting standards, methodologies to track and report progress
OER Performance Measures

• Annual number of ocean exploration expeditions
• Annual number of products aimed to engage diverse audiences to enhance understanding of ocean science literacy
• Number of educators in professional development programs
• Percent of time quality controlled data from NOAA Ship *Okeanos Explorer* are delivered to a NOAA data center within 90 days of completion of associated expedition
OER Performance Measures (GPRA)

Government Performance and Results Act (GPRA) Measures:

- Cumulative percent of deepwater ocean (>200m) U.S. Exclusive Economic Zone mapped (OER)
- Annual number of sites characterized in the U.S. Exclusive Economic Zone
- R2A Index: Annual number of research and development products transitioned to a new stage(s) (development, demonstration, or application)
- Number of publications produced as a result of OER supported expeditions
OER Office Structure (ca. 2013)

Chief Scientist

Director

Deputy

Administration

Public Affairs

Website

Legislative Affairs

Product Lines of Business

Advancing Technologies
- Platforms
- Observing Systems
- Sensors
- Communication Technologies

Exploration
- Telepresence Program
- AO Projects
- ECS Initiative
- Interagency Missions

Catalyzing Research
- New Ocean Resources
- Ecosystems/Habitats
- Dynamic Processes

Information Management
- Data Pipelines
- Archives
- Portals/Atlas
- Library Service
- Compliance
- Web

Education
- Alliance Partners/
- Professional Development
- Education Materials
- NOAA Education Initiatives
- National Partnerships
- Evaluation
OER Office Structure (2015-Now)

Director Headquarters

Deputy Director Headquarters

ENABLE
Chief, Administration and Finance

EXPLORER
Chief, Expeditions and Exploration
Lead, Okeanos Explorer

ENGAGE
Chief, Outreach and Education

EVOLVE
Chief, Science and Technology

EXPORT
Data Management

Ocean Exploration Advisory Board
# Mechanisms for OER Staffing

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Current # of Staff</th>
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</thead>
<tbody>
<tr>
<td>Federal hires (multiple types)</td>
<td>16</td>
</tr>
<tr>
<td>Contracts</td>
<td>20</td>
</tr>
<tr>
<td>Cooperative agreements (UCAR)</td>
<td>2</td>
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<tr>
<td>Intergovernmental personnel agreements (IPA)</td>
<td>2</td>
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<tr>
<td>Sea Grant Knauss Fellowship Program</td>
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<tr>
<td>Presidential Management Fellows Program (PMF)</td>
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<tr>
<td>Details (e.g., NOAA Leadership Competencies Development Program, NOAA Rotational Assignment Program)</td>
<td>1</td>
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<td>NOAA Corps</td>
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<tr>
<td>Cooperative Institutes</td>
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How OER Enables Exploration

• Grants and cooperative agreements
  – Annual competitive grants/Broad area announcement
  – Cooperative institutes
• Contracts
• Agreements
  – MOU/MOA
  – Cooperative Research & Development Agreements
• OMAO fleet allocation process
  – NOAA Ship *Okeanos Explorer* and other NOAA platforms
• Partnerships
  – Ocean Exploration Trust
  – Global Foundation for Ocean Exploration
• Alliances
  – Schmidt Ocean Institute
2001-2020 Budget History of the NOAA Office of Ocean Exploration & Research

President's Request | House | Senate | Enacted
OER Budget FY2014-2019

Allocation vs Allotment

FY2014 $25,870,384 vs $20,501,025
FY2015 $29,136,885 vs $21,908,732
FY2016 $27,318,944 vs $33,765,129
FY2017 $37,367,956 vs $31,715,083
FY2018 $41,638,173 vs $35,078,333
FY2019 $44,480,279 vs $36,097,964
OER FY 2019 Funds Distribution

- LABOR: 8.4%
- TRAVEL: 0.66%
- TRANS.: 0.02%
- COMMS: 0.72%
- PRINT: 0.01%
- CONTRACTS: 16.19%
- SUPPLIES: 0.16%
- EQUIPMENT: 0.04%
- GRANTS: 73.41%
- I & O: 0.38%

INTR & OVHD: 0.38%
LABOR: 8%
TRAVEL: 0.66%
GRANTS: 74%

OER Grants Growth Trends

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Amount</th>
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<tr>
<td>FY2014</td>
<td>$10,408,381</td>
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<tr>
<td>FY2015</td>
<td>$12,431,483</td>
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<tr>
<td>FY2016</td>
<td>$15,545,480</td>
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<td>FY2017</td>
<td>$24,824,574</td>
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<td>FY2018</td>
<td>$25,930,763</td>
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<tr>
<td>FY2019</td>
<td>$26,429,663</td>
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OER 2018-2019 Grants Distribution

**2018**
- **FFO** $4,519,928
- **GFOE** $5,685,000
- **OET** $7,580,000
- **All Others** $8,145,835

**2019**
- **FFO** $3,326,239
- **GFOE** $4,151,665
- **NOPP** $2,999,800
- **OET** $9,708,000
- **All Others** $6,243,959
OER Contracts

Contracts

FISCAL YEAR

FY2014  $4,544,580
FY2015  $5,538,194
FY2016  $5,544,048
FY2017  $2,834,672
FY2018  $3,753,033
FY2019  $5,541,529
OER Internal Controls

• Annual review of processes and procedures
  – Budget execution, grants, credit cards, property
• Periodic audits of Administrative team’s expenditures
  – Example: Audit of internal controls for grants
  – Resulting review of the grant process and internal financial controls resulted in NO findings and NO recommendations
• New process to conduct financial and scientific audits of grant recipients starting with institutions with large, multiyear awards
Looking to OER’s Future

• NOAA Ship *Okeanos Explorer* end of life
• Ocean Exploration Cooperative Institute
• New business models
  – New technologies
• Growing staff