

The New NOAA Ocean Exploration and Research Program (OER)

Strategic Concepts

Concept for a Unified OER Program

Key elements:

- **Exploration**

- **Technology development**

- *developing and testing the undersea tools of tomorrow*

- **Research**

- *support development of new technologies,*

- *follow up on key new discoveries requiring use of undersea technologies*

- *support NOAA missions using undersea expertise and specialized facilities*

- **Education**

- *unique education opportunities focused on ocean exploration*

.....the building blocks

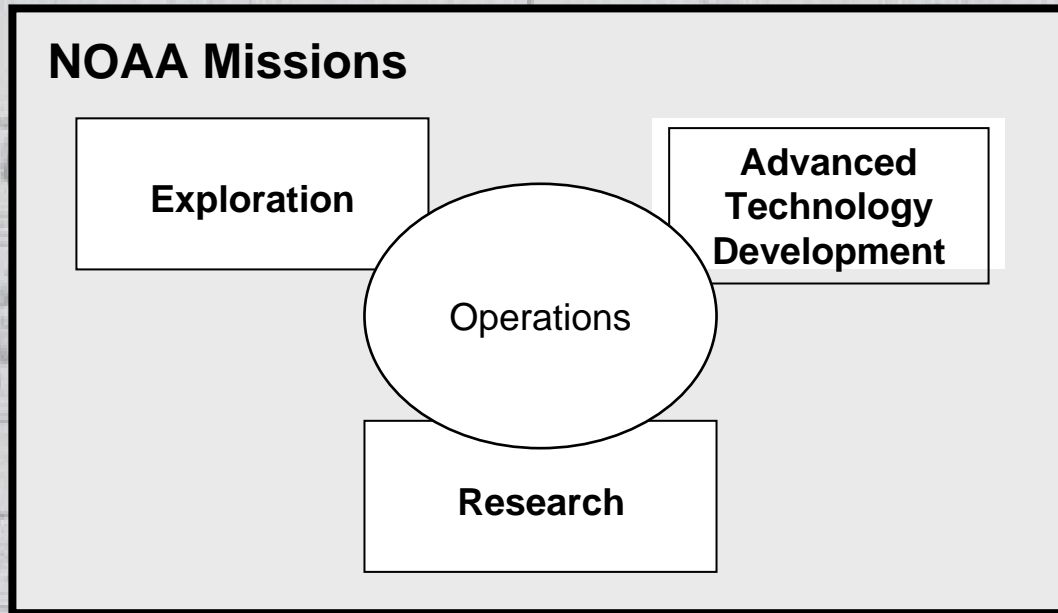
NURP

- **Created in 1980 following recommendations of a National Academy of Science Panel, to conduct complex undersea observational and manipulative tasks in support of ocean research**
- **Implemented through network of regional centers at universities and other facilities**
- **Facilitates undersea research with technologies addressing NOAA mission needs using NOAA and academic scientists**
- **Maintains infrastructure composed of facilities and expertise to support competitive proposal process and field operations**
- **Leverages undersea technology assets not readily available commercially**

Ocean Exploration

- **Created in 2001 following recommendations of President's Oceans Panel**
- **Implemented through national office, competitive proposal process and strategic partnerships**
- **Carries out global exploration to map and characterize unknown areas, discover new species and resources and share this new information through education and outreach**
- **Maintains Okeanos Explorer, a dedicated ocean exploration vessel with specialized equipment for global exploration and real time transmission of information on discoveries**
- **Provides outreach and education programs**

Model for the new OER



- Transition
- Education
- Outreach
- Data Mgmt



The Ocean Exploration Arm

- Describes and characterizes unknown portions of the ocean
 - *through global expeditions*
 - *through geographically focused programs*
 - Map in support of integrated ecosystem assessments and maritime heritage sites
 - Discover & describe new species and communities

The Advanced Underwater Technology Arm

- Provide NOAA with the undersea tools of tomorrow through development of new technologies and innovative uses of existing technologies
 - *increase the pace and efficiency of ocean exploration and research*
 - *improve capabilities to conduct complex manipulative tasks underwater*
 - *further technologies for emerging ocean observation needs*
 - *further telepresence capabilities to enhance ocean outreach and education*



Research Arm

- evaluate new discoveries to support ecosystem based management
- define needs and requirements for technology development and test and evaluate new technologies
- support NOAA research that requires access to specialized undersea technologies

Education & Outreach Arm

- Work with education professionals to incorporate new discoveries into educational material
- Provide real-time exploration experiences for education and to the general public
- Continue NOAA Ocean Explorer Web site

Core Supporting Functions

Operations

- select high quality proposals
- provide specialized equipment & tools to access undersea environment
- plan, prepare & execute expeditions and projects
- evaluate & report on expeditions and projects

Data and Information Management

- end-to-end data solutions

Regional liaison function

- determine requirements for undersea technologies
- transition technologies to users
- translate discoveries to research and management applications

Priorities

- Driven by NOAA Goals, especially Ecosystems Goal, discovery oriented
- Input from
 - Ocean Research Priorities Plan
 - NOAA Research Plan
 - NOAA Science Advisory Board (IAWG)
 - NOAA programs
 - External community

Implementation

- OER appears in FY 2008 President's Budget request (\$27.763 M)
- Strategic & Business Plans for OER by October 2007
- Program will maintain:
 - Directed program onboard Okeanos Explorer
 - Proposal driven geographically distributed program
 - Program of advanced undersea technology development
 - Undersea operational capabilities through ownership, partnership & leasing of facilities
 - Institutional partnerships to support the program
 - Strong outreach, education and data management functions

Evolving Toward New OER next steps.....

- Interact with internal and external partners and stakeholders on content and implementation
- Define role of institutional partners
- Initiate competition for new OER eastern enterprise(s) (use CI as model) to serve as pilot for new institutional partnerships that will evolve with new OER