"...in many instances, scientists have virtually no data."
(p. 19)
Priority Setting

- Community Input: Workshops and white papers
- Agency mission drivers and priorities
- Existing Partnerships
- Available Budget
- Ship time allocations
- Opportunistic Partnerships

Evolving a New Paradigm

Development Partners

Joint Project Agreement

Development Partners

Ocean Exploration Advisory Working Group

Joint Project Agreement

Inner Space Center

The Inner Space Center is a partnership of Mystic Aquarium and the University of Rhode Island School of Oceanography. It is a state-of-the-art facility to support ocean exploration and education programs. The center is dedicated to increasing scientific exploration, research, and understanding of the ocean environment. It serves as a hub for ocean science education and outreach, with interactive exhibits, virtual reality experiences, and educational programs for students and the general public.
**Emerging Principles**

- Will operate in regions with a high potential for discovery, identified by the oceanographic research community.
- Expeditions will be interdisciplinary.
- Investigative team will participate on behalf of the entire oceanographic community.
- Data and results of expeditions will be publicly available as soon as possible.
- Engage others innovative ways.

**Applications**

**Concept**

**Concept**
New Expedition Science Team – On Shore

NOAA Ship Okeanos Explorer
America’s Ship for Ocean Exploration

Ocean Exploration Trust
E/V Nautilus

Water Column Sensors and Sampling
Bottom and Water Column Mapping Systems

Tech Development: High-resolution seafloor mapping

Remotely Operated Vehicles

Towsled/Camera Platform HD Cameras
ROV HD Cameras

Integrated Control Rooms

High Speed VSAT Satellite Link

Reaching Others In New Ways
Training the Next Generation of Explorers

Leaving a Legacy of Standards-Based Data

- NGDC, NODC, NOAA Library
- Digital Atlas (NCDDC)
- Web sites

Inspiring a global audience

Exploration Vessel Nautilus
Facilitating Technology Development

INSPIRE: 13,280,300 viewers
ENGAGE: 415,512 students
EDUCATE: 81 interns
COLLABORATE: 62 sci’s/eng’s

Creating Role Models

“This is the only show my wife Loretta and I will allow our little children to stay up late and watch; you’re their hero.”
- Dr. Martin Luther King, Jr.

NAUTILUS Corps of Exploration
“Working on Ms. Weaver's science homework... Doing key terms for our science book... Reminds me of Nautilus SO much... We have words like Sonar, Mid-Ocean Ridge lol”

“How did you get this job? What school did you have to go to? PS I love your work!!!”

“I Like Hypack 2 because it shows under-sea elevation.”

“You guys are sooooo interesting and cool. I want to meet you. What wildlife have you seen on your odyssey?”

From June 18 to August 14 2010, NOAA and Indonesian partners jointly explored the deep Celebes Sea.

Science
Operations
Diplomacy
Partnerships
Education
Outreach
Mapping on both ships

ROV Exploration

Revealing biodiversity runs deep

Live Interactions with VIPs, Public and Media
International, National, Local and Web Media

From collection to archives in 6 weeks

NOAA-Google CRADA Activities

The Result...
The Result

1

Hard Fought Success for NOAA, US and Republic of Indonesia

✓ Telepresence
✓ Science
✓ Diplomacy
✓ Partnership
✓ Education
✓ Outreach

Catalyzing Partnerships

“I cannot find a better example of how the ‘Indonesia-US Comprehensive Partnership’ is being executed in terms of the soft power relationship than the present scientific cooperation of INDEX-SATAL 2010....”

-Amb. Dino Djalal, Indonesia
Ambassador to the U.S and former spokesperson for President Yudhoyono

Looking Ahead - How can we...

Move forward with “advancing technology”
Change or overcome increasingly constraining business process with increasing transaction costs
Build a national ocean video infrastructure for easy archive and public access

Looking Ahead - How can we...

Best expand the new model
Overcome challenges to developing and sustaining partnerships
Best demonstrate return on investment
Tap into “crowdsourcing” and the knowledge commons under outdated “policies” and “practices”
Systematic Telepresence Enabled Exploration

EXPLORCE

Thank you!

Craig Russell
Program Manager
Okeanos Explorer

Katy Croff Bell
Vice President
Ocean Exploration Trust