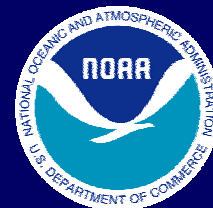





Why NOAA Invests in Education

Louisa Koch
NOAA Director of Education
January 20, 2008

AMS Education Symposium





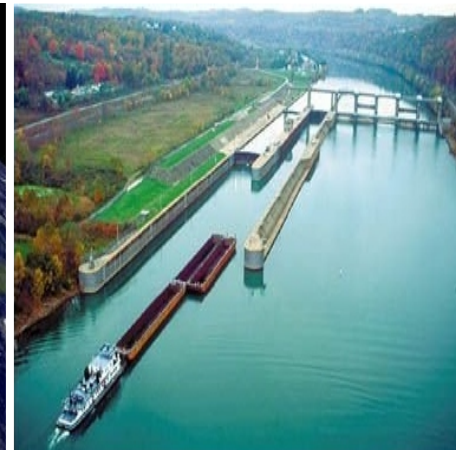
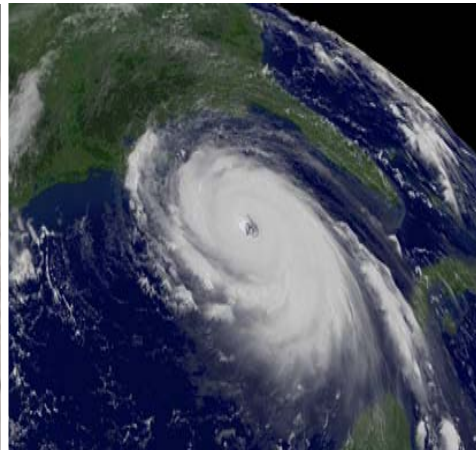
IPCC Finds Growing Environmental Challenges

Weather, climate and ocean information is more important than ever!

- *The number of heat waves has increased*
- *The extent of regions affected by droughts has increased*
- *The number of precipitation events that lead to flooding has increased*
- *More precipitation falls as rain rather than snow in northern regions*
- *Widespread increases in heavy precipitation events have been observed*
- *A global-scale decline of snow and ice especially since 1980*
- *Strong evidence that global sea level gradually rose in the 20th century and is currently rising at an increased rate, after a period of little change between AD 0 and AD 1900*
- *The concentration of CO₂ in the atmosphere has reached a record high relative to more than the past half-million years*
- *Global temperatures are warmer than they have ever been during at least the past five centuries, probably for more than a millennium.*

NOAA Vision

An informed society that uses a comprehensive understanding of the role of the oceans, coasts, and atmosphere in the global ecosystem to make the best social and economic decisions.





New NOAA Education Authorization

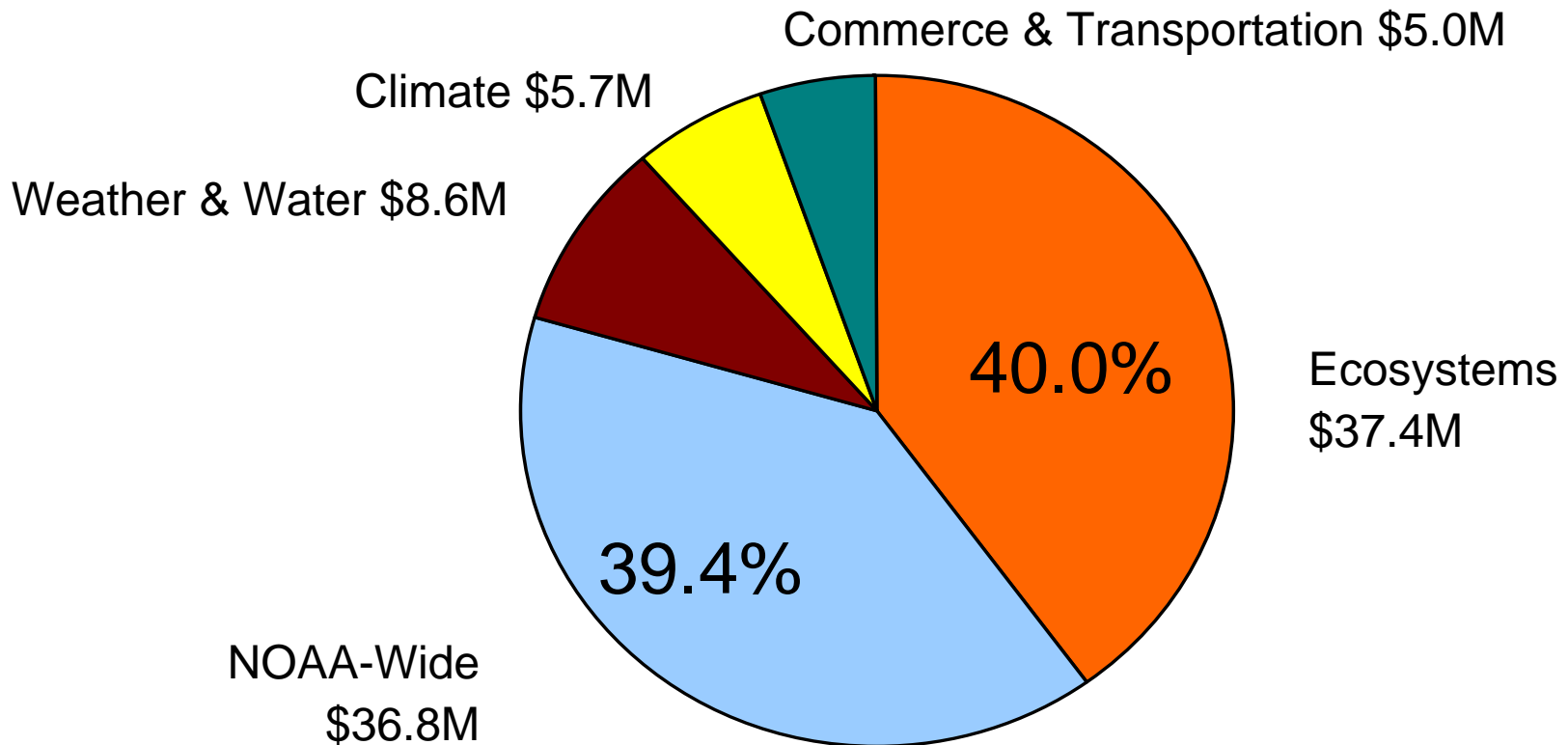
NOAA has a mandate to educate!

America COMPETES Act provides broad education authority for NOAA!

“The Administrator of NOAA shall conduct, develop, support, promote, and coordinate formal and informal education activities at all levels to enhance public awareness and understanding of ocean, coastal, Great Lakes, and atmospheric science and stewardship by the general public and other coastal stakeholders, including underrepresented group sin ocean and atmospheric science and policy careers.”

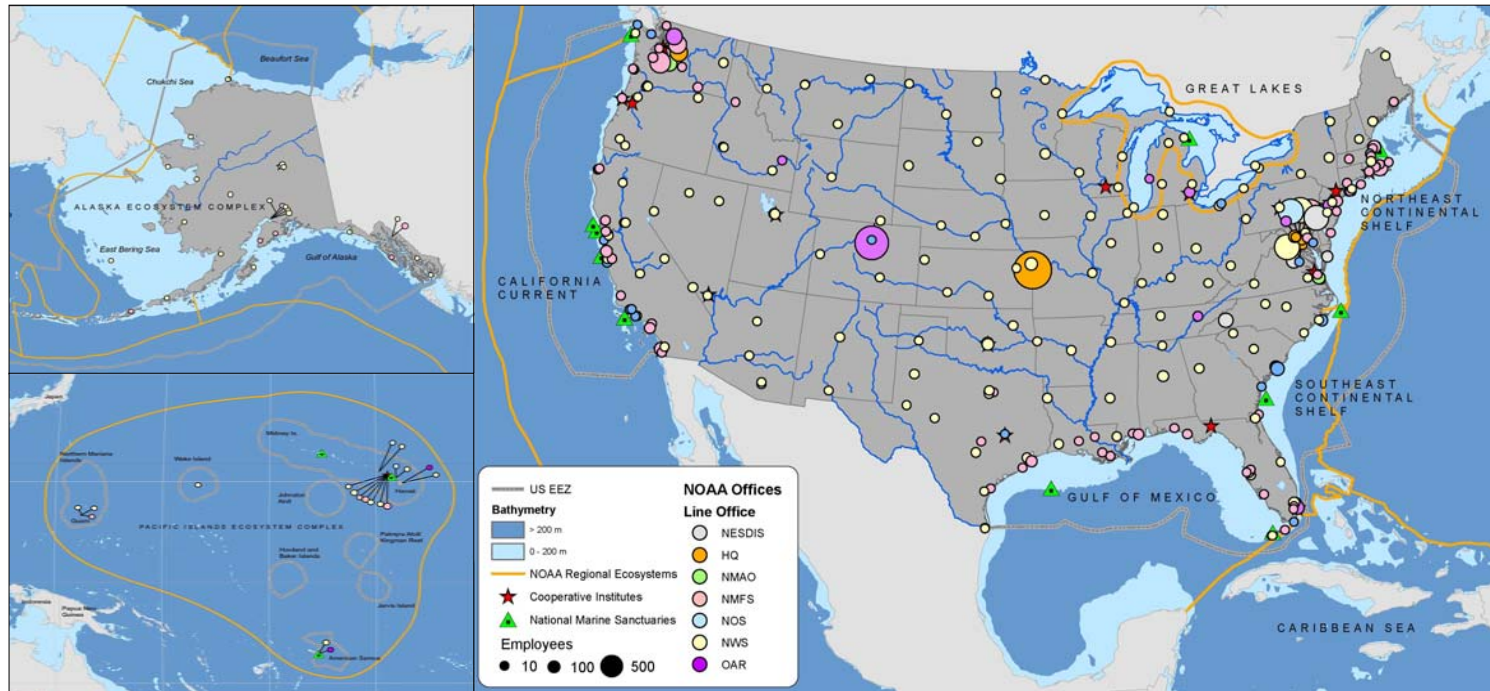
NOAA's Budget

2007 Education & Outreach (\$93.5M)



NOAA Educators Across the Country

- NOAA has more than 600 professionals educating key segments of society about NOAA science
 - Educators, trainers, extension agents, and outreach specialists
 - Weather Service, Sanctuaries, Reserves, Sea Grant and more...





Strategies to Communicate NOAA Science

- Changing the focus of NOAA from a science agency that provides service to a service that conducts science
- Finding better ways to communicate NOAA related science
- Leveraging partnerships
- Some examples...

Reaching the Public through Local Weather Reports

- Most Americans receive environmental information from the media.
- #1 reason people watch the news
- Local weather reports use visuals to present complex science topics
- Viewers are in a “learning mode”



Courtesy of the National Environmental Education Foundation

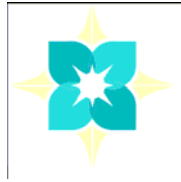


AMS Station Scientists

- 1,688 AMS certified broadcasters
- New certification requirements
- Forward looking training (e.g., COMET)
- Radio and TV News Directors Association
- AMS Award for Excellence in Science Reporting by a Broadcast Meteorologist



National Environmental Education Foundation – Earth Gauge



- Helping to transform Weathercasts to “Envirocasts”
- Support for “station scientists”
- Weekly e-mail service to help explain the environmental implications of weather events on-air
- Tailored, science-based information tied to the 3-day forecast and easy viewer action tips
- 177 million local television viewers
- Need more “envirocast” messages and subscribing stations

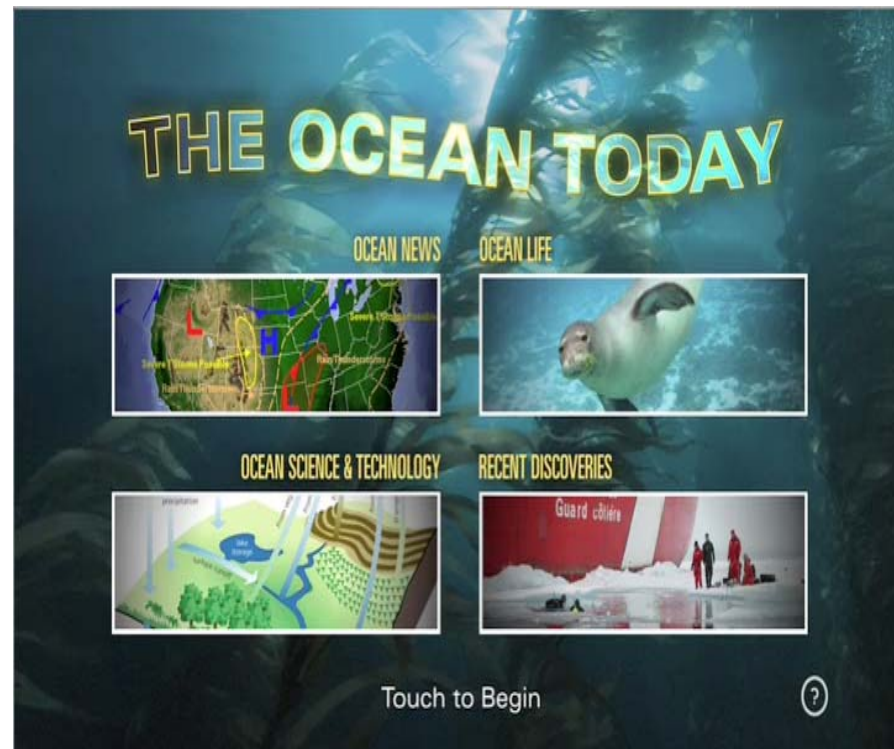
Reaching the Public - New Platforms & Trusted Partners

- Spherical Displays (Science on a Sphere, Magic Planet and more)
 - Compelling visuals creates a strong connection to the planet
 - Available to 11 million people
- Current locations include: Bishop Museum in Honolulu, Science Museum of Minnesota, Nauticus in Norfolk, The Tech Museum of Innovation in San Jose, Maryland Science Center, and the Orlando Science Center
- Need more installations and good content



An Emerging partnership: Ocean Today Kiosk

- Opens September 2008 in Smithsonian's Ocean Hall and aquaria across the country
- Content updated over night
- Available to 12 million people in September 2008
- Need more installations and good content



Creating and Promoting Literacy Frameworks

- Ocean Literacy Principles & Concepts
- Project 2061 at AAAS – Teacher’s Guide for teaching climate change
- Climate Literacy Principles and Concepts
- Atmospheric Literacy building to Earth System Science Principles and Concepts
- Need broader use of frameworks



Supporting Citizen Science

Programs that get people involved, increase knowledge, and create better information:

- CoCoRaHs
- Storm Spotters
- Cooperative Observers
- Need to continue to build and energize networks





Many Additional Efforts

- Centers of excellence at Minority Serving Institutions
- Teacher Professional Development
- Telepresence
- Web casts
- Virtual Worlds
- Gaming
- And much more...



NOAA Resource Opportunities

- NOAA scholarships, fellowships and internships
 - Hollings, Educational Partnership, Nancy Foster, Knauss etc...
- NOAA Environmental Literacy Grants K-12
 - Pre-proposals are due Wednesday, February 20, 2008.
 - Full proposals are due Wednesday, June 25, 2008
- BWET grants in the Chesapeake Bay, California, and Hawaii and NEW BWET grants in the Pacific Northwest, New England and the Gulf of Mexico...
- Find all this and more at www.oesd.noaa.gov



Discussion

Questions?