



CLIMATE PROGRAM OFFICE

Understanding climate variability and change to enhance society's ability to plan and respond

Three general CPO programs funding ocean carbon and biogeochemistry:

Climate Observations & Monitoring Program (Dave Goodrich, Joel Levy)

repeat hydrography, VOS, moorings, synthesis

Climate Research & Modeling (V. Ramaswamy)

primarily GFDL for ocean carbon modeling

Earth System Science Program – Global Carbon Cycle (Ken Mooney)

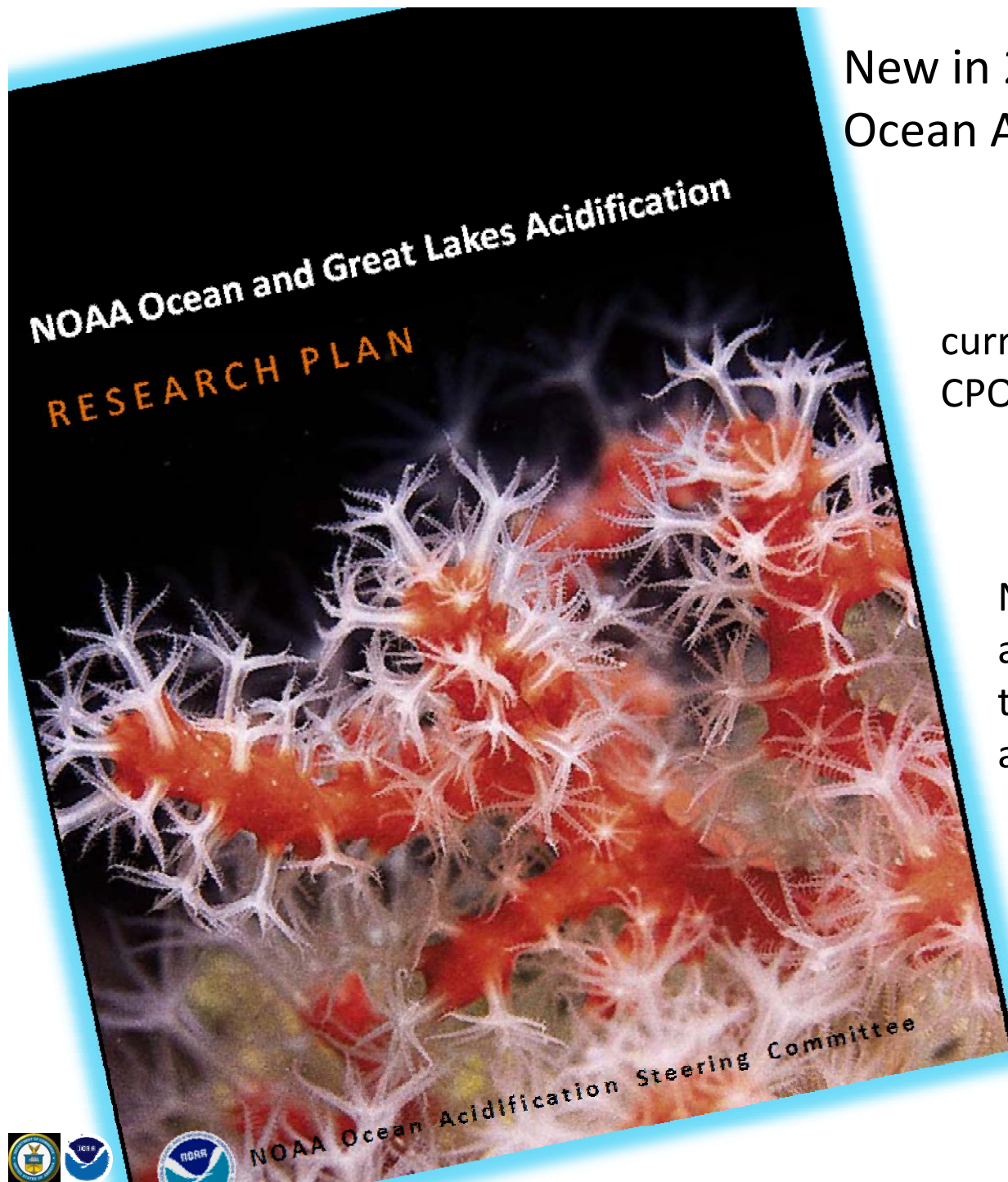
Carbon Cycle Research- NOAA's Competitive Grants

- Traditional Focus areas: Global carbon cycle
 - Key processes and sources of uncertainty for projections of future greenhouse gas concentrations
 - Representation of key carbon cycle processes in climate or earth system models
 - Novel tools to measure biogeochemical variables crucial for the global carbon cycle in the ocean or the atmosphere

Carbon Cycle Research- NOAA's Competitive Grants

- Emerging research areas: Regional focus
 - Coastal carbon cycle
 - Carbon cycle interactions with marine ecosystems
 - Carbon cycle interactions with terrestrial ecosystems
- Internal NOAA partners/customers
 - Geophysical Fluid Dynamics Laboratory: modeling
 - Earth System Research Lab: Carbon Tracker
 - Atlantic Oceanographic and Meteorological Laboratory; Pacific Marine Environment Laboratory: ocean carbon observing and ocean acidification

- The GCC program has a budget of about \$4.5M with approximately 1/3 competed each year
- The GCC has supported 9 new projects per year for the last 2 years
- 68 letters of intent were received at the end of May for FY11
- The Notice in the Federal Register was published this past Friday July 16
- Proposals are due by September 10 for a start date of May 1st



New in 2010: funding started for Ocean Acidification Research

currently funded through the CPO and ecosystems program

NOAA is developing an ocean acidification office with plans to hire a program officer to administer the program funds

THEMES

1 Monitor

Develop the monitoring capacity to quantify and track ocean acidification and its impacts in open-ocean, coastal, and Great Lakes systems

2 Assess

Assess the response of organisms to ocean and lake acidification

3 Forecast

Forecast biogeochemical and ecological responses to acidification

4 Manage

Develop management strategies for responding and adapting to consequences of ocean acidification

5 Synthesize

Provide a synthesis of ocean and Great Lakes acidification data and information

6 Engage

Provide an engagement strategy for education and public outreach

Themes

1 Monitor

OA moorings
Coral reef monitoring sites
OA sensors on NOAA research vessels & VOS ships

2 Assess

Single species experiments
Multi-species mesocosm experiments

3 Forecast

Test/evaluate existing global & regional models
Develop high resolution physical-biogeochemical-ecosystem models
Coastal early warning system

4 Manage

Socioeconomic models and decision support tools
Test mitigation approaches in lab

5 Synthesize

Data management coordination, synthesis,
integrated synthesis activities

6 Engage

Education/outreach planning, curricula/product
delivery

