

Interagency Working Group on Ocean Acidification (IWG-OA)

Ned Cyr

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NOAA Fisheries

and

Chair, IWG-OA

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FOARAM Act

Subtitle D--Federal Ocean Acidification Research and Monitoring Act of 2009

SEC. 12401. SHORT TITLE.

This subtitle may be cited as the 'Federal Ocean Acidification Research And Monitoring Act of 2009' or the 'FOARAM Act'.

SEC. 12402. PURPOSES.

(a) Purposes- The purposes of this subtitle are to provide for--

- (1) development and coordination of a **comprehensive interagency plan** to--
 - (A) monitor and conduct research on the processes and consequences of ocean acidification on marine organisms and ecosystems; and*
 - (B) establish an interagency research and monitoring program on ocean acidification;**
- (2) establishment of an **ocean acidification program** within the National Oceanic and Atmospheric Administration;*
- (3) **assessment and consideration of regional and national ecosystem and socioeconomic impacts** of increased ocean acidification; and*
- (4) **research adaptation strategies and techniques for effectively conserving marine ecosystems** as they cope with increased ocean acidification.*

IWG-OA

Established under the FOARAM Act as a JSOST Working Group

Membership:

- Ned Cyr, NOAA (Chair)
- Libby Jewett, NOAA
- Richard Feely, NOAA
- Chris Sabine, NOAA
- Kenric Osgood, NOAA
- Phil Taylor, NSF (Vice-Chair)
- Vacant, NASA
- Chris Moore, EPA
- Bill Fisher, EPA
- Jennie Dean, Navy
- Mary Boatman, BOEMRE
- Lisa Robbins, USGS
- Bret Wolfe, USFWS
- Robert Domaingue, DOS
- Sherry Sykes, DOS
- Steve Gittings, NOAA
- Susan Laessig, EPA

Major Tasks for the IWG-OA (from FOARAM Act)

- Develop a strategic plan for Federal research and monitoring on ocean acidification
- Prepare reports to Congress
- Facilitate input, communication and outreach among the relevant research communities and agencies, including designation of an OA information exchange
- Facilitate international coordination of OA activities

JSOST IWG-OA Activities

- Produced an initial IWG-OA Report to Congress on Federal agency activities (delivered March 2010)
- Developed a draft Strategic Plan for Federal Research and Monitoring (due March 2011)

Strategic Plan for Federal Research and Monitoring

- Establishes 10-yr goals and priorities for federal OA research
- Describes roles of federal agencies and their budget requirement
- Considers reports from agencies, NRC, ORRAP OA Task Force, other entities
- Recommends ways to coordinate internationally
- Identifies and prioritizes existing and required observing systems for OA and its impacts
- Includes an outreach and data exchange program with stakeholders
- Describes specific activities to be undertaken in 7 themes

Strategic Plan Themes

- **Theme 1:** Monitoring of Ocean Chemistry and Biological Impacts
- **Theme 2:** Research to Understand Responses to Ocean Acidification
- **Theme 3:** Modeling to Predict Changes in the Ocean Carbon Cycle and Impacts on Marine Ecosystems and Organisms
- **Theme 4:** Technology Development and Standardization of Measurements
- **Theme 5:** Assessment of Socioeconomic Impacts and Development of Strategies to Conserve Marine Organisms and Ecosystems
- **Theme 6:** Education, Outreach, and Engagement Strategy on Ocean Acidification
- **Theme 7:** Data Management, Integration, and Synthesis

Backups

FOARAM Act

H.R.146 --- Omnibus Public Land Management Act of 2009

Subtitle D–Federal Oceanic Acidification Research and Monitoring Act of 2009

	Ocean acidification (OA) activities	NOAA	NSF	NASA
1) NOAA shall establish and maintain an Ocean Acidification Program that will be responsible for:	Establishment of a long-term monitoring program	x		
	Research to identify and develop adaptation strategies and techniques	x		
	Education opportunities that encourage interdisciplinary and international approach	x		
	National Public outreach activities to improve the understanding of current OA knowledge and its impacts	x		
	Coordination of OA research with international ocean science bodies such as IOC, ICES, etc	x		
2) NOAA shall provide grants for research projects that explore:	The effects of OA on ecosystems	x	x	
	The socioeconomic impacts of increased ocean acidification	x		
NSF shall carry out OA research, including:	Impacts on marine organisms	x	x	
	Impact on ocean, coastal, and estuarine biogeochemistry		x	
	Development of methodologies and technologies to evaluate OA and its impacts		x	
NASA shall ensure:	Space-based monitoring			x

NOAA OA National Research Plan

- National and regional components (Intra & Extramural)
- Tentative completion date December 2009
- The NOAA ocean acidification research plan is being designed to have the following goals:
 1. to develop a comprehensive characterization of the threat ocean acidification poses to marine ecosystems
 2. to develop the monitoring capacity to quantify and track ocean acidification and its impacts in oceanic and coastal systems
 3. to develop an improved ocean acidification forecasting capability to provide stakeholders with the capacity to proactively and appropriately respond to ocean acidification
 4. to develop adaptive management tools and requisite scientific knowledge for understanding and responding to ocean acidification in support of ecosystem-based management

Initial Report to Congress

- Includes “a summary of federally funded ocean acidification research and monitoring activities, including the budget” in the following areas:
 - **Monitoring of ocean chemistry and biological impacts:** Dick Feely, Chris Sabine (NOAA)
 - **Research to understand species specific and ecosystem response:** Lisa Robbins (USGS)
 - **Modeling - biogeochemical and ecosystem:** Lisa Robbins (USGS)
 - **Technology development:** Phil Taylor (NSF)
 - **Assessment of socioeconomic impacts:** no federal activities
 - **Education/Outreach - engagement strategy:** Mary Boatman (MMS)
 - **Other activities:** Phil Taylor/Kenric Osgood (NSF, NOAA)
- Describes progress in developing the strategic research plan for ocean acidification