



Great Lakes Observing System

Legislative Priority Fact Sheet
February 2008



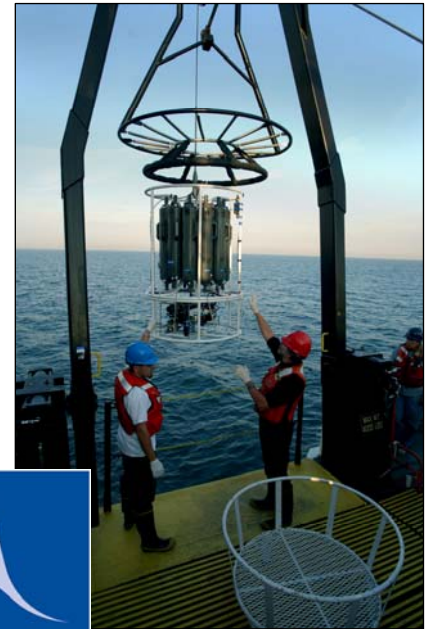
Great Lakes
Commission
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Background on the Issue

The Great Lakes Observing System (GLOS) was established to provide public access to critical, real-time and historical information about the Great Lakes, St. Lawrence River and interconnecting waterways for use in managing, safeguarding and understanding these immensely valuable freshwater resources. GLOS is intended to gather and integrate chemical, biologic and hydrologic data, and monitor lake conditions and trends over time.

A nonprofit GLOS Regional Association (GLOS-RA) governs and guides the system to ensure that stakeholder needs are met and that optimal information-gathering tools are in place and secure. GLOS is one of 11 regional associations within the U.S. Integrated Ocean Observing System (IOOS), a multidisciplinary network designed to provide data required by decisionmakers to address seven societal goals:

- Improve predictions of climate change and weather and their effects on coastal communities and the nation;
- Improve the safety and efficiency of maritime operations;
- Mitigate the effects of natural hazards more effectively;
- Improve national and homeland security;
- Reduce public health risks;
- Protect and restore coastal ecosystems more effectively; and
- Enable the sustained use of ocean and coastal resources.



Lake Erie. Photo: Bob Christy/Kent State Univ.



Congressional Priorities for Observing Systems

The Great Lakes Commission requests congressional support for the following priorities to advance the implementation of IOOS and GLOS:

- **Pass legislation authorizing IOOS**, introduced in the Senate as the Coastal and Ocean Observation System Act of 2007 (S. 950). Authorizing legislation has also been introduced in the House (H.R. 2342).
- **Appropriate \$95 million annually to NOAA to implement the IOOS program**, including \$50 million to be allocated to GLOS and the other regional associations.

Funding History and Committee Jurisdiction

	Fiscal Year Funding (millions of dollars)					
	2004	2005	2006	2007	2008	2009 Budget Request
Integrated Ocean Observing System (IOOS)	\$0	\$0	\$31.3	\$24.9	\$27.2	\$21.0
Regional Components of IOOS (included in line above)	\$0	\$0	\$0	\$0	\$18.3	\$19.0
Appropriations directed to GLOS	\$0.1	\$0.1	\$0.25	\$0.8	\$0.4	N/A

Committee Jurisdiction

House Appropriations Subcommittee on Commerce, Justice, Science and Related Agencies

Senate Appropriations Subcommittee on Commerce, Justice, Science and Related Agencies

House Committee on Natural Resources – Subcommittee on Fisheries, Wildlife and Oceans

House Committee on Science and Technology – Subcommittee on Energy and the Environment

Senate Committee on Commerce, Science and Transportation – Subcommittee on Oceans, Atmosphere, Fisheries & Coast Guard

Progress to Date

The Coastal and Ocean Observation System Act of 2007 (S. 950) was introduced in the Senate in 2007 with passage in the 109th and 108th Congresses. Companion authorizing legislation has been introduced in the House (H.R. 2342). This important legislation has three purposes: 1) development of IOOS to ensure the seven societal goals (bulleted above) are addressed; 2) implementation of research, development, education and outreach programs to improve understanding and achieve the full benefits of IOOS; and 3) implementation of a data, information management and modeling system to develop an early warning system to more effectively predict and mitigate impacts of natural hazards, and improve weather and climate forecasts. These bills require that the system provide for long-term, continuous and quality controlled observations of the coasts, oceans and Great Lakes. The bills also establish the National Oceanic and Atmospheric Administration (NOAA) as the lead federal agency for implementation and administration of IOOS.

Establishment of the GLOS-RA has been led since 2003 by representatives of key regional organizations and has assessed needs from more than 400 potential users of the system, ranging from maritime, environmental and industry interests to scientists and educators. In 2006, the GLOS-RA established itself as a nonprofit corporation with an independent board of directors. GLOS is currently leading development of a continuously running 3-dimensional model of the St. Clair – Detroit River system to protect drinking water supplies for more than 4 million people in the Lake Huron to Erie Corridor. This area has been shown to be at risk for oil and hazardous material spills. GLOS is seeking additional funding over the 2008-2011 period to develop integrated observations to address climate change impacts, ecosystem and food web dynamics, protection of public health, and navigation safety and efficiency on the Great Lakes. Critical information needs for these priority areas will be addressed through operation of: new moorings and sensors to measure temperature and current profiles and meteorological conditions; autonomous underwater vehicles and gliders to measure complex physical and chemical processes; instrumentation of cross-lake ferries to collect repetitive measurements on water quality conditions; and satellite remote sensing to monitor lake surface characteristics including onset of algal blooms.

Benefits to the Great Lakes Region

Observing systems, including sensors, stations, networks and field data collection are the primary means for gathering information on the chemical, biological and physical characteristics of the Great Lakes ecosystem. These observations are used in a host of monitoring programs to take the pulse of the Great Lakes, assess natural variability, drive ecosystem forecasting models, and assess the progress of restorations efforts. IOOS would help to facilitate the following: 1) a complete inventory of federal, state/provincial and municipal observation and monitoring activities; 2) spatial density of basic observations across the system; 3) coverage over varying time scales (real-time to historic) and over space (site-specific, watershed and regionwide); 4) uniform monitoring protocols; and 5) broad availability of information on Great Lakes conditions and trends to managers and other stakeholders.

Links for More Information

Great Lakes Observing System (GLOS): www.glos.us

NOAA Integrated Ocean Observing System Program: ioos.noaa.gov

National Office for Integrated and Sustained Ocean Observations (Ocean.US): www.ocean.us