



Florida Institute of Oceanography (FIO)

Five Year Evaluation Summary

2010-2015 Strategic Plan: Progress

In accordance with the Board of Governors Regulation 10.014 Academic Infrastructure and Support Organizations, a summary the Florida Institute of Oceanography's (FIO) five year programmatic evaluation is described below. Additional details of FIO's programmatic evaluation can be found in the attached documents and have been submitted to the USF, the Host University's Board of Trustees, the Council of Academic Vice Presidents, and the Board of Governors for review.

An outside consultant (Dr. Karen Holbrook) was hired to conduct and review FIO's operations with member institutions in preparation for the Strategic Plan and the Renewal of the AISO. The documents attached outlined FIO's accomplishments and challenges that shaped FIO's Strategic Plan and renewal of the AISO for the next five years (2015-2020) to align with the BOG.

- A. A determination of the organization's progress against defined goals and objectives within the context of the AISO's mission, the participating university missions, and the current BOG Strategic Plan;
 - 1. Supporting existing marine education programs and member institution research projects with FIO maintained facilities, research vessels and other infrastructure.**
 - Achieved. FIO infrastructure has supported state and federally-funded research of university investigators and their students, programs for K-12 students and teachers and has been a factor in attracting extensive external dollars that boost Florida's economy. The research is significant to the hands-on training of a STEM workforce – a statewide goal.
 - Continue providing ship time and supporting the four (4) of the twelve (12) consortia established by funding from the Gulf of Mexico Research Initiative are located in Florida at NOVA Southeastern University, University of Miami (2), and University of South Florida. Many of our members are involved in these consortia along with experts from other universities and laboratories, both national and global.
 - Approximately 140 undergraduate courses has been taught between the *R/V Bellows*, *Weatherbird II* and at the *Keys Marine Lab*. The courses have assists in more degree awarded in related high demand, highly skilled and high wage targeted areas.
 - 2. Developing a statewide coastal and ocean network that can organize the coastal and oceanographic intellectual assets of Florida to provide high quality educational opportunities for students interested in coastal and ocean science and related disciplines.**

- Achieved. FIO is a network of intellectual assets (its members), but aside from the “Study Abroad in Florida” course, most of the effort in providing educational opportunities is related to individual research programs rather than programs coordinated through FIO. Nonetheless, the resources available through FIO provide highly unique experience for students.
- Assisting the State in communicating technical and scientific concerns with FEMA, Coast Guard and relevant state or federal agencies in emergency situations, (e.g. the Deepwater Horizon oil spill)

3. Supporting and leading conferences, seminars and workshops for students, teachers, public officials and residents of Florida.

Achieved. FIO has supported and led numerous events of this nature, including for the media. Some examples are:

- FIO escorted a class of 12 students, 2 teachers from the Canterbury School of Florida, a NOAA scientist, and USF College of Marine Science professor on an expedition out through Tampa Bay and to the Gulf of Mexico to deploy a buoy. “Message in a Buoy” is part of the National Oceanic and Atmospheric Administration (NOAA) Adopt a Drifter Education Program.
- The USF-College of Marine Science Oceanography Camp for Girls was created in the 1990s in response to reports that revealed a tremendous drop in the number of women pursuing mathematics and science degrees. To date, over 900 girls who completing 8th grade have attended the Camp and offered a-once-in-a-lifetime opportunity to gain on-hands skills and experience working aboard the *R/V Bellows*. Between 20-25 percent of the girls have pursued degrees in higher education related to STEM-focused disciplines.
- FIO has successfully been working with *Teacher at Sea* programs aboard the *R/V Weatherbird II and Bellows* providing an unparalleled experience for teachers. The program allows teachers to gain a clearer understanding of Florida’s oceans, increasing their level of environmental literacy by fostering an interdisciplinary research experience and their ability to integrate science lessons, environmental issues, and problem solving into their curriculums; connecting teachers at-sea connected with over 1300 students utilizing a live application broadcasting from ship to shore.
- FIO co-sponsored the second Guy Harvey Fisheries Symposium. The Symposium included two days of presentations, panel discussions and featured the latest research and issues facing marine fisheries from the leaders in marine research, conservation, policy and user groups. A special session was also held for high school students from Wharton High School in Tampa.

4. Maintain state-of-the-art infrastructure for coastal ocean education and research with centrally maintained assets including research vessels, marine laboratories, and shared use facilities and equipment that will.

- FIO continues to serve as Florida's coordinating body for coastal and ocean research through reduced cost for ship time and marine facility use for FIO members that can provide a competitive advantage to FIO member institutions. The State supported ship time program provides a STEM-focused opportunity students to gain on-hands skills and experience working aboard a research vessel and at the Keys Marine Laboratory.
- The Keys Marine Laboratory accommodates students in the summer course and other research ventures by FIO members. Students and researchers are able to study the only tropical marine ecosystems in the continental United States, interconnected with the Florida Bay, Everglades National Park, Florida Current, and the Florida Keys National Marine Sanctuary. This unique platform offers a state-of-the-art 220,000 gallon Seawater System, wet and dry laboratories, classrooms, vessels, and housing on-site. Since 2012, KML has supported over 5,900 individuals from over 800 different federal and state agencies and academia institutions across the U.S. and internationally to achieve their academic and research objectives.

5. Develop and promote research initiatives for FIO member institutions within coastal waters of Florida as well as within the Gulf of Mexico and the Caribbean.

- The primary accomplishments in this domain have been and are related to the Deepwater Horizon oil spill in which FIO played a prominent role in obtaining funds, developing and distributing RFPs, organizing proposal reviews and coordinating funds. Designated as the Gulf Coast State Entity as the agent for the U.S. Department of Treasury in managing the research funding for the state of Florida establishing the Restore Act Centers of Excellence Program (RACEP).
- With the support of USF, FIO and four (4) Gulf Coast States (AL, LA, MS, TX) together established GOMURC (Gulf of Mexico University Research Consortium) to enhance coastal and marine science, oceanography and related ecosystem management programs through communications, education and research, and public outreach.
- Other research initiatives are organized by the members and their institutions either individually or on a collaborative basis. FIO's primary involvement in such activities is to provide information about member expertise.

B. An assessment of the return on investment of State dollars, if applicable;

- FIO's current E&G support has slowly increased over the last five years. Its current budget is \$3.2M.
- Charter revenue of close to \$1 million annually generate from the R/V Bellows and R/V Weatherbird II.
- The Keys Marine Laboratory (KML) is a full service marine laboratory where revenue is earned by the number of usage at the facility. Yearly revenue average at the KML is approximately \$230,000.

- British Petroleum (BP) announced its commitment to release \$500 million over a 10-year period to create a broad, independent research program to be conducted at research institutions primarily in the Gulf Coast States.
- FIO was the first in the Gulf to receive \$10 million dollars as part of a rapid response block grant released by BP. FIO awarded approximately \$9.7 million dollars to 26 research programs across the SUS.
- Florida is the leading state in the GOMRI research with approximately 228 researchers-- which are FIO members.
- Florida's researchers are recognized as world leaders having secured more than \$40 million in spill-related research funds between Gulf of Mexico Research Initiative (GOMRI) and Florida Wildlife Research Institute (FWRI).
- FIO as Florida's Designated Gulf Coast State Entity will administer the initial \$4 million (result of the TransOceans settlement) under the RESTORE Act for the Centers of Excellence Program and will continue to serve as the administering agent for an additional \$22 million over 10-15 years from the BP civil settlement.
- Currently research funding between \$10-15 million per year are being received from the RESTORE Act, Gulf Coast Restoration Trust Fund and GOMRI (ie. National Academy of Science, NOAA, Direct Component).
- An estimated 800 undergraduates and graduate students each year obtain hands-on training to join Florida's growing marine workforce.
- Over 475 journal publications have been produced by the faculty members of the SUS institutions, elevating Florida's status as a global hub of world-class oceanographic education and research.

C. The need for continuation of the AISO;

- "Every member is strongly supportive of FIO - positive about the strides it has made to support members and member institutions, and grateful that this AISO exists to serve investigators and students who, through their work, are committed to learning about and protecting and improving the marine and coastal environments in Florida." This statement is taken directly from Dr. Karen Holbrook's Programmatic Report.
- As a shared resource among 30 public and private marine research organizations, the research vessels managed by FIO provide Florida with essential capabilities to understand and protect its economically and environmentally critical coastal oceans. Florida's marine industries - which support more than 500,000 jobs and provide \$13 billion in wages - are dependent on the health and sustainability of our coastal oceans.

D. Proposed changes in mission or organizational structure;

- FIO has achieved the three goals adopted by the BOG in the 2005 Strategic Plan. As a shared resource, FIO provides opportunities for students to gain direct experience in marine research, thus enhancing their competitive positions for jobs in marine research and industry; by providing the infrastructure that supports the research of marine science investigators throughout the state; and

by developing collaborative academic and research programs that capitalize on the talent and resources of individual partner universities as well as the Keys Marine Laboratory.

- FIO is anticipating new leadership in 2016 upon the retirement of the current Director. A search committee has been appointed by the USF Provost following the guidelines for appointment, funding, supervising and evaluating the Director in the FIO AISO and MOU. A new director is expected to be on board early in 2016.
- Upon appointment of the new Director, the Associate Director position should be advertised to seek the most qualified individual to support critical areas that cannot be performed by the Director and the current staff at FIO.
- A new Webmaster and Education Outreach Coordinator is needed to assist in meeting the goals and objectives of FIO.

E. Recommendations for budget reductions or expansion; and

- Replacement of the R/V Bellows is critical to FIO's operations and to ensure the mission are met. A new vessel would support STEM-focused programs for 23 Florida universities and institutions and thousands of students increasingly - pursuing STEM careers.
- Supporting the Center for Prediction of Red Tides missions between state agencies and higher education aimed at understanding, predicting and minimizing the effects of the red tide formation in order to protect Florida's citizens in areas of public health, tourism and boating industries.
- Funding to upgrade the Keys Marine Laboratory (KML) is essential as the demand for the use of the KML increases.

F. Recommendations for status or location change, if applicable.

- Based on the track record and the many positive advances provided by USF over the last five years, we firmly believe and recommend that USF remains the host institution for FIO as it continues to advance the mission of the BOG.