



FLORIDA INSTITUTE OF OCEANOGRAPHY

830 First Street South
St. Petersburg, Florida 33701
Telephone: (727) 553-1100
Fax: (727) 553-1109



June 29, 2021

Provost Ralph Wilcox, PhD
University of South Florida
4202 E. Fowler Ave
Tampa, FL 33620

Dear Provost Wilcox,

In accordance with the Board of Governors Regulations 10.014, I am pleased to submit the AISO Renewal Evaluation, FIO Strategic Plan 2021-25, and 2020-21 Annual Report for the Florida Institute of Oceanography. The attached documents have been reviewed, approved and is considered in its final form with full support by the FIO Executive Committee and Council to move forward for review by the SUS Council of Academic Vice Presidents and the host institution's Board of Trustees.

Please let me know if you have any questions.

Best Regards,

A handwritten signature in blue ink, appearing to read "William (Monty) Graham".

William (Monty) Graham, PhD
Director
Florida Institute of Oceanography

cc:

Dr. Jim Fourqurean, FIO Chair, Florida International University



FLORIDA INSTITUTE OF OCEANOGRAPHY

830 First Street South
St. Petersburg, Florida 33701
Telephone: (727) 553-1100
Fax: (727) 553-1109



June 25, 2021

Dear Chancellor Criser and President Currall,

We are honored to present materials in support of the Florida Institute of Oceanography's request to continue supporting the Florida State University System (SUS) as an Academic Infrastructure Support Organization (AISO) under the Host Institution, the University of South Florida. As required by Florida law, an AISO is to conduct 5-year reviews along with renewed strategic and business plans that align with the strategic priorities of the Board of Governors (BOG) of the Florida State University System. We also highlight the alignment of the FIO Mission, Vision, and Core Values with our Host Institution, the University of South Florida (USF), to ensure that we have an organization that is fully integrated into the USF community with reach to all of Florida, the nation and global society.

As we enter the United Nations Decade of Ocean Science for Sustainable Development, there is no better time than now to reaffirm the great work and partnerships of the FIO consortium and the role that FIO plays in your own vision of global sustainability. FIO is proud to have contributed to the legacy and the future of USF, and your commitment to FIO is appreciated by all of our partners including the SUS members, non-SUS member institutions and organizations, state agencies and the private sector. FIO reflects the breadth and depth of the ocean science and education communities of Florida along with the \$40 Billion maritime 'blue' economy it supports.

Accomplishing the mission of FIO is neither easy nor inexpensive. As an AISO, FIO provides "underlying technology, equipment, facilities, services, and resources for academic programs and research in the State University System of Florida." In the ocean environment, technology, equipment and facilities (like FIO's two research vessels and Keys Marine Laboratory) must be state-of-the-art, safely operated, and stringently maintained in order to provide faculty, researchers and students with access to an otherwise harsh and inaccessible environment.

We are proud to say that, even with the difficulties of a global pandemic that fundamentally impacted higher education, FIO is more in demand than ever. We look forward to implementing key strategic goals around operations, education support, research support, and business engagement support, with a focus on providing access to ocean environments. We know that understanding the sea requires being over, under, and on top of the sea.

The University of South Florida purchased the Research Vessel Weatherbird II in 2008 using a \$1.3 million loan from the USF Foundation until legislative appropriations were available. In 2015, USF was instrumental in legislative appropriation, contracting and construction of the 78-foot Research Vessel W.T. Hogarth. In 2014, the SUS with USF in the lead, acquired the Keys Marine Laboratory on Long Key (Layton, FL) serving educational and science needs around critical coral reef ecosystems of the Florida Keys Reef Tract. Together, the contemporary replacement value of these assets is about \$50 million, under the care and operational oversight of FIO.

The Florida Institute of Oceanography is far more than its physical facilities. FIO's staff, including vessel crew members, KML support staff and our administrative staff in St. Petersburg, provides for the coordination and facilitation of academic and research programs including SUS multi-institutional field-based courses, statewide and regional research partnerships, and advocacy at the local, state, national

and international levels. This is exemplified in our ongoing management of the Florida RESTORE Act Centers of Excellence Program (FLRACEP), which was created under federal law and has distributed more than \$8 million to six Centers of Excellence within the Florida SUS. Additionally, FIO recently opened a Florida Coastal Mapping Program (FCMAP) office to support statewide coastal and ocean mapping priorities that require coordination across research universities, agencies, non-profits, and the private sector. FIO is well positioned to serve an even greater role as an enabler of excellence in marine science, technology and education through continued leadership and advocacy with groups such as the Gulf of Mexico University Research Collaborative, the Florida Ocean Alliance, Southeast Coastal and Ocean Observing Association, Gulf of Mexico Coastal Ocean Observing System, National (and Southern) Association of Marine Laboratories, and the Consortium for Ocean Leadership.

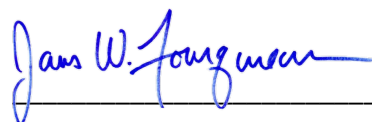
All of these achievements would not be possible without your support, the leadership and confidence of Provost Wilcox, the support of the USF College of Marine Science and the outstanding contributions of USF's General Counsel, Procurement services, Human Resources, and most importantly this past year, the USF COVID Task Force which provided incredible guidance to ensure FIO vessels and KML could continue at a reduced, but safe, level of operations. The USF team has been exemplary during Dr. Graham's recent hiring and transition under an otherwise difficult pandemic year. We look forward to strong partnerships as we plan for upgrades and improvements to KML and a projected replacement for the R/V Weatherbird II as it concludes its 45-year service to ocean science.

To conclude, thank you for your commitment to FIO and its mission to serve the SUS. We are pleased to say that USF has fulfilled its obligations under the previous Memorandum of Understanding as FIO's Host Institution. We recommend without hesitation to you, the USF Board of Trustees, the Council of Academic Vice Presidents, and the Board of Governors that USF continue serving as Host Institution under the proposed FIO Strategic Plan and Host Institution MOU in the attached AISO Renewal proposal.

Please let us know if you have any questions regarding this recommendation.



William (Monty) Graham, PhD
Director
Florida Institute of Oceanography



James Fourqurean, PhD
Chair, FIO Council
Florida International University

cc:
Dr. Ralph Wilcox, Provost Host Institution

Enclosures:
AISO Evaluation, FY20/21 Annual Report
MOU continuation, USF as the Host Institution
AISO Renewal Request
Strategic Plan 2021-2025

This page intentionally left blank



Florida Institute of Oceanography (FIO)
Five Year Evaluation Summary for 2015-2020

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.

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 System's current Strategic Plan

- Developed a Memorandum of Understanding (MOU) with Harte Research Institute of Texas A&M University-Corpus Christi to support joint research activities in the Gulf of Mexico (GoM) with NOAA, EPA, RESTORE Centers of Excellence and GOMURC. FIO provided the opportunity to establish and facilitate working relationship between FIO and HRI members to address the needs of GoM research and monitoring efforts.
- Established a collaboration with the Florida Aquarium, NOAA, Nova Southeastern University (NSU), FWRI, & MOTE to use its Keys Marine Laboratory's (KML) temperature-controlled seawater system to rescue fragments of Florida's threatened pillar corals and create a living genetic bank for future rescue efforts.
- Established a collaboration with NOS/NOAA Coral Health & Disease Program, NSU, and the Florida Aquarium to develop and test disease treatments in KML's seawater system to arrest the spread of stony coral tissue loss disease (SCTLD). Treatments were later FDA-approved for use in situ on all susceptible coral species.
- Established a collaboration with NOAA and FWC/FWRI partners to provide suitable seawater tanks for the Florida Coral Rescue Project. This project was an emergency response to the stony coral tissue loss disease outbreak to preserve the genetic diversity of 15 species of Florida's corals for future restoration.
- FIO's Marine Field Studies course, launched in May 2013, offered annually to undergraduate students in Florida. A cohort of about 20 students move between five-member institution campuses (FAU, FGCU, UNF, USF, and UWF) to experience a variety of marine habitats and ecosystems within the state. FIO enables and facilitates the experience through vessel support (USF session) and the Keys Marine Lab experience (FAU session).
- In 2019, FIO launched the first Graduate level Applied Methods In Fisheries Science course which was held over three weekends during the fall semester, connecting 12 students from 3 member institution campuses (FAU, UF, and USF) with various practical field methods utilizing a range of technologies for field evaluations of fish in estuarine and marine environments.

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

- FIO was designated as the Gulf Coast State Entity agent by the U.S. Department of Treasury for managing the research funding from the Florida Restore Act Centers of Excellence Program (FLRACEP). Since 2015, approximately \$8M has been distributed to establish

10 Centers of Excellence across the state of Florida, which funded 18 research projects (aimed at improving the health of the Gulf of Mexico) for researchers from six SUS institutions who received awards through a competitive process.

FIO continues to serve as the administrative agent for the next 10 years as a result of the Deepwater Horizon civil settlement. An additional \$9M remains accessible for FIO to administer new/existing Centers of Excellence.

Center of Excellence (Awardees) <small>*SUS institutions</small>	Amount of Award
<i>FIO to administer through FLRACEP</i>	\$2,612,896.88
University of Florida*	\$1,557,350.11
University of South Florida*	\$1,541,545.45
University of Central Florida*	\$659,717.17
University of Miami	\$624,152.44
Mote Marine Lab	\$364,432.00
Nova Southeastern University	\$321,672.64
Florida International University*	\$319,816.15
University of West Florida*	\$319,162.21
Florida State University*	\$317,080.57
Sanibel-Captiva Conservation Foundation	\$233,334.34

- Collaborations between local government and FIO members provided a cost-share of \$3M with the state legislature to fund and build the R/V Bellows' replacement. FIO's research vessels provided accessibility to 1,673 students, 171 faculty, and 583 scientists/researchers from 11 SUS institutions since Fiscal Year 2015/2016.
- Over 181 journal publications have been produced with the assistance of FIO's infrastructure, authored by faculty members of SUS member institutions, since Fiscal Year 2015/2016, elevating Florida's status as a global hub of world-class oceanographic education and research. An average of 17 institutions a year used FIO's assets in support of published research articles.

C. The need for continuation of the AISO;

- FIO is a network of intellectual assets: People, Information and Infrastructure. State University System members and private marine research industries are strongly supportive of FIO as an AISO that continues to serve and empower investigators and students who, through their work, are committed to learning about, protecting and improving the marine and coastal environments in Florida.
- The state supported ship time program provides STEM-focused opportunities to undergraduate and graduate students to gain hands-on skills and experience working aboard a research vessel and at the Keys Marine Laboratory.
- Co-branding FIO with SUS assets, to centralize FIO as a coordinating and enabling body for Florida, that provides virtual and physical integration between marine science research and education, and with industry partners to support early career professionals.

D. Proposed changes in mission or organizational structure;

- FIO's mission statement has been reworded for clarity but the intent has not changed: The Florida Institute of Oceanography ensures sustained excellence in marine research and education through the advancement and availability of infrastructure, development of partnerships, and the enabling of outcomes that benefit the people of Florida. FIO serves as an enabler, facilitator and coordinator across academia, state and federal agencies, ocean science organizations and the private sector.
- The organizational structure has been modified so that Operations, Education Support, Research Support, and Business Engagement Support align with areas of responsibility. New requests for positions (Academic Coordinator and Business Engagement Officer) are accompanied by both justification and a business plan to support them under the revised 5-year budget. The positions will be supported by E&G salary savings which are a result of converting operational crew salaries to appropriate auxiliary accounts under a service center model.
- Hire a Chief Scientist to provide technical scientific education and research information to stakeholders which will connect (and heighten) academic and research opportunities for SUS members with others across the Gulf of Mexico. This position is being funded under the Florida RESTORE Act Center of Excellence Program and will be expanded to meet FIO-wide needs.
- Finance Administration & Budgeting and Communications & External Relations Offices are elevated to the Director's Office as they provide overarching functions to FIO.

DI. Recommendations for budget reduction or expansion.

- Plan for a request to double the state appropriation that directly supports SUS institutions' usage of vessels and KML. Loss of FIO funding in the amount of \$1.2M in FY 17/18 resulted in a significant reduction of facility access to the SUS Subsidized Ship and Keys Marine Lab time to SUS intuitions. It is important to note that 100% of any increased funding will be directed to supporting the SUS institutions with ship-time and KML access.
- No request is being made to increase the base budget of FIO's administration or line offices. The addition of Education Support and Business Engagement Officers will be funded by E&G salary savings.

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

USF has successfully fulfilled its role as the host institution, representing both the BOG and the SUS. FIO's progress that has been achieved over the last five years is based on the extensive contributions and services provided to FIO (General Counsel, Research and Innovation, Emergency Management, Compliance, and Facilities support, etc.) by USF's leadership from both its campuses. We firmly believe and recommend that USF continues as the host institution for FIO as it continues to advance the mission of the BOG.

This page intentionally left blank



MEMORANDUM OF UNDERSTANDING (MOU) (Renewal)
Academic Infrastructure Support Organization Proposal (AISO)
The Florida Institute of Oceanography (FIO)
June 2021-2025

The Florida Institute of Oceanography Academic Infrastructure Support Organization, established in 2005 and governed by this MOU continues to identify the University of South Florida (USF) as the role of host university, with the support of participating State University System (SUS) and other institutions, for the operation of FIO, the approval of the State of Florida State University System Council of Academic Vice Presidents (CAVP), ratified by the presidents and chairs of the Boards of Trustees of the member institutions and approved by the BOG.

(a) AISO Renewal Request

The University of South Florida, in its capacity as the host university, and the participating universities hereby requests that the Florida Board of Governors (BOG) renew this proposal to extend the FIO AISO for an additional five years.

Vision

The Florida Institute of Oceanography will enable excellence in coastal and ocean science and education. To do so requires advancing science, technology and education through state-of-the-art infrastructure, multi-institutional and cross-disciplinary activities, information sharing, public private partnerships, diversity and inclusivity, and socially relevant programming.

Mission

FIO will have within its scope all aspects (research and education) of oceanography that affect the state of Florida. FIO will direct its focus on the entire coastal ocean, from the coastline to the deep ocean, thereby positioning itself to facilitate and support systems-wide scientific leadership within the SUS for the environmental stewardship of the state of Florida. The FIO mission is as follows:

The Florida Institute of Oceanography ensures sustained excellence in marine research and education through the advancement and availability of infrastructure, development of partnerships, and the enabling of outcomes that benefit the people of Florida. FIO serves as an enabler, facilitator and coordinator across academia, state and federal agencies, ocean science organizations and the private sector.

Core Values

Cooperation, Coordination and Participation – of members to solve problems related to the coast and oceans and to facilitate education and training of marine scientists who reflect the diversity of Florida.

Collaboration and Communication – among members to leverage the collective vast and deep expertise to benefit Florida in the context of a national and international conversation on critical issues and to communicate outcomes for the advancement of science-based decisions.

Transparency and Accountability – in all interactions that support the members, member institutions and the State University System of Florida.

(b) Identification of the host institution/fiscal agent and participating institutions/organizations.

USF serves as the host institution housing FIO at the College of Marine Science in St. Petersburg where the *R/V Hogarth* and the *R/V Weatherbird II* are home ported. FIO, as an AISO, will be overseen by the host institution's USF Board of Trustees. USF will administer the fiscal functions and provide other administrative support as required by FIO.

(c) Governance and organizational structure of the AISO and criteria for appointments to the advisory board or executive committee, including terms, roles, authority, and number of members.

FIO's 30 member institutions will include the State University System (as defined by Florida Statute Title XLVIII 1000.21 sec (6)). All twelve (12) SUS members are considered full members of FIO and must comprise at least fifty-one percent (51%) of the AISO voting membership and its executive committee, as applicable. The nine (9) non-state university full members of FIO who were grandfathered in, by consenting to and executing this MOU, include: Eckerd College, Florida Sea Grant College; University of Miami, Rosenstiel School of Marine and Atmospheric Science; Florida Department of Environmental Protection; Florida Fish & Wildlife Conservation Commission, Fish and Wildlife Research Institute; Florida Institute of Technology; Mote Marine Laboratory; Nova Southeastern University; and the Smithsonian Marine Station at Fort Pierce. Associate and affiliate membership was established for additional non-SUS organizations with a marine focus. Currently, there are eight (8) associate and one (1) affiliate members.

The membership shall include the FIO Council, the FIO Director and staff, standing committees to include the FIO Executive Committee; Ship and KML Advisory Committee, Nominating Committee, and Board of Visitors. Additional ad hoc or special committees may be formed by the Executive Committee with cooperation of the council to address particular issues and needs.

The **FIO Council** will consist of one (1) representative from each member organization and two (2) from the host institution appointed for a two (2) year term by its president, CEO, or his/her designee and who is an active member of the Florida coastal ocean research and education community. Member representatives may be reappointed, but shall not serve more than three (3) consecutive terms unless requested in writing by the appointing official. The foregoing notwithstanding, the second member appointed by the host institution may serve unlimited terms. Additionally, the FIO Director together

with a representative of the BOG, will serve as non-voting *ex-officio* members. The FIO Council shall elect a Chair biennially from the membership and will meet at least once, in person, each year and by telephone conference as needed. Agendas for the meetings will be set by the Chair of the FIO Council in consultation with the FIO Director and approved by the Provost of the host institution.

The FIO Council may elect to its membership other institutions in the Florida ocean science education and research community that meet the criteria for membership approved by the FIO Council. Criteria for membership will address commitment to the support of shared use facilities; agreement to support legislative budget requests of the FIO as required to maintain and operate these facilities in a safe, efficient and cost-effective manner; commitment to attend all scheduled meetings of the FIO Council and FIO Executive Committee, if appropriate; and completion of assignments in a timely manner as agreed to by the FIO Council or FIO Executive Committee. Similarly, the FIO Council may elect to remove non-SUS member organizations for lack of participation.

The primary function of the FIO Council is advisory to the FIO leadership (the Provost of the host institution and the FIO Director) regarding:

- Development and maintenance of an effective SUS and statewide collaboration that will position FIO as a respected national leader in oceanographic research and education.
- Development and strengthening of networks that facilitate achievement of FIO's mission and goals.
- Policies and procedures involving members.
- Opportunities for efficiency and effectiveness improvements in research and education activities.
- Appropriateness and relevance of grant applications and programmatic research and education contracts.
- Strategic and operational plans.
- Alignment of FIO budget with strategic priorities.
- Adequacy of budget requests and identification of potential sources of revenue;
- Content for the Annual Report.
- Improvements identified by the BOT of the host university or its designee during its review of the Annual Report.
- Findings of the Programmatic Evaluation/Review and correction of weaknesses also identified during financial audits.

The FIO Executive Committee will consist of five (5) FIO Council members including the Council Chair and four elected members. The State University System institutions must comprise at least fifty-one percent (51%) of the Executive Committee and at least one (1) member of the FIO Executive Committee shall be from the host institution. The FIO Executive Committee will meet at least three times per year and provide administrative oversight of FIO in cooperation with the FIO Council and the Provost of the host institution. The Florida Board of Governors' representative, Past Council Chair and FIO Director will serve as a non-voting *ex officio* member on the FIO Executive Committee. Written reports of the items discussed and actions taken at meetings will be sent to the FIO Council via email and posted on the FIO website for the benefit of the FIO Council and interested parties.

The FIO Ship and KML Advisory Committee will consist of at least three (3) members, with at least one from the host institution, elected by the FIO Council and will work closely with the FIO Marine

Superintendent and a member from KML (both serving as ex-officio members) to review requests and schedule awarded ship time, as appropriate.

This committee will assure that the research vessels can work efficiently in all of Florida's coastal ocean and surrounding waters (Straits of Florida, coastal Atlantic, Bahamas, Caribbean, northern Gulf of Mexico). The membership will reflect the geographical diversity of Florida.

Recognizing there are long transit times from the St. Petersburg-based port to Florida's east coast, efficient long-term planning, assisted and overseen by the FIO Ship and KML Advisory Committee, will assure that FIO members will have access to these vessels from Jacksonville to Pensacola. The host university and all participating universities agree to provide appropriate support to effectively manage the costs of vessel operation, maintenance, repair and scheduling. Should those vessels and KML not be available, FIO members will seek information on the availability of other research vessels and other marine laboratory around the state.

State-supported ship time and KML lab time are awarded through an annual competitive process with the goal of optimizing implementation of the established FIO mission and research goals. Faculty or research staff scientists associated with any of the FIO membership institutions may apply. The Ships and KML Advisory Committee will review proposals and make recommendations to the FIO Director for funding. Once the awardees are notified, the FIO Marine Superintendent and/or the KML Operations Manager will establish a tentative schedule. The state-supported ship/lab time will require a 10% cost-share (based on total value of award) by the member institutions receiving state-supported awards. Verification of funding will be provided no later than three months prior to sailing. The FIO Marine Superintendent will establish the schedule for the *R/V Weatherbird II* and the *R/V Hogarth* to assure maximum efficiency. Principle investigators should consult with the FIO Marine Superintendent and the Keys Marine Lab Operations Manager prior to completing proposal budgets to determine an appropriate assessment of needs. It is important to note that any principal investigator from any institution (private or public) in Florida or elsewhere can purchase time on the *R/V Weatherbird II* and *R/V Hogarth* as well as the Keys Marine Lab for legitimate scientific purposes. No single organization has exclusive use of these vessels and KML.

Nominating Committee will consist of three (3) non-Executive Committee Full Members appointed by the Executive Committee. The Nominating Committee will recommend candidates to the FIO Council to serve on the standing and ad hoc committees. The Nominating Committee will meet on an as needed basis to fill vacancies on the standing and ad hoc committees.

The FIO Board of Visitors will have five (5) to nine (9) members appointed by the host institution President, to include two (2) SUS Academic Vice Presidents and two (2) Research Vice Presidents, and others such as a mayor, a port director, an individual engaged in the tourism and restaurant industries, the High-Tech Corridor and a utility company. These appointments will be made in consultation with the FIO Council and the Council of Academic Vice Presidents (CAVP) and serve a three (3) year term to provide broad oversight to the FIO. Members may be reappointed, but shall serve no more than three (3) consecutive terms.

FIO Board of Visitors will serve as a valued resource to FIO by providing advice on best practices for optimizing the resources of FIO and member institutions; to identify strategic directions for potential cooperative programming; to interface with potential funding sources; and to represent FIO and the

vital importance of oceanographic research to the broader community. The Board of Visitors will report to the Provost of the host institution.

By-Laws (*ad hoc committee*)

The FIO Bylaws and any proposed revisions shall be reviewed yearly. Council members shall submit any proposed revisions to the FIO Staff and Chair of the By-Laws Committee at least 30 days in advance of the FIO Council meeting. The Executive Committee and the Provost of the host institution shall review the proposed revisions prior to a full vote of the Council. Amendment of the Bylaws requires a two-thirds vote of the Council.

(d) A five-year budget projects the major sources of funding and expenditures.

A five-year continuing Business Operations Plan and Budget Forecast based upon current state appropriations and auxiliary earnings is presented in Appendix A.

(e) Guidelines for appointing, funding, supervising, and evaluating the AISO leadership position.

The FIO Director will be appointed by the Provost of the host institution in consultation with the FIO Executive Committee and will directly report to the Provost. The FIO Director will submit a FIO Annual Report, work plans, and operating budgets to the Provost. These documents will be reviewed by the Council prior to submission to the Provost. FIO Director may delegate operational supervision within FIO, as appropriate. The work plans will set annual performance objectives, with metrics, in at least the following areas:

- Increase in funds for at-sea research
- New funding sources captured to support new research initiatives
- Ship days fully utilized
- Degrees awarded in targeted areas with support of FIO
- Evidence of new high skilled, high wage jobs created with assistance from FIO
- Federal and total R&D awards/expenditures with assistance from FIO
- Student theses, dissertations completed with FIO assistance
- Educational workshops provided by FIO collaborators
- Publications by FIO members including faculty, researchers, and students as a result of FIO-enabled research
- Adherence to regulations/policies for safe and secure vessel operations (e.g. training sessions offered, copies of inspection certificates, copies of memos to personnel files, counseling sessions, safety seminars)

The FIO Director shall complete an Annual Report no later than September 1 of each year covering the previous fiscal year (July 1-June 30). The report shall include a summary of activities and accomplishments, provide actual expenditure and position data, and include a work plan for the current fiscal year [BOG regulation 10.014 (3) (a)]. Prior to its submission to the Chancellor, no later than October 31 of each year, the report will be distributed to members of the FIO Council for review and comment and will be approved by the Provost and BOT of the host institution.

The FIO Director or director-designated FIO staff will maintain active contact with FIO member institutions by visiting campuses, scheduling and conducting workshops, conducting needs assessments

resulting in priority actions and providing advance knowledge of FIO activities to achieve the goals of the AISO. Under the FIO Director's guidance, the FIO staff has the primary responsibility for operation and maintenance of the vessels, implementation of the ship schedule, and support for Principle Investigators to achieve their research goals; coordination of the education components to achieve the education goals; maintenance of the FIO website; and support for grants and other services provided to member institutions. In the event of a vacancy in the FIO Director position, the host institution Provost shall appoint a search committee and will follow the customary search process of the host institution.

(f) Expectations for administrative and logistical support for the AISO, including expectations regarding reimbursement to the host University for the Direct Costs of administrative services rendered by the university to the AISO.

The host institution shall provide administrative and logistical support to FIO including, but not limited to, reasonable office space with directly related support services, utilities, insurance, personnel services, purchasing, financial, legal, government relations/ advocacy and physical plant services. In the event of any unforeseen or additional costs incurred, the host university and all member institutions agree to provide appropriate support. The budgetary and administrative practices of FIO shall conform to those of the host institution. FIO personnel may be eligible for consideration for appointment to faculty positions at the host institution or participating universities in conformity with established procedures.

All of the above conditions shall conform to all appropriate statutes and the rules and regulations of the BOG.

(g) Procedures for recommending increases/decreases in the appropriation of State funds for the AISO.

An effective FIO effort entails cohesive collaboration reaching throughout Florida. Support from the state legislature and the governor will be essential for achieving practical, positive and sustainable solutions to the coastal oceanographic problems that challenge Florida. Enabling the effective and continued achievement of FIO's goals and mission will enhance the quality of life for Floridians, attract and sustain tourism, provide oceanographic and educational leadership for the state and nation, and stimulate further economic development. Input will be sought broadly from member institutions and organizations interested in the goals of FIO. FIO will prepare state appropriations requests via the established Legislative Budget Request (LBR) process, to be submitted by the host institution in consultation with and on behalf of FIO, through the CAVP to the BOG and shall correspond to the State University System's five-year strategic plan.

(h) Specifications for the processing of Grants and Contracts, including the percentage of overhead funds to be returned to the AISO.

Contracts and grants proposed by FIO to external sponsors (with exception to the RESTORE Act funds) shall be process through the host institution's Division of Sponsored Research. Facilities and administrative costs (also referred to as overhead or indirect costs) will be charged using appropriate F&A rates as agreed and approved by the Host Institution President, Provost, Division of Sponsored Research and FIO Director or as otherwise negotiated for exceptions with the host institution (Appendix B). The host institution's earned facilities and administrative costs will be managed in accord with Florida Statute 1004.22(5) with any balances earned by FIO to be distributed in accord with the host institution's Research Initiative Account (RIA) practice for the given year.

(i) Ongoing planning and operating expectations and criteria for the cyclic review of the AISO.

Planning and performance assessment shall take place every year on a five-year strategic planning cycle. All operations are to be included in the plan. Annual work plans will be developed to support each Strategic Plan component. Progress towards the goals will be assessed within the Annual Report and the annual evaluation of the FIO Director and in the Programmatic Evaluation/Review.

The minimum five-year Programmatic Evaluation/Review required for each AISO [BOG Regulation 10.0014(3)(b)2] will be conducted by the host institution, with the advice and input of the FIO Council and the FIO Board of Visitors and will include, at least:

- A determination of FIO's progress against the defined goals and objectives within the context of the FIO mission, the participating universities' missions, and the current BOG Strategic Plan.
- An assessment of the return on investment of state dollars.
- The need for continuation of the AISO.
- Proposed changes in the FIO mission or organizational structure.
- Recommendations for budget reductions or expansion.
- Recommendations for status or location change, if applicable.

The BOG, the CAVP, and/or the host institution may request a programmatic review outside of the cyclical review schedule. A copy of all review reports shall be provided to the CAVP to inform any budget related recommendations.

The conditions of termination of the AISO are included by reference to the BOG AISO regulations cited at 10.014(4)(a)(b)(c)(d).

(j) RESTORE Act.

In August 2014, U.S. Treasury Department released the Interim Final Rulemaking for the RESTORE Act. The Florida Institute of Oceanography was designated as the Gulf Coast State Entity responsible for administering and coordinating Florida's RESTORE Act Centers of Excellence Program (FLRACEP). RESTORE Act regulations, sub-part H, section §34.700, which is mandated to receive 2.5% of Trust Fund principal plus accrued interest, each of the five Gulf coast state entities will receive 0.5%.

Treasury required FIO to formulate a plan to monitor and minimize conflict of interest within FIO. To do so, several Memoranda of Understanding (MOUs, Appendix C) were executed by the FIO Director and USF, as the Host Institution. These MOU's are to ensure that all RESTORE Act activities are to be handled by the FIO Director, FLRACEP Program Director, FIO Budget Director and the FLRACEP Program Management Team. This plan guarantees that all real and perceived conflicts of interest are carefully monitored and minimized, which is necessary to ensure eligibility for all FIO members who wish to apply for and receive funds through the FLRACEP competitive process, approved by the U.S. Treasury Department.

The FLRACEP will include the following organizational elements:

- **Program Office:** FIO will support the program office and host a Program Director and part time Coordinator (as needed) responsible for tasks defined in the Treasury's RESTORE Act Centers of Excellence Research Grants Program Guidelines.
- **Program Management Team:** An independent body that provides the FLRACEP guidance and engages in the development of program strategic plan, funding strategies, solicitation reviews and funding approval.
- **Science Review Panel:** The SRP is an ad hoc team responsible for technical review of grant proposals.
- **Partners:** Program partners to be engaged both informally and under formal agreements include, but are not limited to, other Gulf coast state entities and their CERGP; other RESTORE Act components (sections 1603 and 1604); National Fish and Wildlife Foundation Gulf Environmental Benefit Fund; National Academies of Science Gulf Research Program; Natural Resources Damage Assessment and Restoration Program; Gulf of Mexico Research Initiative; North American Wetlands Conservation Act, Gulf Program Fund; Florida Department of Environmental Protection; Florida Fish and Wildlife Conservation Commission; Florida Gulf Coast Counties; and other programs that may be funded by future litigation or settlements.

Program Management Team (PMT) Governance:

The PMT members provide services in support of several on-going program tasks including:

- **Strategy:** Provide guidance on the program strategic plan, including review, feedback and approval of the annually updated plan. The FLRACEP Policies and Guidelines will be reviewed on an annual basis.
- **Implementation:** This role includes participation in competitive grants selection process; and includes final decisions about Letter of Intent responses, proposals selected for funding, and development of future Requests for Proposal topics.
- **Progress Evaluation:** Attend the all-hands meetings and intermediate progress reporting calls/webinars; and review submitted progress reports including the annual report to the Gulf Coast Ecosystem Restoration Council and semi-annual reports to the Treasury's Office of Gulf of Mexico Restoration.

The PMT will consist of 7-8 experts, which may include the FIO Director. PMT members will have experience in business, program management, science and technology related to the program's mission and knowledge of the Gulf Coast Region. In order to avoid perceived conflicts of interest, PMT members are required to not compete for program grant funds and must complete the COI disclosure; elect a designated Chair annually who will work with the FLRACEP staff to facilitate all PMT meeting(s) and complete the tasks as described for the program. If the FIO Director holds a faculty position at a host institution, to ensure that FIO averts a conflict of interest and remains compliant with the RESTORE Act Standard Terms and Conditions, the following will apply to the FIO Director:

- Shall not participate in the selection of any PMT vacancies.
- May identify and recommend experts to participate in the science review panels. The PMT will review and vote to approve the recommendations.
- May not serve as the Chair of the PMT.
- Shall be recused from the proposal review and selection of FLRACEP sub awards to USF.



**The Florida Institute of Oceanography (FIO)
The State University's System (SUS) Commitment to Education and Research on Florida's
Coast Ocean Environments
Renewal of the Academic Infrastructure Support Organization (AISO)
2021-2025**

Vision Statement

The Florida Institute of Oceanography will enable excellence in coastal and ocean science and education. To do so requires advancing science, technology and education through state-of-the-art infrastructure, multi-institutional and cross-disciplinary activities, information sharing, public private partnerships, diversity and inclusivity, and socially relevant programming.

Mission Statement

The Florida Institute of Oceanography ensures sustained excellence in marine research and education through the advancement and availability of infrastructure, development of partnerships, and the enabling of outcomes that benefit the people of Florida. FIO serves as an enabler, facilitator and coordinator across academia, state and federal agencies, ocean science organizations and the private sector.

Consistency with the Board of Governors' (BOG) Strategic Plan

Approved by the Florida Board of Governors, the Florida Institute of Oceanography (FIO) was established in 2009 as an Academic Infrastructure Support Organization (AISO) by the State University System (SUS) Council of Academic Vice Presidents and was ratified by the presidents and chairs of the Board of Trustees of each member institution.

FIO's vision, mission, and goals of the AISO since the establishment remains aligned with the BOG's Strategic Plan¹ of the State University System of Florida as applied to issues and opportunities concerning Florida's ocean environment. The BOG adopted a new Strategic Plan through 2025² that provides guidance for the current FIO Strategic Plan 2021-2025. Importantly, the BOG's current Plan highlights new trends of demand and growth for higher education, but in the context of budgeting realities to support increased demand. The BOG emphasizes strategic investments especially in the Science, Technology, Engineering and Mathematics (STEM) fields as they are critical for leading Florida's next generation of innovators and entrepreneurs.

¹ Adopted by the BOG on June 9, 2005; refreshed on November 6, 2014.

² Board of Governors, State University System of Florida. 2025 System Strategic Plan (Amended October 2019)

The Mission of the State University System of Florida is guided by Article IX, Section 7 of the State Constitution of Florida. An important function of AISOs of the SUS addresses Section 7(d): “defining the distinctive mission of each constituent university and its articulation with free public schools and community colleges, ensuring the well-planned coordination and operation of the system, and avoiding wasteful duplication of facilities or programs.” Thus, FIO’s mission and Strategic Plan not only align with the BOG’s mission, but serve a crucial function in reducing “wasteful duplication” among the SUS members by providing ocean science and education infrastructure for the service of all.

“The mission of the State University System of Florida is to provide undergraduate, graduate and professional education, research, and public service of the highest quality through a coordinated system of institutions of higher learning, each with its own mission and collectively dedicated to serving the needs of a diverse state and global society.”

FIO directly addresses the SUS mission by providing 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.

Access for students, faculty and research scientists to marine research facilities in the form of research vessels and the Keys Marine Laboratory i) enhances the recruitment and retention of talented professors; ii) attracts more high-ability Bachelor’s, Master’s and PhD students and results in more degrees awarded in related high-demand, high-skilled and high-wage targeted areas; iii) increases the interface with public and private employers of marine scientists leading to new job creation and economic growth; and, iv) fosters cooperation and collaborations that produce publications, awards, and recognition for the SUS as a national leader in coastal oceanographic education and research.

The BOG Strategic Plan also identifies goals that FIO Council members have identified as their goals to increase certain activities. As described in the Florida Institute of Oceanography: Member Survey and Recommendations, July 2015, members indicated that FIO should increase collaborations with their communities and businesses, impact economic development in the field of ocean sciences and work with partner universities and organizations to attract external funding for infrastructure and educational programs. The FIO Strategic Plan (2021-25) incorporates new and exciting approaches to supporting business engagement with Florida’s \$40B maritime “blue” economy and fully addresses each of the three Goal Areas identified in the BOG Strategic Plan:

Teaching & Learning is addressed through FIO’s direct support of infrastructure enabling access for SUS faculty and students to have access to the ocean environment and to the Florida Keys Reef Tract. FIO’s development of an education line office provides special attention to the needs of faculty and students using FIO resources and creates areas of responsibility of FIO senior leadership to support education objectives. Ultimately, the function of FIO is to enable SUS faculty, students and researchers with access to the sea and to state-of-the-art equipment so that research and scholarly production is accelerated. FIO continues to offer creative, multi-institutional course offerings and desires to expand this function. Moreover, FIO’s expansion to include non-science disciplines such as Humanities, the Arts, and entrepreneurship, creates avenues for cross-disciplinary of students.

Scholarship, Research, & Innovation is addressed through FIO's direct support of research by providing SUS faculty and researchers access to modern oceanographic equipment, research vessels and laboratories. While extramural research is not subsidized, FIO may use appropriated state funds to serve as a match when required by the sponsoring agency. The costs of research facilities to investigators is further reduced by maintaining redundancy across vessel crews and KML staff (avoiding more expensive short-term staffing and keeping overtime payouts to a minimum) and by maximizing the utilization rates (thus reducing the cost rates for everyone). In short, reducing costs for individual research projects increases funds available to support other aspects of the scientific innovation endeavor. FIO is also establishing a Line Office for Research Support under which major consortium-level research programs will be managed under a new FIO Chief Scientist. These will include science management and coordination of the Florida RESTORE Act Center of Excellence Program and the new Florida Coastal Mapping Program Office.

Community & Business Engagement is addressed through the creation of a new Business Engagement Support Line Office under a Business Engagement Coordinator. This office will leverage the power of the FIO consortium to create connectors between the SUS marine research community, government, non-governmental entities, the private sector and entrepreneurship across Florida. FIO will work in collaboration with the Florida Ocean Alliance (FOA) to use those existing private sector networks to the benefit of both organizations' missions. FIO is a member of FOA, and FOA membership is pending FIO Council approval in June 2021.

The Importance of Infrastructure Support

The citizens of Florida are entering a period of intense need for ocean scientists, coastal managers, and fisheries specialists. While the pandemic of 2020-21 showed us new ways to train students using a virtual environment, it has also reinforced the need for experiential learning and research opportunities in marine settings. The need for ocean research and education infrastructure is greater in 2021 than it has been in any year prior. FIO, under its new Strategic Plan, will continue to expand partnering opportunities to increase utilization and access to FIO infrastructure for all of the SUS members under the AISO mission.

FIO manages two large research vessels for seagoing research and education, shared-use facilities such as the Keys Marine Laboratory, and a pool of specialized equipment (e.g., autonomous underwater vehicles, observing platforms and sensors). These facilities, in sum, reflect approximately \$50M value in infrastructure if they were to be replaced with the 2020 USD.³ The fully utilized⁴ annual operating costs for FIO infrastructure is \$5M.

FIO infrastructure is more than monetized value of the physical facilities. Total lifetime infrastructure costs have three interconnected financial elements: Acquisition and Start-Up, Operation and Maintenance (O&M), and End-Of-Cycle Replacement. Significant overlap often occurs among these phases and thus, the realized expenses are never constant from fiscal year-to-year. While the purpose of an AISO is to provide SUS institutions access to common facilities to reduce “wasteful duplication”, this can only be accomplished with a business model that i) identifies and acquires the right infrastructure, ii) creates a portfolio of funding streams to operate and maintain the infrastructure, iii) plans for the eventual replacement at the end of infrastructure’s useful life.

Scientific research, and the training or engagement of students in science, is inherently expensive because of the specialized facilities and equipment required. Ocean science is even more expensive because of the facilities, the exposure to those facilities to a constant and corrosive environment, and the reality that these facilities, especially marine laboratories in the southeast United States, are increasingly vulnerable to storms and the long-term risks of climate change and sea level rise.

Research Vessels *Weatherbird II* and *Hogarth*

FIO maintains and operates the 40-year old *R/V Weatherbird II*, a 118’ vessel capable of extended research cruises accommodating up to 15 scientists, and the 3-year old *R/V Hogarth*, a 78’ vessel designed for shorter duration trips with modern capabilities suited for seafloor mapping and remotely operated vehicle deployments. The *R/V Hogarth* was built with much appreciated funding from the Florida Legislature and return on that investment continues to increase even following the 2020-21 pandemic.

Research vessel demand in the southeast US region (centered in Florida, expanding into Gulf of Mexico, Caribbean and Atlantic south of North Carolina) is currently met by three classes of vessels: smaller coastal vessels similar to *R/V Hogarth* operating at \$7,500 per day, mid-sized vessels similar to *R/V Weatherbird II* operating at \$10,000-\$15,000 per day, and larger regional class vessels operated by the federal government above \$25,000 per day. Privately owned vessels do maintain contracts for

³ Estimated as full replacement value from current insurance coverage accounting for 2020 construction costs.

⁴ Based on 310 operating days for vessels, and 50% overnight stays and 80% seawater system usage at KML.

scientific purposes but these vessels are generally about 35% more expensive to lease, are licensed and operated differently under USCG rules, and are not permanently equipped with the scientific instrumentation of the academic research fleet.

Currently, there is one other coastal class vessel in Florida, the *R/V Apalachee* (Florida State University), and as many as 10 other small vessels operating around various institutions outside of Florida. As a purpose-built, state-of-the-art coastal research vessel, the *R/V Hogarth* is in demand for AISO support at a rate 2-3x higher than can currently be met based on current year requests from SUS members. The price point for the *R/V Hogarth* is competitive, and the market continues to bear a revenue stream outside of the AISO subsidized support that meets approximately 50% of the vessels annual auxiliary operating budget.

There are three other mid-sized vessels in the operating southeast US/Gulf operating area: The *R/V Walton Smith* (University of Miami) and the *R/V Pelican* (Louisiana Universities Marine Consortium) are operated by the National Science Foundation, and the *R/V Point Sur* (University of Southern Mississippi). Currently, there is no regional or global class vessel homeported in the operating area, but these classes of vessels transit from northeast homeports to conduct large-scale oceanographic research. The *R/V Weatherbird II*, like *Hogarth*, receives 2-3x more AISO support than can be provided, and the outside market continues to be strong for *Weatherbird II* to offset most of its annual auxiliary operating budget.

Future Needs: The future of oceanographic research vessel capacity in the US southeast, Gulf of Mexico and Caribbean is on the verge of dramatic change. In 2024, a new 200' Regional Class Research Vessel will be commissioned to service the region at an estimated \$25,000 per day and owned by the National Science Foundation. To accommodate the new vessel for NSF, *R/Vs Pelican* and *Point Sur* will be retired by the end of 2023. The *R/V Walton Smith* will be 30 years old at the end of this decade with no plans for a replacement. Thus, there is a shift from less expensive, mid-sized oceanographic vessels to fewer (only one planned) but more expensive, regional class vessels. This will leave a capability and price-point gap over the next 3-10 years that is currently being filled by the aging *R/V Weatherbird II*.

Keys Marine Laboratory

The principal function of KML is to serve the academic research community of the SUS, and this is accomplished by 1) field trips supporting undergraduate and graduate programs across the state and region, 2) research support for a number of projects requiring access to the rich coral reef-seagrass-mangrove complex ecosystems surrounding KML, and 3) state-of-the-art seawater systems for the culture and experimentation of corals and other organisms needed for the long term survival and recovery of these critically threatened and endangered species.

The majority of KML's facilities were built between 1950 – 1970 and have reached their intended maximum useful life. These facilities are built at-grade which is a maximum of 4' above sea level which makes the KML facilities especially vulnerable to sea level rise and inundation from storm driven tide, wind and flooding rains. The KML facilities are not sustainable without near-term funding to elevate and modernize the main laboratories, increase the capacity to serve a growing student population, and to stabilize bulkheads against an onslaught of increased storm activity across the Florida Keys. The Keys Marine Laboratory is a centerpiece of Florida's commitment to recovery and restoration of coral reefs, yet this showcase facility is threatened by the very environmental changes it is intended to understand. In addition, short-term housing is the bottleneck for KML utilization by visiting faculty, students and

researchers. The current pandemic has highlighted the increased appetite for experiential learning at facilities like KML, and the facility is turning away groups because of lack of short-term housing. Finally, we anticipate creating a facilities hub for both state (e.g., FWC/FWRI and DEP) and federal (e.g., NOAA and USGS) partnerships that could be housed at KML with space expansions.

Infrastructure Upgrade and Support Requests

FIO is at a critical point for meeting its mission to advance and make available the infrastructure needed by its SUS membership. Three key requests will be made over upcoming legislative cycles to ensure the long-term access to oceanographic vessels and the Keys Marine Laboratory:

- 1) By end of CY 2023, secure funds for the replacement of *R/V Weatherbird II* with a vessel of similar operating class and cost. FIO will submit a Legislative Budget Request through the Host Institution to support the purchase and refit of an existing vessel (anticipated total cost of \$8M).
- 2) Request an additional \$1.3M annually to FIO as a recurring LBR. These funds will go entirely to fund SUS utilization of research vessels and KML, and will increase AISO utilization of FIO infrastructure from 25% at present to a minimum 50%, with remaining operating costs supported through research grants and other external vessel contracts.
- 3) Working through the Host Institution, FIO will develop a Keys Marine Laboratory upgrade plan to elevate and harden facilities against storms and inundation while expanding capacity for SUS and other FIO consortium members to include state and federal agencies, non-profits, and industry partners working toward the same goals of conservation and restoration science in the Florida Keys. Anticipated costs for new research, core administrative, and lodging facilities will be around \$32M with partnership investments sought between state, federal, and private sources.

Funding Sources to Support Operating Expenses

FIO receives appropriated funds from the Florida State Legislature through the Host Institution, University of South Florida (USF), under an MOU with USF. Under the current appropriation, FIO covers about 25% of the auxiliary operating budgets for the two research vessels and the Keys Marine Laboratory. In the next legislative cycle, FIO will submit a recurring LBR of \$1.3M annually to increase AISO support of infrastructure to 50% so that it aligns with the mandated minimum 50% representation of FIO Executive Council by SUS members. This increase would ensure not only the majority rule by SUS members, but the majority utilization of the infrastructure.

FIO has greatly appreciated the support from the Florida Legislature and its Host Institution, USF, which provides numerous in-kind services. State appropriations increased between 2009-2015, especially with two significant LBRs supporting operations. The loss of a recurring LBR (\$1.2M annually) in FY 2017-18 greatly impacted FIO's ability to meet SUS requests for access to vessels and KML. FIO looks forward to the support of the Council of Academic Vice Presidents (CAVP) as it requests a recurring LBR of \$1.3M to restore FIO's ability to fund the SUS requests for vessel and KML access.

To meet the other 50% of the annual operating budget, FIO relies on a portfolio of revenue from state and federal research grants and contracts, including grants originating from FIO that support the FIO Mission, and contracts with for-profit and non-profit private sector. Specifically, two grant-funded offices exist within FIO to support long-term research needs of Florida.

Florida Restore Act Center of Excellence (FLRACEP) Office. In August 2014, U.S. Treasury Department released the Interim Final Rulemaking for the RESTORE Act. The Florida Institute of Oceanography was designated as the Gulf Coast State Entity responsible for administering and coordinating Florida's RESTORE Act Centers of Excellence Program. The Treasury required FIO to formulate a plan to monitor and minimize conflict of interests within FIO. To do so, several Memoranda of Understanding (MOUs, Appendix C) were executed by the FIO Director and USF, as the Host Institution. These MOU's are to ensure that all RESTORE Act activities are to be handled by the FIO Director, FLRACEP Program Director, FIO Budget Director and the FLRACEP Program Management Team without any conflicts of interest.

Florida Coastal Mapping Program (FCMaP) Office. In May 2021, with FIO Executive Committee support, FIO opened the FCMaP Office to support the goals of state and federal agencies for the purpose of mapping Florida's coastline and seafloor in support of disaster preparedness and response, climate and sea level impacts, resource utilization and management, and other applications requiring high-resolution seafloor information. This effort aligns with the National Ocean Mapping, Exploration and Characterization (NOMECE) Plan and several mapping agreements such as USF's cooperative agreement for mapping with the National Oceanic and Atmospheric Administration and the University of Florida's FLRACEP Center of Excellence for ocean mapping. The Terms of Reference identifying members and responsibilities for the FCMaP Science and Technology Advisory Committee are provided in Appendix D.



Florida Institute of Oceanography Strategic Plan 2021-2025

“Enabling Excellence in Marine Science, Technology and Education”

The Florida Institute of Oceanography (FIO) developed its third-generation strategic plan following a 10-year period of growth and, at times, contraction of activities. The first strategic plan (2010-15) focused on developing an organizational framework that emphasized education, research, outreach, communication, networking and collaboration. The goals were expansive and focused on developing a broad membership to share responsibilities for infrastructure assets. The second strategic plan (2015-20) was built on the successes of membership expansion from the earlier plan. That plan took a more comprehensive member-focused approach to identify key areas of focus along with a metrics-oriented plan to assess success. The current strategic plan (2021-2025)⁵ maintains the track of the 2015-20 plan in that it relies on data from the 2015 Member Survey. The stated goals and Key Performance Indicators have been updated, aligned to areas of responsibility, and introduce a vision to embrace a modern, diverse and inclusive society. FIO maintains its course as an enabler, facilitator and coordinator of the State University System’s core membership along with the growing participation of Associate and Affiliate members representing the breadth and depth of Florida’s coastal and ocean-focused community, environmental needs and economy.

To form the basis for the current strategic plan, the FIO Director, FIO Leadership Team, and FIO Council⁶ conducted an internal assessment to generate a set of five Guiding Principles:

- FIO will advance its mission through safe, efficient and effective operation of FIO facilities and vessels.
- FIO will position itself for success by promoting a data-priority culture.
- FIO will identify, acquire and support “state-of-the-art” technologies and platforms to keep the SUS institutions at the national and international forefront of ocean science and education.
- FIO will advocate for informed ocean and coastal stewardship of Florida’s coastal and ocean resources.

⁵ The Years 2020-21 were incorporated into the previous strategic plan due to changes in FIO leadership and the COVID-19 pandemic. The current strategic plan will be over a four-year cycle to return the planning cycle to its original intent.

⁶ The current FIO Director assumed the position in January 2021, assembled and mobilized leadership, and worked with FIO Council and Executive Committee to assess status, trends and performance in context of current and projected needs.

- FIO will extend the scientific, social and economic reach of the consortium through broad stakeholder, multi- and trans-disciplinary initiatives. This will include activities that increase diversity, equity, inclusiveness and social justice.

FIO Mission Refinement

The Vision, Mission and Strategic Plan of FIO must reinforce the Strategic Priorities of the Board of Governors of the State University System (SUS) of Florida⁷ as well as the Principles of Community and Strategic Plan of the host institution, the University of South Florida⁸. In previous FIO strategic plans, the emphasis has been on *directly* supporting: “Teaching & Learning” and “Scholarship, Research, & Innovation.” However, “Community & Business Engagement” was largely under-represented in planning. The current FIO Strategic Plan recognizes the importance and incredible opportunities around Florida’s ~\$40 Billion maritime ‘blue’ economy⁹. Therefore, attention has been given to extending the economic reach of the consortium through community, state, regional, national and international activities that ultimately benefit Florida’s economy and workforce. FIO leverages the power of its consortium membership and its growing stakeholder relationships to both *directly* and *indirectly* support all of the SUS Board of Governors’ Strategic Priorities.

GOALS	EXCELLENCE	PRODUCTIVITY	STRATEGIC PRIORITIES
TEACHING & LEARNING	Strengthen Quality & Reputation of Academic Programs & Universities	Increase Degree Productivity & Program Efficiency	Increase the Number of Degrees Awarded Within Programs of Strategic Emphasis
SCHOLARSHIP, RESEARCH, & INNOVATION	Strengthen Quality & Reputation of Scholarship, Research, & Innovation	Increase Research Activity & Attract More External Funding	Increase Commercialization Activity
COMMUNITY & BUSINESS ENGAGEMENT	Strengthen Quality & Recognition of Commitment to Community & Business Engagement	Increase Community & Business Engagement	Increase Community & Business Workforce

In addition to Board of Governors’ Strategic Areas, FIO maintains continuity with the core principles and goals of the host institution. The University of South Florida’s Principles of Community further emphasize the connectedness of people, education, innovation, and the prosperity through commitments to Excellence with Equity, Diversity with Inclusion, Freedom with Responsibility, Dialogue with Respect, and, Transparency and Accountability. The host institution’s Goals include, to:

1. Promote the lifelong success of well educated, highly skilled, and adaptable alumnae/alumni who lead enriched lives, are engaged citizens and thrive in a dynamic global market.
2. Conduct high-impact research and innovation to advance frontiers of knowledge, solve global problems and improve lives.

⁷ State University System Board of Governors, Strategic Plan 2012-2025.

⁸ <https://www.usf.edu/president/principles-of-community/index.aspx>

⁹ Florida Ocean Alliance (2020). “Securing Florida’s Blue Economy: A Strategic Plan for Florida’s Oceans and Coasts.”

3. Be a major social and economic engine creating robust global, national and regional partnerships to build a prosperous and sustainable future for our regional communities and the State of Florida.
4. Provide a safe, inclusive and vibrant community for learning, discovery, creative activities and transformative experiences enabled through adaptive design of physical, social and digital environments.
5. Practice continuous visionary planning and sound management throughout USF to ensure a strong and sustainable financial base, and to adapt proactively to emerging opportunities in a dynamic environment.

Further refinement of the FIO Mission for 2021-2025 incorporates the need for a sustainable future that extends beyond the sciences and into the realm of those who indirectly benefit from ocean and coastal science that contribute to a healthy and sustainable environment.

Diversity, Equality, Inclusiveness and Social Justice

The previous FIO Strategic Plans and Missions were developed outside the context of a role for FIO in the national conversation around social inequalities and injustice. FIO recognizes that the sciences, ocean and coastal sciences in particular, have lacked diversity. This has led to a lack of diversity in thought and perspective in the ocean and coastal sciences, a lack of connectedness to environmentally vulnerable communities, and a loss of talent for innovation and prosperity. FIO is in a position to reverse trends by connecting the incredibly talented and diverse pool of SUS students and faculty mentors with like-minded non-SUS stakeholders. The new FIO Mission reflects the need for socially relevant programs to meet the needs of a diverse Florida populace connected to the sea.

Mission

The Florida Institute of Oceanography ensures sustained excellence in marine research and education through the advancement and availability of infrastructure, development of partnerships, and the enabling of outcomes that benefit the people of Florida. FIO serves as an enabler, facilitator and coordinator across academia, state and federal agencies, ocean science organizations and the private sector.

Vision

The Florida Institute of Oceanography will enable excellence in coastal and ocean science and education. To do so requires advancing science, technology and education through state-of-the-art infrastructure, multi-institutional and cross-disciplinary activities, information sharing, public private partnerships, diversity and inclusivity, and socially relevant programming.

Core Values

Cooperation, Coordination and Participation – of members to solve problems related to the coast and oceans and to facilitate education and training of marine scientists who reflect the diversity of the State of Florida and the nation.

Collaboration and Communication – among members to leverage the collective vast and deep expertise to benefit Florida in the context of a national and international conversation on critical issues and to communicate outcomes for the advancement of science-based decisions.

Transparency and Accountability – in all interactions that support the members, member institutions and the State University System of Florida.

Tag Line

“Enabling Excellence in Marine Science, Technology and Education”

Strategic Goals, Objectives, and Key Performance Indicators (KPIs)

The 2021-2025 Strategic Plan is organized into four broad goals that align to a revised structure for organizational responsibility: Operations, Education, Research, and Finance. This reorganization is critical as it creates a mechanism for organizational responsibility and accountability. The functions of communications and FIO member relations are elevated to a Communications Office at the Administrative (Director's) Level of the organization. This move recognizes the overarching importance of what was previously characterized as "Information" and "People" and will be the responsibility of a redefined FIO Communications Officer.

This Strategic Plan utilizes Key Performance Indicators (KPIs) rather than metric-based reporting. The use of KPIs follows SMART (Specific, Measurable, Attainable, Relevant, Timely) methodology as a means of not only tracking performance (as in metric-based methods) but also providing timely information that can be used to adjust the plan.

Substantive Changes from 2015-2020 Strategic Plan

- Updated FIO Mission to be consistent with current SUS member needs and not only provide for the availability of infrastructure, but also for the advancement of FIO infrastructure to prepare for anticipated requirements.
- Updated Vision Statement to encompass the role that FIO should have in fostering diversity, inclusivity and social environmental justice as part of its enabling capacity.
- Aligning the four core goals of: Infrastructure, Education, Research, and Business Engagement with Leadership Team Areas of Responsibility that are mapped to a revised organizational structure. This is critical for assigning, tracking and assessing activities to meet objectives.
- Elevate Communications & External Relations and Finance Administration & Budgeting Offices to the Director's office as they provide overarching functions to FIO. This better reflects the function of transparency, accountability, information sharing and communication within FIO.
- Establish an Education Support Office to facilitate the development of FIO-sponsored educational programs in collaboration with SUS and other members as identified in the 2015-20 Plan and to develop processes to work among SUS institutions for grade and tuition distribution. An Education Support Office will coordinate and facilitate in designing, delivering and assessing consistency in policies and procedures when multiple institutions are participating.
- Establish a Research Support Office to foster coordination of large, multi-institutional, public private partnerships and other research-oriented opportunities. FIO's infrastructure depends on the success of the collaborations among the FIO membership.
- Establish a Business Engagement Office to facilitate interactions, including R&D, industry clusters, government agencies, and workforce pipelines to support Florida's ocean-based economy.
- Expanding SUS Subsidized Ship-time and Keys Marine Laboratory (KML) utilization to include integrative programming that includes nontraditional disciplines such as humanities, business, and social sciences when they may benefit from these facilities and support the FIO Mission.

Goal 1: Operations

FIO will provide for the safe, efficient and effective operation of research vessels and the Keys Marine Laboratory. The Marine Superintendent of vessels and the Director of the Keys Marine Laboratory will plan for, coordinate and execute the efficient use of the members' expertise and resources to facilitate and support the research of scientific investigators and students, engage external contractual opportunities, and provide opportunities for community outreach. FIO will work with members to increase participation of underrepresented groups across Florida, operationally support programs that promote and engage underrepresented students in FIO supported activities, and facilitate entrance into the ocean-related workforce.

While the FIO vessels, scientific equipment pool and KML are the primary physical assets available through FIO, member institutions also have a wide array of facilities and equipment that can be utilized (and possibly co-branded) by the FIO membership. FIO will maintain an inventory of substantive marine research and education infrastructure and will enter into agreements with members and other key stakeholders when FIO might assume an active role in the management or operations of these facilities and equipment.

The most pressing needs for operational sustainability of FIO is i) the replacement of the 40+ year old *R/V Weatherbird II*, ii) elevating, hardening and modernizing the core education, science and administrative facilities at the Keys Marine Laboratory, iii) increasing overnight lodging capacity at KML to increase utilization rates, and iv) establishing a budgetary process for the auxiliary units that clarify expense and revenue streams and allow for an understanding of the true necessary financial support from the state to operate FIO assets. These priorities require deliberate, yet urgent, discussion and business planning (that is already underway).

FIO Council Responsibilities: Communicate opportunities to constituent faculty and students; maintain a Vessel and KML Committee to review and rank subsidized opportunities; support the use of FIO facilities through grants and contracts; minimize overlapping and competing efforts; enhance FIO's position to manage or operate member assets with co-branding opportunities.

Objectives and KPIs

Objective 1: Increasing utilization rates of research vessels and KML through targeted communications and marketing, development of new agency agreements to supporting direct access of facilities (e.g., during emergencies and environmental crises), improved industry relationships, and new investments for facilities operations by the state.

KPIs: Utilization rates of facilities by FIO members; requests for subsidized use by SUS members; agreements with agencies in place; funds supporting FIO operations received.

Objective 2: Develop and implement facilities modernization plans, including a replacement plan for the *R/V Weatherbird II* and an infrastructure plan to elevate and harden KML core facilities and increase lodging capacity at KML.

KPIs: Plans developed to include business models, projected return on investment, project scoping and design elements; implementation of plans with project management procedures in place.

Objective 3: Stabilize operations budgets through use of longer-term needs outlooks, scheduling procedures and programming support for Education and Research Support Offices.

KPIs: Reservations and requests over out-years.

Objective 4: Establish service centers within the auxiliary units to clarify and strengthen annual operating budgets for vessels, KML and a scientific equipment pool.

KPIs: Service centers established.

Business Model and Timeline: The core function of FIO is to provide access to and financial support for modern facilities for its SUS constituents. The new structure for tracking expenses and revenues within the individual auxiliary units will allow FIO to understand the actual costs of these units and to improve budget planning and funding requests (both base budget realignments and recurring and non-recurring Legislative Budget Requests). This financial model for operations will be in effect by end of CY2021 so that requests for support of SUS subsidized activities can be fully implemented by FY 2022-23, following legislative requests through the host institution.

A complete understanding of facilities operating expenses and revenues will also guide decisions for an *R/V Weatherbird II* replacement and KML facilities upgrades as these rely on a clearer picture of finances than currently available. User needs assessments for all operating facilities are being developed and will be complete and available for the host institution and FIO Council review during Q1 of CY 2022. At present, a *Weatherbird II* replacement plan should be completed by end of CY 2022 with acquisition and operationalization of replacement vessel by Q2 of CY2023. A KML facilities upgrade plan will be complete by Q2 of CY 2022 with funding requests in place by end of CY 2022 and construction starting by end of CY 2023.

The current utilization rate of vessels and KML by the SUS institutions¹⁰ has been a result of a thin operational budget. The combined state base funding, auxiliary earnings and indirect return cover a large portion of the overall operating budget leaving little mobility to increase support to the SUS members. It is imperative that FIO doubles the facilities utilization rate to meet the SUS' faculty and student demand.

¹⁰ Over period of FYs 2017-20, FIO has committed funds from the state appropriation to support SUS activities totaling about 25% of the operations of vessels and KML. The remaining 75% of the operational budgets for vessels and KML are from grants and contracts. The goal is to have 50% of vessel and KML operations derived from state support to meet SUS requests.

Goal 2: Supporting Education

FIO will provide a venue, either physical or virtual, for offering collaboratively developed, multi-institutional, cross-disciplinary, and experiential curricula that would benefit from a partnership approach due to logistics, finances, and participation. FIO will seek and provide resources and value-added opportunities for educational programs for students at all levels of higher education, sustain and build upon existing educational programs, and promote new programs and partnerships that expand FIO's role in marine science throughout Florida and the nation. FIO will use its networking capacity to help its members develop national and international leaders in the marine and coastal sciences.

A newly created FIO Education Coordination Officer will identify, plan for, implement and coordinate educational activities with faculty and instructors, including processes needed to manage tuition and fees, resource instructional positions, distribute grades or assessments, centralize communications and expectations, serve as the contact for disability accommodations, and coordinate facilities and travel for students and instructors.

FIO Council Responsibilities: Communicate opportunities and work with students and instructors at member institutions for entry; grow and expand the Marine Field Studies and the Applied Methods in Fisheries Science courses through participation; identify and communicate ideas and plans for new courses; provide institutional solutions to problems and barriers to implementation; enhance FIO's position to offer marine and coastal educational opportunities that serve the SUS needs at a greater level than the member institution can provide alone.

Objectives and KPIs

Objective 5: Develop leadership and networking opportunities among the SUS' students and early career faculty and researchers such as a cohort-based professional development program, creating a clearinghouse site for student internship opportunities, hosting virtual and in-person job fairs to connect students and graduates with the marine industry in Florida.

KPIs: Internship placement; Job placement and prospective employer connections; Participation in and feedback from development workshops.

Objective 6: Develop and coordinate specialized courses and training programs among member institutions in order to increase participation by students and maximize efficiency for SUS member institutions in areas such as marine technology, mapping and charting, K-12 teacher training in the ocean sciences, and other courses as identified by the FIO Council.

KPIs: FIO-managed courses offered; Student participation; SUS institutions represented.

Objective 7: Work with non-SUS consortium members (e.g., aquaria and agencies) with educational and work programs to provide experiential educational opportunities and internships for SUS students.

KPIs: Internship and student work placement; Experiences offered and received.

Business Model and Timeline: As an AISO, the focus of support for infrastructure is based on utilization of the SUS membership for academic needs. The model FIO is establishing expands to include and emphasize FIO-coordinated curricula. The current structure focuses on member-coordinated courses, but this model relies on distributed management. It would be most effective and efficient to manage tuition and grade distribution (and other academic resourcing such as disability accommodation)

through FIO using an Education Coordination Office. In turn, the Academic Coordinator will work with the host institution for academic processing needs (such as credit transfers) and with the host institution bursar's office to manage tuition and fee recovery, as needed, to hire instructors and cover other course expenses. An academic programming plan will be generated by Q2 of CY 2022 and an Academic Coordinator will be hired in Q2 of 2022 to implement the plan. The position will be supported using both E&G funding and tuition recovery from FIO-coordinated courses.

Goal 3: Supporting Research

FIO will provide a venue, either virtual or physical, for coordinating and managing multi-institutional, cross-sector, or public private partnership research programming that would benefit from the breadth of expertise and the ability to coordinate and manage large, complex research programs of its consortium. FIO will seek and provide resources and value-added opportunities for research, sustain and build upon existing programs, and promote new programs and partnerships that expand FIO's role in marine science throughout Florida and the nation. The benefit to FIO as an AISO is increased stability in operational support through extramural funds, increased return of indirect funds ('overhead') funds to support FIO research administrative staffing, and increased access to FIO facilities for our FIO members.

Funded by the existing Florida Center of Excellence Research Grants Program (FLRACEP) a newly created Chief Science Officer will identify, plan, implement and coordinate research activities with faculty and researchers across the FIO membership. The position will connect science initiatives between the FIO members and other Gulf of Mexico states' representatives and will elevate FIO's profile in the Gulf. The Chief Science Officer will coordinate activities with the host institution's sponsored research office and other relevant research entities across the FIO membership to ensure adequate award management, sub-contracting, compliance and reporting.

Objectives and KPIs

Objective 8: Increase research collaborations and scholarly output among FIO Member institutions (SUS and non-SUS, industry, non-profit) competing for large, multi-institutional awards.

KPIs: Numbers of submissions, awards, products (e.g., scientific papers, theses, dissertations, datasets)

Objective 9: Utilize convening power of FIO to host, virtually or in-person, development workshops on targeted scientific issues that require multi-institutional participation, public private partnerships, or other mechanisms suited to the FIO Mission.

KPIs: Number of workshops and proposals arising from workshops; Numbers and diversity of organizations participating in research development workshops.

Objective 10: Implement 3 to 4 long-term research programs that FIO can support, a multi-institutional public private partnership, or other collaborative opportunities that will directly support FIO's infrastructure.

KPIs: Utilization rates of FIO facilities under large research programs managed by FIO.

Business Model and Timeline: This Goal Area is currently being developed using the existing Florida RESTORE Act Center of Excellence Program (FLRACEP) funded by the Department of Treasury as part of the Deepwater Horizon penalties settlement. A Chief Scientist for FLRACEP will be hired using these funds by October 2021. It is anticipated that the FIO Chief Scientist will transition efforts to other large research program administrations as extramural funds permit and as staffing to support these programs increases. A portion of the Chief Scientific Officer's salary will be derived from returned indirect funds from the host institution's research office and that portion will support general administrative responsibilities. Additional large FIO-wide research programming may include Defense Advanced Research Programs Agency (DARPA) *Reefense* Program, submitted April 2021, and a newly established Florida Coastal Mapping Program office (Summer 2021).

Goal 4: Supporting Business Engagement

FIO will provide a venue, either virtual or physical, for integrating marine and coastal research and education with business and economic development entities across the state. A newly created FIO Business Development Officer effort will be built into the existing base funding as operational crew salaries are shifted to the appropriate auxiliaries. The position will coordinate with host and member institutions to promote expertise and capacity and to foster connections across the ocean science and technology industry with other like-minded organizations. The Business Development Officer will also identify and communicate workforce needs of our industry members to the FIO membership. FIO will develop and maintain an inventory of subject matter experts among the membership that can be queried for industry partnership development. FIO will serve as a clearinghouse for member academic/training programs that are pipeline programs to key industry partners or ocean industry clusters.

Objectives and KPIs

Objective 11: Broaden and incentivize participation of private sector Affiliate members in FIO's Consortium.

KPIs: Number and diversity of Industry Affiliate Members

Objective 12: Work across the FIO Membership and other relevant organizations to identify and promote the development of maritime industry clusters. FIO members and interests will be central to industry clusters and will serve the needs of R&D and workforce training.

KPIs: Florida ocean industry clusters are identified, geographically mapped, and related to FIO member distributions.

Objective 13: Create a virtual or in-person Annual Industry Forum to bring scientists, policy makers, agencies, industry and non-profits into non-adversarial discussions about sustainable use of Florida's coasts and oceans.

KPIs: Track numbers and diversity of participants, utilization of reports and publications presented, and policy/regulatory decisions that reference the industry-science forums.

Business Model and Timeline: This Goal Area is not considered a primary AISO Mission, and currently does not have funds support to establish a Business Engagement Officer. FIO will develop the Goal Area strategy over CY 2021-22, secure financial support, funds and participants by aligning with partner(s) (e.g., FIO Membership's Colleges of Business, Florida Ocean Alliance) by end of CY 2022. The intent is to secure a part-time FIO Business Engagement Officer in CY 2023 and implement activities in CY 2024. FIO will submit an LBR to fund the costs of this Goal Area with support from partnering organizations and industry members in 2022 legislative cycle.

Executive Office Administrative Goals

Finance Administration and Budgeting

FIO Responsibilities: Coordinate all aspects of finance and budgeting in a deliberate and transparent manner that improves effectiveness and efficiency of FIO's administrative functions and Goal Area activities. This should include:

- Monitor and analyze operating performance (cash flow, growth rate, obligations etc.). Inform stakeholders (Council and host institution) how FIO investments are being optimized (ROI) to support members.
- Establish service centers aligned with auxiliaries support for vessels, Keys Marine Lab, and science operations.
- Review resource utilization for efficiencies and effectiveness for short and long-term sustainability.
- Ensure long-term customer satisfaction through regular surveys, potentially generating referral business growth and customer retention.

Communications and External Relations

FIO Responsibilities: Coordinate communications strategies within the FIO core community, across the consortium membership, and to outside stakeholders to promote the activities and value of FIO in meeting its stated mission and goals. This should include:

- Manage communications approaches (newsletters, e-blasts, social media) that directly target existing and potential user bases, associate and affiliate members, and legislative offices regarding the value proposition of FIO and its physical and intellectual assets.
- Develop and implement a DEI strategy with member institutions for the purpose of engagement with external stakeholders, identify and meet the needs of a diverse and inclusive ocean science and education community, and connect minority students with research, educational and employment opportunities.
- Conduct and distribute regular and timely reports on FIO activities and utilization by FIO members.
- Maintain an institutional database that tracks member utilization for effective planning and resourcing of SUS support.

Florida Institute of Oceanography
2021-2025 Strategic Plan
Key Objective and Performance Indicators

		Alignment with BOG	Objective	Key Performance Indicator
Goals	Operations	Business Engagement: Strengthen Quality, Recognition, increase Business and Workforce	Increasing utilization rates of research vessels and KML through targeted communications and marketing, development of new agency agreements to supporting direct access of facilities (e.g., during emergencies and environmental crises), improved industry relationships, and new investments for facilities operations by the state.	Utilization rates of facilities by FIO members; requests for subsidized use by SUS members; agreements with agencies in place; funds supporting FIO operations received.
			Develop and implement facilities modernization plans, including a replacement plan for the <i>R/V Weatherbird II</i> and an infrastructure plan to elevate and harden KML core facilities and increase lodging capacity at KML.	Plans developed to include business models, projected return on investment, project scoping and design elements; implementation of plans with project management procedures in place.
			Stabilize operations budgets through use of longer-term needs outlooks, scheduling procedures and programming support for Education and Research Support Offices.	Reservations and requests over out-years.
			Establish service centers within the auxiliary units to clarify and strengthen annual operating budgets for vessels, KML and a scientific equipment pool.	Service centers established
	Supporting Education	Teaching & Learning: Productivity-Increase Degree & Program	Develop leadership and networking opportunities in collaboration with SUS institutions for students and early career faculty and researchers such as a cohort-based professional development program, creating a clearinghouse site for student	Internship placement; Job placement and prospective employer connections; Participation in and feedback from development workshops.
			Develop and coordinate specialized courses and training programs in partnership with member institutions in order to increase participation by students and maximize efficiency for SUS institutions in areas such as marine technology, mapping and charting, K-12 teacher training in the ocean sciences, and other courses as identified by the FIO Council.	FIO-managed courses offered; Student participation; SUS institutions represented.
			Work with non-SUS consortium members (e.g., aquaria, agencies) to develop, promote and deliver educational and work programs to provide experiential educational opportunities and internships for SUS students.	Internship and student work placement; experiences offered and received.
	Supporting Research	Scholarship, Research & Innovation: Strengthen Quality, Increase Research Productivity	Increase research collaborations and scholarly output among FIO Member institutions (SUS and non-SUS, industry, non-profit) competing for large, multi-institutional awards.	Numbers of submissions, awards, products (e.g., scientific papers, theses, dissertations, datasets)
			Utilize the convening power of FIO to host, virtually or in-person, development workshops on targeted scientific issues that require multi-institutional participation, public private partnerships, or other mechanisms suited to the FIO Mission.	Number of workshops and proposals arising from workshops; numbers and diversity of organizations participating in research development workshops.
			Implement 3 to 4 long-term research programs that FIO can support, a multi-institutional, public private partnership, or other collaborative opportunities that will directly support FIO's infrastructure.	Utilization rates of FIO facilities under large research programs managed by FIO.
	Supporting Business Engagement	Community & Business Engagement: Strengthen Quality & Commitment to Community Business and Workforce	Broaden and incentivize participation of private sector Affiliate members in FIO's Consortium.	Number and diversity of Industry Affiliate Members.
			Work across the FIO Membership and other relevant organizations to identify and promote the development of maritime industry clusters. FIO members and interests will be central to industry clusters and will serve the needs of R&D and workforce training.	Florida ocean industry clusters are identified, geographically mapped, and related to FIO member distributions.
			Create a virtual or in-person Annual Industry Forum to bring scientists, policy makers, agencies, industry and non-profits into non-adversarial discussions about sustainable use of Florida's coasts and oceans.	Track numbers and diversity of participants, utilization of reports and publications presented, and policy/regulatory decisions that reference the industry-science forums.



FLORIDA INSTITUTE OF OCEANOGRAPHY
Business Operations Summary

Background

The Florida Institute of Oceanography (FIO) will provide affordable vessel platforms, and marine lab support to FIO member organizations, state, federal, and non-governmental entities that are aligned with FIO's objectives and mission. FIO's platforms include the *R/V Weatherbird II*, the *R/V W.T. Hogarth* and the *Keys Marine Laboratory* (KML).

Service centers will support and be in alignment with each of the auxiliary units (*R/V Weatherbird II*, the *R/V W.T. Hogarth* and the *KML*). Operational billing rates will be reviewed, validated or updated on an annual basis for each of the auxiliary units. Expenditures and revenue will be monitored, reconciled and audited in a timely manner to ensure compliance; internal billing forms will be utilized to ensure goods and or services are provided and must be accepted by users prior to invoicing.

Additional revenue support may be allocated by the Florida Legislature and will be utilized to fund the SUS program which is awarded to member institutions through a competitive process which requires a 10% match from the successful grantee. FIO will provide, based on a competitive, peer review process, a no-cost basis to successful applicants from FIO member institutions under the SUS Subsidized Ship/Lab-time Program.

Service Center(s): Research Vessels and Keys Marine Laboratory

The research vessels and marine laboratory operations are dependent upon revenue earned from auxiliary operations associated with chartering fees. Rates will be reviewed annually and may change to ensure alignment with other similar operations to maintain competitiveness; FIO Council must review and approve any increase rates for the membership and provide a reasonable amount of notice prior to significant rate changes.

1. Chartered ship time is available to all academic institutions (faculty and researchers), state and federal agencies and commercial (non-governmental) organizations that meet FIO and the host institution's mission.
 - A fee schedule with daily rates will be published online. Anticipated FY20/21 daily rates for the *R/V Weatherbird II* to be at \$11,500 per day and \$7,500 for the *R/V W.T. Hogarth* per day.
 - Daily rates are based on a 24-hour operation day and are inclusive, unless identified otherwise. In addition, rates are not prorated or adjusted for number of passengers or transit vs. station time.

- Other billable services are available à la carte for specialized equipment and needs (see fee schedule).
 - FIO members must agree to the Chartering Agreements and submit them.
 - Charge allowable direct costs, as appropriate.
2. The Keys Marine Lab is located in the heart of the Florida Keys and offers a wide range of resources including, but not limited to, short and long-term housing, a fleet of small captained vessels, classroom/meeting rooms with audio/video capabilities, wet and dry labs, state-of-the-art Seawater Systems, and other equipment as needed for researchers to conduct courses or research.
- Each KML user is expected to fill out and return the Facilities Use Request Form (FURF) prior to scheduling time at KML.
 - Liability Release Waivers are required for all KML visitors
 - KML's rate sheet identifies (available online) the services offered at the facility.
 - Charge allowable direct costs, as appropriate.

In addition to chartering vessels and marine laboratory facilities, FIO runs a competitive ship and lab time competition, which allows the SUS institutions and its full membership opportunities to access FIO's infrastructure through designated funding, made available by state legislative funding for the program. The competition is contingent upon available funds provided by the Florida State Legislative.

3. The SUS Ship/Lab-time Program for vessel and KML usage will be awarded to member institutions through a peer-review process.
- Awards are based on competitive proposals released and submitted to FIO.
 - Total awarded days are based on funds allocated by the Florida Legislature and daily operational costs (fuel, food, repairs, maintenance etc.).
 - FIO must support 155+ days annually across all facilities (R/V Weatherbird II, R/V Hogarth and Keys Marine Lab) to meet the state-supported SUS utilization target rate of 51%.
 - Successful awardees from the program are required to pay 10% of the value awarded. The match value will be utilized to support operational costs and will be held in a separate auxiliary, to be distributed only with approval from the FIO Director or designee.

Reserves:

A portion of the earnings generated from vessel and marine lab operations will be set aside to support unforeseen facility expenditures.

1. FIO is required to maintain a reserve of \$250,000 to cover unforeseen emergency repairs at KML. The reserves will be placed in an FIO 00HOLD account and is accessible to FIO upon request and approval by the Host Institution (USF). Accessibility of current reserves will follow the same process.

2. FIO should maintain a minimum of \$150,000 in its Carry Forward and also be held in the 00HOLD and continue to build a reserve in order to plan for future repairs and maintenance issues of scientific equipment, shipyard costs and other needs to support the research vessels.
3. Cash generated from the auxiliaries can be used for repairs and maintenance.

Future Markets:

Major research programs in the Florida/Atlantic/Gulf of Mexico/Caribbean region are underway or under development at the state and federal levels and will provide additional market opportunities. The following are some examples:

1. As of April 2021, approximately \$9.1M from the Gulf Coast Restoration Trust Fund Allocations available through the FLORIDA RESTORE Act Centers of Excellence Program to fund Florida priority areas in the Gulf Coast Region.
2. Opportunities to leverage the RESTORE Act funding under the Florida Direct Components non-construction activities for research and other projects.
3. Florida Mapping Program (FCMaP) hosted and operated under FIO, collaborations with Center for Ocean Mapping and Innovative Technologies (COMIT), a cooperative agreement launched by the National Oceanic and Atmospheric Administration (NOAA), Office of Coast Survey.
4. Coral Reef Restoration research (FWRI and cooperating universities and institutions).
5. Additional opportunities to expand operations in the greater Caribbean Sea with an appropriate vessel.
6. Collaborations with BOEM, Navy and other federal agencies.

Florida Institute of Oceanography
Proposed 5-Yr Budget Forecast
2021-2025

	2021-2022				2022-2023				2023-2024				2024-2025				2025-2026			
	Cost Centers				Cost Centers				Cost Centers				Cost Centers				Cost Centers			
	State Support (E&G)	Hogarth	Weatherbird	Keys Marine Lab	State Support (E&G)	Hogarth	Weatherbird	Keys Marine Lab	State Support (E&G)	Hogarth	Weatherbird	Keys Marine Lab	State Support (E&G)	Hogarth	Weatherbird	Keys Marine Lab	State Support (E&G)	Hogarth	Weatherbird	Keys Marine Lab
Auth. Operating Budget																				
Base Allocations (E&G)	\$2,227,321	-	-	-	\$2,798,279				\$2,798,279				\$2,798,279				\$2,798,279			
SUS Program	(\$118,045)	-	-	-	(\$1,300,000)				(\$1,300,000)				(\$1,300,000)				(\$1,300,000)			
SUS Program Off-Set		\$45,235	\$48,000	\$25,000		\$553,000	\$840,000	\$45,000		\$680,000	\$624,000	\$44,500		\$680,000	\$624,000	\$44,500		\$680,000	\$624,000	\$44,500
Operating Revenue	\$0	\$1,387,500	\$1,725,000	\$175,000	\$0	\$1,068,976	\$1,681,476	\$180,412		\$1,218,976	\$1,393,976	\$185,992		\$1,406,476	\$1,393,976	\$191,744		\$1,406,476	\$2,026,476	\$197,675
Est. Total Auth. Op. Budget	\$2,109,276	\$1,432,735	\$1,773,000	\$200,000	\$1,498,279	\$1,621,976	\$2,521,476	\$225,412	\$1,498,279	\$1,898,976	\$2,017,976	\$230,492	\$1,498,279	\$2,086,476	\$2,017,976	\$236,244	\$1,498,279	\$2,086,476	\$2,650,476	\$242,175
Auth. Expenditure Budget																				
Salaries	\$1,477,603	\$245,632	\$199,618	\$30,000	\$989,652	\$496,976	\$449,582	\$30,928	\$989,652	\$504,566	\$455,750	\$31,884	\$989,652	\$512,384	\$462,103	\$32,870	\$989,652	\$520,436	\$468,647	\$33,887
Fringes	\$541,673	\$73,690	\$59,885	\$9,000	\$260,582	\$149,093	\$134,874	\$9,278	\$260,582	\$151,370	\$136,725	\$9,565	\$260,582	\$153,715	\$138,631	\$9,861	\$260,582	\$156,131	\$140,594	\$10,166
Travel	\$20,000	\$4,000	\$4,000	\$5,000	\$20,000	\$4,124	\$4,124	\$5,155	\$20,000	\$4,251	\$4,251	\$5,314	\$20,000	\$4,383	\$4,383	\$5,478	\$20,000	\$4,518	\$4,518	\$5,648
Telecomm.	\$20,000	\$85,000	\$85,000	\$10,000	\$20,000	\$87,629	\$87,629	\$10,309	\$20,000	\$90,339	\$90,339	\$10,628	\$20,000	\$93,133	\$93,133	\$10,957	\$20,000	\$96,013	\$96,013	\$11,296
Services	\$25,000	\$389,500	\$529,500	\$55,000	\$25,000	\$419,500	\$1,104,500	\$56,701	\$25,000	\$708,000	\$529,500	\$58,455	\$25,000	\$729,897	\$545,876	\$60,263	\$25,000	\$752,471	\$562,759	\$62,126
Material & Supplies	\$25,000	\$205,838	\$243,100	\$55,000	\$25,000	\$189,588	\$241,800	\$56,701	\$25,000	\$189,588	\$241,800	\$58,455	\$25,000	\$195,452	\$249,278	\$60,263	\$25,000	\$201,496	\$256,988	\$62,126
Est. Total Auth. Exp. Budget	\$2,109,276	\$1,003,660	\$1,121,103	\$164,000	\$1,340,234	\$1,346,909	\$2,022,509	\$169,072	\$1,340,234	\$1,648,114	\$1,458,365	\$174,301	\$1,340,234	\$1,688,963	\$1,493,404	\$179,692	\$1,340,234	\$1,731,066	\$1,529,520	\$185,249
Cost Center OH		\$130,476	\$145,743	\$21,320	\$0	\$175,098	\$262,926	\$21,979		\$214,255	\$189,587	\$22,659	\$0	\$219,565	\$194,143	\$23,360	\$0	\$225,039	\$198,838	\$24,082
Reserves*	\$0	\$0	\$0	\$0	\$158,045				\$158,045				\$158,045				\$158,045			
Est. Ending Op. Balance	\$ -	\$298,600	\$506,153	\$14,680	\$0	\$99,968	\$236,041	\$34,361	\$0	\$36,607	\$370,023	\$33,532	\$0	\$177,947	\$330,429	\$33,193	\$0	\$130,371	\$922,118	\$32,843

Note:
inflation rate applied to each yr.
Admin fee for operating cost centers
*Reserves from E&G used for
vessels, KML anticipated
costs (for facilities, post-
hurricanes, shipyards, major

Salaries/Fringes distributed
from E&G to appropriate
supporting Service Centers

This page intentionally left blank



FLORIDA INSTITUTE OF OCEANOGRAPHY

830 First Street South
St. Petersburg, Florida 33701
Telephone: (727) 553-1100
Fax: (727) 553-1109



February 25, 2015

Re: USF-DSR & FIO Reduced Indirect Costs Agreement

Dear President Genshaft, Provost Wilcox and Dr. Sandberg;

Thank you all for taking the time last Friday, February 20th to discuss the role of FIO as a statewide Academic Infrastructure Support Organization (AISO) and particularly the Indirect Cost Rate(s) concerns raised by some members.

It is my understanding from our conversation, as the Host Institution, the University of South Florida, its Division of Sponsored Research in Tampa (USF/DSR) and the Florida Institute of Oceanography (FIO) have agreed to a reduced Indirect Cost Rate of 10% for FIO submitted proposals and contracts. FIO will work with DSR on proposal and/or contract submissions to the appropriate funding agencies to ensure FIO proposals, contracts and practices meet the required application guidelines set by granting agencies.

USF's commitment to support FIO with a reduced Indirect Cost rate for FIO is greatly appreciated as it will allow FIO to enable the maximization of valuable resources to be directed to oceanographic research and education as envisioned by the Florida State Legislature and the Florida Board of Governors (BOG).

Thank you for your continued support.

Sincerely,


A handwritten signature in cursive script that reads "William T. Hogarth".

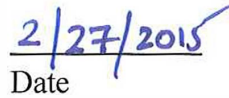
William T. Hogarth, Ph.D.
Director
Florida Institute of Oceanography

Concurrent:


Judy Genshaft
USF System President


Date


Dr. Ralph Wilcox
Provost & Executive Vice President
of Academic Affairs


Date

This page intentionally left blank



Memorandum Of Understanding Between The University Of South Florida Board Of Trustees And The Florida Institute Of Oceanography Regarding Roles and Responsibilities for Centers of Excellence Research Grant Program

The University of South Florida Board of Trustees ("USF"), a Public Body Corporate of the State of Florida, and the Florida Institute of Oceanography ("FIO"), a State University System Academic Infrastructure Support Organization for the State of Florida currently hosted by USF and established by Florida Board of Governors Regulation 10.014, hereby enter into this Memorandum of Understanding ("MOU") to clarify their respective roles and responsibilities under the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act of 2012 ("RESTORE Act").¹ As evidenced by the signatures below, the following paragraphs are understood and agreed to by USF and FIO.

1. The RESTORE Act establishes a Gulf Coast Restoration Trust Fund in the Treasury of the United States, which is funded by civil penalties arising from the 2010 *Deepwater Horizon* oil spill. RESTORE Act funds collected by the Department of the Treasury ("Treasury") will be paid out in several defined areas, including the establishment of Centers of Excellence Research Grant Programs ("CERGP") in the five Gulf Coast states affected by the oil spill. The RESTORE Act designates FIO as Florida's Gulf Coast State Entity to carry out the CERGP for the State of Florida.
2. FIO is hosted by USF pursuant to sec. 1004.33 (5) (b), Florida Statutes, which requires USF, as FIO's host institution, to provide administrative services to FIO, including but not limited to, support for accounting, legal, banking, audit, payroll and general grants

¹ Academic Infrastructure and Support Organizations (AISOs) provide underlying technology, equipment, facilities, services, and resources for academic programs and research in the State University System of Florida. Such organizations must be approved by the Board of Governors (BOG) and may use "Institute" or "Center" in their names. Although each AISO's operational budget shall remain in the base of its host institution, the BOG may consider additional budget requests accompanied by recommendations, positive or negative, from the State University System Council of Academic Vice Presidents (CAVP).

10.014 (1): Academic Infrastructure and Support Organizations
http://www.flbog.edu/documents_regulations/regulations/10_014_Academic_Infrastructure_and_Suupport_Org.pdf

administration. Pursuant to Florida Board of Governors Regulation 10.014, FIO's purpose is to provide scientific expertise in support of Florida's state-wide ocean science education and research programs. Neither the Florida Board of Governors nor the Florida Legislature intended for FIO to have an extensive administrative infrastructure, but instead to obtain needed services from its host institution. This structure has been in place for decades and was in place at the time the RESTORE Act was enacted and Treasury regulations regarding the RESTORE ACT were finalized.

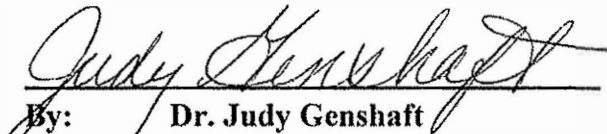
3. This MOU shall serve as an internal delegation that will permit FIO to become the Authorizing Official to submit CERGP applications utilizing its unique Dun and Bradstreet D-U-N-S Number. The delegation will also permit FIO to accept awards under the CERGP. CERGP funds will be deposited in a unique USF account and segregated from other USF funds and only accessible by FIO, absent good faith allegations by USF of incompetence or misconduct on the part of FIO. All decisions regarding the disbursement of CERGP funds shall reside exclusively with FIO and shall be made pursuant to FIO's established processes for carrying out its functions as the Gulf Coast Entity for the State of Florida under the RESTORE Act.
4. USF and FIO shall cosign all required certifications and assurances, and agree to the terms and conditions, that are required of Treasury's RESTORE Act grant recipients as a condition of receiving a grant. These certifications, assurances, and terms and conditions shall be reviewed according to USF's standard processes, which includes review by USF's Office of the General Counsel and USF-ORI.
5. USF will not participate in the execution of external scientific review of prospective subawards. Rather, FIO's CERGP Management Team will make the final award of CERGP subawards following external scientific review. USF will not review, revise or restrict FIO's decisions regarding the award and disbursement of RESTORE Act funds provided that USF, in its reasonable discretion, determines that funds are not subject to abuse or mismanagement by FIO. Consistent with its long established practice, USF will not direct FIO's day-to-day operations and decision-making, including but not limited to, all programmatic decisions regarding CERGP, absent documented misconduct or incompetence on behalf of FIO.
6. FIO agrees to assume primary responsibility for compliance with the RESTORE Act and funds received. FIO also agrees to be the primary point of contact with Treasury regarding CERGP, but FIO may designate or refer matters to appropriate administrative divisions within USF in response to requests from Treasury or from Treasury's Office of Inspector General for RESTORE Act award information or documentation.

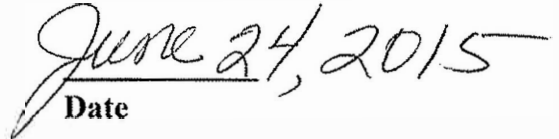
Notwithstanding the foregoing, FIO and USF shall be jointly and severally liable for compliance with CERGP requirements.


7. FIO and USF understand that Treasury will rely upon this MOU in evaluating FIO's application for an award under Section 1605 of the RESTORE Act.

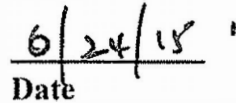
**BY THEIR DULY AUTHORIZED SIGNATURES BELOW, THE PARTIES
HEREBY ENTER INTO THIS MOU:**


**For the UNIVERSITY OF SOUTH FLORIDA
BOARD OF TRUSTEES:**

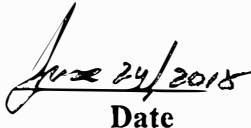

By: **Dr. Judy Genshaft**
Position: **President, USF System**


Date



By: **Dr. Ralph Wilcox**
Position: **Provost & Executive Vice President
of Academic Affairs**

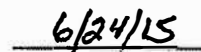

Date

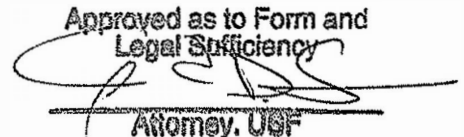

By: **Dr. Paul R. Sanberg**
Position: **Senior Vice President for Research,
Innovation & Economic Development**


Date

For the FLORIDA INSTITUTE OF OCEANOGRAPHY:


By: **Dr. William T. Hogarth**
Position: **Director, Florida Institute of Oceanography**


Date

Approved as to Form and
Legal Sufficiency

Attorney, USF

This page intentionally left blank



25 May 2021

Florida Coastal Mapping Program (FCMaP) Science and Technical Advisory Committee

Terms of Reference

These Terms of Reference (the "TOR") establish roles and responsibilities of a Science and Technical Advisory Council (the "STAC") for the Florida Coastal Mapping Program (the "FCMaP") which is managed within the Florida Institute of Oceanography (the "FIO"). The role of the STAC is to provide diverse and expert advice on priorities for mapping, exploration, and characterization of Florida's coastal waters and seafloor and those oceanic environments adjacent and relevant to coastal Florida. The STAC will also provide advice to the FCMaP Office on the advancement of new mapping technologies and provide for avenues to communicate the findings of mapping, exploration and characterization products to stakeholders. The STAC shall have no binding authority for the expenditures of funds allocated to support the FCMaP or FCMaP Office.

The mission of FCMaP is to facilitate, enable, and coordinate the collection and dissemination of accessible, high-resolution seafloor data of Florida's coastal waters in support of infrastructure, benthic habitat mapping, restoration projects, resource management, emergency response, and coastal resiliency and hazard studies for the citizens of Florida`.

To further this mission, the Science and Technical Advisory Council (STAC) is established for the purpose of coordinating across Federal and Florida state agencies, and other stakeholders, to build a comprehensive understanding of Florida's seafloor. The STAC shall have a designated Chair and Co-Chairs selected by the STAC membership. The Chair's role is to coordinate and facilitate FCMaP STAC activities (regular meetings, workshops) and serve as the STAC Point of Contact (POC) for communication with the FCMaP Office and other related groups such as NOAA Cooperative Institutes and Centers. The Co-Chairs shall conduct the business of the Chair in the Chair's absence. The Chair and Co-Chairs shall serve two-year terms at which point the designated persons will be evaluated and the STAC shall reach consensus on the designees for the next term. STAC agency members may rotate out as deemed appropriate by the agency and the current activities being undertaken by FCMaP. The STAC shall establish all other Rules pertaining to STAC functions.

Membership of the STAC shall, at a minimum, include representatives from the following entities:

- Florida Department of Environmental Protection
- Florida Department of Transportation
- Florida Division of Emergency Management
- Florida Fish and Wildlife Conservation Commission
- Florida Institute of Oceanography
- National Oceanic and Atmospheric Administration
- United States Army Corps of Engineers
- United States Bureau of Ocean Energy Management
- United States Geological Survey



25 May 2021

The STAC will have the responsibility to:

1. Collaborate with and advise the FCMaP Office in support of the FCMaP mission.
2. Work with the FCMaP Office to develop a 5-year strategic plan for mapping and future prioritization updates.
3. Provide guidance on FCMaP Policies and Procedures including data quality, standards, discoverability and access.
4. Be an effective vehicle for communication among agencies to create a consistent message on mapping priorities and other operationalized activities under the FCMaP Office.
5. Participate in a FCMaP stakeholder community for coastal and ocean mapping in the State of Florida; and
6. Review and provide feedback to the FCMaP Office's Requests for Proposals.



Florida Coastal Mapping Program *Science and Technical Advisory Council*

Chair: Cheryl Hapke, University of South Florida St Petersburg, College of Marine Science
Co-Chair: Rene Baumstark, FL Wildlife Conservation Commission FL Fish & Wildlife Institute
Co-Chair: TBD

Florida State Agency Members

- Department of Environmental Protection
 - TBD
- Department of Environmental Protection, Florida Geological Survey
 - Jon Arthur
- Department of Transportation
 - Brett Wood
- Division of Emergency Management
 - Jason Ray
- Fish and Wildlife Conservation Commission
 - Rene Baumstark
- Florida Institute of Oceanography
 - Monty Graham

Federal Agency Members

- National Oceanic and Atmospheric Administration
 - Ashley Chappell
 - Paul Turner
- U.S. Army Corp of Engineers
 - Jennifer Wozencraft
 - Clay McCoy
- U.S. Bureau of Ocean Energy Management
 - Jeff Reidenauer
- U.S. Geological Survey
 - Xan Fredericks

This page intentionally left blank



Hosted by the University of South Florida

