



ACADEMIC DIVING PROGRAM: STRATEGIC PLAN 2018

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Florida State University Diving Control Board

Florida State University

Academic Diving Program

2018 Strategic Plan

Accepted by unanimous vote of the Diving Control Board on 14 November 2018

Introduction

The FSU Academic Diving Program (ADP) was established in 1975 to oversee and support underwater research conducted by FSU faculty, students, and staff and visiting scientists. The Diving Control Board governs scientific diving operations with representative members from each invested department of the University. Day to day operations are managed by the Diving Safety Officer, with assistance provided by the staff of the Florida State University Coastal and Marine Laboratory.

The strategic plan detailed herein summarizes the state of the program and identifies key goals and actions intended to guide ADP forward in the next 5 years. The plan is aligned with the greater strategic plans of the University and the Coastal and Marine Laboratory. Further, it provides steps to ensure the program remains productive, efficient and focused on the mission of the Academic Diving Program:

“to provide excellence in underwater research support at Florida State University, including quality instructional and operational assistance using optimal technologies, while ensuring that scientific diving is performed safely following the standards of the American Academy of Underwater Sciences (AAUS).”

Background Information

The work of the Academic Diving Program can be divided into three primary functions: training, project oversight, and logistical support. Each function aims to facilitate research while minimizing risk and liability to the University.

1. **Training** is provided through the Scientific Diver workshops, emergency care certifications necessary to maintain AAUS active diver requirements, and crossover diver training from other organizations to FSU/AAUS standards.
2. **Diving Project Oversight** is provided through assistance in compliance with national standards, review and approval of dive plans, record keeping, and providing letters of reciprocity for divers collaborating with other organizations.

3. **Logistical Support** is provided through the coordination of diving operations, and the management of the diving locker to ensure that researchers have access to quality diving equipment.

In FY2018, ADP facilitated underwater research for 51 active FSU Scientific Divers. In total, FSU divers logged 1196 scientific and/or training dives, spending over 860 hours in the field working underwater. This represented a substantial increase in activity compared to previous years, and is a result of a burgeoning training program and the arrival of new research personnel.

Active divers are those training for, or contributing to research at FSU using SCUBA diving as a tool. They presently include individuals from the Coastal and Marine Laboratory, the departments of Anthropology, Biological Science, Earth Ocean and Atmospheric Science, and Geography. The Department of Biological Sciences accounts for the largest portion of activity – 22 divers logged a total of 475 dives in FY2018.

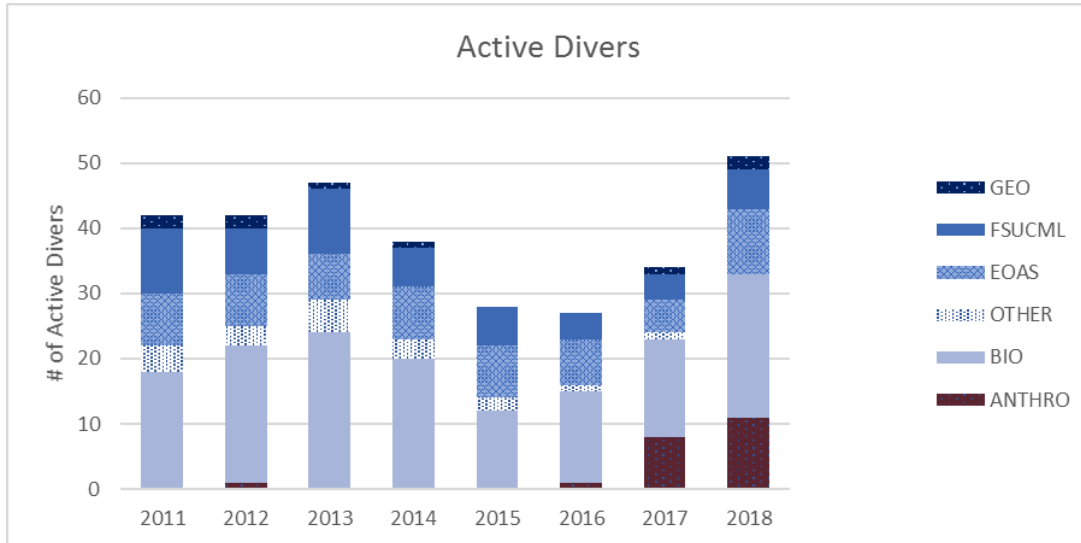


Figure 1. The number of active divers has increased primarily as a result of the growth in the Department of Anthropology.

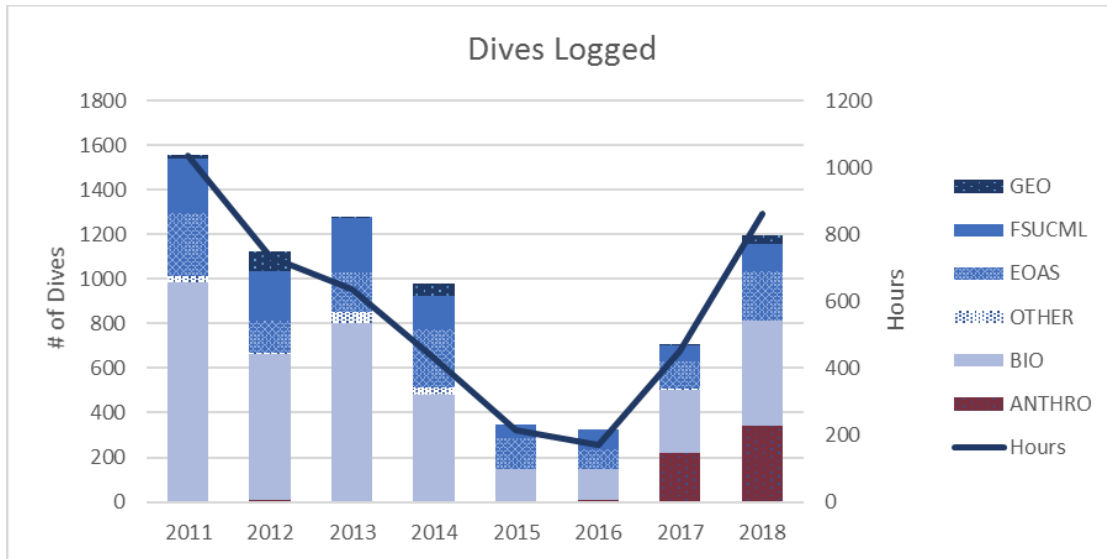


Figure 2. The recent increase in diving activity stems from the arrival of new faculty and staff.

Financial support

The Academic Diving Program has three sources of revenue: a general operations allotment provided by the Coastal and Marine Laboratory (provided through budget from the Office of Research (OVPR)); workshop fees and equipment rentals; and variable subsidies directly from the OVPR.

The operations allotment provides \$7k annually for essential supplies, expenses and travel of the DSO to AAUS meetings every other year. Workshop¹ and equipment rentals fees are processed through an auxiliary account that totaled \$5.3K in revenue in FY2018 (93% of which came through workshops). A subsidy from the Office of Research for \$10.9K provided for the hire of temporary instructional personnel and all other necessary expenses specific to the Scientific Diver workshop.

SWOT Evaluation

To evaluate our program, we identified the primary **Strengths**, **Weaknesses**, **Opportunities**, and **Threats** that affect, or could affect, scientific diving at Florida State University. These areas of focus provide a foundation and direction for developing strategic goals.

The Strengths of the program are fourfold – (1) excellence in research support; (2) excellence in training; (3) access to diverse training and research sites and (4) financial stability. These areas can be leveraged to amplify the program and increase contributions the University.

¹ All workshops are relatively inexpensive, costing participants anywhere from \$50 for the Emergency First Response Workshop to \$400 for the Introduction to Science Diving Workshop - considerably less than the fees required for scientific diving courses on other campuses.

1. Discussions with University faculty, staff and students indicate that the Academic Diving Program is clearly succeeding in its mission to provide excellence in underwater research support. Research teams have access to cost-free quality diving equipment and qualified student diver assistance. Review and approval of dive plans are completed effectively in a timely manner.
2. Reliable training is available at minimal cost to divers (<40% of comparable programs) and has met demand since 2016.
3. The diversity of training environments is excellent, and includes the state-of-the-art Morcom Aquatic Center pools, local state parks, and marine environments off the Coastal and Marine Laboratory. Local rivers, seagrass meadows, hard bottom and artificial reefs have proven to be quality study sites.
4. The support of the Office of Research ensures financial stability for the program. The \$7k annual operational allotment and supplemental subsidies provides a reliable financial framework for planning.

The Weaknesses identified this year include:

1. The absence of a cohesive revenue structure for gear use that will cover the maintenance of the gear; and
2. The poor condition and quality of the existing diving gear. Much of the current inventory of SCUBA equipment needs to be replaced. The previous approach to gear replacement occurred in an *ad hoc* manner while large quantities of equipment from a manufacturer that no longer facilitated its maintenance were stock piled in the dive locker. A long-term equipment plan is necessary to maintain our enviable safety record and to ensure that quality SCUBA equipment can be available and maintained at minimal cost to users and the University.

The Opportunities for advancing ADP include:

1. Developing a partnership with the FSU Panama City Advanced Scientific Diving Program (ASDP) to broaden educational and diving opportunities for our divers through shared resources.
2. Developing strategic partnerships with other institutions to “*prepare our graduates for 21st century careers*”². The University’s location in the state capital means considerable access to state agencies like the Florida Fish and Wildlife Conservation Commission (FWC), the Bureau of Archaeological Research (BAR), and the Department of Environmental Protection (DEP). These agencies and others have shared interest with the University and are real and potential users of ADP equipment and services. They are also potential employers of FSU graduates. Investing in the development of these partnerships will yield valuable synergy.

² Excerpt from the FSU Strategic Plan 2017-2022. The strategy aligns with Goal V article 1 and was responsible for the placement of an FSU student diver into a paid internship in 2017.

The Threats facing ADP are innate. Diving is inherently hazardous. However most diving incidents occur due to human error. Each function of the program stems from the need to minimize risk to our divers and liability to the University. Ensuring every active diver in the program meets or exceeds AAUS standards is vital in promoting a culture of safety. Likewise, all diving gear provided by the ADP must meet or exceed AAUS safety standards.

Vision for the Future: ADP Strategic Goals

When Dr. Bill Herrnkind, R. Dunham and J. Jones founded the Academic Diving Program over 40 years ago, it was intended to facilitate scientific diving operations for research. Today, and moving forward we aim to recommit to this mission.

The Academic Diving Program will serve Florida State University by enabling locally focused and globally significant research that deepens our understanding of the underwater world. Through training, we will develop outstanding divers and foster student respect, admiration and action in environmental stewardship. We will leverage our unique strengths to recruit exceptional faculty and students that contribute and benefit from our strategic partnerships. Most importantly, every member of the FSU scientific diving community will be supported to ensure underwater science is efficient, productive and is conducted with an understanding that safety is paramount.

To fulfill our vision for the Academic Diving Program, we aim to complete and measure the following objectives in the next 5 years with the express intent to emphasize our strengths, address our weaknesses, take full advantage of our opportunities and neutralize our threats.

Enhancing Strengths

As research on SCUBA diving advances and guidelines change, the scientific diver training program will continually adapt to new or updated requirements and integrate new training that prepares the divers according to the most up-to date knowledge in dive science. The goal is to provide the best training to achieve the highest safety in research diving.³

Actions:

1. The DSO will require Divers Alert Network insurance for all student divers
2. The DCB shall update FSU Scientific Diving Standards as needed to meet or exceed revisions to AAUS Standards.

³ Aligned with FSU Strategic Goal II, article 2.

Resolving Weaknesses

Developing a long-term equipment plan is necessary to ensure that quality SCUBA equipment can be available and maintained at minimal cost to FSU Scientific Divers and the University.^{4 5}

Actions:

1. The DSO shall develop a cohesive revenue structure for gear use that will fully cover the maintenance (but not replacement) of the gear that would include both inside (FSU) and outside (state and federal natural resource agencies) rates to generate revenue and offset operational cost.
2. The DSO shall standardize all general use SCUBA equipment in the dive locker to increase compatibility in and build an inventory of annual service parts to reduce the associated challenges and costs of service and repair to ensure a cost efficient and uninterrupted service schedule for SCUBA equipment.
3. The DCB shall develop a long-term equipment replacement plan that will be submitted to the Office of Research and shall detail recommended service and acquisition intervals to ensure that quality SCUBA equipment can be available and maintained at minimal cost to FSU Scientific Divers and the University. All purchases will be demand adjusted and dependent on the evolution of the program.
4. The DCB shall conduct a survey of active FSU divers to determine whether their research needs are being met with the current diversity of technological support.⁶

Seeking Opportunities through Strategic Partnerships

ADP will increase engagements with strategic partners for programmatic and mutual benefit. Partnerships have been seeded with a variety of other scientific diving organizations in the region. These relationships allow the sharing of information, resources and best practices as we progress toward common goals.⁷

Actions:

⁴ The Office of Research recently approved a May 2018 request for \$13.5K in funding for new SCUBA equipment. This equipment will replace an older and worn generation of gear that makes up approximately 40% of the current inventory of regulators and BCDs. The remaining 60% was purchased in 2012. A reasonable lifespan of this life support equipment is 6 - 10 years.

⁵ Aligned with FSUCML Strategic Priority 6.

⁶ Aligned with FSUCML Strategic Priority 7.

⁷ Aligned with FSU Strategic Goal V Articles 3 and 4.

1. The DCB shall develop a plan to encourage use of ADP resources by outside organizations (state and federal natural resource agencies) to generate revenue and offset operational cost. In FY2018, revenue from outside sources totaled ~\$600. ⁸
2. The DCB through the OVPR shall establish a relationship with FSU-PC ADSP to facilitate sharing of research resources and coordinating AAUS training. By 2020, this will include the development of an inter-program review process to improve administrative function and cooperation.
3. The DCB shall develop a professionally focused AAUS Scientific Diver workshop directed toward non-FSU personnel who need scientific diving as a tool for research specifically geared towards employees in state agencies such as the Florida Fish and Wildlife Conservation and the Bureau of Archaeological Resources.

Annual Review of the Strategic Plan

These objectives shall be reviewed and adjusted prior to the conclusion of each fiscal year to ensure the continued and successful evolution of ADP.