



SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

ONE SOUTHPARK CIRCLE, SUITE 306
CHARLESTON, SOUTH CAROLINA 29407-4699
TEL 843/571-4366 FAX 843/769-4520
Toll Free: 1-866-SAFMC-10
email: safmc@safmc.net web site: www.safmc.net

George Geiger, Chairman
Duane Harris, Vice-Chairman

Robert K. Mahood, Executive Director
Gregg Waugh, Deputy Executive Director

SIXTH CORAL SEMIANNUAL PROGRESS REPORT COOPERATIVE AGREEMENT (NA03NMF4410350) April 1, 2006 – September 30, 2006

During the period April 1, 2006 through September 30, 2006 the South Atlantic Fishery Management Council (SAFMC) has worked to ensure the mandates of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) are met relative to the conservation and management of the South Atlantic coral and coral reef resources.

Project Status

Project: NOAA CRG 2003 Development and Maintenance of ArcIMS System and Design, Implementation and Integration of Maps of Coral and Live/Hardbottom Habitat and Representative Video and Photography via the Internet

The Fish and Wildlife Research Institute (FWRI) continued to work with the SAFMC to develop a Coral and Benthic Habitats Internet Map Server (IMS) and a SAFMC Comprehensive Habitat and Fishery Ecosystem Plan website. During this reporting period, tasks under the original statement of work for this project were completed. The website and IMS application continue to be enhanced with new data sets and functionality under subsequent NOAA awards.

Project: NOAA CRG 2003 Partnership with NURC/UNCW and the States in the multi-beam mapping of the Outer Continental Shelf and Upper Continental Slope deep coral reef systems

Task 1 – Design and Construction: ISE completed the necessary requirements to comply with the original bid specification and gain acceptance by the owners. The AUV *Eagle Ray* was delivered to NURC/UNCW on July 5, 2006. Open house and christening of the vehicle was conducted on June 20 and 21, including meetings with share holders to discuss direction and future of the vehicle.

Task 2 – Training: This task has been completed. No further contracted training is scheduled. All further training will be hands-on, on-the-job training upon receipt of the vehicle.

Task 3 – Demonstration: The final set of sea trials were conducted on May 26-31, and they were attended by Jeff Williams and Vernon Asper. All of the tasks listed above were completed to satisfaction and the vehicle was accepted for shipment. This task is essentially completed; any stake holders are welcome to join in the 2006 T&E cruises as described in the following Task.

Tasks 4 and 5 – Offshore Mapping and GIS Products: Arrangements were made to contract the NASA vessel *Liberty Star* or her sister ship, the *Freedom Star*, to support AUV field tests during 2006. Both vessels are well suited to support *Eagle Ray* field tests with ample deck space, large deck crane, dynamic positioning capability, low free board, deck decompression chamber, and small chase boats. During each mission, the AUV Operations Container, the *Eagle Ray*, the NURC/UNCW *Phantom S2* remotely operated vehicle (ROV), and scuba equipment were loaded on board the vessel. The NURC/UNCW *Phantom S2* ROV and scuba equipment are emergency recovery equipment to be used if the *Eagle Ray* becomes stuck on the bottom. Initial AUV tests in 2006 were conducted in waters shallow enough to allow use of these assets to conduct emergency recovery if necessary (40 meters for scuba and 250 meters for the ROV). Each mission was comprised of several *Eagle Ray* deployments consisting of system, navigation, and vehicle tracking/communications tests. Contract and AUV operations dates are as follows:

Phase II and III Tests

Port Location: Port Canaveral, FL

Operations: Offshore Charleston, SC (33-08.5N/077-54.0W)

- Port – July 31 and August 1
- Operations – August 2 - 8
- Port – August 9

Phase III and IV Tests

Port Location: Port Canaveral, FL

Operations: Offshore Savannah, GA (31-43.0N/079-31.0W) or offshore Jacksonville, FL (30-29.0N/080-18.0W)

- Port – September 19 and 21 (extended 1 day for LARS installation)
- Operations – September 22 - 27
- Port – September 28

Phase IV Tests

Port Location: Port Canaveral, FL

Operations: OHAPC, offshore Vero Beach, FL (27-32.3N/079-57.5W)

- Port – October 8
- Operations – October 8 -16 (extended 2.5 operational days)
- Port – October 17 (due to weather the mission ended on October 16th)

Due to delays in the delivery from the manufacturer (original delivery date was August 2005), it would have been impossible to meet the final three tasks of the grant by August 31, 2006—the original contract end date. The AUV was delivered on July 5, 2006 at which time Task 3-- T&E Plan-- commenced. NURC/UNCW has contracted the NASA booster rocket recovery vessel *Liberty Star* to serve as AUV support vessel for three cruises during June 31 – October 17. At the end of the third cruise, all multibeam data will be collected on essential areas of interest to the SAFMC and Phase IV will be complete. Creation of relevant products as requested by the SAFMC (e.g. GIS shape files of bathymetric and acoustic backscatter imagery) is estimated to take approximately two months after the last cruise at which time Task 5 and all components of the grant proposal will have been met.

In preparation for arrival of the vehicle, facilities at the Center for Marine Science, Myrtle Grove have been enhanced including moving a portable wooden building to the site for office and work

space on the AUV, pads with container locks for the AUV shipping/storage container, and power to all was turned on June 29, 2006.

A marine engineering company, David Terkeltoub and Associates, was contracted by NURC/UNCW to provide consultation concerning the AUV Launch and Recovery System (LARS). The bid specification with technical drawings from the engineer was sent to local fabrication vendors on June 2, and was awarded on June 21, 2006. It is estimated that the vendor will have completed construction of the LARS before the beginning of the second mission in September. One additional day was added to ensure that installation of the LARS on the M/V *Liberty Star* was completed.

NURC/UNCW has developed a Web site related to its AUV assets (<http://www.uncw.edu/nurc/auv/>). Features include: vehicle one-pagers with specifications, project descriptions, access to reports (e.g., Program Development Plan), and multi-media gallery.

Project: NOAA CRG 2003 Expansion of Council GIS Capabilities.

This project has been completed.

Project: NOAA CRG 2003 Continuation- Field Verification and Compilation of Photography and Video of a Representative Sample of Near-shore Coral Live/Hard Bottom Habitat Designated as EFH.

No activity took place during this reporting period.

Project: NOAA CRG 2003 Support Fisheries Scientist to provide Additional Technical Support for Council Coral Conservation and Management Activities.

The coral fisheries scientist has provided direct support to the Council in the review of existing and development of new coral, habitat and ecosystem information for the evolving Fishery Ecosystem Plan (FEP) for the region and continues to be responsible for website enhancements and maintenance, in particular for those sections pertaining to coral resources in the South Atlantic region. A summary of specific activities was provided in the First Coral Semiannual Progress Report for Cooperative Agreement NA04NMF4410350 for the period October 1, 2003 - March 31, 2004.

6th Coral Semiannual Progress Report

(NA03NMF4410350)

Submitted by:

Robert K. Mahood

Executive Director

Date