ANNUAL REPORT

TO THE

TECHNICAL COORDINATING COMMITTEE

GULF STATES MARINE FISHERIES COMMISSION

OCTOBER 1, 2005 TO SEPTEMBER 30, 2006

SEAMAP Subcommittee

James G. Hanifen, Chairman

Jeffrey K. Rester

SEAMAP Coordinator

October 12, 2006 **GSMFC No: 140**

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INTRODUCTION

The Southeast Area Monitoring and Assessment Program (SEAMAP) is a State/Federal/university program for collection, management and dissemination of fishery-independent data and information in the southeastern United States. The program presently consists of three operational components: SEAMAP-Gulf of Mexico, which began in 1981; SEAMAP-South Atlantic, implemented in 1983; and SEAMAP-Caribbean, formed in 1988.

Each SEAMAP component operates independently, planning and conducting surveys and information dissemination in accordance with administrative policies and guidelines of the National Marine Fisheries Service's Southeast Regional Office (SERO).

Federal programmatic funding for SEAMAP activities and administration was appropriated in Federal Fiscal Years 1985-2006 (October 1 through September 30). State and Gulf States Marine Fisheries Commission (GSMFC) funding allocations for FY1985-FY2006 were handled through State/Federal cooperative agreements, administered by SERO and the Southeast Fisheries Science Center (SEFSC), National Marine Fisheries Service (NMFS).

In FY2006, SEAMAP operations continued for the twenty-fifth consecutive year. SEAMAP resource surveys included the Fall Plankton Survey, Fall Shrimp/Groundfish Survey, Spring Plankton Survey, Summer Shrimp/Groundfish Survey, Reeffish Survey, and plankton and environmental data surveys. Other FY2006 activities included SEAMAP information services and program management.

This report is the twenty-third in a series of annual SEAMAP Subcommittee reports to the Technical Coordinating Committee (TCC) of the Gulf States Marine Fisheries Commission. It is intended to inform the TCC of SEAMAP-Gulf of Mexico activities and accomplishments during FY2006 and proposed SEAMAP activities for FY2007.

Appreciation is gratefully extended to the staff of the Gulf States Marine Fisheries Commission for their considerable assistance in the preparation of this document.

FY2006 SEAMAP RESOURCE SURVEYS

The surveys conducted during the year address distinct regional needs and priorities and provide information concerning the marine resources in the Gulf of Mexico. Other activities included SEAMAP information services and program management.

Fall Shrimp/Groundfish Survey

The Fall Shrimp/Groundfish Survey was conducted from October 8 to November 16, 2005, from off Mobile, Alabama to the U.S.-Mexican border. Vessels sampled waters out to 60 fm, covering 344 trawl stations, in addition to plankton and environmental sampling. Due to impacts from Hurricane Katrina, Mississippi did not participate in the 2005 Survey.

The objectives of the survey were to:

(1) sample the northern Gulf of Mexico to determine abundance and distribution of demersal organisms from inshore waters to 60 fm;

(2) obtain length-frequency measurements for major finfish and shrimp species to determine population size structures;

(3) collect environmental data to investigate potential relationships between abundance and distribution of organisms and environmental parameters; and

(4) collect ichthyoplankton samples to determine relative abundance and distribution of eggs and larvae of commercially and recreationally important fish species.

NMFS and Louisiana vessels collected ichthyoplankton data at sample sites occurring nearest to half-degree intervals of latitude/longitude. Fifty-eight stations were sampled with bongo and/or neuston nets, as encountered along cruise tracks. The Polish Sorting and Identification Center will sort the samples. Once sorted, the specimens and data will be archived at the SEAMAP Archiving Center.

Spring Plankton Survey

The SEAMAP Spring Plankton Survey took place from April 22 to May 29, 2006. One hundred sixty-four stations were sampled from the west Florida shelf to the Louisiana/Texas border. This was the twenty-fifth year for the survey. The objectives of the survey were to collect ichthyoplankton samples for estimates of the abundance and distribution of Atlantic bluefin tuna larvae and collect environmental data at all ichthyoplankton stations.

Plankton samples were taken with standard SEAMAP bongo and neuston samplers. The bongo sampler consisted of two conical 61-cm nets with 333-micron mesh. Tows were oblique, surface to near bottom (or 200 m) and back to surface. Wire angle was maintained at 45 degrees. Neuston samples were taken with 947-micron mesh nets on 1 x 2-meter frames towed at the surface for ten minutes. Right bongo and neuston samples were initially preserved in 10% buffered formalin and after 48 hours were transferred to 95% ethyl alcohol for final preservation. Left bongo samples were preserved via an ethanol/ethanol transfer to aid in preservation of larval otoliths. In addition, hydrographic data (surface chlorophylls, salinity, temperature and dissolved oxygen from surface, midwater and near bottom, and Forel-ule color) were collected at all stations.

Right bongo and neuston samples collected from SEAMAP stations were transshipped to the Polish Sorting and Identification Center. Left bongo samples were archived at the SEAMAP Invertebrate Plankton Archiving Center (SIPAC).

Reeffish Survey

The primary purpose of this survey was to assess relative abundance and compute population estimates of reef fishes found on natural reef fish habitat in the Gulf of Mexico. Two types of gear

were used to deploy video cameras: 1) a single-funnel fish trap (2.13 m long by 0.76 m square) with the camera mounted at a height of 25 cm above the bottom of the trap; or 2) a 4 camera array with 4 cameras mounted orthogonal to each other at a height of 25 cm above the bottom. Both gears were baited with squid before deployment. The resultant video recordings (typically of one hour duration) were processed back at the laboratory where fishes were identified and counted independently by two tape readers. Final counts were entered into the SEAMAP reef fish database along with additional observations on habitat and fish activity. NMFS conducted reeffish sampling from April 11 to May 10, 2006. Video cameras were deployed at 154 sites and the chevron trap at 28 sites.

Summer Shrimp/Groundfish Survey

During the spring of 2006, there was communication between the Shrimp/Groundfish Work Group members to examine the design for the Summer Shrimp/Groundfish Survey and determine the random station locations for each participant.

Objectives of the survey were to:

(1) monitor size and distribution of penaeid shrimp during or prior to migration of brown shrimp from bays to the open Gulf;

(2) aid in evaluating the "Texas Closure" management measure of the Gulf Council's Shrimp Fishery Management Plan; and

(3) provide information on shrimp and groundfish stocks across the northern Gulf of Mexico from inshore waters to 50 fm.

The overall sampling strategy during the 2006 SEAMAP summer survey was to work from the eastern Gulf to the Texas/Mexico border, in order to sample during or prior to migration of brown shrimp from bays to the open Gulf area. This was the twenty-fifth year for the survey. The entire survey occurred from June 1 to July 16, 2006 and 332 trawl stations were sampled during the survey. In addition, NMFS and Louisiana vessels collected ichthyoplankton data. Fifty-five stations were sampled with bongo and/or neuston nets, as encountered along cruise tracks.

During the survey, the NOAA Ship OREGON II and R/V TOMMY MUNRO sampled offshore and inshore Gulf waters with 40-ft trawls. Alabama's R/V VERRILL sampled offshore Alabama waters with 40-ft trawls, the R/V PELICAN sampled both Louisiana state waters and offshore waters with 40-ft trawls, and Texas vessels sampled Texas state waters and offshore waters with 20-ft trawls. All vessels took environmental data, including temperature, salinity, and oxygen at each station.

Fall Plankton Survey

The first fall ichthyoplankton survey to assess abundance and distribution of king mackerel eggs and larvae occurred in August 1984. No sampling survey was conducted in 1985; however, expanded surveys since then have covered Gulf waters from Florida Bay to Brownsville, Texas. The Fall Plankton cruise took place from August 28, 2006 through September 29, 2006. NMFS and Alabama sampled 127 stations on the west Florida shelf and northern Gulf of Mexico. The objective of this

survey was to collect ichthyoplankton samples with bongo and neuston gear for the purpose of estimating abundance and defining the distribution of eggs, larvae, and small juveniles of Gulf of Mexico fishes, particularly king and Spanish mackerel, lutjanids and sciaenids.

Plankton samples were taken with standard SEAMAP bongo and neuston samplers. The bongo sampler consisted of two conical 61-cm nets with .333-micron mesh. Tows were oblique, surface to near bottom (or 200 m) and back to surface. Wire angle was maintained at 45 degrees. Neuston samples were taken with .947-micron mesh nets on 1 x 2-meter frames towed at the surface for ten minutes. Right bongo and neuston samples were initially preserved in 10% buffered formalin and after 48 hours were transferred to 95% ethyl alcohol for final preservation. Left bongo samples were preserved via an ethanol/ethanol transfer to aid in preservation of larval otoliths. In addition, hydrographic data (surface chlorophylls, salinity, temperature and dissolved oxygen from surface, midwater and near bottom, and Forel-ule color) were collected at all stations.

Right bongo and neuston samples collected from SEAMAP stations will be transshipped to the Polish Sorting and Identification Center. Left bongo samples will be archived at the SEAMAP Invertebrate Plankton Archiving Center (SIPAC).

Plankton and Environmental Data Surveys

As in previous years, plankton samples and environmental data were collected routinely during most SEAMAP trawling surveys. During the Summer Shrimp/Groundfish Survey, plankton tows were piggybacked on the NMFS and state vessels, sampling randomly generated trawl stations within the standard 30-minute SEAMAP grids.

Objectives of these piggybacked surveys were: 1) to collect plankton samples throughout the survey area; and 2) to collect associated hydrographic and environmental data at each plankton station. Additionally, environmental data (salinity, temperature, and oxygen from surface, mid-depth and bottom waters) were collected during the shrimp/groundfish surveys. Wind direction, wind speed and wave height were taken at all trawl stations.

Samples from the right side of the bongo nets and neuston samples were shipped to the NMFS-Pascagoula Laboratory for shipment to the Polish Sorting and Identification Center, where they will be sorted to the family level (both ichthyoplankton and selected crustacean and molluscan species). The left bongo sample from each station is retained as a back up in the event of damage or loss of the specimens and maintained at the SIPAC. Preservation of plankton samples was in buffered formalin prior to transfer to ethanol.

INFORMATION SERVICES

Information from the SEAMAP activities is provided to user groups through the program administration and three complementary systems: the SEAMAP Information System, SEAMAP Archiving Center and SIPAC. Products resulting from SEAMAP activities can be grouped into two major categories: data sets (including broadly, digital data and collected specimens) managed by the

SEAMAP Information System, SEAMAP Archiving Center and SIPAC; and program information. Program information is discussed in the *PROGRAM MANAGEMENT* Section of this report.

SEAMAP Information System

Biological and environmental data from all SEAMAP-Gulf surveys are included in the SEAMAP Information System, managed in conjunction with NMFS-SEFSC. Raw data are edited by the collecting agency and verified by the SEAMAP Data Manager prior to entry into the system. Data from all SEAMAP-Gulf surveys during 1982-2005 have been entered into the system and data from 2006 surveys are in the process of being verified, edited, and entered for storage and retrieval. Verified, non-confidential SEAMAP data are available conditionally to all requesters, although the highest priority is assigned to SEAMAP participants.

Requested SEAMAP data were used for a multitude of purposes in 2006:

- Evaluating the abundance and size distribution of penaeid shrimp in federal and state waters to assist in determining opening and closing dates for commercial fisheries;
- Evaluating and plotting the size of the hypoxic (Dead Zone) area off of Louisiana;
- Assessing shrimp and groundfish abundance and distribution and their relationship to such environmental parameters as temperature, salinity, and dissolved oxygen;
- Identifying environmental parameters associated with concentrations of larval finfish;
- Assessing the potential impact of liquefied natural gas facilities on marine fish stocks;
- Compiling the 2006 SEAMAP Environmental and Biological Atlas; and
- Comparing catches of shrimp and groundfish captured by 40-ft versus 20-ft trawl nets.

Data Management

The requirements report for an integrated data system, *Data Management System Design Study for Gulf and South Atlantic, 1987*, was completed in March 1987. The document identifies the high-level design specifications and recommended implementation plan for a module-based SEAMAP Data Management System (DMS). The design is based on information contained in the SEAMAP Gulf and South Atlantic DMS Requirements Document developed through a cooperative effort between NMFS and other SEAMAP participants. The document has five sections: 1) background and brief descriptions of current centralized and proposed distributed systems; 2) summary of the Requirements Survey; 3) overview of the system's architecture; 4) description of developmental modules constituting the DMS design; and 5) a modular implementation plan which includes costs and schedule.

Work was completed during FY1990 on the new distributed SEAMAP DMS. New modules completed include those for data entry, edit, upload, data query and download. All of the Gulf States are now equipped with the necessary computer hardware and software.

The system is decentralized, i.e., distributed. Thus, the SEAMAP users are able to locally, and directly, enter and retrieve data. Software for the system has been distributed to participants for trial runs of data input.

This system decreases the time necessary to enter and retrieve data and provides powerful and flexible local data analysis and display capabilities. Under the system, each SEAMAP site enters, verifies and edits their data. Secondly, each site has the capability of locally accessing SEAMAP data, utilizing a user-friendly system. Local data retrieval allows the data to be accessed in a timely manner with a minimum amount of effort and programming skills.

Under the system, outside users (e.g., Minerals Management Service, U.S. Army Corps of Engineers, etc.) may request special data sets for research or study. The outside users submit the request to the SEAMAP Subcommittee through the SEAMAP-Gulf Coordinator for approval to proceed. Once the request is approved, the Data Manager and staff members provide the information through a priority-based, mail-oriented system. Also, SEAMAP participants may use the Special Request mechanism for data sets too large for economical downloading by telephone. A Central Operations staff will handle these requests in the same priority-based, mail-oriented manner as noted above.

Real-time Data

A major function of the SEAMAP Information System is the processing of catch data from the Summer Shrimp/Groundfish Survey as near-real-time data. Data were transmitted to the NMFS Mississippi Laboratories from the NOAA vessel, while the states' data were entered into the system weekly. Plots of station locations and catch rates of shrimp, squid and dominant finfish species were prepared, edited, and processed by GSMFC for weekly distribution to management agencies, fishermen, processors and researchers. SEAMAP real-time data plots were produced during the 2006 Summer Shrimp/Groundfish Survey. Seven weekly mailings were produced and distributed to approximately 200 interested individuals. These plots were also available through the SEAMAP home page. Management agencies also received comprehensive data listings showing penaeid shrimp length frequencies, sampling parameters and environmental conditions.

SEAMAP Archiving Center

Larval fish and fish egg samples sorted to the lowest taxa level possible by the Polish Sorting and Identification Center are returned to the SEAMAP Archiving Center (SAC) for archiving and loan to researchers. To date in 2006, 17,820 lots of samples were returned from the Polish Sorting and Identification Center. Data entry for 3,069 of the specimens has been completed in the SEAMAP Access data entry system. Nine thousand nine hundred eighty-nine (9,989) lots of specimens have been cataloged, but not entered into the database. The Archiving Center is experiencing a back log of data entry as there have been delays in receiving the necessary data from the NMFS Pascagoula

laboratory. The specimens cataloged this year represent 18 orders, 126 families, 235 genera and 245 species.

The SEAMAP Archiving Center is managed in conjunction with Florida Fish and Wildlife Conservation Commission's (FWC) Fish and Wildlife Research Institute (FWRI) in St. Petersburg, Florida. The SAC processes specimen loans, requests for associated plankton survey data, and requests for data clarification. Fifty-four requests have been accommodated this year to nineteen different researchers at both the state and federal level.

SEAMAP Invertebrate Plankton Archiving Center

The SEAMAP Invertebrate Plankton Archiving Center (SIPAC) is in its twenty second year of operation. Sara LeCroy at the USM/CMS/GCRL currently serves as the SIPAC curator. The overall mission of the SIPAC, to archive and manage the large collection of plankton samples acquired during SEAMAP cruises and to obtain specimens and/or data on selected invertebrate larval stages from those samples, continued during the year, but the focus shifted from archiving new material to the recovery of material damaged by Hurricane Katrina. The SIPAC continues to provide unsorted plankton samples and data or specimens of larval invertebrates to qualified researchers upon request.

On August 29, 2005, Hurricane Katrina struck the Mississippi Gulf coast, severely damaging the building at the Gulf Coast Research Laboratory in which the SIPAC samples were housed. The room containing these samples was breached by the storm surge and many samples were washed out into the surrounding area. Although some samples were destroyed, many were not, and to date approximately 1,263 samples have been recovered. Prior to re-archiving, each of these samples was carefully checked and the alcohol, internal and external labels replaced, if necessary. Available data from the labels was entered in an Excel spreadsheet as an ongoing record of sample recovery. The recovered samples are currently housed within the GCRL Museum's Research Building Collection Room. It is anticipated that many additional samples remain beneath the debris within the room that previously housed them; however, that room is currently inaccessible because of damage to the building above. Plans are currently underway to attempt the recovery of those samples as a part of the debris removal process prior to the demolition of the building. However, this recovery effort has been delayed by insurance issues regarding the partially destroyed building.

The student assistant employed during the past year to aid the curator with the cataloging of new samples, and the maintenance and curation of the collection, has graduated and the process of finding a replacement is currently underway. Activities during the year were limited to the recovery, maintenance and curation of the existing collection; no new material was cataloged. In addition, two samples were sent out on loan. The number of samples cataloged in the SIPAC collections prior to Katrina was 9,010, with 7,747 still missing post-Katrina and 328 samples currently on loan.

In an effort to keep the space required to house the SIPAC collection of unsorted plankton samples to a minimum, samples that have been in the collection for over 10 years and duplicate samples sorted and received from the Polish Sorting and Identification Center, are aliquoted to ¼ their original volume and placed into 100 ml vials, as necessary. When possible, the remaining 3/4 aliquots are donated to educational institutions for use as teaching materials. If the remaining sample must be discarded, sample jars are cleaned and returned to NMFS-Pascagoula for reuse. To

date, approximately 2,264 samples collected from 1982-1988 have been aliquoted and prepared for long-term storage; of these, 116 were recovered post-Katrina. There is presently sufficient space available for additional samples to be deposited into the SIPAC archives without continuing the aliquoting of 1988-1994 SEAMAP samples.

During the next year, the SIPAC will continue to manage SEAMAP plankton collections, accession samples and provide available data from the collection to qualified researchers as requested. In addition, any recovered samples will be checked against the catalog, their recovery noted, and a listing of recovered samples will be maintained. Preservative will be checked for the existing samples and replaced as needed.

PROGRAM MANAGEMENT

The SEAMAP program is administered by the SEAMAP Subcommittee of the TCC through the SEAMAP Coordinator, who is under the technical direction of the Subcommittee Chairman and administrative supervision of the GSMFC Executive Director.

Personnel associated with SEAMAP program management include the Coordinator, Data Manager, SEAMAP Archiving Center Curator, SIPAC Curator and the NMFS-Pascagoula Laboratory Director, serving as Program Monitor.

Planning

Major SEAMAP-Gulf Subcommittee meetings were held in October 2005 and March 2006 in conjunction with the Annual Meeting of the GSMFC. All meetings included participation by various work group leaders, Coordinator, Data Manager, Program Monitor and other GSMFC staff. Representatives from the Gulf program also met with the South Atlantic and Caribbean representatives in August 2006 to discuss respective program needs and priorities for FY2007.

Coordination of program surveys and distribution of quick-report summaries of a Gulf-wide survey to management agencies and industry were major functions of SEAMAP management in 2006. Other important management activities included coordinating data provision and specimen loans, preparing publications and documents and assisting in the preparation of State/Federal cooperative agreements, including amendments to permit extension of activities previously not detailed in the agreements.

Information Dissemination

The following documents were published and distributed during this reporting period:

- *2006 SEAMAP Marine Directory*. Inventories of marine agency contacts (State, Federal and university) concerned with fishery research in the Gulf of Mexico, and summaries of information provided by these organizations: target species, types of fishery-independent sampling gear and platforms, annual sampling effort, and other materials.

- *SEAMAP Subcommittee Report to the GSMFC Technical Coordinating Committee -October 1, 2005 to September 30, 2006.* A detailed summary of program accomplishments, emphasizing survey design, material collected, data dissemination, budget information, and future survey activities.

- *Annual Report of the SEAMAP Program - October 1, 2004 to September 30, 2005.* A summary of FY2005 activities and proposed FY2006 events for the SEAMAP-Gulf, South Atlantic, and Caribbean Programs.

Proposed 2007 Activities

Preliminary 2007 SEAMAP-Gulf budget allocations are shown in Table 3. Last year, total program allocations for all three SEAMAP components, Gulf, South Atlantic and Caribbean, was approximately $1.38 million. At the August meeting, the SEAMAP components based their allocations on level funding for 2006. At this level, the share to be allocated for SEAMAP-Gulf activities (including GSMFC) will be $612,430.

Proposed 2007 activities for all Gulf participants are shown in Table 4. The approved 2007 Operations Plan for SEAMAP-Gulf is contained in Appendix B.

FY2006 Financial Report

Total allocations for FY2006 program administration were $99,137. The GSMFC has arranged and paid for all expenses associated with personnel, meetings, travel, and operating expenses to date. The remaining balance will be used to provide administration of the SEAMAP-Gulf program through December 31, 2006.

TABLE 1.

SEAMAP REPRESENTATIVES FOR FY2006

James Hanifen, Chairman
Louisiana Department of Wildlife and Fisheries

Stevens Heath, Vice Chairman
Alabama Department of Conservation and Natural Resources

Richard Waller
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Mark Leiby
Florida Fish and Wildlife Conservation Commission
Florida Fish and Wildlife Research Institute

Paul Choucair
Texas Parks and Wildlife Department

Butch Pellegrin
National Marine Fisheries Service
Pascagoula Laboratory

Richard Leard (non-voting)
Gulf of Mexico Fishery Management Council

TABLE 2.

SEAMAP WORK GROUP MEMBERS FOR FY2006

ADULT FINFISH WORK GROUP

Terry Henwood, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Texas Parks and Wildlife Department

Mark Leiby
Florida Fish and Wildlife Conservation Commission

John Roussel
Louisiana Department of Wildlife and Fisheries

Robert Shipp
University of South Alabama

Rick Leard
Gulf of Mexico Fishery Management Council

University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

DATA COORDINATING WORK GROUP

Mark McDuff, Leader
SEAMAP Data Manager
National Marine Fisheries Service
Pascagoula Laboratory

Butch Pellegrin
National Marine Fisheries Service
Pascagoula Laboratory
Shrimp/Groundfish Work Group

Terry Henwood
National Marine Fisheries Service
Pascagoula Laboratory
Adult Finfish Work Group

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory
Plankton Work Group

Mike Murphy
Florida Fish and Wildlife Conservation Commission
Red Drum Work Group

Richard Waller
University of Southern Mississippi/College of Marine Sciences/Gulf Coast Research Laboratory
Reef Fish Work Group

Terry Romaire
LA Department of Wildlife and Fisheries
Environmental Data Work Group

ENVIRONMENTAL DATA WORK GROUP

Terry Romaire, Leader
Louisiana Department of Wildlife and Fisheries

Mark Van Hoose
Alabama Department of Conservation and Natural Resources

Kim Williams
Florida Fish and Wildlife Conservation Commission

Thomas Leming
National Marine Fisheries Service
Pascagoula Laboratory

Richard Waller
Gulf Coast Research Laboratory
University of Southern Mississippi
College of Marine Sciences

PLANKTON WORK GROUP

Joanne Lyczkowski-Shultz, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Alonzo Hamilton
National Marine Fisheries Service
Pascagoula Laboratory

Leslie Hartman
Alabama Department of Conservation and Natural Resources

Ken Edds
Louisiana Department of Wildlife and Fisheries

Sara LeCroy, Curator
SEAMAP Invertebrate Plankton Archiving Center
University of Southern Mississippi/College of Marine Sciences/Gulf Coast Research Laboratory

Mark Leiby
Florida Fish and Wildlife Conservation Commission

Mark Benefield
Louisiana State University

Harriet Perry
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

RED DRUM WORK GROUP

Mike Murphy, Leader
Florida Fish and Wildlife Conservation Commission

University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Joseph Shepard
Louisiana Department of Wildlife and Fisheries

Larry McEachron
Texas Parks and Wildlife Department

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

Mark Van Hoose
Alabama Department of Conservation and Natural Resources

REEF FISH WORK GROUP

Richard Waller, Leader
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Texas Parks and Wildlife Department

Chris Gledhill
National Marine Fisheries Service
Pascagoula Laboratory

Richard Kasprzak
Louisiana Department of Wildlife and Fisheries

Mark Leiby
Florida Fish and Wildlife Conservation Commission

Jim Duffy
Alabama Department of Conservation and Natural Resources

SHRIMP/GROUNDFISH WORK GROUP

Butch Pellegrin, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Texas Parks and Wildlife Department

Michael Harden
Louisiana Department of Wildlife and Fisheries

Bruce Comyns
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Leslie Hartman
Alabama Department of Conservation and Natural Resources

Nate Sanders
National Marine Fisheries Service
Pascagoula Laboratory

TABLE 3.

PRELIMINARY 2007 PROGRAMMATIC BUDGET

Alabama Department of Conservation and Natural Resources	79,600
Florida Fish and Wildlife Conservation Commission	121,340
Louisiana Department of Wildlife and Fisheries	135,200
University of Southern Mississippi/College of Marine Sciences/ Gulf Coast Research Laboratory	118,349
Texas Parks and Wildlife Department	58,804
Gulf States Marine Fisheries Commission	99,137
TOTAL	$612,430

TABLE 4.

PROPOSED SEAMAP-GULF ACTIVITIES, 2007

	Fall	Winter	Spring	Summer
Resource Surveys:				
Spring Plankton Survey			X	
Shrimp/Groundfish Surveys	X			X
Fall Plankton Survey	X			
Plankton & Environmental Data Surveys	X	X	X	X
Information Operations:				
Biological and Environmental Atlas				X
Marine Directory			X	
Joint Annual Report		X		
Data Input and Request Processing	X	X	X	X
Specimen Archiving and Loan	X	X	X	X
Real-time Data Summaries				X
Program Administration:	X	X	X	X

APPENDIX A

OCTOBER 2005 - AUGUST 2006

SEAMAP MINUTES

SEAMAP Subcommittee Meeting
MINUTES
October 17, 2005
Lake Buena Vista, FL

Call to Order

Vice Chairman Steve Heath called the meeting to order at 1:00 p.m. The following members and others were present:

Members:

Jim Hanifen, *Chairman, via teleconference*, LDWF, Baton Rouge, LA
Steve Heath, *Vice Chairman*, ADCNR/MRD, Gulf Shores, AL
Richard Waller, USM/CMS/GCRL, Ocean Springs, MS
Paul Choucair, TPWD, Rockport, TX
Rick Leard, GMFMC, Tampa, FL
Mark Leiby, FWC/FWRI, St. Petersburg, FL

Others:

Kim Williams, FWC/FWRI, St. Petersburg, FL
Katie Rathmell, FWC/FWRI, St. Petersburg, FL
Terry Cody, Rockport, TX

Staff:

Jeff Rester, *SEAMAP/Habitat Program Coordinator*, GSMFC, Ocean Springs, MS
Cheryl Noble, *Staff Assistant*, GSMFC, Ocean Springs, MS
Ron Lukens, *Assistant Director*, GSMFC, Ocean Springs, MS
Dave Donaldson, *Data Program Manager*, GSMFC, Ocean Springs, MS

Adoption of Agenda

The agenda was adopted as written.

Approval of Minutes

M. Leiby moved to approve the August 3, 2005 minutes as submitted. R. Waller seconded and the motion passed.

Administrative Report

J. Rester reported the Commission's Fishery Independent Database project with USGS was continuing and should be finished shortly. USGS and the Commission have contracted with the Northwest Alliance for Computational Science and Engineering at Oregon State to build the structure of the database. Sample datasets from the states and NMFS have been provided to them and the database should be ready in February of next year.

J. Rester said he was still working on normalizing the SEAMAP trawl database for use in the SEAMAP ArcIMS site. The database has been downloaded on several occasions and revisions to the database have been made, but Hurricane Katrina knocked NMFS Pascagoula offline and he cannot get the latest revisions until Pascagoula is back online. The Subcommittee should be able to review the ArcIMS site before or during the March meeting.

The Subcommittee decided to complete the 2002 Atlas in the old format but the Atlas is on hold until NMFS has time to format the data. Hopefully, that will take place shortly. J. Rester said he is going to try to do the 2003 and 2004 atlases as soon as possible, probably early next year. J. Hanifen asked if any of the SEAMAP data was lost due to the Hurricane and P. Choucair and K. Williams said no data from the states or NMFS have been lost.

S. Heath stated that he was not able to pursue the reef fish data situation discussed at the August meeting due to Hurricane Katrina, but he will report on this at the next meeting.

Effects of the 2005 Hurricane Season on SEAMAP Sampling

R. Waller reported that the duplicate SEAMAP samples stored at SIPAC were stored in the toxicology building at the Gulf Coast Research Laboratory. The building collapsed as a result of Hurricane Katrina, but some of the samples (about 700 out of 8,800) have been retrieved. When the building is raised, he will let the Subcommittee know if any other samples are located. He said that unfortunately, one of the first email requests they received when they were back online was for samples to be used for the LNG issue. He said they could not go on the Fall Plankton cruise because they are out of money. They probably will not go out at all, but are going to attempt one or two days for the shrimp/groundfish survey. He said he has enough money left to do one. Fuel prices are the reason they are out of money. He said they have gone from an average daily cost of $5,200 to over $7,000. He said they have to receive more money or they will have to cut sampling.

J. Rester asked R. Waller how much money they will need to complete the Fall Shrimp/Groundfish Survey and R. Waller said at least $21,000. He then asked R. Waller if they have discussed the issue with NMFS to help with the survey, and he said he has talked to them but at this point NMFS cannot help either. He said the NMFS Pascagoula Lab is not inhabitable and they are working to help their employees who have lost so much during the Hurricane. R. Waller said a short cruise will have to do. He said that in October 1995 they went out seven times and managed to get sixteen stations so they will go out whenever possible. They are going to try to do some of the trawl and fall plankton work on the **GORDON GUNTER**, and the **OREGON II** is getting ready to leave to do shark longlining, and then try to take up where the **GUNTER** leaves off with the trawl sampling.

J. Rester said he was contacted by a researcher from the University of Louisiana from Lafayette who has been hired by Freeport-McMoRan to use plankton samples to determine potential impacts of LNG facilities. They wanted to analyze potential shrimp impacts at the Main Pass facility east of the Mississippi River. The samples would have had to have been sorted. M. Leiby suggested asking the LNG companies for funds to sort the samples. R. Waller stated that FEMA has funds available to replace scientific samples. He does not know if the money could be used to do actual sampling. GCRL personnel are writing proposals and putting together packets to submit to FEMA for funding. He suggested that maybe the Subcommittee can submit a proposal to the LNG companies for funding because it is what they need and in their best interest because they will need this data now and in the future.

J. Hanifen said the **PELICAN** did fine during the storm and they actually finished their fall cruise last week. He said they were impacted more by Tropical Storm Cindy and Hurricane Dennis during the summer because their cruise was scheduled in between the two storms. They were only able to complete part of the cruise. He said LUMCON had about 5 feet of water in the building on the ground floor.

R. Waller said GCRL had about 4 feet of water. The main building did fine but the other buildings suffered extensive damage. The **TOMMY MUNRO** was at the Stennis Space Center in the locks during the storm and did not receive any damage. It was a problem getting it back to Biloxi but it is there now in the harbor.

S. Heath said they were not affected by the storm but there has been some confusion on whether they will do fall plankton or not. J. Rester said he gave M. Van Hoose stations a couple of weeks ago for the fall groundfish cruise. S. Heath said he or someone else will contact J. Rester about the fall plankton cruise.

The Subcommittee then discussed the impacts of the rising fuel costs. J. Hanifen said they will have to add approximately $3,000 - $4,000 to each cruise cost. He said all of their field offices in the eastern part of the state had substantial damage. The Slidell facility is completely gone, the New Orleans office is not inhabitable and they cannot even get in the building. The Point a La Hache facility was destroyed and the marine lab had substantial damage. Only one of the buildings there made it and the rest will probably be condemned. As a result of all of these facilities having this much damage, LDWF is moving boats from all over the state to the east side. Slidell, New Orleans, Point a La Hache and the marine lab are now operating out of Baton Rouge. So not only are the fuel costs for the cruises costly but transporting the boats will increase.

M. Leiby said the Subcommittee needs to investigate how to receive some of the $200 billion that is supposed to be available for restoring the gulf. J. Rester said that in relation to this, L. Simpson wants all of the committees to discuss at this meeting the priority needs due to Hurricane impacts. He wants each committee to access the short, mid and long-term impacts of the storm. SEAMAP needs to focus on fishery independent data collection and the impacts it had on each agency and all of the cruises. Federal disaster relief fund money should be available soon and each agency needs to be prepared to justify how they can use it.

J. Hanifen said the assessments they have been working on are primarily impacts to the fisheries themselves not necessarily toward data collection. The future of fishery independent data collection is probably in substantial jeopardy in Louisiana. As a result of the storm they have been spending a lot of the conservation funds both in search and rescue and in the assessments of the storm's impacts. So that will take away funds in the future from fisheries independent data collection. As those funds dwindle, the conservation funds dwindle, and revenue will not be coming back in because of the impacts to the fisheries. They will probably see a substantial decrease in conservation revenue coming in because of the impacts to the oil and gas industry. This industry is a big source of funding for Louisiana. So in the medium to long term a decrease in effort for fisheries independent data collection will probably occur. M. Leiby asked if he means a decrease or cessation and J. Hanifen answered a serious decrease to cessation is possible.

R. Waller said fortunately, GCRL did not lose any boats and they have been sampling when they have fuel. DMR's main offices were flooded and the building may be condemned but he is not sure how much independent sampling they did, but he is sure they are not doing any at this point. He said Corky Perret is at this meeting and could give a better report on what is going on with DMR.

R. Waller said they have about a month lapse in their regular monthly sampling but like Louisiana, they do not know what the future holds. He does not know how DMR's budget will be affected since Mississippi has lost the casino revenue which is about $600,000 a day. The shrimp fleet has been devastated and the bottom is completely littered so nobody knows when fishing will start again on any large scale. The oyster industry will probably be up and running when the reefs return and the charter boat industry is okay, but there are no hotels for customers who may want to book a charter.

K. Williams asked if there has been any determination on what kind of long-term monitoring response is going to be asked of the individual states. R. Waller said he does not know for sure but GCRL is putting together proposals now to be ready for when funds are available for monitoring.

P. Choucair said that except for the Sabine Lab, Texas was barely affected by the Hurricanes. The Lab is up and running now so they should be able to do the fall cruise on schedule.

2007 SEAMAP Funding Letter

J. Rester said that at the joint meeting in August the full committee agreed to write a letter requesting additional funding for SEAMAP. SEAMAP-SA has decided not to sign the letter because they do not want to use political favors to ask for money for the program that they may not receive, even though there is a 20 year plus history of equitably dividing funds. He said this letter is not intended to actively lobby the congressional delegation, but to just explain how important SEAMAP is and why they need more funding.

J. Rester then referred to the letter stating R. Lukens changed the first paragraph to explain the history of GSMFC because it will be mailed on the commission letterhead. J. Rester said he had a

generic paragraph about SEAMAP but R. Lukens changed it, so that may have been another reason the SEAMAP-SA did not want to sign the letter. He said he told SEAMAP-SA that the letter was a draft and asked for their comments but they did not provide any. He then suggested the letter should have information on all five Gulf States, all components of SEAMAP, and the commission, but just not have a place for the SEAMAP-SA signatures. R. Waller suggested focusing on the Gulf States, the LNG issue, and the affects to the Gulf by Hurricane Katrina. The Gulf is a hot topic right now so extra funds should be available and SEAMAP may be able to acquire some of the funding. After discussion, the Subcommittee agreed to redirect the letter to focus on these issues and then on the long-term monitoring SEAMAP does and who uses and benefits from this data collection. Also, the impacts of increased fuel costs need to be addressed in the letter. The letter should be signed by all of the Gulf States' state directors. The Subcommittee asked J. Rester to revise the letter to reflect these comments and then email the draft to the Subcommittee for final review. After it is finalized, it will be mailed for all signatures.

Final Approval of SEAMAP Funding Priorities

J. Rester distributed the SEAMAP funding priority sheet and asked the Subcommittee for changes. He said the increase in fuel costs need to be reflected in the changes. Each member updated their entries. K. Williams brought to the Subcommittee's attention that the figure for the Polish Sorting Center will probably need to be changed because of the major inflation problems in Poland. She said the Polish Sorting Center only signed a one year agreement instead of three. J. Rester said he will contact J. Shultz and then make changes if necessary. J. Rester will email the funding priorities with all the changes discussed to the Subcommittee next week for their final approval.

Final Approval of SEAMAP 2006-2010 Management Plan

P. Choucair suggested changing "prepared by" on the first page to "updated by" because Elizabeth Griffen was not the original writer of the document and should not get credit for the entire document. J. Rester mentioned most of the SEAMAP documents need to be thoroughly edited and updated. He asked the Subcommittee to review the documents and to update the sections that are germane to them and send the changes to him. He said the data management sections especially need to be rewritten and he will contact M. McDuff to update those.

R. Waller moved to accept the *SEAMAP 2006-2010 Management Plan* as currently written and forward it to the TCC for their approval. M. Leiby seconded and the motion passed.

Election of Chairman

M. Leiby moved to re-elect J. Hanifen as Chairman and S. Heath as Vice Chairman. R. Waller seconded the motion and it passed.

Other Business

With no further business, the meeting adjourned at 3:05 p.m.

SEAMAP Subcommittee Meeting
MINUTES
March 13, 2006
San Antonio, TX

Call to Order

Chairman Jim Hanifen called the meeting to order at 1:05 p.m. The following members and others were present:

Members:

Jim Hanifen, *Chairman,* LDWF, Baton Rouge, LA
Steve Heath, *Vice Chairman*, ADCNR/MRD, Gulf Shores, AL
Paul Choucair, TPWD, Rockport, TX
Mark Leiby, FWC/FWRI, St. Petersburg, FL
Butch Pellegrin, NOAA Fisheries, Pascagoula, MS

Staff:

Larry Simpson, *Executive Director*, GSMFC, Ocean Springs, MS
Dave Donaldson, *Data Program Manager*, GSMFC, Ocean Springs, MS
Jeff Rester, *SEAMAP/Habitat Program Coordinator*, GSMFC, Ocean Springs, MS
Cheryl Noble, *Staff Assistant*, GSMFC, Ocean Springs, MS

Adoption of Agenda

M. Leiby said he wished to discuss starting a central photo library of fish and invertebrates under other business. With this addition, the agenda was adopted.

Approval of Minutes

M. Leiby moved to approve the October 17, 2005 minutes as submitted. S. Heath seconded and the motion passed.

Administrative Report

J. Rester reported he thinks the Fall Shrimp/Groundfish Cruise took place last year but he only received cruise reports from Louisiana and Texas. J. Rester asked the Subcommittee to please send the cruise reports to him as soon as possible after each cruise. B. Pellegrin said they did sample all of their stations, but they were late getting the cruise reports to J. Rester.

J. Rester stated that the Commission's Fishery Independent Database project with USGS was continuing and should be finished shortly. The project was delayed due to state personnel being

busy with Hurricane Katrina related activities. He said he was still working on normalizing the SEAMAP trawl database for use in the SEAMAP ArcIMS site. Because the data was offline after Katrina, he was not able to download the data last year. He requested a copy of the data which he received in February but it was not the correct copy. He received the correct copy on February 15th and will work on normalizing it as soon as possible. After the data is normalized, he will contact NCDDC to see if they are still willing to host the ArcIMS site. He will keep the Subcommittee informed of the project's progress.

He said the Subcommittee decided to complete the 2002 Atlas in the old format but nothing has been done. The Atlas is on hold until NMFS has time to format the data. Hopefully, that will be soon. He said he hopes to run the 2002, 2003, 2004 and 2005 Atlases sometime this year. It will be a large task but the Atlases are four years behind and they need to get back up and running. M. McDuff said they are trying to update their program so that it will run with windows instead of DOS. J. Hanifen said that because the atlases are so far behind and the goal is to get more towards online data access, the Subcommittee should discuss the new atlas format again at the August meeting. He said to do the 2002 Atlas if the data comes in before then, but if not they will discuss using the new format for all the atlases in August.

J. Rester said several letters have been mailed since last fall requesting additional SEAMAP funding. The Gulf state directors signed a joint letter that was sent to all members of the House and Senate appropriations committees and the Gulf Congressional delegation. The South Atlantic state directors did not want to sign the letter. Another letter was sent to Bill Hogarth signed by all three chairmen requesting that NMFS request additional funds for SEAMAP within their budget request each year. In the past they have not done this. He said he hopes that if SEAMAP receives an increase this year, NMFS will increase their appropriations also and that way Congress is not looking at two different amounts for the same program.

J. Rester asked if all the states and NMFS will be able to complete their survey portions this summer. Everyone responded that they will be able to complete their routine sampling. J. Rester said real time data will be distributed again this summer, and they are still working on a way to add length frequencies.

Possible SEAMAP 2007 Funding Increase, Planning for the Future

J. Hanifen restated that several letters were mailed asking for more funding for SEAMAP. The President's budget has 3.8 million dollars more for SEAMAP. Bill Hogarth wrote a letter to the Chairmen of SEAMAP stating what NMFS envisions for the additional funding. L. Simpson stated this has been an accumulative effort over the years and that one letter did not do this. He said that when requesting the additional funding, they emphasized the utility of SEAMAP for LNG facilities, shrimp management, stock assessments, etc. He said if extra funding is acquired, the program has to produce relevant information in a timely fashion and distribute the information in a user friendly format. He said he believes SEAMAP will receive an increase although he does not know what that amount will be, but the participants need to continue doing good work and produce viable and relevant information. He said to keep in mind the ongoing changes in shrimp management such as

limited entry, general ecological trends, benchmark indices for relative health of some species, and LNG when planning for the future of SEAMAP. The Subcommittee asked that since B. Hogarth only mentioned SEAMAP-Gulf activities in the letter, will the Gulf be able to keep all of the funding. L. Simpson said no, the Gulf should receive the lion's share but all three components will receive some of the extra funding. The Subcommittee discussed asking for the same percentage, if not more, of the funding that they received the last time SEAMAP had an increase.

The Subcommittee then discussed their priorities and justifications for the new funding. The Subcommittee agreed they could not submit the final priorities today because they will have to discuss new or expanded projects with their personnel to insure the extra work can be done. J. Hanifen asked the Subcommittee to reevaluate their priorities and submit a final list to J. Rester before April 29th. C. Noble will send a reminder to the Subcommittee every week until the due date. Some of the projects and/or new priorities discussed were: restoring and expanding the historical/core surveys; seasonal sampling; sampling to provide data for the LNG issue; providing data on aquaculture, sand mining, wind farms, etc.; the accessibility and distribution of the SEAMAP data; start new surveys; and sampling with different gears in addition to the gears already being used.

Update on Fishery Independent Database

D. Donaldson asked the Subcommittee to provide the necessary information to Cheryl Solomon, the NBII Metadata specialist who is working to create the metadata records for the database. He said he will keep the Subcommittee informed on the progress of the Fishery Independent Database.

SEAMAP External Review

P. Choucair said that in the handouts are the questions asked for the TPWD external review through AFS. He said he and J. Rester discussed asking AFS to do the SEAMAP external review because they already have a process in place to do scientific external reviews. The Subcommittee discussed this and B. Pellegrin stated he thought the SEAMAP Committee had already decided on NMFS to do the review. This was discussed at the joint meeting but the Subcommittee agreed if NMFS does the review, it should be by personnel outside the Southeast region. J. Rester said the Commission has approximately $8,000 left over in SEAMAP from last year to pay for the review. The South Atlantic transferred $2,000 for the review also. He said he mailed the Subcommittee and the other components a list of questions and objectives that resulted from the 1987 review and asked if these were still viable and if anything should be added. After discussion on database questions, the Subcommittee asked J. Rester to revise the list and combine the South Atlantic's and Caribbean's input and then send the new list to the Subcommittee and the other components for their final approval. The Subcommittee asked J. Rester that after the review questions list was final, to start the process to have an external review.

Other Business

M. Leiby said he has been trying for a number of years to get the FWRI species photo collections on the web in a searchable format so that researchers and teachers will know what they have available. He said he would like to collect as many photos as possible to put on the website for researchers to view online and if the photos were available online with enough information, they may not have to borrow the specimen from FWRI. He said that after further discussions with other people interested in this idea, he would like for other states to get involved and develop a central photo library for researchers, teachers and the general public to access. J. Hanifen said LDWF has also been discussing doing a similar project through LSU's Sea Grant Program. M. Leiby said he has talked to the legal department as to how they can give the proper credit to the contributors and to be able to prosecute if any of the photos were used for commercial purposes or any other purpose other than what is intended. He said he was told that FWRI has the server space to house this (for the time being) and that he would like to take the lead on the project. He then asked the Subcommittee if they would like to pursue this project. After discussion and more input on ideas on how to develop the central photo library, the Subcommittee agreed that SEAMAP should do this. M. Leiby asked the Subcommittee to email him stating they are in favor of starting a central photo library of fish species and are willing to contribute to the project. He said he would take this written support to the proper personnel at FWRI and ask for their approval to start. He said if FWRI approved the project he would add this to his SEAMAP budget. J. Hanifen said he would ask Chuck Wilson, the LSU Sea Grant Director to contact M. Leiby also.

J. Rester stated the Atlantic States has a new coordinator, Peter Mooreside. He said the management plan has not been completed but he will keep contacting P. Mooreside and ask him to please finish this. He said he also does not have the joint meeting information yet but will inform the Subcommittee when it is given to him.

B. Pellegrin asked how each state was collecting dissolved oxygen. He said NMFS was thinking of switching from Winkler titration to a newer method. He said he will send information to the Subcommittee and the Environmental Work Group on this new method. They will do comparisons with the old system before they make any permanent change.

With no further business, the meeting adjourned at 4:21 p.m.

SEAMAP Subcommittee Meeting
MINUTES
Charleston, SC
August 3, 2006

Call to Order

Chairman Jim Hanifen called the meeting to order at 8:30 a.m. The following members and others were present:

Members:

Jim Hanifen, *Chairman*, LDWF, Baton Rouge, LA
Richard Waller, USM/CMS/GCRL, Ocean Springs, MS
Paul Choucair, TPWD, Rockport, TX
Steve Heath, ADCNR/MRD, Gulf Shores, AL
Mark Leiby, FWC/FMRI, St. Petersburg, FL
Gilmore "Butch" Pellegrin, NOAA Fisheries, Pascagoula, MS

Others:

Karen Mitchell, NOAA Fisheries, Pascagoula, MS
Mark McDuff, NOAA Fisheries, Pascagoula, MS

Staff:

Jeff Rester, *SEAMAP/Habitat Program Coordinator*, GSMFC, Ocean Springs, MS
Cheryl Noble, *Staff Assistant*, GSMFC, Ocean Springs, MS

Adoption of Agenda

The agenda was adopted as submitted.

Approval of Minutes

S. Heath moved to approve the March 14, 2006 minutes as submitted. P. Choucair seconded and the motion passed.

Administrative Report

J. Rester reported the Spring Plankton Survey was conducted from April 22 to May 29, 2006. A total of 164 stations were sampled during the survey. This was the twenty-fifth year for the survey. The SEAMAP Reeffish Survey was conducted from April 11 to May 10, 2006. A total of 154 video stations and 28 fish traps were completed during the survey. The SEAMAP Summer Shrimp/Groundfish Survey was conducted this summer from June 1 to July 16, 2006. This was the twenty-fifth year for the survey and 331 trawl stations were sampled.

Real time data were produced during the shrimp/groundfish survey. One hundred-fifty copies were mailed and 66 copies were emailed each week. Real time plots were also available on the GSMFC web site. An end of survey report was emailed and posted on the web site.

J. Rester stated that the fishery independent database project was progressing although slowly. Oregon State is developing the fishery independent database structure. They have received everything they need from the states to complete the project. Oregon State should have the finalized structure available for review before the October meeting.

J. Rester said he used the SEAMAP trawl data to explore potential juvenile red snapper hot spots in the Gulf of Mexico. He presented the information to the Council at the June Council meeting where they discussed potential time/area shrimping closures to protect juvenile red snapper as part of Shrimp Amendment 15. Sandra Diamond from Texas Tech used SEAMAP data to model red snapper and shrimp concentrations in the Gulf of Mexico. She only used NMFS data so some of the areas she had as hot spots did not correspond to what he had as hot spots. J. Rester discussed this with her and sent her all of the SEAMAP data. She will incorporate all of the data and should have a very interesting technical paper in the near future. J. Hanifen asked J. Rester to ask her to present this information at the October meeting if her work was completed by then. He will discuss this with her and inform the Subcommittee of her response.

Activities and Budget Needs for FY2007/Status of FY2007 Budget

J. Rester stated the House budget mark for SEAMAP is zero, the President's budget is $5.09 million, and the Senate's budget is $7.4 million. He said level funding would be $1.385 million so these are the figures to use to plan the 2007 budget. He said they should plan for each scenario. If the higher funding comes through, the Gulf has to be prepared to justify the percentage they ask for at the joint meeting. J. Rester said historically the Gulf's and NMFS's share combined is 45% and at the $5.09 million mark the total would be close to $3 million. He suggested the Subcommittee prioritize needs along with associated costs. Another thing that needs to be discussed is making sure that they will be able to perform the work. The Subcommittee then discussed if personnel and vessels would be available, if plankton surveys were expanded would they be able to sort and store new samples, and should they add new gear, such as Tucker trawls. It was also suggested to use additional funding to supplement funding some of the vessels in the Gulf that may be going offline due to funding cuts. When the discussion was complete, the Subcommittee decided to ask for 45% of whichever budget passed. The Subcommittee also decided to ask the Plankton Work Group to meet as soon as possible

to discuss how to expand the surveys and address the ship time, lab capabilities, gear, etc. J. Hanifen asked J. Rester to calculate the numbers and have them available for the joint meeting. If level funding is received, the Subcommittee agreed to stay at $612,000. The Subcommittee will have a conference call after they are informed of the final figure and plan how to begin new/expanded surveys.

GSMFC Proposal for SEAMAP Data Management

J. Rester said a meeting was held at NMFS with M. McDuff, B. Pellegrin, S. Nichols and himself to discuss the possibility of the Commission assuming the data management responsibilities for all SEAMAP participants, including NMFS. He then reviewed each item of the proposal. He said the only way the Commission would be able to do this is if SEAMAP receives increased funding. He said they plan to hire a data manager who would be 100% dedicated to SEAMAP data management. The Subcommittee approved the proposal and asked him to present this at the Joint meeting for their approval.

R. Waller asked M. McDuff the status of developing the smaller electronic measuring boards. M. McDuff said NOAA contracted with the University of Maryland to develop a new board but the technique they have at this point is not satisfactory. He will keep the Subcommittee informed of any progress. M. Leiby asked the status of entering the ichthyoplankton data online. M. McDuff said they were still working on that and J. Rester reminded everyone to send in their metadata so they can continue working on getting these things complete. M. McDuff said he still has not received the proper guidance on how to show the SEAMAP data online. The Subcommittee discussed again exactly how they want to display the data online, how to track who is using the data, what documentation is needed with the data, and what queries need to be set up for users to get the information they need. It was suggested to have users put in their name, address, and email to receive a password to access the data. It was also suggested to have basic information displayed at the very beginning such as the number of stations sampled over the years, seasons, numbers of trawls, etc., and then the user could do a more detailed search if necessary. The Subcommittee asked J. Rester to continue contacting each Subcommittee via email to compile a list on exactly what needs to be done and how to accomplish each task listed above. This would be discussed and hopefully finalized at the next meeting.

SEAMAP ArcIMS Website

J. Rester said two years ago he demonstrated an ArcIMS site hosted by NCDDC using SEAMAP data. He has standardized the database again and proposes to do basically the same thing using the summer and fall data from 1987 to 2004. He displayed the brown shrimp distributions and asked the Subcommittee which species distributions they would like to see displayed. He currently has gray trigger fish, Atlantic bumper, sand and silver sea trout, spot, red snapper, lane snapper, croaker, butterfish, vermillion snapper, red drum, king and Spanish mackerel, long spine porgy, brown, pink and white shrimp, long fin squid and arrow squid. He said these are the species that were discussed a couple of years ago except he added long spine porgy at J. Hanifen's request. He then demonstrated what can be displayed and how. He then asked how they want to do the symbology

and classification. After discussion, the Subcommittee asked J. Rester to send them several different examples on how the data can be displayed and the links to NCDDC and they will make a final decision via email. He will present this again at the next meeting.

2002 SEAMAP Atlas

J. Rester said the 2002 Atlas was still on hold and asked M. McDuff the status. He said this was a low priority for NMFS but once they get the programs back up and running they should be able to get the 2002 and all the other atlases out very quickly.

Photo Library Update

M. Leiby said no progress has been made since the last meeting. He was still contacting people who were interested and working on the legal aspects regarding photograph copyrights. Once he drafted an outline on the disclaimer that will be on the webpage, he will send it to the Subcommittee for their approval before moving forward. J. Rester will send him information on registering photographs in bulk with the Copyright Office.

Extra SEAMAP Money in the Commission Budget

Funding for the photo library, Plankton Work Group meeting, and purchasing YSI meters for Texas were suggested for using the extra funding that was supposed to be used for the external review. M. Leiby said they are not ready for funding for the photo library and J. Rester said there were funds in the budget for work group meetings. **M. Leiby moved to use the funding to purchase YSI meters for Texas. S. Heath seconded the motion and it passed.** P. Choucair will send all information to J. Rester on the meters.

With no further business, the meeting adjourned at 11:50 a.m.

APPENDIX B

2007 SEAMAP OPERATIONS PLAN

SEAMAP-GULF OF MEXICO

OPERATIONS PLAN

January 1, 2007 - December 31, 2007

INTRODUCTION

The Southeast Area Monitoring and Assessment Program (SEAMAP) is a State/Federal/University program for collection, management and dissemination of fishery-independent data and information in the southeastern United States. The program presently consists of three operational components, SEAMAP-Gulf of Mexico, which began in 1981, SEAMAP-South Atlantic, implemented in 1983, and SEAMAP-Caribbean, formed in 1988.

Each SEAMAP component operates independently, planning and conducting surveys and information dissemination in accordance with administrative policies and guidelines of the National Marine Fisheries Service's Southeast Regional Office.

Organizations directly involved in planning and managing the Gulf's program are the marine fishery management agencies of Florida, Alabama, Mississippi, Louisiana, and Texas, the National Marine Fisheries Service (NMFS), the Gulf of Mexico Fishery Management Council (GMFMC) and the Gulf States Marine Fisheries Commission (GSMFC) which administers the Gulf program.

A five year *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2006-2010* has been developed for the SEAMAP outlining goals and objectives; management structure and responsibilities; data collection activities along with management and dissemination of the data; and financial and personnel resources necessary for successful operation of the program. This Management Plan, along with the *1981 SEAMAP Strategic Plan*, the *SEAMAP Management Plan: 1996-2000,* and the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2001-2005* should be considered as charter documents defining and guiding operations of the Gulf program. An external review of SEAMAP-Gulf and South Atlantic was performed in 1987, and endorsement of specific recommendations was adopted by consensus of the joint SEAMAP-Gulf Subcommittee and SEAMAP-South Atlantic Committee. These recommendations, as implemented, will guide activities and operations of SEAMAP-Gulf, as well as the South Atlantic and Caribbean components.

Five major goals were outlined in the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2006-2010* and remain as key missions:

(1) Collect long-term standardized fishery-independent data consistent with established fisheries data systems on the condition of regional living marine resources and their environment;

(2) Cooperatively plan and evaluate SEAMAP-sponsored activities;

(3) Operate the SEAMAP Data Management System for efficient management and timely dissemination of fishery-independent data and information;

(4) Identify and describe existing non-SEAMAP databases and activities that are of value in fishery-independent assessments of regional living marine resources; and

(5) Coordinate and document SEAMAP activities, and disseminate programmatic information.

Each of these goals is implemented by several objectives requiring specific tasks and events, e.g. a Summer Shrimp/Groundfish Survey. By intent, some specific tasks may fulfill more than one objective. Each of the participants in the Gulf program receives a portion of the annual Congressional allocation to perform tasks associated with the goals. Participants also contribute significant in-kind support for activities.

The SEAMAP-Gulf and South Atlantic committees, meeting jointly in January 1988, accepted the Program Review recommendation to develop separate annual operations plans. During the SEAMAP Joint meeting held August 2005, the SEAMAP-Gulf, South Atlantic, and Caribbean, to coincide with the new NOAA Grant procedures, agreed to develop an operations plan on a five year basis. This SEAMAP-Gulf Annual Operations Plan describes planned activities and events for the period January 1, 2007 through December 31, 2007. Detailed information on Gulf program objectives, activities, administrative procedures, data management protocols, information dissemination and funding requirements are found in the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2006-2010.*

SURVEYS

Spring and Fall Plankton Surveys

The objectives of the spring and fall plankton surveys are to provide data on the distribution and abundance of eggs and larvae of commercial and recreational species such as bluefin tuna, mackerels, carangids, sciaenids and lutjanids. Stations are located in a systematic grid across the northern Gulf at increments of 30 minutes latitude/longitude.

Plankton samples will be taken with standard SEAMAP bongo and neuston samplers. The bongo sampler consists of two conical 61-cm (mouth opening) nets with 333 micron mesh. Tows are oblique, surface to within 5 m above the bottom (or 200 m maximum) and back to surface. Wire angle will be maintained at 45°. Neuston samples will be taken with 947 micron mesh nets on 1 x 2 meter frames towed at the surface for ten minutes. Most plankton samples are to be initially preserved in 10% buffered formalin and after 48 hours transferred to 95% ethyl alcohol for final preservation. Some samples are initially preserved in 95% ethanol for use in genetics and age/growth studies. Hydrographic data at all stations will include at a minimum chlorophyll or fluorescence, salinity, temperature and dissolved oxygen, and water color, using the Forel-ule test.

Right bongo samples and neuston samples collected in 2007 from SEAMAP stations will be transshipped by the NMFS Pascagoula Laboratory to the Polish Sorting and Identification Center for sorting and identification, after which the larvae removed from those samples will be returned to the SEAMAP Archiving Center at Florida Fish and Wildlife Research Institute in St. Petersburg,

Florida. Left bongo and neuston samples from previous surveys are currently archived at the SEAMAP Invertebrate Plankton Archiving Center (SIPAC) housed at the USM/CMS Gulf Coast Research Laboratory in Ocean Springs, Mississippi.

Reef Fish Survey

The objectives of the survey are to:

(1) assess relative abundance and compute population estimates of reef fishes using a 4-camera system and fish traps;

(2) determine habitat using an echo sounder and video camera;

(3) estimate length distributions of fishes using lasers; and

(4) collect environmental data at each station.

The primary purpose of this survey is to assess the relative abundance and compute population estimates of reef fishes. Stations are 100 m^2 sites designated as "reef areas" that are selected by a stratified random sample procedure. The 4-camera system soaks on the bottom for 30 minutes. A chevron fish trap is employed to collect fish specimens and soaks for 1 hour.

Summer Shrimp/Groundfish Survey

Objectives of this survey are to:

(1) monitor size distribution of penaeid shrimp during or prior to migration of brown shrimp from bays to the open Gulf;

(2) aid in evaluating the management measures of the GMFMC's Shrimp Fishery Management Plan;

(3) provide information on shrimp and groundfish stocks across the northern Gulf of Mexico from inshore waters to 60 fm;

(4) obtain length frequency measurements for major finfish, shrimp and other important invertebrate species to determine population size structures; and

(5) collect ichthyoplankton samples to determine abundance and distribution of the larvae of commercial and recreationally important species.

The sampling strategy will include sites chosen randomly in three areas (east of the Mississippi River, west of the River to the Texas-Louisiana border and off Texas) stratified by depth and statistical area. Trawls will be towed perpendicular to the depth contours and cover a specified depth stratum at each station. Plankton samples will be taken along a ½ degree grid system.

Fall Shrimp/Groundfish Survey

Objectives of this survey will be to:

(1) sample the northern Gulf of Mexico to determine abundance and distribution of white shrimp and other demersal organisms from inshore waters to 60 fm;

(2) obtain length frequency measurements for major finfish, shrimp and other important invertebrate species to determine population size structures;

(3) collect environmental data to investigate potential relationships between abundance and distribution of organisms and environmental parameters; and

(4) collect plankton samples to determine relative abundance and distribution of the larvae of commercial and recreationally important species.

Trawl sample stations and plankton sampling will be conducted as described for the Summer Shrimp/Groundfish Survey.

OPERATIONS

The following activities and events by participant comprise the SEAMAP-Gulf of Mexico operations schedule for the period January 1, 2007 to December 31, 2007:

Texas Parks and Wildlife Department

(1) Summer Shrimp/Groundfish Survey: June, nearshore and offshore Texas waters

(2) Fall Shrimp/Groundfish Survey: November, nearshore and offshore Texas waters

(3) Reef Fish Survey: sampling in Texas waters

(4) Adult Finfish Survey: March-May, nearshore Texas waters

(5) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee

(6) Data inventory, entry, edit and transmit to mainframe all SEAMAP cruise information

Louisiana Department of Wildlife and Fisheries

(1) Summer Shrimp/Groundfish Survey: July, nearshore and offshore Louisiana waters

(2) Fall Shrimp/Groundfish Survey: October, nearshore and offshore Louisiana waters

(3) Fall Plankton Survey: October, nearshore and offshore Louisiana waters in conjunction with Fall Shrimp/Groundfish Survey

(4) Plankton sampling in conjunction with trawl surveys

(5) Plankton sample sorting and identification

(6) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee

(7) Process sediment and chlorophyll samples

(8) Data inventory, entry, edit and transmit to mainframe all SEAMAP cruise information

University of Southern Mississippi/College of Marine Sciences/Gulf Coast Research Laboratory

(1) Spring eddy and front Plankton survey

(2) Summer Shrimp/Groundfish Survey: June and July, Gulf waters

(3) Fall Plankton Survey: September, nearshore and offshore Gulf waters

(4) Fall Shrimp/Groundfish Survey: October, Gulf waters

(5) Plankton sampling in conjunction with trawl surveys

(6) SEAMAP Invertebrate Plankton Archiving Center operations

(7) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee

(8) Data inventory, entry, edit and transmit to mainframe all SEAMAP cruise information

Alabama Department of Conservation and Natural Resources

(1) Summer Shrimp/Groundfish Survey: June and July, nearshore Gulf waters

(2) Fall Plankton Survey: September, nearshore Gulf waters

(3) Fall Shrimp/Groundfish Survey: October-November, nearshore Gulf waters

(4) Reef Fish Survey: sampling in nearshore Alabama waters

(5) Quarterly estuarine shrimp/groundfish sampling

(6) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee

(7) Data inventory, entry, edit and transmit to mainframe all SEAMAP cruise information

Florida Fish and Wildlife Conservation Commission

(1) Spring Plankton Survey: May, nearshore/offshore Gulf waters off Florida

(2) Fall Plankton Survey: September, nearshore/offshore Gulf waters

(3) SEAMAP Archiving Center operations

(4) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee

(5) Data inventory, entry, edit and transmit to mainframe all SEAMAP cruise information

National Marine Fisheries Service, Southeast Fisheries Science Center

(1) Reef Fish Survey: July-August, offshore Gulf waters

(2) Spring Plankton Survey: April-May, offshore Gulf waters

(3) Summer Shrimp/Groundfish Survey: June-July, offshore Gulf waters

(4) Fall Plankton Survey: September-October, offshore Gulf waters

(5) Fall Shrimp/Groundfish Survey: October-November, offshore Gulf waters

(6) Plankton sampling in conjunction with trawl surveys

(7) SEAMAP Information System implementation and operations

(8) Processing and transshipment of SEAMAP plankton samples to the Polish Sorting and Identification Center

(9) Real-time data processing

(10) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee

Gulf of Mexico Fishery Management Council

(1) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee

(2) Annual review of fisheries-independent data needs

Gulf States Marine Fisheries Commission

(1) Coordination of meetings for Subcommittee and work groups

(2) Provision of SEAMAP-Gulf Coordinator, clerical and office support

(3) Publication and distribution of SEAMAP Environmental and Biological Atlas, SEAMAP Marine Directory, SEAMAP Subcommittee Report to the GSMFC Technical Coordinating Committee, Real-time data summaries, minutes of Subcommittee meetings and co-production of the SEAMAP Joint Annual Report

(4) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee

(5) Annual Operations Plan development

INFORMATION DISSEMINATION

Data produced from SEAMAP-Gulf of Mexico surveys and studies will be entered into the SEAMAP Information System, in accordance with procedures and protocols stated in the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2006-2010.* User policies and procedures are also defined in this document.

The SEAMAP Archiving Center and SIPAC have the responsibility of maintaining SEAMAP specimens and samples, processing specimen requests and ensuring that archiving and loans are carried out in accordance with guidelines and policies established by the SEAMAP Subcommittee. Specific duties and responsibilities of the curators are found in the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2006-2010.*

Documents to be produced in the period covered by this Annual Operations Plan are:

(1) SEAMAP Annual Report, in conjunction with South Atlantic and Caribbean;

(2) SEAMAP Subcommittee Report to the GSMFC Technical Coordinating Committee;

(3) SEAMAP Marine Directory;

(4) Minutes of Subcommittee meetings;

(5) SEAMAP Environmental and Biological Atlas;

(6) Annual Operations Plan;

(7) Real-time Data Summaries of the Summer Shrimp/Groundfish Survey;

(8) Maintain SEAMAP web page on Commission's website; and

(9) Other pertinent documents deemed appropriate by the Subcommittee

ADMINISTRATION

Program administration is achieved through coordination by the SEAMAP-Gulf Subcommittee and work groups, the SEAMAP Coordinator, and the Gulf States Marine Fisheries Commission. General responsibilities are described below.

SEAMAP-Gulf of Mexico Subcommittee

The Subcommittee will convene for three regularly-scheduled meetings during 2007:

(1) Spring meeting (in conjunction with the GSMFC Annual Spring Meeting): March;

(2) Joint meeting (with SEAMAP-Caribbean & SEAMAP-South Atlantic): August; and

(3) Fall meeting (in conjunction with the GSMFC Annual Fall Meeting): October.

Other meetings may be called at the discretion of the Chairman. Specific responsibilities of the Subcommittee and procedures of governance are described in the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2006-2010.* Designated members for 2007 are:

Texas Parks and Wildlife Department:	Paul Choucair
Louisiana Department of Wildlife and Fisheries:	James Hanifen
University of Southern Mississippi/College of Marine Sciences/Gulf Coast Research Laboratory:	Richard Waller
Alabama Department of Conservation & Natural Resources:	Stevens Heath
Florida Fish and Wildlife Conservation Commission:	Mark Leiby
National Marine Fisheries Service:	Butch Pellegrin
Gulf of Mexico Fishery Management Council:	Richard Leard (non-voting)

Work Groups

SEAMAP work groups are formed to assist in planning, coordinating and evaluating program activities. Members of work groups are invited to serve by the Subcommittee and do not have to be members of the Subcommittee. SEAMAP-Gulf work groups and membership for 2007 are:

ADULT FINFISH WORK GROUP

Terry Henwood, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Texas Parks and Wildlife Department

John Roussel
Louisiana Department of Wildlife and Fisheries

Robert Shipp
University of South Alabama

Mark Leiby
Florida Fish and Wildlife Conservation Commission

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

University of Southern Mississippi
College of Marine Sciences/GCRL

Richard Leard
Gulf of Mexico Fishery Management Council

DATA COORDINATING WORK GROUP

Mark McDuff, Leader
SEAMAP Data Manager
National Marine Fisheries Service

Butch Pellegrin
National Marine Fisheries Service
Pascagoula Laboratory
Shrimp/Groundfish Work Group

Terry Henwood
National Marine Fisheries Service
Pascagoula Laboratory
Adult Finfish Work Group

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory
Plankton Work Group

Terry Romaire
Louisiana Department of Wildlife and Fisheries
Environmental Data Work Group

Richard Waller
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory
Reef Fish Work Group

Mike Murphy
Florida Fish and Wildlife Conservation Commission
Red Drum Work Group

ENVIRONMENTAL DATA WORK GROUP

Terry Romaire, Leader
Louisiana Department of Wildlife and Fisheries

Thomas Leming
National Marine Fisheries Service
Stennis Space Center

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

Mark Van Hoose
Alabama Department of Conservation and
Natural Resources

Kim Williams
Florida Fish and Wildlife Conservation
Commission

Richard Waller
Gulf Coast Research Laboratory
University of Southern Mississippi
College of Marine Sciences

PLANKTON WORK GROUP

Joanne Lyczkowski-Shultz, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Alonzo Hamilton
National Marine Fisheries Service
Pascagoula Laboratory

Mark Leiby
Florida Fish and Wildlife Conservation
Commission

Harriet Perry
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Ken Edds
Louisiana Department of Wildlife and Fisheries

Mark Benfield
Louisiana State University

Sara LeCroy, Curator
SEAMAP Invertebrate Plankton Archiving
Center (SIPAC)
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Leslie Hartman
Alabama Department of Conservation
and Natural Resources

RED DRUM WORK GROUP

Mike Murphy, Leader
Florida Fish and Wildlife Conservation Commission
Florida Fish and Wildlife Research Institute

University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Joseph Shepard
Louisiana Department of Wildlife and Fisheries

Larry McEachron

Texas Parks and Wildlife Department
Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

Mark Van Hoose
Alabama Department of Conservation and Natural Resources

REEF FISH WORK GROUP

Richard Waller, Leader
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Texas Parks and Wildlife Department

Chris Gledhill
National Marine Fisheries Service
Pascagoula Laboratory

Jim Duffy
Alabama Department of Conservation and Natural Resources

Mark Leiby
Florida Fish and Wildlife Conservation Commission

Richard Kasprzak
Louisiana Department of Wildlife and Fisheries

SHRIMP/GROUNDFISH WORK GROUP

Butch Pellegrin, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Texas Parks and Wildlife Department

Michael Harden
Louisiana Department of Wildlife and Fisheries

Bruce Comyns
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Nate Sanders
National Marine Fisheries Service
Pascagoula Laboratory

Leslie Hartman
Alabama Department of Conservation and Natural Resources

SEAMAP work groups will meet as determined by work group leaders. Specific responsibilities of the work groups are described in the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2006-2010.*

SEAMAP-Gulf Coordinator

The Coordinator's primary responsibility is to assist the Subcommittee in ensuring that the SEAMAP-Gulf component functions efficiently and satisfies user requirements. The *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan2006-2010,* schedule of events, survey plans, and GSMFC directives constitute the basic documents by which the Coordinator monitors program status, coordinates Subcommittee meetings and operations, anticipates potential problems, and initiates corrective action. Specific responsibilities of the Coordinator are described in the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2006-2010.*

Gulf States Marine Fisheries Commission

Planning and funds disbursement for authorized SEAMAP-Gulf administrative activities (travel meetings, publications, information dissemination, etc.) are administered by the Gulf States Marine Fisheries Commission under a NMFS/GSMFC Cooperative Agreement, and in accordance with this Annual Operations Plan, GSMFC policies, and Department of Commerce/National Oceanic and Atmospheric Administration policies and procedures.